

MANUAL TRANSLATION MODIFICATION PROCEDURE (EF-1) ALLOCATING NEW CENTREX GROUP/CHANGING SIZE NO. 2 AND NO. 2B ELECTRONIC SWITCHING SYSTEMS

1. GENERAL

1.01 This section provides manual translation modification procedures for No. 2 and No. 2B Electronic Switching Systems (ESS) equipped with extended features (EF-1) generic program. These procedures will allow an ESS office to make the following translation changes:

- Assign all translation and call store memory blocks to define a new centrex group.
- Alter the number of speed call lists (6 or 30 code) available to a previously defined centrex group.
- Alter the maximum allowable number of universal attendant consoles for a previously defined centrex group.
- Delete a previously defined centrex group that is no longer required.

1.02 This is the initial issue of this section.

1.03 The manual translation modification procedures are designed to do everything necessary to add, delete or modify a basic centrex group by change in program store (CHIPS) procedures. However, the manual translation modification procedures will require some office data administration (ODA) program modifications and an ODA update prior to use.

1.04 A flowchart (Fig. 1) is provided to show how centrex translators can be linked together through the various modes of operation.

1.05 The ability to add and subtract in octal is essential to the successful utilization of the procedures in this section. The size and address of each block will be read out of the No. 2 ESS

program store in octal in response to a TTY input message. The standard CHIPS procedure required to change the program store cards 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 contains binary to octal and decimal to octal conversion tables.

1.06 Parity will not be computed in this section. Parity will only be carried when the octal contents of a word is initially entered into the TSKC table. Parity will be calculated when the procedures in Section 232-127-303, Manual Translation Procedure—Formatting Changes in Program Store are performed.

MEMORY REQUIREMENTS

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

1.08 The memory requirements for a new or modified centrex group are as follows:

Program Store

- (a) Thirty-two words are required for the centrex group expansion.
- (b) If universal consoles are to be provided, a block of words displacing one word plus one word for each proposed attendant is required for an attendant list.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

SECTION 232-127-310

- (c) Fifteen words for the Manual Trunk Distribution Group Billing Index (MTD/GBI) table are required.
- (d) If 6-code speed call is assigned, 64-words plus 192-words for each 16 lists are required.
- (e) If 30-code speed call is assigned, 64-words plus 60-words per list are required.
- (f) Digit interpreter tables can be added by recent change.
- (g) Linkage to attendant block translation can be added by recent change.

Call Store

- (a) If universal consoles are to be provided, two-words plus five-words for each of the proposed attendant consoles are required.
- (b) If a centrex call store traffic table is required, 20-words of call store are needed.

FORMS REQUIRED

1.09 In preparation to add a centrex group to an ESS office, the first step is to list the requirements which will influence the memory block size needed for that group. The required TG-2H ESS forms (ESS 2108, 2109, 2215, 2217 and 2307) should be completely filled out as if planning an ODA update.

1.10 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 the required change forms, the forms should show the current memory address location and contents and the desired memory contents to provide a new translation configuration. Once these modification procedures are completed, the procedures in Section 232-127-303 must be performed to implement the changes.

For No. 2 ESS offices:

At maintenance TTY—

1.11 To build or modify a centrex group in an ESS office requires at least one copy of the following change forms:

- Translation Store Memory Forms, TSM-1 and TSM-2.
- Call Store Memory Forms, CSM-1 and CSM-2.
- Centrex Translation Forms, CTX-1, CTX-2, CTX-3, CTX-4, CTX-6, CTX-7, CTX-8, CTX-9, and CTX-10.

Note: Typical examples of these forms are provided in this section to serve as a guideline to filling out the CTX forms when the manual translation modification procedures are used.

Any changes initiated by the manual translation modification procedures on a single centrex group should be completed before work is started on another centrex group.

2. PROCEDURE

2.01 Obtain unmarked copies of TG-2H ESS forms listed in 1.08 and at least one copy of the forms listed in 1.10. If blank forms are not available, a reproducible copy of these forms is available in Section 232-127-101.

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

2.03 Select the centrex group number intended to be used. The number can represent an active centrex group, a spare centrex group, or a previously undefined centrex group in the office.

2.04 Locate the MTI address for the centrex group number selected on an unmarked CTX-1 form as illustrated (Fig. 2). Do a program store read on the preprinted MTI address specified for that group number on the CTX-1 form as follows:

Type in:

UB PS:RP:aaaaaa 01!

where: aaaaaa = the octal address to
be read.

For No. 2B ESS offices:

At maintenance TTY—

Type in:

DMP:PS aa 01!

where: aa = the octal address of the word
to be dumped.

group expansion initial contents column of the
CTX-2 form (Fig. 3).

UNIVERSAL CONSOLE PROCEDURE

2.05 Enter the contents of this address as the initial group table pointer for the centrex group on the CTX-1 form. If the contents were **all zero**, perform the procedures outlined in Section 232-127-302, parts **A** and **B**, to allocate a 32-word (40 octal) block of program store. Enter the address of the 32-word block allocated into the change column of the centrex group selected on the CTX-1 form.

2.06 Obtain the unmarked CTX-2 (Fig. 3) form and perform the procedure that follows:

- (a) Enter the decimal centrex group number of the centrex group you are working with at the top of the CTX-2 form as illustrated in Fig. 2.
- (b) From the CTX-1 form (Fig. 2), obtain the address of the centrex group expansion from the initial group pointer or change slot for the centrex group you are working with.
- (c) Enter the address of the centrex group expansion from the previous step into the word 0 address slot on the CTX-2 form (Fig. 3).
- (d) Calculate the addresses for the remaining thirty-seven address slots on the CTX-2 form by adding the octal increment given at the left of each slot to the address entered for word 0.
- (e) At the maintenance TTY do a program store read on each of the addresses calculated in the previous step and enter each result into the

2.07 Read each of the following **case** descriptions concerning the universal attendant console. Follow the procedures outlined in the appropriate **case** pertaining to the centrex group.

- **Case I**—The initial contents of word 2 on the CTX-2 form is **all zero** and no universal attendant consoles are required (Refer to 2.08.)
- **Case II**—The initial contents of word 2 on the CTX-2 form is **all zero** and universal attendant consoles are required. (Refer to 2.09.)
- **Case III**—The initial contents of word 2 on the CTX-2 form is **non-zero** and no universal attendant consoles are required. (Refer to 2.10.)
- **Case IV**—The initial contents of word 2 on the CTX-2 form is **non-zero** and universal attendant consoles are required. (Refer to 2.11.)

Case I

2.08 The initial contents of word 2 on the CTX-2 form is **all zero** and no universal attendant console will be assigned to the centrex group. No further action is needed to account for universal attendant consoles.

Case II

2.09 If the initial contents of word 2 on the CTX-2 form (Fig. 3) is **all zero**, and universal attendant consoles will be assigned to the centrex group, proceed as follows:

- (a) Obtain an unmarked CTX-4 form (Fig. 4).
- (b) Scan down column 6 of the CTX-4 form and find the appropriate maximum number of attendant consoles required and the list length.
- (c) Draw a line across the CTX-4 form under the row containing the maximum attendants required.
- (d) Using the procedures outlined in Section 232-127-302 allocate a block of translation store equal to the "list length" (words underlined in column 6 of the CTX-4 form).
- (e) Record the address of the block of translation store allocated above in the column 3 word 0 address slot on the CTX-4 form (Fig. 4).
- (f) Also record the above address in the changes slot for word 2 on the CTX-2 form (Fig. 3).
- (g) On the CTX-4 form calculate and enter in column 3 an address for each word of the block allocated using the octal increment given in column 2 down to and including the row that was underlined.
- (h) At the maintenance TTY do a program store read on each address calculated in column 3 of the CTX-4 form and enter the results in column 4 of that form as initial contents. All words should be zero initially. If the words are not zero, recheck the procedures outlined in Section 232-127-302; you may not be using spare memory.
- (i) On the CTX-4 form (Fig. 4) get the complement of the maximum attendants from column 7 in the row that was underlined.
- (j) Record the complement in the changes slot for word 0 in column 5.
- (k) From the CTX-4 form get the size of the call store for the maximum number of

attendants from column 8 in the row previously underlined.

- (l) Follow the procedures outlined in Section 232-127-301 to allocate a block of call store equal to the size found underlined in column 8 of the CTX-4 form.
- (m) Enter the address of call store allocated above into the changes slot for word 1 on the CTX-2 form (Fig. 3).
- (n) No further action is needed to account for universal attendant consoles.

Case III

2.10 If the initial contents of word 2 on the CTX-2 form (Fig. 5) is **non-zero** and no universal attendant consoles are required for the centrex group, proceed as follows:

- (a) Obtain an unmarked CTX-4 form (Fig. 6).
- (b) Enter the address of word 2 on the CTX-2 form (Fig. 5) into word 0 address slot in column 3 on the CTX-4 form (Fig. 6).
- (c) At the maintenance TTY do a program store read at word 0 address on the CTX-4 form (Fig. 6) and enter the results into the word 0 initial contents slot in column 4 on the CTX-4 form.
- (d) Scan down column 7 on the CTX-4 form and find the data that matches the program store read in the previous step. Draw a line across the CTX-4 form under the row with the matched results.
- (e) On the CTX-4 form (Fig. 6) calculate the remaining addresses from word 0 in column 3 down to and including the word underlined in the previous step.
- (f) On the CTX-4 form do a program store read on each address calculated above and enter the results in the initial contents column 4 for each word.
- (g) If any of the initial contents are **non-zero**, except for word 0 on the CTX-4 form, attendants are assigned to this list. A recent change procedure and update must be performed

to move the members out of the list before it can be returned to spare by this procedure. Refer to Section 232-118-103 for the recent change procedure. After the recent change update, restart this manual change procedure from the beginning. The attendant list initial contents should be all zero except word 0 before going to the next step.

- (h) On the CTX-4 form (Fig. 6) enter zero into the changes slot in column 5 for word 0.
- (i) Get the number of words in the attendant list from column 6 on the CTX-4 form in the row that was underlined.
- (j) Take the number of words in the attendant list found in the previous step and the address of word 0 from the CTX-4 form (Fig. 6). Go to Section 232-127-302 for the procedures to return the block of program store that made up your list to a spare store status.
- (k) On the CTX-4 form (Fig. 6) get the number of call store words in the attendant idle list from column 8 in the row that was underlined.
- (l) Take the number of call store words from the previous step and the address of the call store block found in the initial contents of word 1 on the CTX-2 form (Fig. 5). Perform the procedures in Section 232-127-301 to return the block of call store to a spare store status.
- (m) Enter zero in the changes slots for words 1 and 2 on the CTX-2 form (Fig. 5).
- (n) No further action is required to account for universal attendant consoles.

Case IV

2.11 If the initial contents of word 2 on the CTX-2 form (Fig. 5) is **non-zero** and universal attendant consoles are required, proceed as follows:

- (a) Obtain an unmarked CTX-4 form (Fig. 7).
- (b) Circle the word OLD by the word "LIST=" at the top of the CTX-4 form.
- (c) Enter the address stored in the initial contents of word 2, bits 17-0, on the CTX-2

form (Fig. 5) into the column 3 address slot for word 0 on the CTX-4 form (Fig. 7).

- (d) At the maintenance TTY do a program store read at word 0 address on the CTX-4 form (Fig. 7). Record the results as the initial contents of word 0 in column 4 on the CTX-4 form.
- (e) Scan down column 7 on the CTX-4 form and find the data that matches the results from the program store read in the previous step.
- (f) Draw a line across the CTX-4 form under the row containing the match and label it "**old**."
- (g) On the CTX-4 form look in column 6 in the row that was underlined and determine if the maximum universal attendants in your existing list is adequate for your requirements.
- (h) If the maximum number of universal attendant consoles is equal to that required, then no further action is needed for them and the remaining steps in this procedure should be omitted.
- (i) Calculate the remaining addresses for your existing attendant list words in column 3 on the CTX-4 form (Fig. 7) down to and including the slot that was previously underlined.
- (j) At the maintenance TTY do a program store read and record the initial contents of each word in column 4 on the CTX-4 form down to and including, the row that was underlined.
- (k) If the maximum number of universal attendant consoles is greater than the list number underlined in column 6 of the CTX-4 form, skip the following steps down to step (x).
- (l) The maximum number of universal attendant consoles required at this step should be less than the amount provided for by the present list. Find the number of attendant consoles required in column 6 of the CTX-4 form (Fig. 7).
- (m) Draw a line across the CTX-4 form under the row containing the required number of universal attendant consoles and label this line "**new**."

SECTION 232-127-310

(n) On the CTX-4 form in the rows between the two lines drawn across the page, all initial contents should be zero in column 4. If they are not all zero, a recent change procedure and an update procedure must be executed at this point to move existing attendant consoles from this group to another group. (See Section 232-118-103.) Do not execute further steps unless the initial contents of the words between the two rows underlined are **all zero**.

(o) On the CTX-4 form (Fig. 7) find the complement of the maximum number of universal attendant consoles required in column 7 in the row previously underlined and labeled "**new**." Enter this complement into the changes slot in column 5 for word 0.

(p) On the CTX-4 form (Fig. 7) in column 6 subtract the number of words underlined and labeled new from the number of program store words underlined and labeled old. This is the block of program store words to be returned to spare.

(q) On the CTX-4 form use the address of the word following the word that was underlined in column 7 and labeled "**new**." Use this address as the start address of a block to be returned to spare storage. The rows between the two underlined rows is the block to be returned to spare using the procedures outlined in Section 232-127-302.

(r) On the CTX-4 form (Fig. 7) in column 8 subtract the number of call store words underlined and labeled "**new**" from the number of call store words underlined and labeled "**old**." This is the size of the call store block that is to be returned to spare.

(s) On the CTX-2 form (Fig. 5) the initial contents of word 1 is the address of the attendant idle list/calls waiting queue in call store.

(t) On the CTX-4 form (Fig. 7) in the row that was underlined and labeled "**new**," convert the number in column 8 to an octal number. (Refer to conversion table provided in Section 232-127-101.)

(u) Add the octal number of column 8 in the previous step to the address of the attendant

idle list/calls waiting queue on the CTX-2 form (Fig. 5). Retain this starting address of the block of call store that is to be returned to spare.

(v) Using the procedure outlined in Section 232-127-301, return to spare the block of call store starting at the resultant address acquired in the previous step.

(w) Omit the remaining steps in this procedure if no further action is required to allow for attendant consoles.

(x) In order to increase the universal attendant list, obtained an unmarked CTX-4 form (Fig. 8) and circle "**new**" at the top of the form next to "LIST."

(y) Scan down column 6 of the new CTX-4 form (Fig. 8) and locate the number representing the desired number of universal attendants.

(z) On the new CTX-4 form draw a line across the page under the row containing the desired number of universal attendants.

(aa) Obtain the number of words for the new attendant list from column 6 of the row underlined on the new CTX-4 form.

(ab) Using the procedure outlined in Section 232-127-302, allocate a block of spare storage equal to the size of the number of words underlined in column 6 of the new CTX-4 form (Fig. 8).

(ac) Enter the address of the block allocated in the previous step in the word 0 address slot in column 3 of the new CTX-4 form (Fig. 8).

(ad) On the CTX-2 form (Fig. 9) enter the address of the block allocated into the changes slot for word 2.

(ae) On the new CTX-4 form (Fig. 8) calculate the remaining addresses between word 0 and the row underlined previously.

(af) At the maintenance TTY do a program store read on all the addresses entered in column 3 down to and including the row underlined on the new CTX-4 form. Enter the results of

each program store read into the initial contents column 4. All words should initially be zero.

(ag) On the new CTX-4 form (Fig. 8) in column 7, obtain the complement of the maximum number of universal attendants from the row previously underlined.

(ah) On the new CTX-4 form, enter the number obtained from column 7 into column 5 changes slot for word 0.

(ai) Go to the old CTX-4 form (Fig. 7) and transfer all **non-zero** words in column 4 other than word 0, to the corresponding word position on the new CTX-4 form (Fig. 8) in column 5.

(aj) On the old CTX-4 form (Fig. 7), enter zero in every changes slot in column 5 down to and including the row that was underlined and labeled "**old**."

(ak) On the old CTX-4 form (Fig. 7) in column 6 at the row underlined and labeled "**old**," obtain the number of words in that list.

(al) Take the address of word 0 from column 3 and the size of the word list from column 6 in the previous step.

(am) Using the procedures outlined in Section 232-127-302, return the block to spare.

(an) On the old CTX-4 form (Fig. 7) get the size of the attendant call store block from column 8 in the row underlined and labeled "**old**."

(ao) Go to the CTX-2 form (Fig. 9) and do a program store read on the call store pointer stored in the initial contents column for word 1 bits 15-0.

(ap) Take the results of the previous step using the procedures outlined in Section 232-127-301 and return that block of call store to spare.

(aq) On the new CTX-4 form (Fig. 8) get the size of the attendant call store block from column 8 in the row that was underlined.

(ar) Take the results of the previous step and go to the procedures outlined in Section

232-127-301 and allocate a block of call store that size.

(as) On the CTX-2 form (Fig. 9) in the changes column slot for word 1, enter the call store address for the block allocated in the previous step.

(at) No further action should be necessary to account for universal attendants by this procedure.

6-CODE SPEED CALLING PROCEDURES

2.12 The procedures outlining the action to be taken on the 6-code speed calling feature are as follows:

- Accounting for 6-code speed calling lists
- Deleting a block of sixteen 6-code lists
- Adding a block of sixteen 6-code lists.

Accounting For 6-Code Speed Calling Lists

2.13 In order to account for the 6-code speed calling lists in a No. 2 or No. 2B ESS, proceed as follows:

(a) On the CTX-2 form (Fig. 3) do a program store read on the initial contents of the 6-code speed call expansion table pointer (word 12 on the form).

(b) If the 6-code expansion table pointer is **all zero** and no 6-code speed call lists are required, no further action is needed to account for 6-code speed calling.

(c) If the 6-code expansion table pointer is **all zero** and 6-code speed calling lists are required, perform the procedures outlined in Section 232-127-302 to allocate a 64-(100 octal) word block for an expansion table.

(d) Enter the address of the 64-word block obtained in the previous step in the changes slot for word 12 on the CTX-2 form (Fig. 3).

(e) Obtain an unmarked CTX-6 (Fig. 10) form and enter into the address slot for word 0 on that form the address obtained in the program store read of the CTX-2 form, or the address

SECTION 232-127-310

obtained from the TSM-2 form for the 64-word block.

- (f) Calculate and enter into the address slots of the CTX-6 form the remaining 63 addresses.
- (g) At the maintenance TTY do a program store read on each of the addresses calculated in the previous step.
- (h) On the CTX-6 form (Fig. 10) enter the results of each program store read into the 6-code table initial contents column slot for that word.
- (i) Determine the number of 6-code list translator tables required. The number of translator tables is equal to zero if no 6-code lists are required. If the number of lists required is not zero, the number of translators is equal to one plus the number of lists required divided evenly by sixteen (see column 6 on the CTX-6 form).
- (j) Count the number of **non-zero** entries on the CTX-6 form in the 6-code table initial contents column. This number times sixteen is the number of 6-code speed call lists you already had.
- (k) Repeatedly execute the procedure to delete or add a block of sixteen 6-code lists until the required amount is satisfied.

Deleting a Block of Sixteen 6-Code Lists

2.14 To delete a block of sixteen 6-code lists in a No. 2 or No. 2B ESS office proceed as follows:

- (a) Obtain an unmarked CTX-9 (Fig. 11) form and enter the list range to be deleted at the top of the form under the centrex group number.
- (b) On the CTX-6 form (Fig. 10) obtain the address from column 4 for the list range block to be deleted.
- (c) Add octal 4 to the address obtained in the previous step and enter the resultant address as the address of word 0 in column 3 of the CTX-9 form. This is the first address of the block to be deleted.

(d) Calculate the remaining 191 addresses in the table by adding the octal increment found in columns 2 and 7 of the CTX-9 form (Fig. 11) to the address obtained from column 6 of the CTX-6 form (Fig. 10).

(e) Enter the resultant calculated addresses in columns 3 and 8 of the CTX-9 form.

(f) At the maintenance TTY do a program store read on each address represented on the CTX-9 form and enter the results in columns 4 and 9.

(g) On the CTX-6 form (Fig. 10) enter zero into the changes column 5 for the list range being deleted.

Adding a Block of Sixteen 6-Code Lists

2.15 To add a block of sixteen 6-code lists in a No. 2 or No. 2B ESS office proceed as follows:

(a) Using the procedures outlined in Section 232-127-302, allocate a block of memory 192-(300 octal) words long.

(b) Subtract octal 4 from the address of the block of memory obtained in the previous step.

(c) On the CTX-6 form (Fig. 10), enter the resultant address of the previous step into the first vacant slot in the changes column that has **all zeros** in the initial contents column.

30-CODE SPEED CALLING PROCEDURES

2.16 The procedure outlining the action to be taken on the 30-code speed calling feature are as follows:

- Accounting for 30-code speed calling lists
- Deleting a 30-code speed calling list
- Adding a 30-code speed calling list.

Accounting for 30-Code Speed Calling Lists

2.17 In order to account for a 30-code speed calling list in a No. 2 or No. 2B ESS office, proceed as follows:

- (a) On the CTX-2 (Fig. 3) form do a program store read on the initial contents of the 30-code speed call expansion table pointer (word 13 on the form).
- (b) If the 30-code expansion table pointer is **all zero** and no 30-code speed call lists are required, no further action is needed to account for 30-code speed calling.
- (c) If the 30-code expansion table pointer is **all zero** and 30-code speed calling lists are required, go to the procedures outlined in Section 232-127-302 and allocate a 64-(100 octal) word block for an expansion table.
- (d) Enter the address of the 64-word block obtained in the previous step in the changes slot for word 13 on the CTX-2 form (Fig. 3).
- (e) Obtain an unmarked CTX-7 form (Fig. 12) and enter into the address slot for word 0 on that form the address obtained in the program store read of the CTX-2 form, or the address obtained from the TSM-2 form for the 64-word block.
- (f) Calculate and enter into the address slots of the CTX-7 form (Fig. 12) the remaining 63 addresses.
- (g) At the maintenance TTY do a program store read on each of the addresses calculated in the previous step.
- (h) On the CTX-7 form (Fig. 12) enter the results of each program store read into the 30-code table initial contents column slot for that word.
- (i) Count the number of **non-zero** entries on the CTX-7 form. This will reveal the number of 30-code speed call lists your centrex group now has.
- (j) Repeatedly execute either the procedure to delete or add a 30-code list until the required amount is satisfied.

Deleting a 30-Code Speed Calling List

2.18 To delete a 30-code speed calling list in a No. 2 or No. 2B ESS office, proceed as follows:

- (a) Obtain an unmarked CTX-10 form (Fig. 13) and enter the list number to be deleted at the top of the form under the centrex group number.
- (b) On the CTX-7 form (Fig. 12) obtain the address from column 4 for the list to be deleted.
- (c) Add octal 50 to the address obtained in the previous step and enter the resultant address in column 3 of the CTX-10 form (Fig. 13) as the first address of the list to be deleted.
- (d) Calculate the remaining 59 addresses in the table by adding the octal increment found in column 2 of the CTX-10 form (Fig. 13) to the address obtained from column 4 of the CTX-7 form (Fig. 12).
- (e) Enter the resultant calculated addresses in column 3 of the CTX-10 form.
- (f) At the maintenance TTY do a program store read on each address represented on the CTX-10 form (Fig. 13) and enter the results in column 4.
- (g) On the CTX-7 form (Fig. 12) enter zero into the changes column 5 for the list being deleted.

Adding a 30-Code List

2.19 To add a 30-code speed calling list in a No. 2 or No. 2B ESS office, proceed as follows:

- (a) Using the procedures outlined in Section 232-127-302, allocate a block of memory 60-(74 octal) words long.
- (b) Subtract octal 50 from the address of the block of memory obtained in the previous step.
- (c) On the CTX-7 form (Fig. 11) enter the resultant address into the first vacant slot in the changes column.

SECTION 232-127-310

MTD/GBI TABLE PROCEDURE

2.20 The procedures outlining the action to be taken for the Manual Trunk Distribution/Group Billing Index (MTD/GBI) is as follows:

- To account for a MTD/GBI Table
- To Pack A Billing or Directory Number

To Account For A MTD/GBI Table

2.21 To account for a MTD/GBI table in the No. 2 or No. 2B ESS office, proceed as follows:

- (a) Each centrex group must have a 16-word MTD/GBI table (no options).
- (b) Go to the CTX-2 form (Fig. 3) and do a program store read on the initial contents of word 14 (the MTD/GBI table pointer).
- (c) If the MTD/GBI table pointer is **all zero**, go to the procedures outlined in Section 232-127-302 and allocate a block of 16 (20 octal) translation store words.
- (d) Record the address of the block allocated in the previous step into the changes slot for word 14 on the CTX-2 form (Fig. 3).
- (e) Obtain an unmarked CTX-8 form (Fig. 14) and enter either the address of word 14 of the CTX-2 form (Fig. 3) or the address of the block allocated from the TSM-2 form into the address slot for word 0 in column 3.
- (f) Calculate and enter the addresses in the remaining 15 slots (words 1-15) in column 3 of the CTX-8 form (Fig. 14).
- (g) At the maintenance TTY do a program store read on each of the addresses calculated in the previous step.
- (h) Enter the results of the program store read into the initial contents column slot of the CTX-8 form.
- (i) In column 7 of the CTX-8 form enter the 7-digit telephone number you wish to correspond to each MTD/GBI in the adjacent column 6. If a number is not desired, leave that slot blank.

(j) Scan down the initial contents column 4 on the CTX-8 form (Fig. 14). Look for any of the initial contents in the column that are **non-zero** and the corresponding slot in column 7 that was left blank by you. If any are found, enter zero in the changes column 5 slot for that **non-zero** word.

(k) Take each telephone number entered by you in column 7 of the CTX-8 form (Fig. 14) and convert it into an octal number by using the following procedure "To Pack A Billing/Directory Number."

To Pack a Billing or Directory Number

2.22 To pack a billing or directory number is the process of changing a given telephone number into data that can be stored in translations. The process of changing a telephone number into data for translations in a No. 2 or No. 2B ESS is as follows:

- (a) Take the left most three digits of the 7-digit telephone number and cross-reference them with office records (ESS 2303-R form) to obtain the normalized office code (NOC).
- (b) If the NOC is greater than seven, subtract eight from the NOC and use the results as the NOC.
- (c) Multiply the NOC by ten decimal.
- (d) Add the fourth digit of the 7-digit telephone number to the product obtained in the previous step.
- (e) Multiply the results of the addition in Step (d) by two.
- (f) Convert the decimal results in step (e) to octal. (See the conversion table provided in Section 232-127-101.)
- (g) If the NOC from step (a) was greater than seven, add 200 octal to the results of step (f).
- (h) Write down the octal number calculated thus far and add three zeros to the right of the number.

- (i) Take the right most three digits of the 7-digit telephone number and convert them to octal (see conversion table provided in Section 232-127-101).
- (j) Add the octal number obtained in the previous step to the octal number written down in step (h).
- (k) If the resultant octal number is different from the number in the initial contents column slot for that entry on the CTX 8 form (Fig. 14), enter the resultant number as a change for that entry in column 5.

CENTREX TRAFFIC PROCEDURE

Procedure To Define A Centrex Traffic Table

2.23 The centrex traffic tables for a particular centrex group are optional and can be added or deleted by the procedure that follows:

- (a) Obtain an unmarked CTX-3 form (Fig. 15).
- (b) Scan down the MTI address column of the CTX-3 form and locate the entry address representing the centrex group you are processing.
- (c) At the maintenance TTY do a program store read on the address obtained in the previous step.
- (d) Enter the results of the program store read into the initial call store pointer column on the CTX-3 form for the centrex group selected.
- (e) If the initial call store pointer was **all zero** and no centrex traffic call store block is required, no further action is needed. The remaining steps in this procedure should be omitted. If the initial call store pointer was not all-zero, skip down to step (h).
- (f) If the initial call store pointer was **all zero** and you do require a traffic counter call store block for the centrex group, allocate a 20-(24 octal) word block of call store for the table using the procedures outlined in Section 232-127-301.
- (g) Enter the address of the block allocated in the previous step into the changes slot for your centrex group on the CTX-3 form (Fig. 15). No further action is required and the remaining steps in this procedure should be omitted.
- (h) If the call store pointer was **not all-zero** (Fig. 16) and you do require a traffic counter call store block for the centrex group, obtain an unmarked CTX-1 form (Fig. 17) and do a program store read on the MTI address for that centrex group.
- (i) Enter the contents of the program store read as the initial group table pointer for that centrex group on the CTX-1 form (Fig. 17).
- (j) If the program store read of the previous step was **all-zero** perform the procedures outlined in Section 232-127-302 and allocate a 32-(40 octal) word block of program store. If the program store read was not **all-zero**, skip step (k).
- (k) Enter the address of the 32-word block allocated into the change column of the centrex group selected on the CTX-1 form (Fig. 17).
- (l) Obtain an unmarked CTX-2 form (Fig. 18) and enter the decimal centrex group number of the centrex group you are working with at the top of the CTX-2 form.
- (m) From the CTX-1 form (Fig. 17), obtain the address of the centrex group expansion from the initial group pointer or change slot for the centrex group you are working with.
- (n) Enter the address of the centrex group expansion from the previous step into the word 0 address slot on the CTX-2 form (Fig. 18).
- (o) Calculate the addresses for the remaining thirty-seven address slots on the CTX-2 form by adding the octal increment given at the left of each slot to the address entered for word 0.
- (p) At the maintenance TTY do a program store read on each of the addresses calculated in the previous step and enter the results into the group expansion initial contents column of the CTX-2 form (Fig. 18).

SECTION 232-127-310

2.24 At the completion of filling out all forms required to make the desired changes in the centrex group, the forms should be arranged in ascending address order.

2.25 To implement the changes entered on all change forms into the No. 2 or No. 2B ESS, execute the procedures provided in Section 232-127-303.

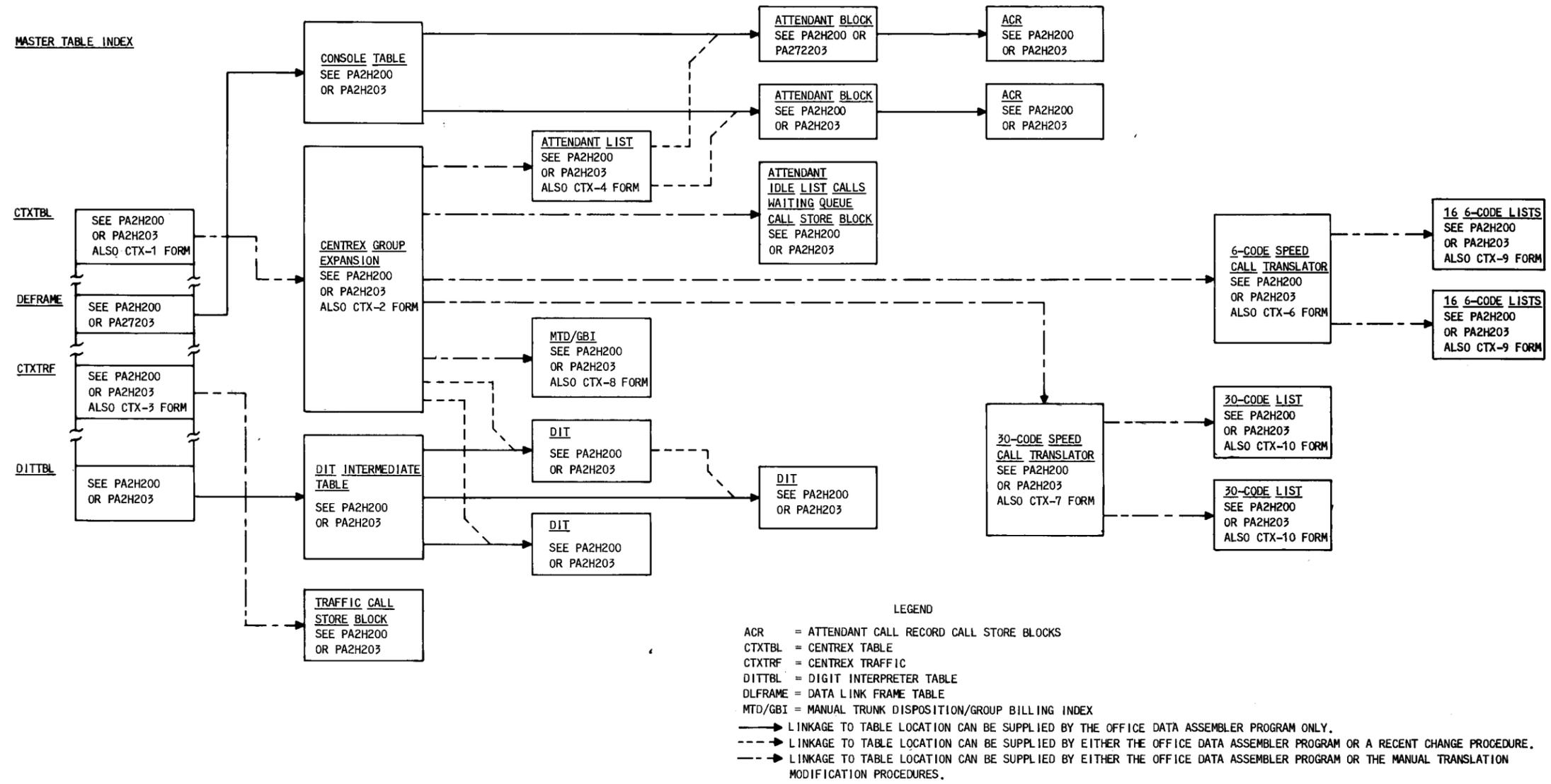


Fig. 1—No. 2 and No. 2B ESS Centrex Translator Linkage Diagram

DATE 2/8/77

FORM CHIPS ADDRESS RANGE=(341205)-(341404)

MTI ADDRESS	INITIAL GROUP TABLE POINTER	CHANGE	MTI ADDRESS	INITIAL GROUP TABLE POINTER	CHANGE
CTXTBL----->(341205)	()	()	CTXGRP 64=(341305)	()	()
CTXGRP 1=(341206)	()	()	CTXGRP 65=(341306)	()	()
CTXGRP 2=(341207)	()	()	CTXGRP 66=(341307)	()	()
CTXGRP 3=(341210)	()	()	CTXGRP 67=(341310)	()	()
CTXGRP 4=(341211)	()	()	CTXGRP 68=(341311)	()	()
CTXGRP 5=(341212)	()	()	CTXGRP 69=(341312)	()	()
CTXGRP 6=(341213)	()	()	CTXGRP 70=(341313)	()	()
CTXGRP 7=(341214)	()	()	CTXGRP 71=(341314)	()	()
CTXGRP 8=(341215)	()	()	CTXGRP 72=(341315)	()	()
CTXGRP 9=(341216)	()	()	CTXGRP 73=(341316)	()	()
CTXGRP 10=(341217)	()	()	CTXGRP 74=(341317)	()	()
CTXGRP 11=(341220)	()	()	CTXGRP 75=(341320)	()	()
CTXGRP 12=(341221)	()	()	CTXGRP 76=(341321)	()	()
CTXGRP 13=(341222)	()	()	CTXGRP 77=(341322)	()	()
CTXGRP 14=(341223)	000000	234567	CTXGRP 78=(341323)	()	()
CTXGRP 15=(341224)	()	()	CTXGRP 79=(341324)	()	()
CTXGRP 16=(341225)	()	()	CTXGRP 80=(341325)	()	()
CTXGRP 17=(341226)	()	()	CTXGRP 81=(341326)	()	()
CTXGRP 18=(341227)	()	()	CTXGRP 82=(341327)	()	()
CTXGRP 19=(341230)	()	()	CTXGRP 83=(341330)	()	()
CTXGRP 20=(341231)	()	()	CTXGRP 84=(341331)	()	()
CTXGRP 21=(341232)	()	()	CTXGRP 85=(341332)	()	()
CTXGRP 22=(341233)	()	()	CTXGRP 86=(341333)	()	()
CTXGRP 23=(341234)	()	()	CTXGRP 87=(341334)	()	()
CTXGRP 24=(341235)	()	()	CTXGRP 88=(341335)	()	()
CTXGRP 25=(341236)	()	()	CTXGRP 89=(341336)	()	()
CTXGRP 26=(341237)	()	()	CTXGRP 90=(341337)	()	()
CTXGRP 27=(341240)	()	()	CTXGRP 91=(341340)	()	()
CTXGRP 28=(341241)	()	()	CTXGRP 92=(341341)	()	()
CTXGRP 29=(341242)	()	()	CTXGRP 93=(341342)	()	()
CTXGRP 30=(341243)	()	()	CTXGRP 94=(341343)	()	()
CTXGRP 31=(341244)	()	()	CTXGRP 95=(341344)	()	()
CTXGRP 32=(341245)	()	()	CTXGRP 96=(341345)	()	()
CTXGRP 33=(341246)	()	()	CTXGRP 97=(341346)	()	()
CTXGRP 34=(341247)	()	()	CTXGRP 98=(341347)	()	()
CTXGRP 35=(341250)	()	()	CTXGRP 99=(341350)	()	()
CTXGRP 36=(341251)	()	()	CTXGRP 100=(341351)	()	()
CTXGRP 37=(341252)	()	()	CTXGRP 101=(341352)	()	()
CTXGRP 38=(341253)	()	()	CTXGRP 102=(341353)	()	()
CTXGRP 39=(341254)	()	()	CTXGRP 103=(341354)	()	()
CTXGRP 40=(341255)	()	()	CTXGRP 104=(341355)	()	()
CTXGRP 41=(341256)	()	()	CTXGRP 105=(341356)	()	()
CTXGRP 42=(341257)	()	()	CTXGRP 106=(341357)	()	()
CTXGRP 43=(341260)	()	()	CTXGRP 107=(341360)	()	()
CTXGRP 44=(341261)	()	()	CTXGRP 108=(341361)	()	()
CTXGRP 45=(341262)	()	()	CTXGRP 109=(341362)	()	()
CTXGRP 46=(341263)	()	()	CTXGRP 110=(341363)	()	()
CTXGRP 47=(341264)	()	()	CTXGRP 111=(341364)	()	()
CTXGRP 48=(341265)	()	()	CTXGRP 112=(341365)	()	()
CTXGRP 49=(341266)	()	()	CTXGRP 113=(341366)	()	()
CTXGRP 50=(341267)	()	()	CTXGRP 114=(341367)	()	()
CTXGRP 51=(341270)	()	()	CTXGRP 115=(341370)	()	()
CTXGRP 52=(341271)	()	()	CTXGRP 116=(341371)	()	()
CTXGRP 53=(341272)	()	()	CTXGRP 117=(341372)	()	()
CTXGRP 54=(341273)	()	()	CTXGRP 118=(341373)	()	()
CTXGRP 55=(341274)	()	()	CTXGRP 119=(341374)	()	()
CTXGRP 56=(341275)	()	()	CTXGRP 120=(341375)	()	()
CTXGRP 57=(341276)	()	()	CTXGRP 121=(341376)	()	()
CTXGRP 58=(341277)	()	()	CTXGRP 122=(341377)	()	()
CTXGRP 59=(341300)	()	()	CTXGRP 123=(341400)	()	()
CTXGRP 60=(341301)	()	()	CTXGRP 124=(341401)	()	()
CTXGRP 61=(341302)	()	()	CTXGRP 125=(341402)	()	()
CTXGRP 62=(341303)	()	()	CTXGRP 126=(341403)	()	()
CTXGRP 63=(341304)	()	()	CTXGRP 127=(341404)	()	()

Fig. 2—No. 2 ESS Centrex Group MTI Translator Change Form With All Zeros in the Initial Group Table Pointer Column

OFFICE LAKEVIEW

NO. 2 ESS CENTREX GROUP EXPANSION CHANGE FORM

CTX-2 FORM
(EF-1)

DATE 2/8/77

CENTREX GROUP NUMBER 14

FORM CHIPS ADDRESS RANGE=()-()

ADDRESS	GROUP EXPANSION		CHANGES	
	INITIAL CONTENTS	ALTER THIS WORD BY		
WORD 0 ADDRESS----->= (234567)	WORD 0 (000000)	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 1= (234570)	WORD 1 ()	RECENT CHANGE ONLY	(1033704)	<--ATTENDANT IDLE LIST / CALLS WAITING QUEUE
WORD 0 ADDRESS+OCTAL 2= (234571)	WORD 2 ()	RECENT CHANGE ONLY	0234617	<--ATTENDANT LIST (SEE CTX-4 FORM)
WORD 0 ADDRESS+OCTAL 3= (234572)	WORD 3 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 4= (234573)	WORD 4 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 5= ()	WORD 5 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 6= ()	WORD 6 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 7= ()	WORD 7 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 10= ()	WORD 8 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 11= ()	WORD 9 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 12= ()	WORD 10 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 13= ()	WORD 11 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 14= ()	WORD 12 ()	RECENT CHANGE ONLY		<--6 CODE SPEED CALL POINTER (SEE CTX-6 FORM)
WORD 0 ADDRESS+OCTAL 15= ()	WORD 13 ()	RECENT CHANGE ONLY		<--30 CODE SPEED CALL POINTER (SEE CTX-7 FORM)
WORD 0 ADDRESS+OCTAL 16= ()	WORD 14 ()	RECENT CHANGE ONLY	0234516	<--MTD/GBI TABLE (SEE CTX-8 FORM)
WORD 0 ADDRESS+OCTAL 17= ()	WORD 15 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 20= ()	WORD 16 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 21= ()	WORD 17 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 22= ()	WORD 18 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 23= ()	WORD 19 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 24= ()	WORD 20 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 25= ()	WORD 21 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 26= ()	WORD 22 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 27= ()	WORD 23 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 30= ()	WORD 24 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 31= ()	WORD 25 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 32= ()	WORD 26 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 33= ()	WORD 27 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 34= ()	WORD 28 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 35= ()	WORD 29 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 36= ()	WORD 30 ()	RECENT CHANGE ONLY		
WORD 0 ADDRESS+OCTAL 37= ()	WORD 31 ()	RECENT CHANGE ONLY		

Fig. 3—No. 2 ESS Centrex Group Expansion Change Form With All Zeroes in the Group Expansion Initial Contents Column

THE ATTENDANT LIST WORD 0 ADDRESS SHOULD BE STORED
IN BITS 17-0 OF WORD 2 OF THE CENTREX GROUP EXPANSION

FORM CHIPS ADDRESS RANGE=() - ()

CENTREX GROUP _____
LIST = (NEW) OR (OLD)

WORD NUMBER col 1	ADDRESS INCREMENT WITH RESPECT TO WORD 0 ADDRESS col 2	ADDRESS col 3	ATTENDANT LIST INITIAL CONTENTS col 4	CHANGES col 5	MAX UNIVERSAL ATTENDANTS PER LIST LENGTH col 6	COMPLEMENT OF MAXIMUM ATTENDANTS col 7	ATTENDANT IDLE LIST CALLS WAITING QUEUE CALL STORE REQUIRED col 8
0	+ OCTAL 0 =	(0234617)	(0000000)	()	0 = NO LIST	- - - -	- - - -
1	+ OCTAL 1 =	(0234620)	(0000000)	()	1 = 2 WORDS	10177776	7 WORDS
2	+ OCTAL 2 =	(0234621)	(0000000)	()	2 = 3 WORDS	10177775	12 WORDS
3	+ OCTAL 3 =	(0234622)	(0000000)	()	3 = 4 WORDS	00177774	17 WORDS
4	+ OCTAL 4 =	(0234623)	(0000000)	()	4 = 5 WORDS	10177773	22 WORDS
5	+ OCTAL 5 =	(0234624)	(0000000)	()	5 = 6 WORDS	00177772	27 WORDS
6	+ OCTAL 6 =	(0234625)	(0000000)	()	6 = 7 WORDS	00177771	32 WORDS
7	+ OCTAL 7 =	(0234626)	(0000000)	()	7 = 8 WORDS	10177770	37 WORDS
8	+ OCTAL 10 =	()	()	()	8 = 9 WORDS	10177767	42 WORDS
9	+ OCTAL 11 =	()	()	()	9 = 10 WORDS	00177766	47 WORDS
10	+ OCTAL 12 =	()	()	()	10 = 11 WORDS	00177765	52 WORDS
11	+ OCTAL 13 =	()	()	()	11 = 12 WORDS	10177764	57 WORDS
12	+ OCTAL 14 =	()	()	()	12 = 13 WORDS	00177763	62 WORDS
13	+ OCTAL 15 =	()	()	()	13 = 14 WORDS	10177762	67 WORDS
14	+ OCTAL 16 =	()	()	()	14 = 15 WORDS	10177761	72 WORDS
15	+ OCTAL 17 =	()	()	()	15 = 16 WORDS	00177760	77 WORDS
16	+ OCTAL 20 =	()	()	()	16 = 17 WORDS	10177757	82 WORDS
17	+ OCTAL 21 =	()	()	()	17 = 18 WORDS	00177756	87 WORDS
18	+ OCTAL 22 =	()	()	()	18 = 19 WORDS	00177755	92 WORDS
19	+ OCTAL 23 =	()	()	()	19 = 20 WORDS	10177754	97 WORDS
20	+ OCTAL 24 =	()	()	()	20 = 21 WORDS	00177753	102 WORDS
21	+ OCTAL 25 =	()	()	()	21 = 22 WORDS	10177752	107 WORDS
22	+ OCTAL 26 =	()	()	()	22 = 23 WORDS	10177751	112 WORDS
23	+ OCTAL 27 =	()	()	()	23 = 24 WORDS	00177750	117 WORDS
24	+ OCTAL 30 =	()	()	()	24 = 25 WORDS	00177747	122 WORDS
25	+ OCTAL 31 =	()	()	()	25 = 26 WORDS	10177746	127 WORDS
26	+ OCTAL 32 =	()	()	()	26 = 27 WORDS	10177745	132 WORDS
27	+ OCTAL 33 =	()	()	()	27 = 28 WORDS	00177744	137 WORDS
28	+ OCTAL 34 =	()	()	()	28 = 29 WORDS	10177743	142 WORDS
29	+ OCTAL 35 =	()	()	()	29 = 30 WORDS	00177742	147 WORDS
30	+ OCTAL 36 =	()	()	()	30 = 31 WORDS	00177741	152 WORDS
31	+ OCTAL 37 =	()	()	()	31 = 32 WORDS	10177740	157 WORDS
32	+ OCTAL 40 =	()	()	()	32 = 33 WORDS	10177737	162 WORDS
33	+ OCTAL 41 =	()	()	()	33 = 34 WORDS	00177736	167 WORDS
34	+ OCTAL 42 =	()	()	()	34 = 35 WORDS	00177735	172 WORDS
35	+ OCTAL 43 =	()	()	()	35 = 36 WORDS	10177734	177 WORDS
36	+ OCTAL 44 =	()	()	()	36 = 37 WORDS	00177733	182 WORDS
37	+ OCTAL 45 =	()	()	()	37 = 38 WORDS	10177732	187 WORDS
38	+ OCTAL 46 =	()	()	()	38 = 39 WORDS	10177731	192 WORDS
39	+ OCTAL 47 =	()	()	()	39 = 40 WORDS	00177730	197 WORDS
40	+ OCTAL 50 =	()	()	()	40 = 41 WORDS	00177727	202 WORDS
41	+ OCTAL 51 =	()	()	()	41 = 42 WORDS	10177726	207 WORDS
42	+ OCTAL 52 =	()	()	()	42 = 43 WORDS	10177725	212 WORDS
43	+ OCTAL 53 =	()	()	()	43 = 44 WORDS	00177724	217 WORDS
44	+ OCTAL 54 =	()	()	()	44 = 45 WORDS	10177723	222 WORDS
45	+ OCTAL 55 =	()	()	()	45 = 46 WORDS	00177722	227 WORDS
46	+ OCTAL 56 =	()	()	()	46 = 47 WORDS	00177721	232 WORDS
47	+ OCTAL 57 =	()	()	()	47 = 48 WORDS	10177720	237 WORDS
48	+ OCTAL 60 =	()	()	()	48 = 49 WORDS	00177717	242 WORDS
49	+ OCTAL 61 =	()	()	()	49 = 50 WORDS	10177716	247 WORDS
50	+ OCTAL 62 =	()	()	()	50 = 51 WORDS	10177715	252 WORDS
51	+ OCTAL 63 =	()	()	()	51 = 52 WORDS	00177714	257 WORDS
52	+ OCTAL 64 =	()	()	()	52 = 53 WORDS	10177713	262 WORDS
53	+ OCTAL 65 =	()	()	()	53 = 54 WORDS	00177712	267 WORDS
54	+ OCTAL 66 =	()	()	()	54 = 55 WORDS	00177711	272 WORDS
55	+ OCTAL 67 =	()	()	()	55 = 56 WORDS	10177710	277 WORDS
56	+ OCTAL 70 =	()	()	()	56 = 57 WORDS	10177707	282 WORDS
57	+ OCTAL 71 =	()	()	()	57 = 58 WORDS	00177706	287 WORDS
58	+ OCTAL 72 =	()	()	()	58 = 59 WORDS	00177705	292 WORDS
59	+ OCTAL 73 =	()	()	()	59 = 60 WORDS	10177704	297 WORDS
60	+ OCTAL 74 =	()	()	()	60 = 61 WORDS	00177703	302 WORDS
61	+ OCTAL 75 =	()	()	()	61 = 62 WORDS	10177702	307 WORDS
62	+ OCTAL 76 =	()	()	()	62 = 63 WORDS	10177701	312 WORDS
63	+ OCTAL 77 =	()	()	()	63 = 64 WORDS	00177700	317 WORDS

Fig. 4—No. 2 ESS Attendant List Change Form for Assigning Universal Attendant Consoles

OFFICE LAKEVIEW

NO. 2 ESS CENTREX GROUP EXPANSION CHANGE FORM

CTX-2 FORM
(EF-1)

DATE 2/8/77

CENTREX GROUP NUMBER 14

FORM CHIPS ADDRESS RANGE= ()-()

ADDRESS	GROUP EXPANSION INITIAL CONTENTS	CHANGES	
WORD 0 ADDRESS----->= (234567)	WORD 0 (111111)	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 1= (234570)	WORD 1 (111112)	(000000)	<--ATTENDANT IDLE LIST / CALLS WAITING QUEUE
WORD 0 ADDRESS+OCTAL 2= (234571)	WORD 2 (111113)	(000000)	<--ATTENDANT LIST (SEE CTX-4 FORM)
WORD 0 ADDRESS+OCTAL 3= (234572)	WORD 3 (111114)	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 4= ()	WORD 4 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 5= ()	WORD 5 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 6= ()	WORD 6 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 7= ()	WORD 7 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 10= ()	WORD 8 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 11= ()	WORD 9 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 12= ()	WORD 10 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 13= ()	WORD 11 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 14= ()	WORD 12 ()	()	<--6 CODE SPEED CALL POINTER (SEE CTX-6 FORM)
WORD 0 ADDRESS+OCTAL 15= ()	WORD 13 ()	()	<--30 CODE SPEED CALL POINTER (SEE CTX-7 FORM)
WORD 0 ADDRESS+OCTAL 16= ()	WORD 14 ()	()	<--MTD/GBI TABLE (SEE CTX-8 FORM)
WORD 0 ADDRESS+OCTAL 17= ()	WORD 15 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 20= ()	WORD 16 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 21= ()	WORD 17 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 22= ()	WORD 18 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 23= ()	WORD 19 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 24= ()	WORD 20 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 25= ()	WORD 21 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 26= ()	WORD 22 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 27= ()	WORD 23 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 30= ()	WORD 24 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 31= ()	WORD 25 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 32= ()	WORD 26 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 33= ()	WORD 27 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 34= ()	WORD 28 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 35= ()	WORD 29 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 36= ()	WORD 30 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 37= ()	WORD 31 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	

Fig. 5—No. 2 ESS Centrex Group Expansion Change Form With Non-Zeros in the Group Expansion Initial Contents Column

THE ATTENDANT LIST WORD 0 ADDRESS SHOULD BE STORED
IN BITS 17-0 OF WORD 2 OF THE CENTREX GROUP EXPANSION

CENTREX GROUP 14
LIST = (NEW) OR (OLD)

FORM CHIPS ADDRESS RANGE=() - ()

WORD NUMBER col 1	ADDRESS INCREMENT WITH RESPECT TO WORD 0 ADDRESS col 2	ADDRESS col 3	ATTENDANT LIST INITIAL CONTENTS col 4	CHANGES col 5	MAX UNIVERSAL ATTENDANTS PER LIST LENGTH col 6	COMPLEMENT OF MAXIMUM ATTENDANTS col 7	ATTENDANT IDLE LIST CALLS WAITING QUEUE CALL STORE REQUIRED col 8
0	+ OCTAL 0 =	(234571)	(00177755)	(0000000)	0 = NO LIST	- - - -	- - - -
1	+ OCTAL 1 =	(234572)	(00000000)	()	1 = 2 WORDS	10177776	7 WORDS
2	+ OCTAL 2 =	(234573)	(00000000)	()	2 = 3 WORDS	10177775	12 WORDS
3	+ OCTAL 3 =	()	()	()	3 = 4 WORDS	00177774	17 WORDS
4	+ OCTAL 4 =	()	()	()	4 = 5 WORDS	10177773	22 WORDS
5	+ OCTAL 5 =	()	()	()	5 = 6 WORDS	00177772	27 WORDS
6	+ OCTAL 6 =	()	()	()	6 = 7 WORDS	00177771	32 WORDS
7	+ OCTAL 7 =	()	()	()	7 = 8 WORDS	10177770	37 WORDS
8	+ OCTAL 10 =	()	()	()	8 = 9 WORDS	10177767	42 WORDS
9	+ OCTAL 11 =	()	()	()	9 = 10 WORDS	00177766	47 WORDS
10	+ OCTAL 12 =	()	()	()	10 = 11 WORDS	00177765	52 WORDS
11	+ OCTAL 13 =	()	()	()	11 = 12 WORDS	10177764	57 WORDS
12	+ OCTAL 14 =	()	()	()	12 = 13 WORDS	00177763	62 WORDS
13	+ OCTAL 15 =	()	()	()	13 = 14 WORDS	10177762	67 WORDS
14	+ OCTAL 16 =	()	()	()	14 = 15 WORDS	10177761	72 WORDS
15	+ OCTAL 17 =	()	()	()	15 = 16 WORDS	00177760	77 WORDS
16	+ OCTAL 20 =	()	()	()	16 = 17 WORDS	10177757	82 WORDS
17	+ OCTAL 21 =	()	()	()	17 = 18 WORDS	00177756	87 WORDS
18	+ OCTAL 22 =	()	()	()	18 = 19 WORDS	00177755	92 WORDS
19	+ OCTAL 23 =	()	()	()	19 = 20 WORDS	10177754	97 WORDS
20	+ OCTAL 24 =	()	()	()	20 = 21 WORDS	00177753	102 WORDS
21	+ OCTAL 25 =	()	()	()	21 = 22 WORDS	10177752	107 WORDS
22	+ OCTAL 26 =	()	()	()	22 = 23 WORDS	10177751	112 WORDS
23	+ OCTAL 27 =	()	()	()	23 = 24 WORDS	00177750	117 WORDS
24	+ OCTAL 30 =	()	()	()	24 = 25 WORDS	00177747	122 WORDS
25	+ OCTAL 31 =	()	()	()	25 = 26 WORDS	10177746	127 WORDS
26	+ OCTAL 32 =	()	()	()	26 = 27 WORDS	10177745	132 WORDS
27	+ OCTAL 33 =	()	()	()	27 = 28 WORDS	00177744	137 WORDS
28	+ OCTAL 34 =	()	()	()	28 = 29 WORDS	10177743	142 WORDS
29	+ OCTAL 35 =	()	()	()	29 = 30 WORDS	00177742	147 WORDS
30	+ OCTAL 36 =	()	()	()	30 = 31 WORDS	00177741	152 WORDS
31	+ OCTAL 37 =	()	()	()	31 = 32 WORDS	10177740	157 WORDS
32	+ OCTAL 40 =	()	()	()	32 = 33 WORDS	10177737	162 WORDS
33	+ OCTAL 41 =	()	()	()	33 = 34 WORDS	00177736	167 WORDS
34	+ OCTAL 42 =	()	()	()	34 = 35 WORDS	00177735	172 WORDS
35	+ OCTAL 43 =	()	()	()	35 = 36 WORDS	10177734	177 WORDS
36	+ OCTAL 44 =	()	()	()	36 = 37 WORDS	00177733	182 WORDS
37	+ OCTAL 45 =	()	()	()	37 = 38 WORDS	10177732	187 WORDS
38	+ OCTAL 46 =	()	()	()	38 = 39 WORDS	10177731	192 WORDS
39	+ OCTAL 47 =	()	()	()	39 = 40 WORDS	00177730	197 WORDS
40	+ OCTAL 50 =	()	()	()	40 = 41 WORDS	00177727	202 WORDS
41	+ OCTAL 51 =	()	()	()	41 = 42 WORDS	10177726	207 WORDS
42	+ OCTAL 52 =	()	()	()	42 = 43 WORDS	10177725	212 WORDS
43	+ OCTAL 53 =	()	()	()	43 = 44 WORDS	00177724	217 WORDS
44	+ OCTAL 54 =	()	()	()	44 = 45 WORDS	10177723	222 WORDS
45	+ OCTAL 55 =	()	()	()	45 = 46 WORDS	00177722	227 WORDS
46	+ OCTAL 56 =	()	()	()	46 = 47 WORDS	00177721	232 WORDS
47	+ OCTAL 57 =	()	()	()	47 = 48 WORDS	10177720	237 WORDS
48	+ OCTAL 60 =	()	()	()	48 = 49 WORDS	00177717	242 WORDS
49	+ OCTAL 61 =	()	()	()	49 = 50 WORDS	10177716	247 WORDS
50	+ OCTAL 62 =	()	()	()	50 = 51 WORDS	10177715	252 WORDS
51	+ OCTAL 63 =	()	()	()	51 = 52 WORDS	00177714	257 WORDS
52	+ OCTAL 64 =	()	()	()	52 = 53 WORDS	10177713	262 WORDS
53	+ OCTAL 65 =	()	()	()	53 = 54 WORDS	00177712	267 WORDS
54	+ OCTAL 66 =	()	()	()	54 = 55 WORDS	00177711	272 WORDS
55	+ OCTAL 67 =	()	()	()	55 = 56 WORDS	10177710	277 WORDS
56	+ OCTAL 70 =	()	()	()	56 = 57 WORDS	10177707	282 WORDS
57	+ OCTAL 71 =	()	()	()	57 = 58 WORDS	00177706	287 WORDS
58	+ OCTAL 72 =	()	()	()	58 = 59 WORDS	00177705	292 WORDS
59	+ OCTAL 73 =	()	()	()	59 = 60 WORDS	10177704	297 WORDS
60	+ OCTAL 74 =	()	()	()	60 = 61 WORDS	00177703	302 WORDS
61	+ OCTAL 75 =	()	()	()	61 = 62 WORDS	10177702	307 WORDS
62	+ OCTAL 76 =	()	()	()	62 = 63 WORDS	10177701	312 WORDS
63	+ OCTAL 77 =	()	()	()	63 = 64 WORDS	00177700	317 WORDS

Fig. 6—No. 2 ESS Attendant List Change Form When Universal Attendant Consoles Are Not Required

THE ATTENDANT LIST WORD 0 ADDRESS SHOULD BE STORED
IN BITS 17-0 OF WORD 2 OF THE CENTREX GROUP EXPANSION

CENTREX GROUP 14
LIST = (NEW) OR (OLD)

FORM CHIPS ADDRESS RANGE = () - ()

WORD NUMBER col 1	ADDRESS INCREMENT WITH RESPECT TO WORD 0 ADDRESS col 2	ADDRESS col 3	ATTENDANT LIST INITIAL CONTENTS col 4	CHANGES col 5	MAX UNIVERSAL ATTENDANTS PER LIST LENGTH col 6	COMPLEMENT OF MAXIMUM ATTENDANTS col 7	ATTENDANT IDLE LIST CALLS WAITING QUEUE CALL STORE REQUIRED col 8
0	+ OCTAL 0 =	(111113)	(0017763)	(1017770)	0 = NO LIST	- - - -	- - - -
1	+ OCTAL 1 =	(111114)	(0017764)	(0000000)	1 = 2 WORDS	10177776	7 WORDS
2	+ OCTAL 2 =	(15)	(65)	(0000000)	2 = 3 WORDS	10177775	12 WORDS
3	+ OCTAL 3 =	(16)	(66)	()	3 = 4 WORDS	00177774	17 WORDS
4	+ OCTAL 4 =	(17)	(67)	()	4 = 5 WORDS	10177773	22 WORDS
5	+ OCTAL 5 =	(20)	(70)	()	5 = 6 WORDS	00177772	27 WORDS
6	+ OCTAL 6 =	(21)	(71)	()	6 = 7 WORDS	00177771	32 WORDS
7	+ OCTAL 7 =	(22)	(72)	()	7 = 8 WORDS	10177770	37 WORDS
8	+ OCTAL 10 =	(23)	(0000000)	(0000000)	8 = 9 WORDS	10177767	42 WORDS
9	+ OCTAL 11 =	(24)	(0000000)	(0000000)	9 = 10 WORDS	00177766	47 WORDS
10	+ OCTAL 12 =	(25)	()	()	10 = 11 WORDS	00177765	52 WORDS
11	+ OCTAL 13 =	(26)	()	()	11 = 12 WORDS	10177764	57 WORDS
12	+ OCTAL 14 =	(27)	()	()	12 = 13 WORDS	00177763	62 WORDS
13	+ OCTAL 15 =	()	()	()	13 = 14 WORDS	10177762	67 WORDS
14	+ OCTAL 16 =	()	()	()	14 = 15 WORDS	10177761	72 WORDS
15	+ OCTAL 17 =	()	()	()	15 = 16 WORDS	00177760	77 WORDS
16	+ OCTAL 20 =	()	()	()	16 = 17 WORDS	10177757	82 WORDS
17	+ OCTAL 21 =	()	()	()	17 = 18 WORDS	00177756	87 WORDS
18	+ OCTAL 22 =	()	()	()	18 = 19 WORDS	00177755	92 WORDS
19	+ OCTAL 23 =	()	()	()	19 = 20 WORDS	10177754	97 WORDS
20	+ OCTAL 24 =	()	()	()	20 = 21 WORDS	00177753	102 WORDS
21	+ OCTAL 25 =	()	()	()	21 = 22 WORDS	10177752	107 WORDS
22	+ OCTAL 26 =	()	()	()	22 = 23 WORDS	10177751	112 WORDS
23	+ OCTAL 27 =	()	()	()	23 = 24 WORDS	00177750	117 WORDS
24	+ OCTAL 30 =	()	()	()	24 = 25 WORDS	00177747	122 WORDS
25	+ OCTAL 31 =	()	()	()	25 = 26 WORDS	10177746	127 WORDS
26	+ OCTAL 32 =	()	()	()	26 = 27 WORDS	10177745	132 WORDS
27	+ OCTAL 33 =	()	()	()	27 = 28 WORDS	00177744	137 WORDS
28	+ OCTAL 34 =	()	()	()	28 = 29 WORDS	10177743	142 WORDS
29	+ OCTAL 35 =	()	()	()	29 = 30 WORDS	00177742	147 WORDS
30	+ OCTAL 36 =	()	()	()	30 = 31 WORDS	00177741	152 WORDS
31	+ OCTAL 37 =	()	()	()	31 = 32 WORDS	10177740	157 WORDS
32	+ OCTAL 40 =	()	()	()	32 = 33 WORDS	10177737	162 WORDS
33	+ OCTAL 41 =	()	()	()	33 = 34 WORDS	00177736	167 WORDS
34	+ OCTAL 42 =	()	()	()	34 = 35 WORDS	00177735	172 WORDS
35	+ OCTAL 43 =	()	()	()	35 = 36 WORDS	10177734	177 WORDS
36	+ OCTAL 44 =	()	()	()	36 = 37 WORDS	00177733	182 WORDS
37	+ OCTAL 45 =	()	()	()	37 = 38 WORDS	10177732	187 WORDS
38	+ OCTAL 46 =	()	()	()	38 = 39 WORDS	10177731	192 WORDS
39	+ OCTAL 47 =	()	()	()	39 = 40 WORDS	00177730	197 WORDS
40	+ OCTAL 50 =	()	()	()	40 = 41 WORDS	00177727	202 WORDS
41	+ OCTAL 51 =	()	()	()	41 = 42 WORDS	10177726	207 WORDS
42	+ OCTAL 52 =	()	()	()	42 = 43 WORDS	10177725	212 WORDS
43	+ OCTAL 53 =	()	()	()	43 = 44 WORDS	00177724	217 WORDS
44	+ OCTAL 54 =	()	()	()	44 = 45 WORDS	10177723	222 WORDS
45	+ OCTAL 55 =	()	()	()	45 = 46 WORDS	00177722	227 WORDS
46	+ OCTAL 56 =	()	()	()	46 = 47 WORDS	00177721	232 WORDS
47	+ OCTAL 57 =	()	()	()	47 = 48 WORDS	10177720	237 WORDS
48	+ OCTAL 60 =	()	()	()	48 = 49 WORDS	00177717	242 WORDS
49	+ OCTAL 61 =	()	()	()	49 = 50 WORDS	10177716	247 WORDS
50	+ OCTAL 62 =	()	()	()	50 = 51 WORDS	10177715	252 WORDS
51	+ OCTAL 63 =	()	()	()	51 = 52 WORDS	00177714	257 WORDS
52	+ OCTAL 64 =	()	()	()	52 = 53 WORDS	10177713	262 WORDS
53	+ OCTAL 65 =	()	()	()	53 = 54 WORDS	00177712	267 WORDS
54	+ OCTAL 66 =	()	()	()	54 = 55 WORDS	00177711	272 WORDS
55	+ OCTAL 67 =	()	()	()	55 = 56 WORDS	10177710	277 WORDS
56	+ OCTAL 70 =	()	()	()	56 = 57 WORDS	10177707	282 WORDS
57	+ OCTAL 71 =	()	()	()	57 = 58 WORDS	00177706	287 WORDS
58	+ OCTAL 72 =	()	()	()	58 = 59 WORDS	00177705	292 WORDS
59	+ OCTAL 73 =	()	()	()	59 = 60 WORDS	10177704	297 WORDS
60	+ OCTAL 74 =	()	()	()	60 = 61 WORDS	00177703	302 WORDS
61	+ OCTAL 75 =	()	()	()	61 = 62 WORDS	10177702	307 WORDS
62	+ OCTAL 76 =	()	()	()	62 = 63 WORDS	10177701	312 WORDS
63	+ OCTAL 77 =	()	()	()	63 = 64 WORDS	00177700	317 WORDS

NEW

OLD

Fig. 7—No. 2 ESS Attendant List Change Form When Universal Attendant Consoles Are Required

THE ATTENDANT LIST WORD 0 ADDRESS SHOULD BE STORED
IN BITS 17-0 OF WORD 2 OF THE CENTREX GROUP EXPANSION

FORM CHIPS ADDRESS RANGE= () - ()

CENTREX GROUP
LIST = (NEW) OR (OLD)

WORD NUMBER col 1	ADDRESS INCREMENT WITH RESPECT TO WORD 0 ADDRESS col 2	ADDRESS col 3	ATTENDANT LIST INITIAL CONTENTS col 4	CHANGES col 5	MAX UNIVERSAL ATTENDANTS PER LIST LENGTH col 6	COMPLEMENT OF MAXIMUM ATTENDANTS col 7	ATTENDANT IDLE LIST CALLS WAITING QUEUE CALL STORE REQUIRED col 8
0	+ OCTAL 0 =	(0234623)	(0000000)	(10177770)	0 = NO LIST	- - - -	- - - -
1	+ OCTAL 1 =	(24)	()	(00177764)	1 = 2 WORDS	10177776	7 WORDS
2	+ OCTAL 2 =	(25)	()	(00177765)	2 = 3 WORDS	10177775	12 WORDS
3	+ OCTAL 3 =	(26)	()	(00177766)	3 = 4 WORDS	00177774	17 WORDS
4	+ OCTAL 4 =	(27)	()	(67)	4 = 5 WORDS	10177773	22 WORDS
5	+ OCTAL 5 =	(30)	()	(70)	5 = 6 WORDS	00177772	27 WORDS
6	+ OCTAL 6 =	(31)	()	(71)	6 = 7 WORDS	00177771	32 WORDS
7	+ OCTAL 7 =	(32)	()	(72)	7 = 8 WORDS	10177770	37 WORDS
8	+ OCTAL 10 =	()	()	()	8 = 9 WORDS	10177767	42 WORDS
9	+ OCTAL 11 =	()	()	()	9 = 10 WORDS	00177766	47 WORDS
10	+ OCTAL 12 =	()	()	()	10 = 11 WORDS	00177765	52 WORDS
11	+ OCTAL 13 =	()	()	()	11 = 12 WORDS	10177764	57 WORDS
12	+ OCTAL 14 =	()	()	()	12 = 13 WORDS	00177763	62 WORDS
13	+ OCTAL 15 =	()	()	()	13 = 14 WORDS	10177762	67 WORDS
14	+ OCTAL 16 =	()	()	()	14 = 15 WORDS	10177761	72 WORDS
15	+ OCTAL 17 =	()	()	()	15 = 16 WORDS	00177760	77 WORDS
16	+ OCTAL 20 =	()	()	()	16 = 17 WORDS	10177757	82 WORDS
17	+ OCTAL 21 =	()	()	()	17 = 18 WORDS	00177756	87 WORDS
18	+ OCTAL 22 =	()	()	()	18 = 19 WORDS	00177755	92 WORDS
19	+ OCTAL 23 =	()	()	()	19 = 20 WORDS	10177754	97 WORDS
20	+ OCTAL 24 =	()	()	()	20 = 21 WORDS	00177753	102 WORDS
21	+ OCTAL 25 =	()	()	()	21 = 22 WORDS	10177752	107 WORDS
22	+ OCTAL 26 =	()	()	()	22 = 23 WORDS	10177751	112 WORDS
23	+ OCTAL 27 =	()	()	()	23 = 24 WORDS	00177750	117 WORDS
24	+ OCTAL 30 =	()	()	()	24 = 25 WORDS	00177747	122 WORDS
25	+ OCTAL 31 =	()	()	()	25 = 26 WORDS	10177746	127 WORDS
26	+ OCTAL 32 =	()	()	()	26 = 27 WORDS	10177745	132 WORDS
27	+ OCTAL 33 =	()	()	()	27 = 28 WORDS	00177744	137 WORDS
28	+ OCTAL 34 =	()	()	()	28 = 29 WORDS	10177743	142 WORDS
29	+ OCTAL 35 =	()	()	()	29 = 30 WORDS	00177742	147 WORDS
30	+ OCTAL 36 =	()	()	()	30 = 31 WORDS	00177741	152 WORDS
31	+ OCTAL 37 =	()	()	()	31 = 32 WORDS	10177740	157 WORDS
32	+ OCTAL 40 =	()	()	()	32 = 33 WORDS	10177737	162 WORDS
33	+ OCTAL 41 =	()	()	()	33 = 34 WORDS	00177736	167 WORDS
34	+ OCTAL 42 =	()	()	()	34 = 35 WORDS	00177735	172 WORDS
35	+ OCTAL 43 =	()	()	()	35 = 36 WORDS	10177734	177 WORDS
36	+ OCTAL 44 =	()	()	()	36 = 37 WORDS	00177733	182 WORDS
37	+ OCTAL 45 =	()	()	()	37 = 38 WORDS	10177732	187 WORDS
38	+ OCTAL 46 =	()	()	()	38 = 39 WORDS	10177731	192 WORDS
39	+ OCTAL 47 =	()	()	()	39 = 40 WORDS	00177730	197 WORDS
40	+ OCTAL 50 =	()	()	()	40 = 41 WORDS	00177727	202 WORDS
41	+ OCTAL 51 =	()	()	()	41 = 42 WORDS	10177726	207 WORDS
42	+ OCTAL 52 =	()	()	()	42 = 43 WORDS	10177725	212 WORDS
43	+ OCTAL 53 =	()	()	()	43 = 44 WORDS	00177724	217 WORDS
44	+ OCTAL 54 =	()	()	()	44 = 45 WORDS	10177723	222 WORDS
45	+ OCTAL 55 =	()	()	()	45 = 46 WORDS	00177722	227 WORDS
46	+ OCTAL 56 =	()	()	()	46 = 47 WORDS	00177721	232 WORDS
47	+ OCTAL 57 =	()	()	()	47 = 48 WORDS	10177720	237 WORDS
48	+ OCTAL 60 =	()	()	()	48 = 49 WORDS	00177717	242 WORDS
49	+ OCTAL 61 =	()	()	()	49 = 50 WORDS	10177716	247 WORDS
50	+ OCTAL 62 =	()	()	()	50 = 51 WORDS	10177715	252 WORDS
51	+ OCTAL 63 =	()	()	()	51 = 52 WORDS	00177714	257 WORDS
52	+ OCTAL 64 =	()	()	()	52 = 53 WORDS	10177713	262 WORDS
53	+ OCTAL 65 =	()	()	()	53 = 54 WORDS	00177712	267 WORDS
54	+ OCTAL 66 =	()	()	()	54 = 55 WORDS	00177711	272 WORDS
55	+ OCTAL 67 =	()	()	()	55 = 56 WORDS	10177710	277 WORDS
56	+ OCTAL 70 =	()	()	()	56 = 57 WORDS	10177707	282 WORDS
57	+ OCTAL 71 =	()	()	()	57 = 58 WORDS	00177706	287 WORDS
58	+ OCTAL 72 =	()	()	()	58 = 59 WORDS	00177705	292 WORDS
59	+ OCTAL 73 =	()	()	()	59 = 60 WORDS	10177704	297 WORDS
60	+ OCTAL 74 =	()	()	()	60 = 61 WORDS	00177703	302 WORDS
61	+ OCTAL 75 =	()	()	()	61 = 62 WORDS	10177702	307 WORDS
62	+ OCTAL 76 =	()	()	()	62 = 63 WORDS	10177701	312 WORDS
63	+ OCTAL 77 =	()	()	()	63 = 64 WORDS	00177700	317 WORDS

Fig. 8—No. 2 ESS Attendant List Change Form for Increasing the Number of Universal Attendant Consoles

OFFICE LAKEVIEW

NO. 2 ESS CENTREX GROUP EXPANSION CHANGE FORM

CTX-2 FORM
(EF-1)

DATE 2/8/77

CENTREX GROUP NUMBER _____

FORM CHIPS ADDRESS RANGE= () - ()

ADDRESS	GROUP EXPANSION INITIAL CONTENTS	CHANGES	
WORD 0 ADDRESS----->= (234567)	WORD 0 (111111)	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 1= (234570)	WORD 1 (111112)	(333373)	<-- ATTENDANT IDLE LIST / CALLS WAITING QUEUE
WORD 0 ADDRESS+OCTAL 2= (234571)	WORD 2 (111113)	(0234623)	<-- ATTENDANT LIST (SEE CTX-4 FORM)
WORD 0 ADDRESS+OCTAL 3= (234572)	WORD 3 (111114)	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 4= ()	WORD 4 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 5= ()	WORD 5 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 6= ()	WORD 6 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 7= ()	WORD 7 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 10= ()	WORD 8 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 11= ()	WORD 9 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 12= ()	WORD 10 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 13= ()	WORD 11 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 14= ()	WORD 12 ()	()	<-- 6 CODE SPEED CALL POINTER (SEE CTX-6 FORM)
WORD 0 ADDRESS+OCTAL 15= ()	WORD 13 ()	()	<-- 30 CODE SPEED CALL POINTER (SEE CTX-7 FORM)
WORD 0 ADDRESS+OCTAL 16= ()	WORD 14 ()	()	<-- MTD/GBI TABLE (SEE CTX-8 FORM)
WORD 0 ADDRESS+OCTAL 17= ()	WORD 15 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 20= ()	WORD 16 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 21= ()	WORD 17 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 22= ()	WORD 18 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 23= ()	WORD 19 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 24= ()	WORD 20 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 25= ()	WORD 21 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 26= ()	WORD 22 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 27= ()	WORD 23 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 30= ()	WORD 24 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 31= ()	WORD 25 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 32= ()	WORD 26 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 33= ()	WORD 27 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 34= ()	WORD 28 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 35= ()	WORD 29 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 36= ()	WORD 30 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 37= ()	WORD 31 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	

Fig. 9—No. 2 ESS Centrex Group Expansion Change Form for Allocating Spare Storage

CENTREX GROUP _____

FORM CHIPS ADDRESS RANGE=(

) - ()

THE ADDRESS OF WORD 0 OF THE 6 CODE EXPANSION TABLE
IS FOUND IN BITS 17-0 OF WORD 12 OF THE CENTREX EXPANSION

WORD NUMBER col 1	ADDRESS INCREMENT col 2	ADDRESS col 3	6 CODE TABLE INITIAL CONTENTS col 4	CHANGES col 5	6 CODE LIST RANGE col 6
0	+ OCTAL 0 =	(0234624)	(000000)	()	0 TO 15
1	+ OCTAL 1 =	()	()	()	16 TO 31
2	+ OCTAL 2 =	()	()	()	32 TO 47
3	+ OCTAL 3 =	()	()	()	48 TO 63
4	+ OCTAL 4 =	()	()	()	64 TO 79
5	+ OCTAL 5 =	()	()	()	80 TO 95
6	+ OCTAL 6 =	()	(000000)	()	96 TO 111
7	+ OCTAL 7 =	()	(00177771)	(000000)	112 TO 127
8	+ OCTAL 10 =	(0234634)	(000000)	()	128 TO 143
9	+ OCTAL 11 =	()	()	()	144 TO 159
10	+ OCTAL 12 =	()	()	()	160 TO 175
11	+ OCTAL 13 =	()	()	()	176 TO 191
12	+ OCTAL 14 =	()	()	()	192 TO 207
13	+ OCTAL 15 =	()	()	()	208 TO 223
14	+ OCTAL 16 =	()	(000000)	()	224 TO 239
15	+ OCTAL 17 =	()	(0177756)	()	240 TO 255
16	+ OCTAL 20 =	()	(000000)	()	256 TO 271
17	+ OCTAL 21 =	()	()	()	272 TO 287
18	+ OCTAL 22 =	()	()	()	288 TO 303
19	+ OCTAL 23 =	()	()	()	304 TO 319
20	+ OCTAL 24 =	()	()	()	320 TO 335
21	+ OCTAL 25 =	()	()	()	336 TO 351
22	+ OCTAL 26 =	()	(000000)	()	352 TO 367
23	+ OCTAL 27 =	()	(0177745)	()	368 TO 383
24	+ OCTAL 30 =	()	(000000)	()	384 TO 399
25	+ OCTAL 31 =	()	()	()	400 TO 415
26	+ OCTAL 32 =	()	()	()	416 TO 431
27	+ OCTAL 33 =	()	()	()	432 TO 447
28	+ OCTAL 34 =	()	()	()	448 TO 463
29	+ OCTAL 35 =	()	()	()	464 TO 479
30	+ OCTAL 36 =	()	(000000)	()	480 TO 495
31	+ OCTAL 37 =	()	(00177733)	()	496 TO 511
32	+ OCTAL 40 =	()	(000000)	()	512 TO 527
33	+ OCTAL 41 =	()	()	()	528 TO 543
34	+ OCTAL 42 =	()	()	()	544 TO 559
35	+ OCTAL 43 =	()	()	()	560 TO 575
36	+ OCTAL 44 =	()	()	()	576 TO 591
37	+ OCTAL 45 =	()	()	()	592 TO 607
38	+ OCTAL 46 =	()	(000000)	()	608 TO 623
39	+ OCTAL 47 =	()	(00177721)	()	624 TO 639
40	+ OCTAL 50 =	()	(000000)	()	640 TO 655
41	+ OCTAL 51 =	()	()	()	656 TO 671
42	+ OCTAL 52 =	()	()	()	672 TO 687
43	+ OCTAL 53 =	()	()	()	688 TO 703
44	+ OCTAL 54 =	()	()	()	704 TO 719
45	+ OCTAL 55 =	()	()	()	720 TO 735
46	+ OCTAL 56 =	()	(000000)	()	736 TO 751
47	+ OCTAL 57 =	()	(0177707)	()	752 TO 767
48	+ OCTAL 60 =	()	(000000)	()	768 TO 783
49	+ OCTAL 61 =	()	()	()	784 TO 799
50	+ OCTAL 62 =	()	()	()	800 TO 815
51	+ OCTAL 63 =	()	()	()	816 TO 831
52	+ OCTAL 64 =	()	()	()	832 TO 847
53	+ OCTAL 65 =	()	()	()	848 TO 863
54	+ OCTAL 66 =	()	(000000)	()	864 TO 879
55	+ OCTAL 67 =	()	(00177744)	()	880 TO 895
56	+ OCTAL 70 =	()	(000000)	()	896 TO 911
57	+ OCTAL 71 =	()	()	()	912 TO 927
58	+ OCTAL 72 =	()	()	()	928 TO 943
59	+ OCTAL 73 =	()	()	()	944 TO 959
60	+ OCTAL 74 =	()	()	()	960 TO 975
61	+ OCTAL 75 =	()	()	()	976 TO 991
62	+ OCTAL 76 =	()	(000000)	()	992 TO 1007
63	+ OCTAL 77 =	()	(0177732)	()	1008 TO 1023

Fig. 10—Centrex 6 Code Speed Call Expansion Table Change Form

THIS FORM IS USED ONLY TO CLEAR A BLOCK OF
16 SIX-CODE SPEED CALL LISTS FOR RETURN TO SPARE.

CENTREX GROUP _____
SIXCODE LIST RANGE _____

FORM CHIPS ADDRESS RANGE=() - ()

WORD col 1	ADDRESS INCREMENT WITH RESPECT TO POINTER ADDRESS col 2	ADDRESS col 3	INITIAL CONTENTS col 4	ZERO col 5	WORD col 6	ADDRESS INCREMENT WITH RESPECT TO POINTER ADDRESS col 7	ADDRESS col 8	INITIAL CONTENTS col 9	ZERO col 10
0	+ 4 OCT	(177775)	()	(0)	96	+144 OCT	(200135)	()	(0)
1	+ 5 OCT	(177776)	()	(0)	97	+145 OCT	(200136)	()	(0)
2	+ 6 OCT	(177777)	()	(0)	98	+146 OCT	(200137)	()	(0)
3	+ 7 OCT	(200000)	()	(0)	99	+147 OCT	()	()	(0)
4	+ 10 OCT	()	()	(0)	100	+150 OCT	()	()	(0)
5	+ 11 OCT	()	()	(0)	101	+151 OCT	()	()	(0)
6	+ 12 OCT	()	()	(0)	102	+152 OCT	()	()	(0)
7	+ 13 OCT	()	()	(0)	103	+153 OCT	()	()	(0)
8	+ 14 OCT	()	()	(0)	104	+154 OCT	()	()	(0)
9	+ 15 OCT	()	()	(0)	105	+155 OCT	()	()	(0)
10	+ 16 OCT	()	()	(0)	106	+156 OCT	()	()	(0)
11	+ 17 OCT	()	()	(0)	107	+157 OCT	()	()	(0)
12	+ 20 OCT	()	()	(0)	108	+160 OCT	()	()	(0)
13	+ 21 OCT	()	()	(0)	109	+161 OCT	()	()	(0)
14	+ 22 OCT	()	()	(0)	110	+162 OCT	()	()	(0)
15	+ 23 OCT	()	()	(0)	111	+163 OCT	()	()	(0)
16	+ 24 OCT	()	()	(0)	112	+164 OCT	()	()	(0)
17	+ 25 OCT	()	()	(0)	113	+165 OCT	()	()	(0)
18	+ 26 OCT	()	()	(0)	114	+166 OCT	()	()	(0)
19	+ 27 OCT	()	()	(0)	115	+167 OCT	()	()	(0)
20	+ 30 OCT	()	()	(0)	116	+170 OCT	()	()	(0)
21	+ 31 OCT	()	()	(0)	117	+171 OCT	()	()	(0)
22	+ 32 OCT	()	()	(0)	118	+172 OCT	()	()	(0)
23	+ 33 OCT	()	()	(0)	119	+173 OCT	()	()	(0)
24	+ 34 OCT	()	()	(0)	120	+174 OCT	()	()	(0)
25	+ 35 OCT	()	()	(0)	121	+175 OCT	()	()	(0)
26	+ 36 OCT	()	()	(0)	122	+176 OCT	()	()	(0)
27	+ 37 OCT	()	()	(0)	123	+177 OCT	()	()	(0)
28	+ 40 OCT	()	()	(0)	124	+200 OCT	()	()	(0)
29	+ 41 OCT	()	()	(0)	125	+201 OCT	()	()	(0)
30	+ 42 OCT	()	()	(0)	126	+202 OCT	()	()	(0)
31	+ 43 OCT	()	()	(0)	127	+203 OCT	()	()	(0)
32	+ 44 OCT	()	()	(0)	128	+204 OCT	()	()	(0)
33	+ 45 OCT	()	()	(0)	129	+205 OCT	()	()	(0)
34	+ 46 OCT	()	()	(0)	130	+206 OCT	()	()	(0)
35	+ 47 OCT	()	()	(0)	131	+207 OCT	()	()	(0)
36	+ 50 OCT	()	()	(0)	132	+210 OCT	()	()	(0)
37	+ 51 OCT	()	()	(0)	133	+211 OCT	()	()	(0)
38	+ 52 OCT	()	()	(0)	134	+212 OCT	()	()	(0)
39	+ 53 OCT	()	()	(0)	135	+213 OCT	()	()	(0)
40	+ 54 OCT	()	()	(0)	136	+214 OCT	()	()	(0)
41	+ 55 OCT	()	()	(0)	137	+215 OCT	()	()	(0)
42	+ 56 OCT	()	()	(0)	138	+216 OCT	()	()	(0)
43	+ 57 OCT	()	()	(0)	139	+217 OCT	()	()	(0)
44	+ 60 OCT	()	()	(0)	140	+220 OCT	()	()	(0)
45	+ 61 OCT	()	()	(0)	141	+221 OCT	()	()	(0)
46	+ 62 OCT	()	()	(0)	142	+222 OCT	()	()	(0)
47	+ 63 OCT	()	()	(0)	143	+223 OCT	()	()	(0)
48	+ 64 OCT	()	()	(0)	144	+224 OCT	()	()	(0)
49	+ 65 OCT	()	()	(0)	145	+225 OCT	()	()	(0)
50	+ 66 OCT	()	()	(0)	146	+226 OCT	()	()	(0)
51	+ 67 OCT	()	()	(0)	147	+227 OCT	()	()	(0)
52	+ 70 OCT	()	()	(0)	148	+230 OCT	()	()	(0)
53	+ 71 OCT	()	()	(0)	149	+231 OCT	()	()	(0)
54	+ 72 OCT	()	()	(0)	150	+232 OCT	()	()	(0)
55	+ 73 OCT	()	()	(0)	151	+233 OCT	()	()	(0)
56	+ 74 OCT	()	()	(0)	152	+234 OCT	()	()	(0)
57	+ 75 OCT	()	()	(0)	153	+235 OCT	()	()	(0)
58	+ 76 OCT	()	()	(0)	154	+236 OCT	()	()	(0)
59	+ 77 OCT	()	()	(0)	155	+237 OCT	()	()	(0)
60	+100 OCT	()	()	(0)	156	+240 OCT	()	()	(0)
61	+101 OCT	()	()	(0)	157	+241 OCT	()	()	(0)
62	+102 OCT	()	()	(0)	158	+242 OCT	()	()	(0)
63	+103 OCT	()	()	(0)	159	+243 OCT	()	()	(0)
64	+104 OCT	()	()	(0)	160	+244 OCT	()	()	(0)
65	+105 OCT	()	()	(0)	161	+245 OCT	()	()	(0)
66	+106 OCT	()	()	(0)	162	+246 OCT	()	()	(0)
67	+107 OCT	()	()	(0)	163	+247 OCT	()	()	(0)
68	+110 OCT	()	()	(0)	164	+250 OCT	()	()	(0)
69	+111 OCT	()	()	(0)	165	+251 OCT	()	()	(0)
70	+112 OCT	()	()	(0)	166	+252 OCT	()	()	(0)
71	+113 OCT	()	()	(0)	167	+253 OCT	()	()	(0)
72	+114 OCT	()	()	(0)	168	+254 OCT	()	()	(0)
73	+115 OCT	()	()	(0)	169	+255 OCT	()	()	(0)
74	+116 OCT	()	()	(0)	170	+256 OCT	()	()	(0)
75	+117 OCT	()	()	(0)	171	+257 OCT	()	()	(0)
76	+120 OCT	()	()	(0)	172	+260 OCT	()	()	(0)
77	+121 OCT	()	()	(0)	173	+261 OCT	()	()	(0)
78	+122 OCT	()	()	(0)	174	+262 OCT	()	()	(0)
79	+123 OCT	()	()	(0)	175	+263 OCT	()	()	(0)
80	+124 OCT	()	()	(0)	176	+264 OCT	()	()	(0)
81	+125 OCT	()	()	(0)	177	+265 OCT	()	()	(0)
82	+126 OCT	()	()	(0)	178	+266 OCT	()	()	(0)
83	+127 OCT	()	()	(0)	179	+267 OCT	()	()	(0)
84	+130 OCT	()	()	(0)	180	+270 OCT	()	()	(0)
85	+131 OCT	()	()	(0)	181	+271 OCT	()	()	(0)
86	+132 OCT	()	()	(0)	182	+272 OCT	()	()	(0)
87	+133 OCT	()	()	(0)	183	+273 OCT	()	()	(0)
88	+134 OCT	()	()	(0)	184	+274 OCT	()	()	(0)
89	+135 OCT	()	()	(0)	185	+275 OCT	()	()	(0)
90	+136 OCT	()	()	(0)	186	+276 OCT	()	()	(0)
91	+137 OCT	()	()	(0)	187	+277 OCT	()	()	(0)
92	+140 OCT	()	()	(0)	188	+300 OCT	()	()	(0)
93	+141 OCT	()	()	(0)	189	+301 OCT	()	()	(0)
94	+142 OCT	()	()	(0)	190	+302 OCT	()	()	(0)
95	+143 OCT	()	()	(0)	191	+303 OCT	()	()	(0)

Fig. 11—No. 2 ESS Six-Code Speed Call Table Clearing Form

CENTREX GROUP _____

FORM CHIPS ADDRESS RANGE= () - ()

THE ADDRESS OF WORD 0 OF THE 30 CODE EXPANSION TABLE IS FOUND IN BITS 17-0 OF WORD 13 OF THE CENTREX EXPANSION

WORD NUMBER col 1	ADDRESS INCREMENT col 2	ADDRESS col 3	30 CODE TABLE INITIAL CONTENTS col 4	CHANGES col 5	30 CODE LIST NUMBER col 6
0	+ OCTAL 0 =	(0234604)	(10177775)	()	0
1	+ OCTAL 1 =	(0234605)	(0000000)	(0234570)	1
2	+ OCTAL 2 =	()	()	()	2
3	+ OCTAL 3 =	()	()	()	3
4	+ OCTAL 4 =	()	()	()	4
5	+ OCTAL 5 =	()	()	()	5
6	+ OCTAL 6 =	()	()	()	6
7	+ OCTAL 7 =	()	(0000000)	()	7
8	+ OCTAL 10 =	()	(00177763)	()	8
9	+ OCTAL 11 =	()	(0000000)	()	9
10	+ OCTAL 12 =	()	()	()	10
11	+ OCTAL 13 =	()	()	()	11
12	+ OCTAL 14 =	()	()	()	12
13	+ OCTAL 15 =	()	()	()	13
14	+ OCTAL 16 =	()	()	()	14
15	+ OCTAL 17 =	()	(0000000)	()	15
16	+ OCTAL 20 =	()	(10177751)	(0000000)	16
17	+ OCTAL 21 =	()	(0000000)	()	17
18	+ OCTAL 22 =	()	()	()	18
19	+ OCTAL 23 =	()	()	()	19
20	+ OCTAL 24 =	()	()	()	20
21	+ OCTAL 25 =	()	()	()	21
22	+ OCTAL 26 =	()	()	()	22
23	+ OCTAL 27 =	()	(0000000)	()	23
24	+ OCTAL 30 =	()	(10177737)	()	24
25	+ OCTAL 31 =	()	(0000000)	()	25
26	+ OCTAL 32 =	()	()	()	26
27	+ OCTAL 33 =	()	()	()	27
28	+ OCTAL 34 =	()	()	()	28
29	+ OCTAL 35 =	()	()	()	29
30	+ OCTAL 36 =	()	()	()	30
31	+ OCTAL 37 =	()	(0000000)	()	31
32	+ OCTAL 40 =	()	(10177725)	()	32
33	+ OCTAL 41 =	()	(0000000)	()	33
34	+ OCTAL 42 =	()	()	()	34
35	+ OCTAL 43 =	()	()	()	35
36	+ OCTAL 44 =	()	()	()	36
37	+ OCTAL 45 =	()	()	()	37
38	+ OCTAL 46 =	()	()	()	38
39	+ OCTAL 47 =	()	(0000000)	()	39
40	+ OCTAL 50 =	()	(10177713)	()	40
41	+ OCTAL 51 =	()	(0000000)	()	41
42	+ OCTAL 52 =	()	()	()	42
43	+ OCTAL 53 =	()	()	()	43
44	+ OCTAL 54 =	()	()	()	44
45	+ OCTAL 55 =	()	()	()	45
46	+ OCTAL 56 =	()	()	()	46
47	+ OCTAL 57 =	()	(0000000)	()	47
48	+ OCTAL 60 =	()	(10177701)	()	48
49	+ OCTAL 61 =	()	(0000000)	()	49
50	+ OCTAL 62 =	()	()	()	50
51	+ OCTAL 63 =	()	()	()	51
52	+ OCTAL 64 =	()	()	()	52
53	+ OCTAL 65 =	()	()	()	53
54	+ OCTAL 66 =	()	()	()	54
55	+ OCTAL 67 =	()	(0000000)	()	55
56	+ OCTAL 70 =	()	(10177762)	()	56
57	+ OCTAL 71 =	()	(0000000)	()	57
58	+ OCTAL 72 =	()	()	()	58
59	+ OCTAL 73 =	()	()	()	59
60	+ OCTAL 74 =	()	()	()	60
61	+ OCTAL 75 =	()	()	()	61
62	+ OCTAL 76 =	()	(0000000)	()	62
63	+ OCTAL 77 =	()	(00177750)	()	63

Fig. 12—Centrex 30 Code Speed Call Expansion Table Change Form

OFFICE LAKEVIEW
DATE 2/8/77

NO. 2 ESS THIRTY-CODE SPEED CALL TABLE CLEARING FORM

CTX-10 FORM
(EF-1)

THIS FORM IS USED ONLY TO CLEAR A THIRTY-CODE
SPEED CALL LIST FOR RETURN TO SPARE.

FORM CHIPS ADDRESS RANGE=() - ()

CENTREX GROUP _____
THIRTYCODE LIST NUMBER 16

WORD col 1	ADDRESS INCREMENT WITH RESPECT TO POINTER ADDRESS col 2	ADDRESS col 3	INITIAL CONTENTS col 4	ZERO col 5
0	+ 50 OCT	(0200021)	(1111111)	(0)
1	+ 51 OCT	(0200022)	(1111112)	(0)
2	+ 52 OCT	()	()	(0)
3	+ 53 OCT	()	()	(0)
4	+ 54 OCT	()	()	(0)
5	+ 55 OCT	()	()	(0)
6	+ 56 OCT	()	()	(0)
7	+ 57 OCT	()	()	(0)
8	+ 60 OCT	()	()	(0)
9	+ 61 OCT	()	()	(0)
10	+ 62 OCT	()	()	(0)
11	+ 63 OCT	()	()	(0)
12	+ 64 OCT	()	()	(0)
13	+ 65 OCT	()	()	(0)
14	+ 66 OCT	()	()	(0)
15	+ 67 OCT	()	()	(0)
16	+ 70 OCT	()	()	(0)
17	+ 71 OCT	()	()	(0)
18	+ 72 OCT	()	()	(0)
19	+ 73 OCT	()	()	(0)
20	+ 74 OCT	()	()	(0)
21	+ 75 OCT	()	()	(0)
22	+ 76 OCT	()	()	(0)
23	+ 77 OCT	()	()	(0)
24	+100 OCT	()	()	(0)
25	+101 OCT	(0200022)	(1111112)	(0)
26	+102 OCT	()	()	(0)
27	+103 OCT	()	()	(0)
28	+104 OCT	()	()	(0)
29	+105 OCT	()	()	(0)
30	+106 OCT	()	()	(0)
31	+107 OCT	()	()	(0)
32	+110 OCT	()	()	(0)
33	+111 OCT	()	()	(0)
34	+112 OCT	()	()	(0)
35	+113 OCT	()	()	(0)
36	+114 OCT	()	()	(0)
37	+115 OCT	()	()	(0)
38	+116 OCT	()	()	(0)
39	+117 OCT	()	()	(0)
40	+120 OCT	()	()	(0)
41	+121 OCT	()	()	(0)
42	+122 OCT	()	()	(0)
43	+123 OCT	()	()	(0)
44	+124 OCT	()	()	(0)
45	+125 OCT	()	()	(0)
46	+126 OCT	()	()	(0)
47	+127 OCT	()	()	(0)
48	+130 OCT	()	()	(0)
49	+131 OCT	()	()	(0)
50	+132 OCT	()	()	(0)
51	+133 OCT	()	()	(0)
52	+134 OCT	()	()	(0)
53	+135 OCT	()	()	(0)
54	+136 OCT	()	()	(0)
55	+137 OCT	()	()	(0)
56	+140 OCT	()	()	(0)
57	+141 OCT	()	()	(0)
58	+142 OCT	()	()	(0)
59	+143 OCT	()	()	(0)

Fig. 13—No. 2 ESS 30-Code Speed Call Table
Clearing Form

OFFICE LAKEVIEW
DATE 2/8/77

MANUAL TRUNK DISPOSITION-GROUP BILLING INDEX TABLE CHANGE FORM

CTX-8 FORM
(EF-1)

CENTREX GROUP _____ FORM CHIPS ADDRESS RANGE=() - ()

THE ADDRESS OF WORD 0 OF THE MTD/GBI TABLE IS FOUND
IN BITS 17-0 OF WORD 14 OF THE CENTREX EXPANSION

WORD NUMBER col 1	ADDRESS INCREMENT col 2	ADDRESS col 3	MTD/GBI TABLE INITIAL CONTENTS col 4	CHANGES col 5	MTD/GBI INDEX col 6	BILLING/DIRECTORY NUMBER col 7
0	+ OCTAL 0 =	(0234576)	(1111111)	(0000000)	ILLEGAL	
1	+ OCTAL 1 =	(0234577)	()	()	1	
2	+ OCTAL 2 =	(0234600)	()	()	2	
3	+ OCTAL 3 =	()	()	()	3	
4	+ OCTAL 4 =	()	()	(0000000)	4	
5	+ OCTAL 5 =	()	()	(115054)	5	
6	+ OCTAL 6 =	()	()	(0000000)	6	
7	+ OCTAL 7 =	()	()	()	7	
8	+ OCTAL 10 =	()	()	()	8	
9	+ OCTAL 11 =	()	()	(0000000)	9	
10	+ OCTAL 12 =	()	()	(153703)	10	
11	+ OCTAL 13 =	()	()	(0000000)	11	
12	+ OCTAL 14 =	()	()	()	12	
13	+ OCTAL 15 =	()	()	()	13	
14	+ OCTAL 16 =	()	()	()	14	
15	+ OCTAL 17 =	()	()	()	15	

Fig. 14—Manual Trunk Disposition—Group Billing Index Table Change Form

Page 27 missing
in original

DATE 2/8/77

FORM CHIPS ADDRESS RANGE=(341473) - (341672)

MTI ADDRESS	INITIAL CALL STORE POINTER	CHANGE	MTI ADDRESS	INITIAL CALL STORE POINTER	CHANGE
CTXTRF----->(341473)	(000000)	(050727)	CTXGRP 64=(341573)	()	()
CTXGRP 1=(341474)	()	()	CTXGRP 65=(341574)	()	()
CTXGRP 2=(341475)	()	()	CTXGRP 66=(341575)	()	()
CTXGRP 3=(341476)	()	()	CTXGRP 67=(341576)	()	()
CTXGRP 4=(341477)	()	()	CTXGRP 68=(341577)	()	()
CTXGRP 5=(341500)	()	()	CTXGRP 69=(341600)	()	()
CTXGRP 6=(341501)	()	()	CTXGRP 70=(341601)	()	()
CTXGRP 7=(341502)	()	()	CTXGRP 71=(341602)	()	()
CTXGRP 8=(341503)	()	()	CTXGRP 72=(341603)	()	()
CTXGRP 9=(341504)	()	()	CTXGRP 73=(341604)	()	()
CTXGRP 10=(341505)	()	()	CTXGRP 74=(341605)	()	()
CTXGRP 11=(341506)	()	()	CTXGRP 75=(341606)	()	()
CTXGRP 12=(341507)	()	()	CTXGRP 76=(341607)	()	()
CTXGRP 13=(341510)	()	()	CTXGRP 77=(341610)	()	()
CTXGRP 14=(341511)	(222222)	()	CTXGRP 78=(341611)	()	()
CTXGRP 15=(341512)	()	()	CTXGRP 79=(341612)	()	()
CTXGRP 16=(341513)	()	()	CTXGRP 80=(341613)	()	()
CTXGRP 17=(341514)	()	()	CTXGRP 81=(341614)	()	()
CTXGRP 18=(341515)	()	()	CTXGRP 82=(341615)	()	()
CTXGRP 19=(341516)	()	()	CTXGRP 83=(341616)	()	()
CTXGRP 20=(341517)	()	()	CTXGRP 84=(341617)	()	()
CTXGRP 21=(341520)	()	()	CTXGRP 85=(341620)	()	()
CTXGRP 22=(341521)	()	()	CTXGRP 86=(341621)	()	()
CTXGRP 23=(341522)	()	()	CTXGRP 87=(341622)	()	()
CTXGRP 24=(341523)	()	()	CTXGRP 88=(341623)	()	()
CTXGRP 25=(341524)	()	()	CTXGRP 89=(341624)	()	()
CTXGRP 26=(341525)	()	()	CTXGRP 90=(341625)	()	()
CTXGRP 27=(341526)	()	()	CTXGRP 91=(341626)	()	()
CTXGRP 28=(341527)	()	()	CTXGRP 92=(341627)	()	()
CTXGRP 29=(341530)	()	()	CTXGRP 93=(341630)	()	()
CTXGRP 30=(341531)	()	()	CTXGRP 94=(341631)	()	()
CTXGRP 31=(341532)	()	()	CTXGRP 95=(341632)	()	()
CTXGRP 32=(341533)	()	()	CTXGRP 96=(341633)	()	()
CTXGRP 33=(341534)	()	()	CTXGRP 97=(341634)	()	()
CTXGRP 34=(341535)	()	()	CTXGRP 98=(341635)	()	()
CTXGRP 35=(341536)	()	()	CTXGRP 99=(341636)	()	()
CTXGRP 36=(341537)	()	()	CTXGRP 100=(341637)	()	()
CTXGRP 37=(341540)	()	()	CTXGRP 101=(341640)	()	()
CTXGRP 38=(341541)	()	()	CTXGRP 102=(341641)	()	()
CTXGRP 39=(341542)	()	()	CTXGRP 103=(341642)	()	()
CTXGRP 40=(341543)	()	()	CTXGRP 104=(341643)	()	()
CTXGRP 41=(341544)	()	()	CTXGRP 105=(341644)	()	()
CTXGRP 42=(341545)	()	()	CTXGRP 106=(341645)	()	()
CTXGRP 43=(341546)	()	()	CTXGRP 107=(341646)	()	()
CTXGRP 44=(341547)	()	()	CTXGRP 108=(341647)	()	()
CTXGRP 45=(341550)	()	()	CTXGRP 109=(341650)	()	()
CTXGRP 46=(341551)	()	()	CTXGRP 110=(341651)	()	()
CTXGRP 47=(341552)	()	()	CTXGRP 111=(341652)	()	()
CTXGRP 48=(341553)	()	()	CTXGRP 112=(341653)	()	()
CTXGRP 49=(341554)	()	()	CTXGRP 113=(341654)	()	()
CTXGRP 50=(341555)	()	()	CTXGRP 114=(341655)	()	()
CTXGRP 51=(341556)	()	()	CTXGRP 115=(341656)	()	()
CTXGRP 52=(341557)	()	()	CTXGRP 116=(341657)	()	()
CTXGRP 53=(341560)	()	()	CTXGRP 117=(341660)	()	()
CTXGRP 54=(341561)	()	()	CTXGRP 118=(341661)	()	()
CTXGRP 55=(341562)	()	()	CTXGRP 119=(341662)	()	()
CTXGRP 56=(341563)	()	()	CTXGRP 120=(341663)	()	()
CTXGRP 57=(341564)	()	()	CTXGRP 121=(341664)	()	()
CTXGRP 58=(341565)	()	()	CTXGRP 122=(341665)	()	()
CTXGRP 59=(341566)	()	()	CTXGRP 123=(341666)	()	()
CTXGRP 60=(341567)	()	()	CTXGRP 124=(341667)	()	()
CTXGRP 61=(341570)	()	()	CTXGRP 125=(341670)	()	()
CTXGRP 62=(341571)	()	()	CTXGRP 126=(341671)	()	()
CTXGRP 63=(341572)	()	()	CTXGRP 127=(341672)	()	()

CENTREX TRAFFIC TRANSLATOR MTI CHANGE FORM

Fig. 16—No. 2 ESS Centrex Translator MTI Change Form to Allocate a Block of Call Store for a Traffic Table With Non-Zeros in the Initial Call Store Point Slot

DATE 2/8/77

FORM CHIPS ADDRESS RANGE=(341205) - (341404)

MTI ADDRESS	INITIAL GROUP TABLE POINTER	CHANGE	MTI ADDRESS	INITIAL GROUP TABLE POINTER	CHANGE
CTXTBL----->(341205)	()	()	CTXGRP 64=(341305)	()	()
CTXGRP 1=(341206)	()	()	CTXGRP 65=(341306)	()	()
CTXGRP 2=(341207)	()	()	CTXGRP 66=(341307)	()	()
CTXGRP 3=(341210)	()	()	CTXGRP 67=(341310)	()	()
CTXGRP 4=(341211)	()	()	CTXGRP 68=(341311)	()	()
CTXGRP 5=(341212)	()	()	CTXGRP 69=(341312)	()	()
CTXGRP 6=(341213)	()	()	CTXGRP 70=(341313)	()	()
CTXGRP 7=(341214)	()	()	CTXGRP 71=(341314)	()	()
CTXGRP 8=(341215)	()	()	CTXGRP 72=(341315)	()	()
CTXGRP 9=(341216)	()	()	CTXGRP 73=(341316)	()	()
CTXGRP 10=(341217)	()	()	CTXGRP 74=(341317)	()	()
CTXGRP 11=(341220)	()	()	CTXGRP 75=(341320)	()	()
CTXGRP 12=(341221)	()	()	CTXGRP 76=(341321)	()	()
CTXGRP 13=(341222)	()	()	CTXGRP 77=(341322)	()	()
CTXGRP 14=(341223)	(000000)	(0234606)	CTXGRP 78=(341323)	()	()
CTXGRP 15=(341224)	()	()	CTXGRP 79=(341324)	()	()
CTXGRP 16=(341225)	()	()	CTXGRP 80=(341325)	()	()
CTXGRP 17=(341226)	()	()	CTXGRP 81=(341326)	()	()
CTXGRP 18=(341227)	()	()	CTXGRP 82=(341327)	()	()
CTXGRP 19=(341230)	()	()	CTXGRP 83=(341330)	()	()
CTXGRP 20=(341231)	()	()	CTXGRP 84=(341331)	()	()
CTXGRP 21=(341232)	()	()	CTXGRP 85=(341332)	()	()
CTXGRP 22=(341233)	()	()	CTXGRP 86=(341333)	()	()
CTXGRP 23=(341234)	()	()	CTXGRP 87=(341334)	()	()
CTXGRP 24=(341235)	()	()	CTXGRP 88=(341335)	()	()
CTXGRP 25=(341236)	()	()	CTXGRP 89=(341336)	()	()
CTXGRP 26=(341237)	()	()	CTXGRP 90=(341337)	()	()
CTXGRP 27=(341240)	()	()	CTXGRP 91=(341340)	()	()
CTXGRP 28=(341241)	()	()	CTXGRP 92=(341341)	()	()
CTXGRP 29=(341242)	()	()	CTXGRP 93=(341342)	()	()
CTXGRP 30=(341243)	()	()	CTXGRP 94=(341343)	()	()
CTXGRP 31=(341244)	()	()	CTXGRP 95=(341344)	()	()
CTXGRP 32=(341245)	()	()	CTXGRP 96=(341345)	()	()
CTXGRP 33=(341246)	()	()	CTXGRP 97=(341346)	()	()
CTXGRP 34=(341247)	()	()	CTXGRP 98=(341347)	()	()
CTXGRP 35=(341250)	()	()	CTXGRP 99=(341350)	()	()
CTXGRP 36=(341251)	()	()	CTXGRP 100=(341351)	()	()
CTXGRP 37=(341252)	()	()	CTXGRP 101=(341352)	()	()
CTXGRP 38=(341253)	()	()	CTXGRP 102=(341353)	()	()
CTXGRP 39=(341254)	()	()	CTXGRP 103=(341354)	()	()
CTXGRP 40=(341255)	()	()	CTXGRP 104=(341355)	()	()
CTXGRP 41=(341256)	()	()	CTXGRP 105=(341356)	()	()
CTXGRP 42=(341257)	()	()	CTXGRP 106=(341357)	()	()
CTXGRP 43=(341260)	()	()	CTXGRP 107=(341360)	()	()
CTXGRP 44=(341261)	()	()	CTXGRP 108=(341361)	()	()
CTXGRP 45=(341262)	()	()	CTXGRP 109=(341362)	()	()
CTXGRP 46=(341263)	()	()	CTXGRP 110=(341363)	()	()
CTXGRP 47=(341264)	()	()	CTXGRP 111=(341364)	()	()
CTXGRP 48=(341265)	()	()	CTXGRP 112=(341365)	()	()
CTXGRP 49=(341266)	()	()	CTXGRP 113=(341366)	()	()
CTXGRP 50=(341267)	()	()	CTXGRP 114=(341367)	()	()
CTXGRP 51=(341270)	()	()	CTXGRP 115=(341370)	()	()
CTXGRP 52=(341271)	()	()	CTXGRP 116=(341371)	()	()
CTXGRP 53=(341272)	()	()	CTXGRP 117=(341372)	()	()
CTXGRP 54=(341273)	()	()	CTXGRP 118=(341373)	()	()
CTXGRP 55=(341274)	()	()	CTXGRP 119=(341374)	()	()
CTXGRP 56=(341275)	()	()	CTXGRP 120=(341375)	()	()
CTXGRP 57=(341276)	()	()	CTXGRP 121=(341376)	()	()
CTXGRP 58=(341277)	()	()	CTXGRP 122=(341377)	()	()
CTXGRP 59=(341300)	()	()	CTXGRP 123=(341400)	()	()
CTXGRP 60=(341301)	()	()	CTXGRP 124=(341401)	()	()
CTXGRP 61=(341302)	()	()	CTXGRP 125=(341402)	()	()
CTXGRP 62=(341303)	()	()	CTXGRP 126=(341403)	()	()
CTXGRP 63=(341304)	()	()	CTXGRP 127=(341404)	()	()

Fig. 17—No. 2 ESS Centrex Group MTI Translator Change Form to Define a New Centrex Traffic Table

OFFICE LAKEVIEW

NO. 2 ESS CENTREX GROUP EXPANSION CHANGE FORM

CTX-2 FORM
(EF-1)

DATE 2/8/77

CENTREX GROUP NUMBER 14

FORM CHIPS ADDRESS RANGE=()-()

ADDRESS	GROUP EXPANSION INITIAL CONTENTS	CHANGES	
WORD 0 ADDRESS----->= (0234606)	WORD 0 (0000000)	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 1= (0234607)	WORD 1 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	<--ATTENDANT IDLE LIST / CALLS WAITING QUEUE
WORD 0 ADDRESS+OCTAL 2= ()	WORD 2 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	<--ATTENDANT LIST (SEE CTX-4 FORM)
WORD 0 ADDRESS+OCTAL 3= ()	WORD 3 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 4= ()	WORD 4 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 5= ()	WORD 5 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 6= ()	WORD 6 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 7= ()	WORD 7 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 10= ()	WORD 8 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 11= ()	WORD 9 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 12= ()	WORD 10 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 13= ()	WORD 11 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 14= ()	WORD 12 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	<--6 CODE SPEED CALL POINTER (SEE CTX-6 FORM)
WORD 0 ADDRESS+OCTAL 15= ()	WORD 13 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	<--30 CODE SPEED CALL POINTER (SEE CTX-7 FORM)
WORD 0 ADDRESS+OCTAL 16= ()	WORD 14 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	<--MTD/GBI TABLE (SEE CTX-8 FORM)
WORD 0 ADDRESS+OCTAL 17= ()	WORD 15 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 20= ()	WORD 16 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 21= ()	WORD 17 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 22= ()	WORD 18 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 23= ()	WORD 19 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 24= ()	WORD 20 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 25= ()	WORD 21 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 26= ()	WORD 22 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 27= ()	WORD 23 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 30= ()	WORD 24 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 31= ()	WORD 25 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 32= ()	WORD 26 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 33= ()	WORD 27 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 34= ()	WORD 28 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 35= ()	WORD 29 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 36= ()	WORD 30 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	
WORD 0 ADDRESS+OCTAL 37= ()	WORD 31 ()	ALTER THIS WORD BY RECENT CHANGE ONLY	

Fig. 18—No. 2 ESS Centrex Group Expansion Change Form to Allocate Spare Program Store