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LY28-1105-2  
File No. S370-36**

**Program Product**

**TSO Extensions (TSO/E)  
Interactive Data  
Transmission Facility  
Logic**

**Program Number 5665-285**



**Third Edition (August 1986)**

This is a major revision of, and obsoletes, LY28-1105. See the Summary of Amendments following the Contents for a summary of the changes made to this book.

This edition applies to TSO Extensions (TSO/E) Release 3, and to all subsequent releases until otherwise indicated in new editions or Technical Newsletters. The previous edition still applies to TSO/E Releases 1, 2, and 2.1 and may be ordered using the temporary order number LT68-1105. Changes are made periodically to the information herein; before using this publication in connection with the operation of IBM systems, consult the latest *IBM System/370 Bibliography*, GC20-0001, for the editions that are applicable and current.

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## Preface

This publication describes the Interactive Data Transmission Facility, which is a part of the TSO/E licensed program. The TSO/E licensed program supports two environments.

1. The MVS/System Product Version 1 environment (Program Numbers 5740-XYN and 5740-XY5).
2. The MVS/Extended Architecture environment (Program Numbers 5740-XC6 and 5665-291).

The Interactive Data Transmission Facility is identical in both environments.

Persons interested in determining the sources of errors within the TSO Extensions (TSO/E) Interactive Data Transmission Facility or in making changes to the internal logic of this facility should read this publication. Readers must be familiar with programming techniques and the operating principles of TSO in MVS.

This publication describes the logic of the TRANSMIT and RECEIVE commands for the Interactive Data Transmission Facility and their relationship to TSO in MVS. It does not replace the information available in the program listings; but it supplements the listings and makes the information in them more accessible.

This publication contains two sections: Section 1, "Introduction" and Section 2, "Module Information."

### **Introduction**

This section describes the general characteristics of the TRANSMIT and RECEIVE commands and the organization of the TSO modules that support the processing of these commands.

### **Module Information**

This section contains a comprehensive processing description of each TSO module. The modules are presented in alphabetical order by module name. Each processing description consists of the following parts:

1. *Function*

A general description of the purpose and function of the module.

2. *Entry Point*

Information that describes the conditions under which the module receives control, such as its callers, the input received, and the output produced.

3. *Exit*

Information that describes the conditions under which the module returns control to its caller.

4. *External References*

The routines and data the module references.

5. *Operation*

A detailed explanation of how the module operates to perform its function.

6. *Diagnostic Information*

Messages that the module issues, return codes that the module sets, and registers that the module uses.

7. *HIPO*

Hierarchical Input Process Output (HIPO) diagram that describes the operation of the module in graphical form.

The following information to help in understanding and trouble-shooting the Interactive Data Transmission Facility is available on microfiche:

- For the MVS/370 Environment:

*Data Areas*, LYB8-1119

*Macro Usage Table*, LYB8-1120

*Symbol Usage Table*, LYB8-1112-0

- For the MVS/XA Environment:

*MVS/Extended Architecture Data Areas*

(For MVS/SP – JES2, LYB8-1191)

(For MVS/SP – JES3, LYB8-1195)

*MVS/Extended Architecture Macro Usage Table*

(For MVS/SP – JES2, LYB8-1193)

(For MVS/SP – JES3, LYB8-1197)

*MVS/Extended Architecture Symbol Usage Table*

(For MVS/SP – JES2 Ver 2., LYB8-1192)

(For MVS/SP – JES3 Ver 2., LYB8-1196)

**Related Publications**

- *TSO Extensions General Information*, GC28-1061

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## **Summary of Amendments**

**Summary of Amendments  
for LY28-1105-2  
TSO Extensions Release 3**

This edition contains the following changes to support TSO/E Release 3:

- The text of several messages has been updated.
- New messages have been added.
- The timestamp for RECEIVE has been expanded to contain seconds.
- Added capability to receive Professional Office Systems (PROFS).

Minor technical corrections have also been made in the book.

**Summary of Amendments  
for LY28-1105-1  
as Updated May 13, 1983  
by Technical Newsletter Letter LN28-0820**

This technical newsletter reflects the changes for packaging TSO/E as a licensed program (Program Number 5665-285) that applies to both MVS/System Product Version 1 and MVS/System Product Version 2.

## **Section 1. Introduction**

The TRANSMIT and RECEIVE commands enable users to send data to each other. For each command, there is a separate TSO command processor. The transfer of data among nodes is not accomplished by the command processors. The command processors ready the data for transmission and reception, while other MVS components handle the actual transmission over the network.

Figure 1-1 shows the relationship of the TRANSMIT and RECEIVE command processors to other TSO routines, and to the MVS components involved in the data transfer. The general sequence of events is as follows:

1. Someone at a terminal enters a TRANSMIT command with a data set name, the receiver's userid, and the receiver's node name. (A "nickname" that has been previously defined in a control data set can be substituted for the receiver's userid and node name.)
2. The TSO terminal monitor program (TMP) reads the TRANSMIT command and attaches the TRANSMIT command processor.
3. The TRANSMIT command processor formats the sender's data for transmission, adds control data, and stores the results in a SYSOUT data set on the spool device.
4. A job entry subsystem (JES2 or JES3) routes the data to the receiver's node using communication lines or channel-to-channel (CTC) adapters. (JES automatically routes data to the final destination node, passing the data through intermediate nodes when necessary.)
5. At the final destination node, JES stores the data on a spool device. The data remains on the spool device until the intended receiver at the node enters a RECEIVE command for the data. (The operator can use an authorized form of the RECEIVE command to receive the data.)
6. When a RECEIVE command is entered, it is read by the TSO terminal monitor program, which attaches the RECEIVE command processor.
7. The RECEIVE command processor displays to the receiver a data set name, the sender's userid, and the sender's node name. It prompts the receiver for the name of a data set into which it can place the data.
8. The RECEIVE command processor retrieves the data from the spool device using a system macro instruction, SSREQ, to direct the JES external writer program to retrieve the data.

(The RECEIVE command processor and the JES external writer program are in separate address spaces; the SSREQ macro instruction is their means of communication.)

9. The RECEIVE command processor restores the data to its original format and writes it to the receiver's data set. The receiver can now access the data.

The data can be in a sequential or partitioned data set, with a record format of fixed (F), fixed blocked (FB), fixed blocked sequential (FBS), variable (V), variable blocked (VB), variable blocked sequential (VBS), or unblocked (U). Transmitted data sets cannot have keys, nor can they be indexed sequential access method (ISAM) or virtual sequential access method (VSAM) data sets.

If the Access Method Services (AMS) Cryptographic Option is installed, the TSO TRANSMIT command processor encrypts data, and the RECEIVE command processor decrypts data.

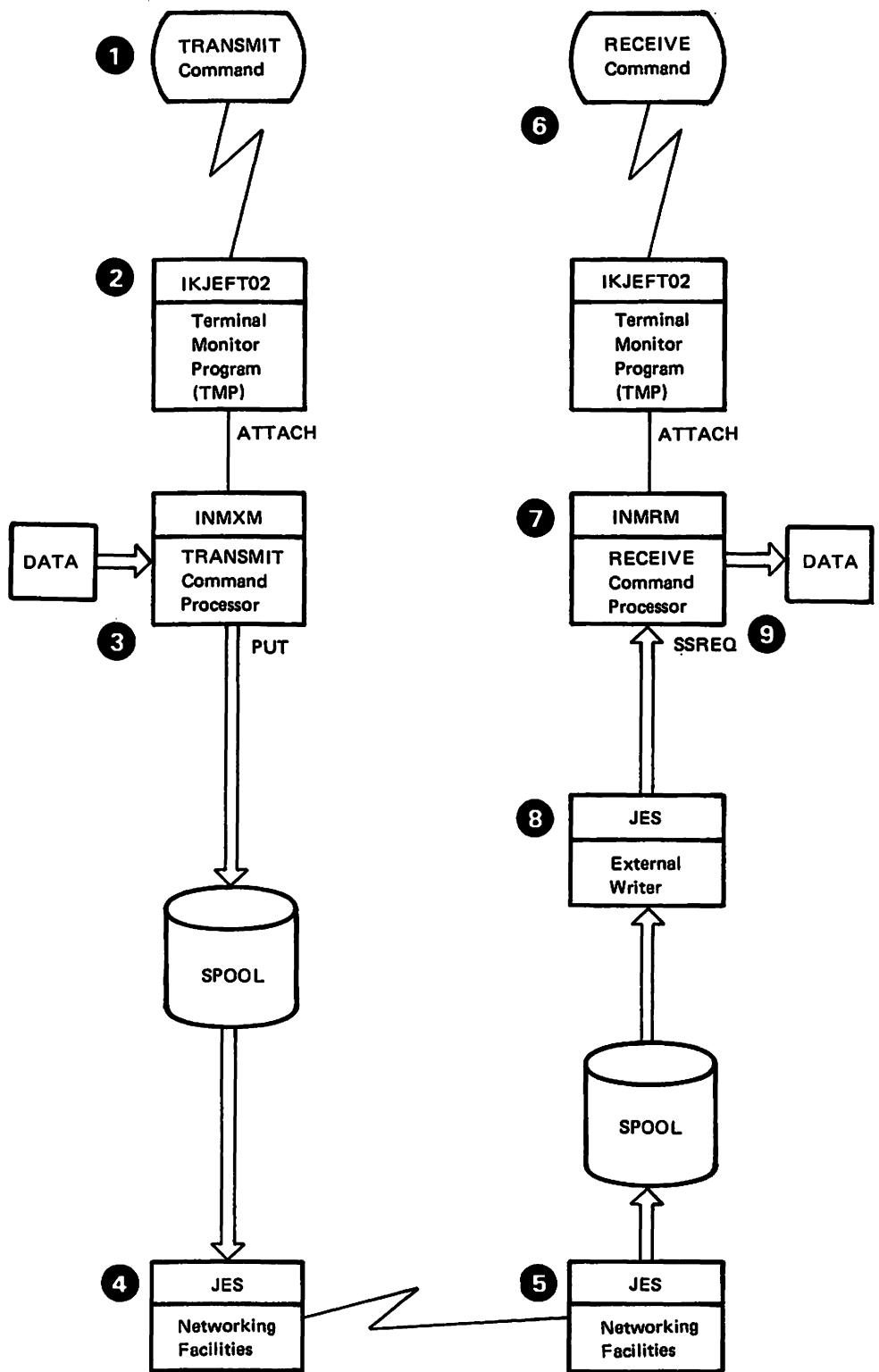


Figure 1. Overview – TRANSMIT and RECEIVE Commands

## **Section 2. Module Information**

The major routines of the TRANSMIT and RECEIVE command processors are shown in Figures 2 and 3, respectively. Use these as a guide to diagrams of individual modules shown in the remainder of this section.

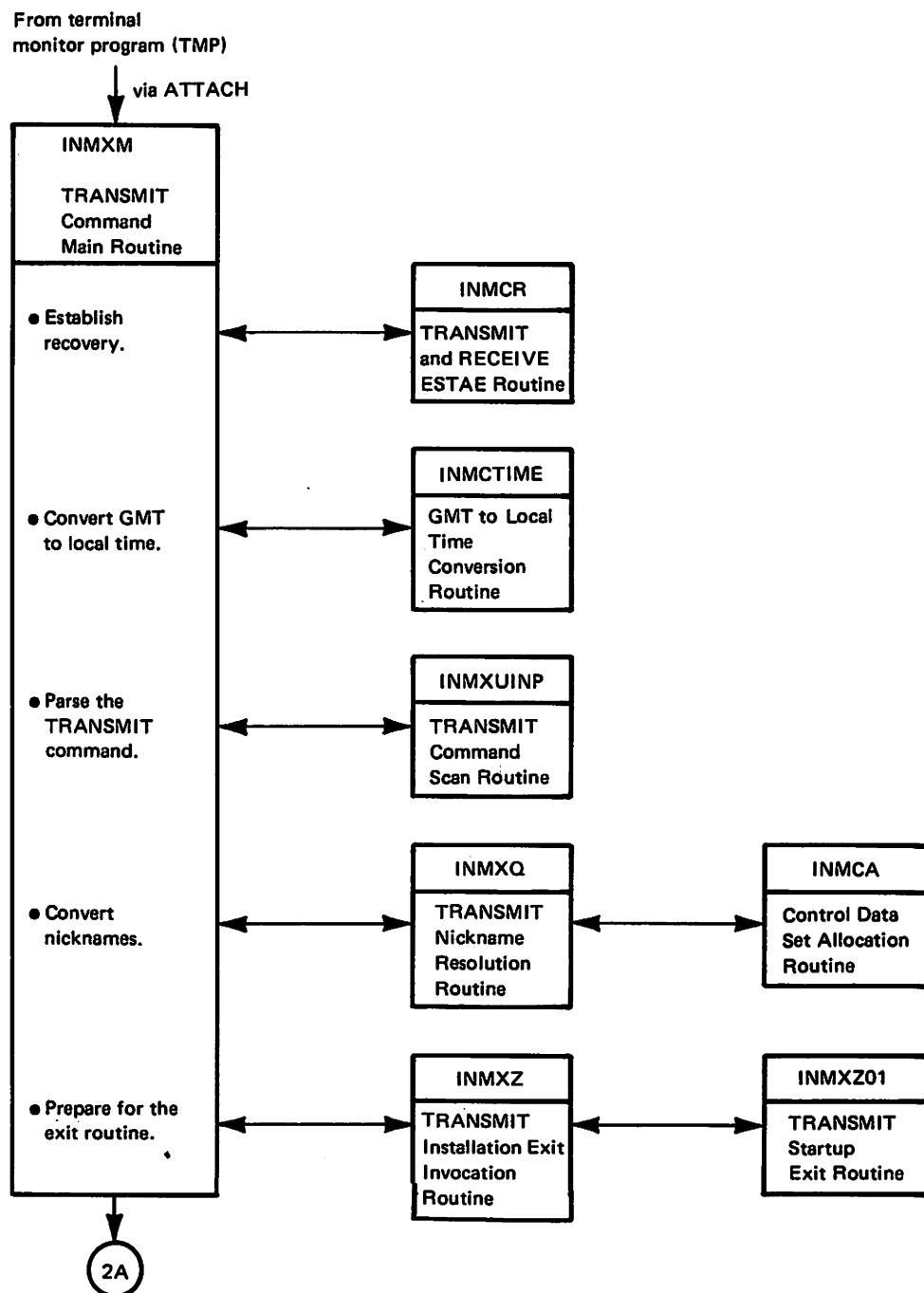


Figure 2. TRANSMIT Command Processor (Part 1 of 4)

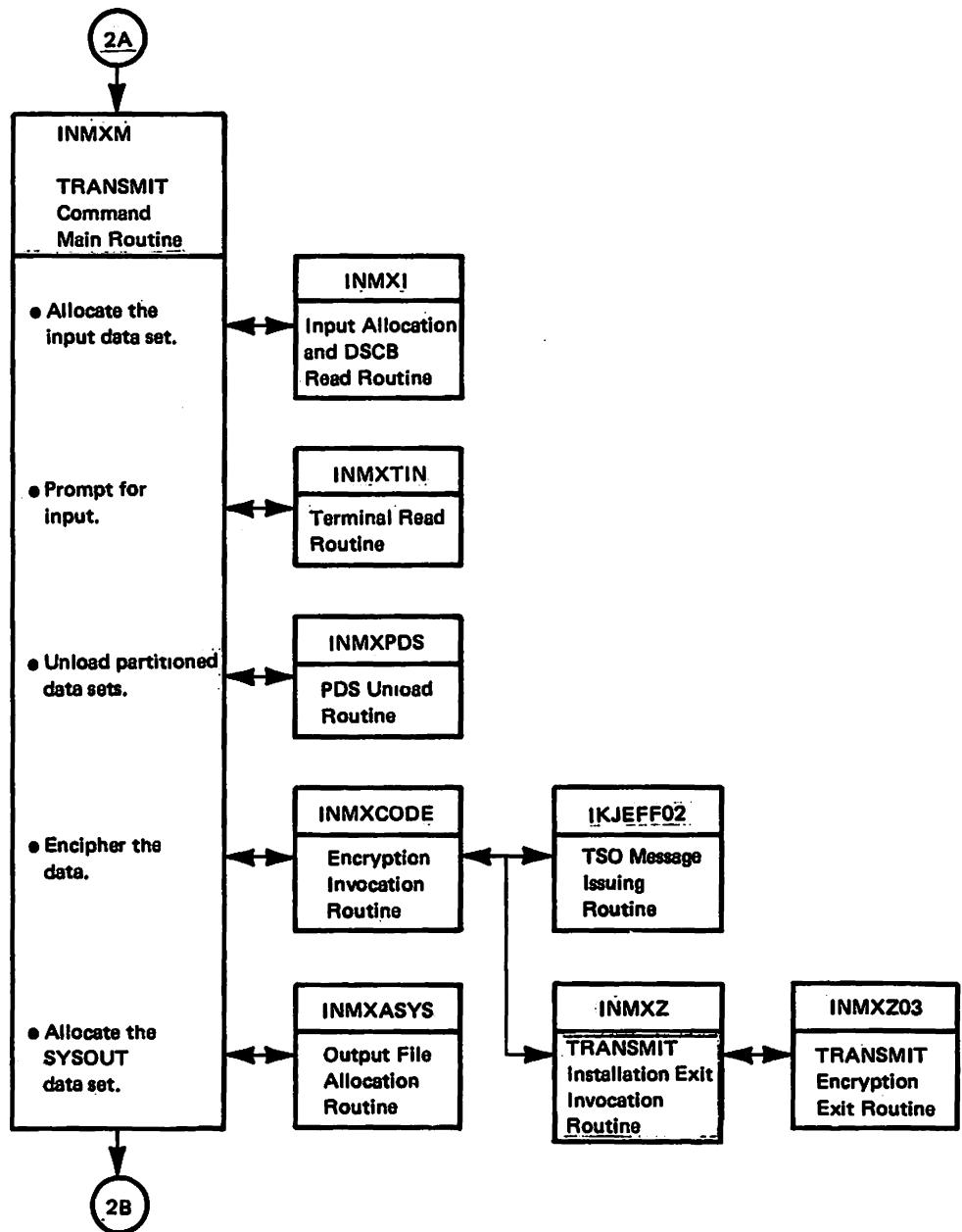


Figure 2. TRANSMIT Command Processor (Part 2 of 4)

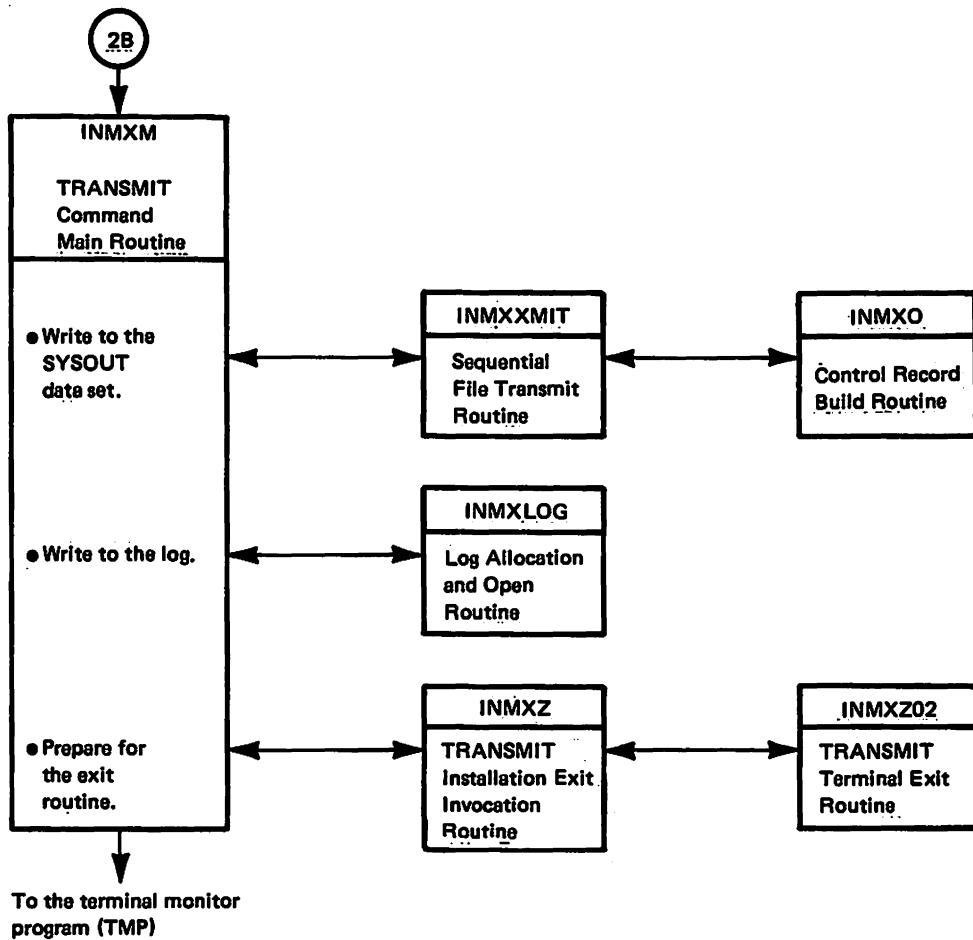


Figure 2. TRANSMIT Command Processor (Part 3 of 4)

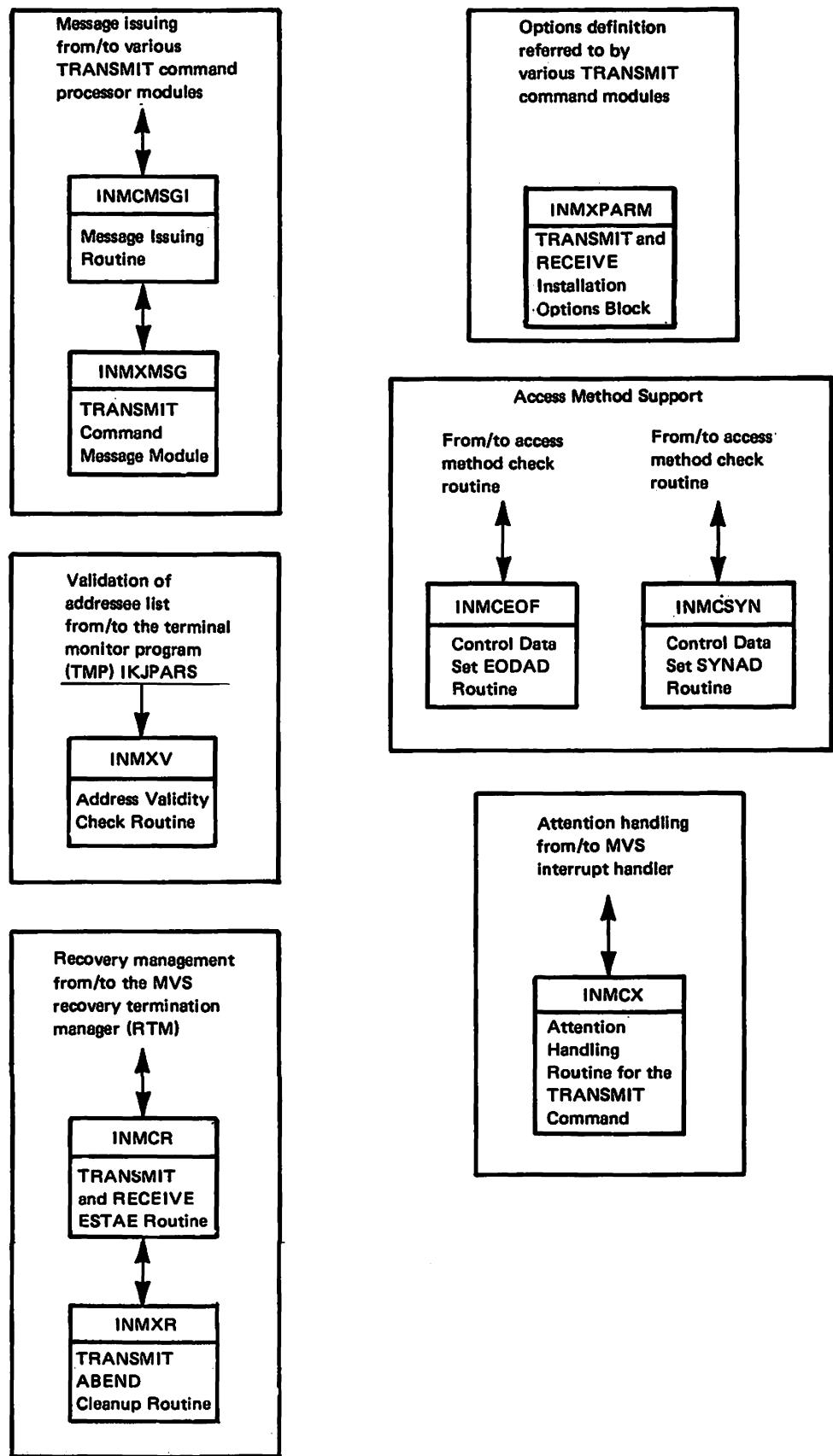


Figure 2. TRANSMIT Command Processor (Part 4 of 4)

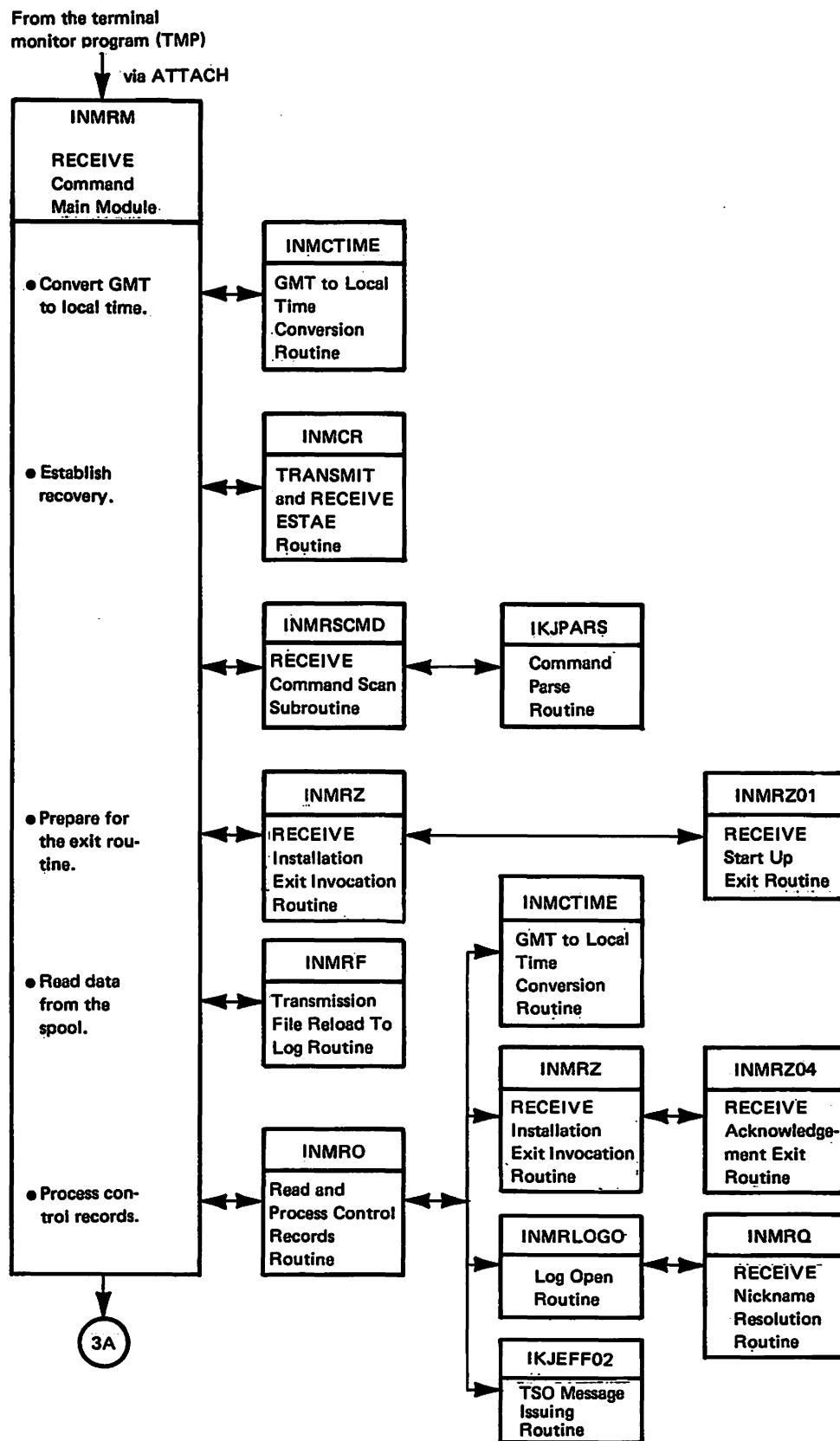
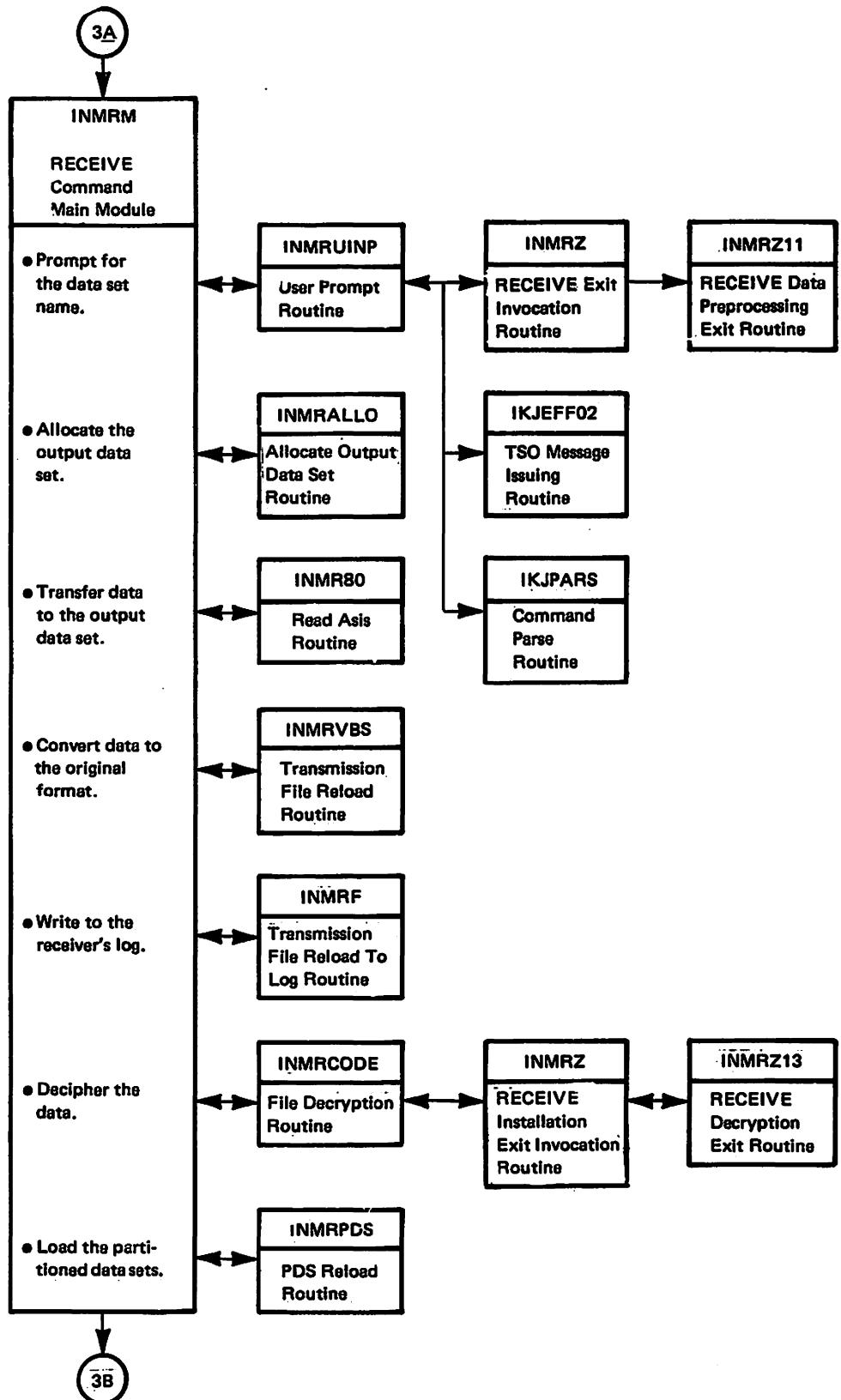


Figure 3. RECEIVE Command Processor (Part 1 of 4)



**Figure 3. RECEIVE Command Processor (Part 2 of 4)**

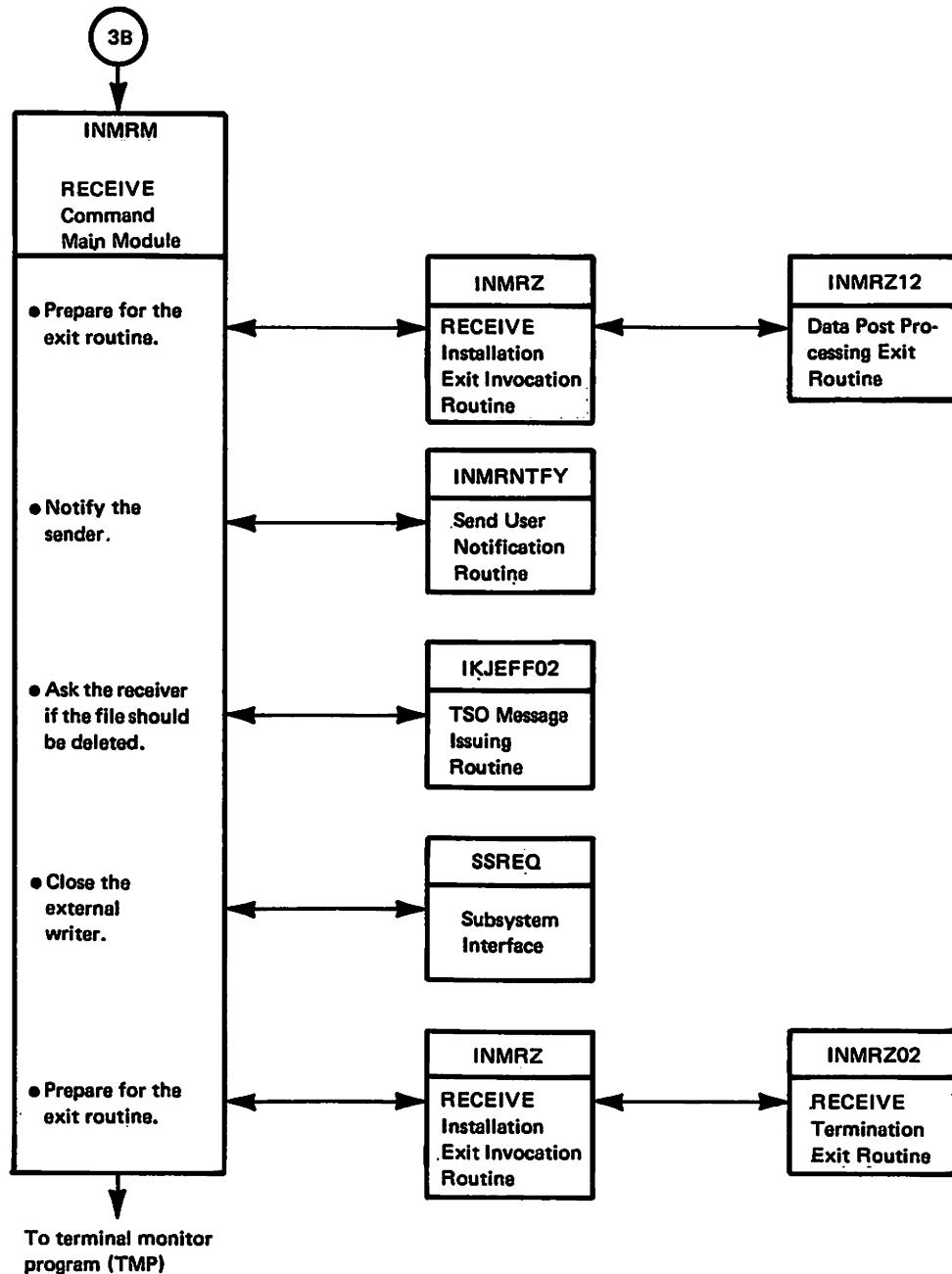


Figure 3. RECEIVE Command Processor (Part 3 of 4)

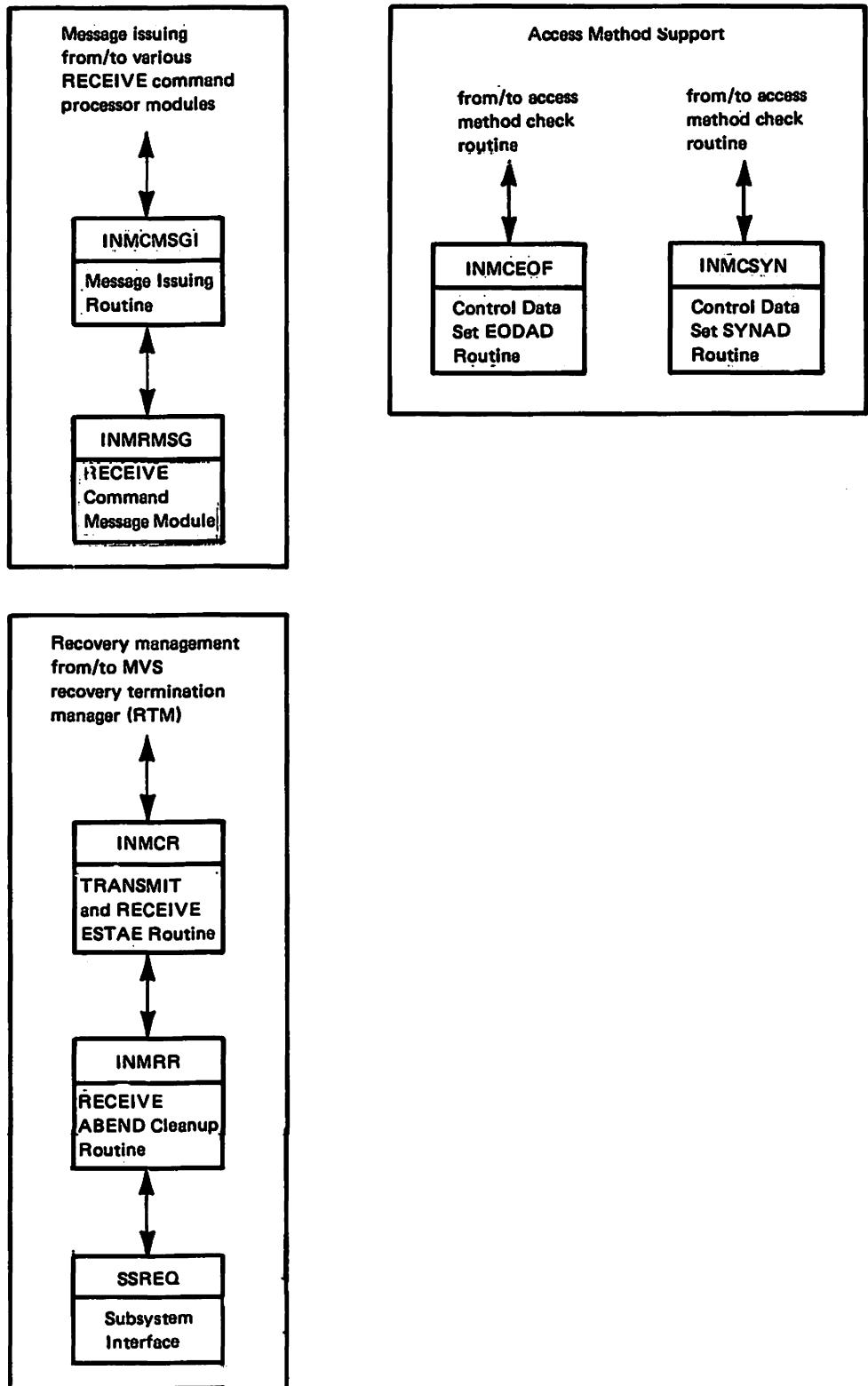


Figure 3. RECEIVE Command Processor (Part 4 of 4)

## INMCA - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Control Data Set Allocation Routine

#### FUNCTION:

INMCA initializes the control (NAMES) data set.  
It invokes dynamic allocation and then issues  
OPEN for the requested data set.

#### ENTRY POINT: INMCA

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRQ, INMXQ

#### INPUT:

All input is taken from the common parameter  
structure (INMCCOM). The following fields are used:

DS#       Entry number of the data set to be  
              initialized  
CTLDSN     Name of the NAMES data set

#### OUTPUT:

The NND pointer stored in the CTLNND field of the  
INMCCOM. The initialized NND contains the DCB  
for the data set.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine

##### DATA AREAS:

INMCCOM - Common parameter structure  
NND       - Control (NAMES) data set

CONTROL BLOCKS: IEFZB4D0, IEFZB4D2, DCB

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#### **INMCA - MODULE OPERATION**

INMXQ and INMRQ invoke INMCA during control (NAMES) data set processing. INMCA is invoked once for each NAMES data set to be processed. INMCA invokes dynamic allocation (SVC99) to allocate the data set and then issues an OPEN for the data set. INMCA checks allocation and OPEN processing for errors and checks the data set's DCB for a valid data set organization and record length. For successfully accessed data sets, INMCA acquires an NND via GETMAIN and initializes it with information about the data set.

**INMCA - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMCA**

**MESSAGES:**

INMC001I NAMES DATASET dsname IS NOT USABLE.  
INMC002I AN ERROR OCCURRED DURING ALLOCATION.  
INMC003I OPEN FAILED FOR THE DATASET.  
INMC004I LOGICAL RECORD LENGTH MAY NOT BE GREATER  
THAN 255.

**ABEND CODES: None**

**WAIT STATE CODES: None**

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15  
0 -- Data set is open and available.  
4 -- Data set is not open, no message issued.  
8 -- Data set is not open, message issued.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

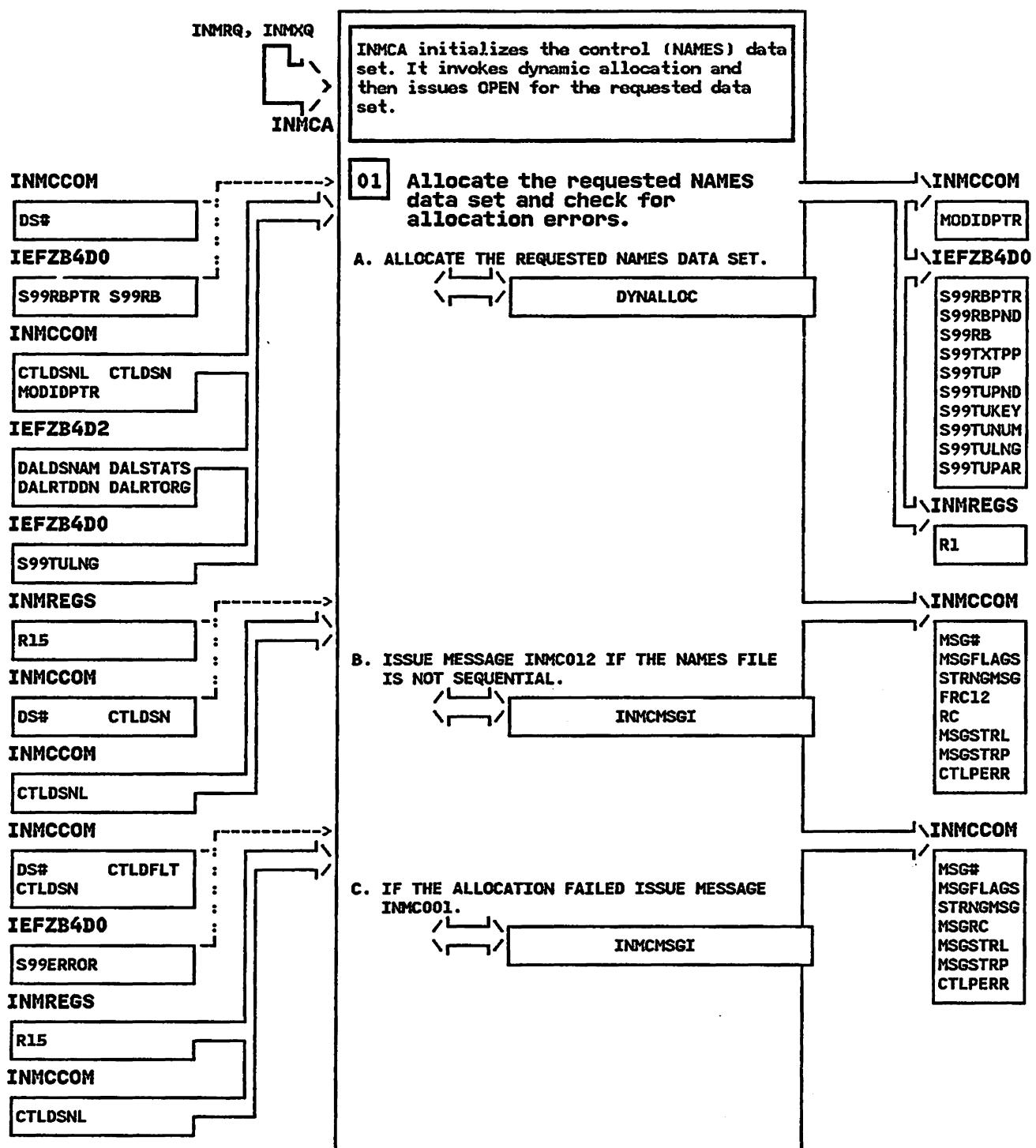
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Return code  
Other - Unchanged

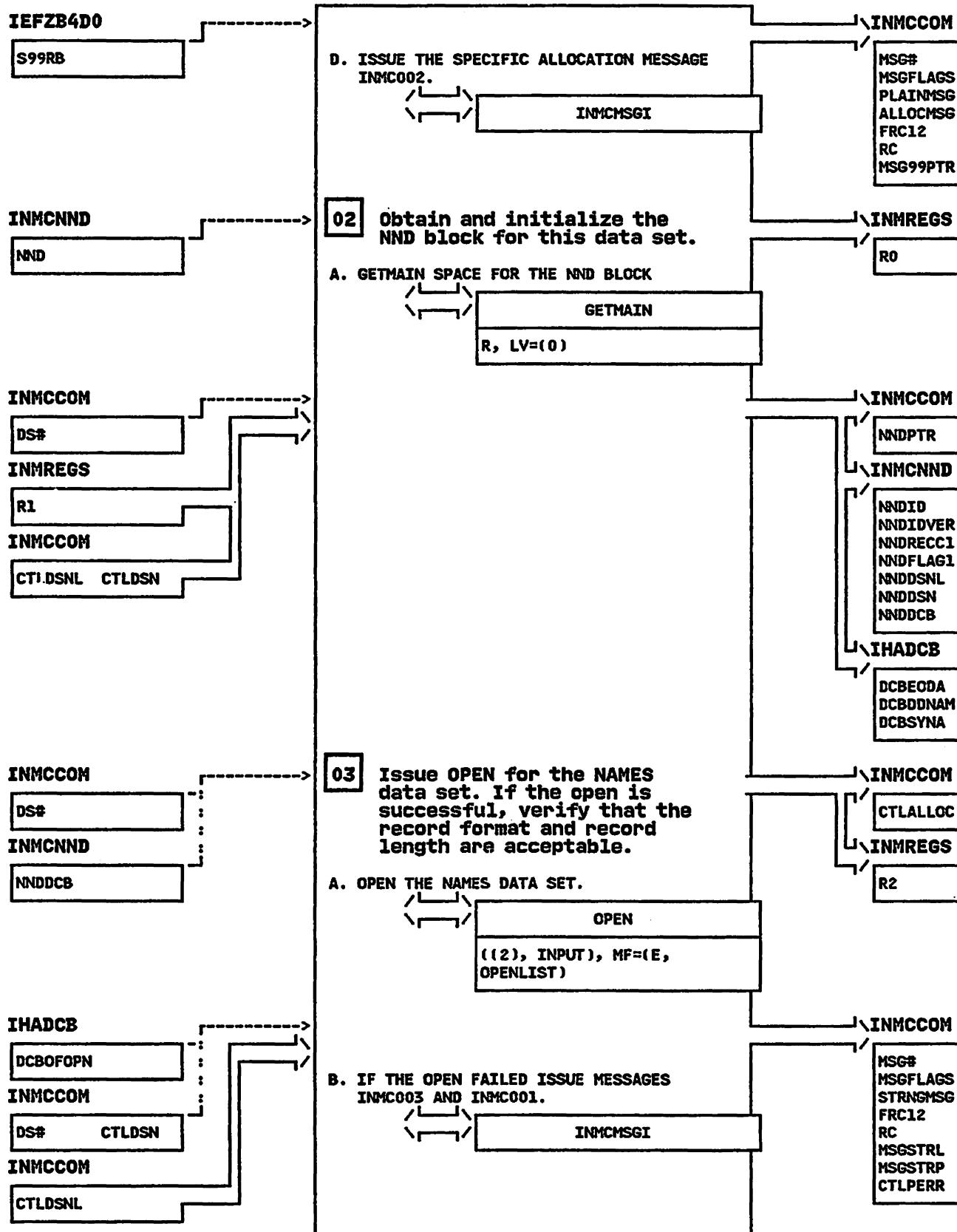
INMCA - Control Data Set Allocation Routine

STEP 01



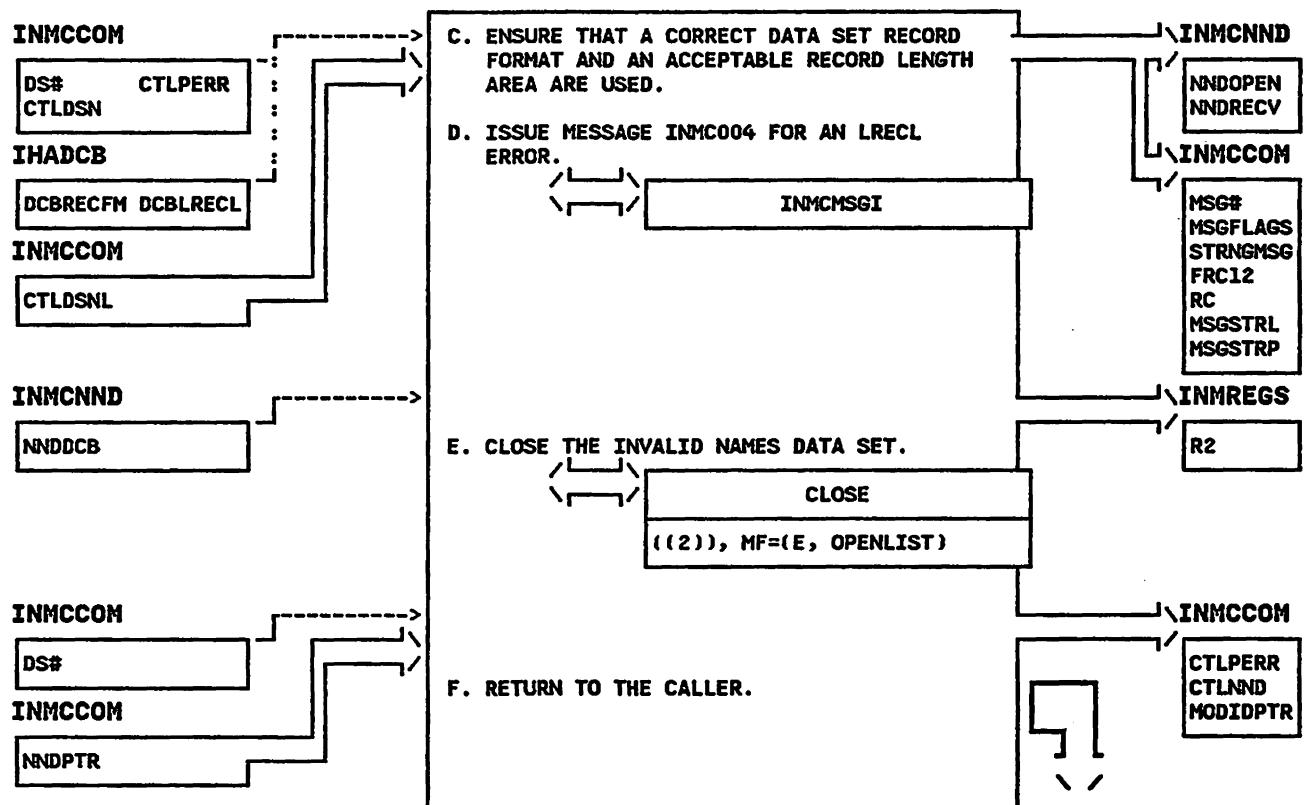
INMCA - Control Data Set Allocation Routine

STEP 01D



INMCA - Control Data Set Allocation Routine

STEP 03C



## INMCEOF - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Control Data Set EODAD Routine

**FUNCTION:**

When end-of-file occurs on the names data set,  
INMCEOF sets the NNDEOF flag and returns to the  
mainline module, which will take appropriate  
action.

**ENTRY POINT:** INMCEOF

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** Access method CHECK routine

**INPUT:** Address of the NND in register 9

**OUTPUT:** End-of-file bit set in the NND

**EXIT NORMAL:**

BR 14 return to the instruction following  
the CHECK.

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**DATA AREAS:**

INMCCOM - Common parameter structure  
INMCNND - Control data set blocks

**CONTROL BLOCKS:** None

**INMCEOF - Control Data Set EODAD Routine**

Access method CHECK routine



When end-of-file occurs on the names data set, INMCEOF sets the NNDEOF flag and returns to the mainline module, which will take appropriate action.

## INMCMMSGI - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Message Issuing Routine

#### FUNCTION:

INMCMMSGI issues messages for the TRANSMIT and RECEIVE commands. Calling routines use the INMMMSG macro to complete INMCMMSGI parameters in the INMCCOM common parameter structure. INMCMMSGI also controls invoking IKJEFF18 for allocation messages and IKJEFF19 for subsystem and IKJPARS error messages.

#### ENTRY POINT: INMCMMSGI

PURPOSE: See FUNCTION

LINKAGE: ?INMMMSG

CALLERS: TRANSMIT and RECEIVE modules

#### INPUT:

All input is provided via the common parameter structure INMCCOM.

OUTPUT: Message is sent to the user.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine  
IKJEFF19 - Subsystem interface message routine

The following is invoked via LINK:  
IKJEFF18 - Allocation message routine

##### DATA AREAS:

INMCCOM - Common parameter structure  
NND - Control data set block

CONTROL BLOCKS: CVT, CPPL, IKJEFFDF, IKJEFFGF, IKJEFFMT

**INMCMMSGI - MODULE OPERATION**

**INMCMMSGI checks bits in the INMCCOM and builds the appropriate type of call to IKJEFF02. If requested, INMCMMSGI also invokes IKJEFF18 to build and issue allocation error messages or invoke IKJEFF19 for subsystem or IKJPARS error messages. If both a normal message and a secondary routine call are requested, INMCMMSGI issues the normal message first and then calls IKJEFF19 or IKJEFF18.**

**INMCMMSGI - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMCMMSGI

**MESSAGES:**

INMC006I DSNAME='dsname', RECORD NUMBER=nn,  
RECORD TEXT:  
Provides information identifying the location  
of syntax errors in the NAMES datasets.  
INMC007I record text  
The text of a NAMES dataset record in which  
an error was detected.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

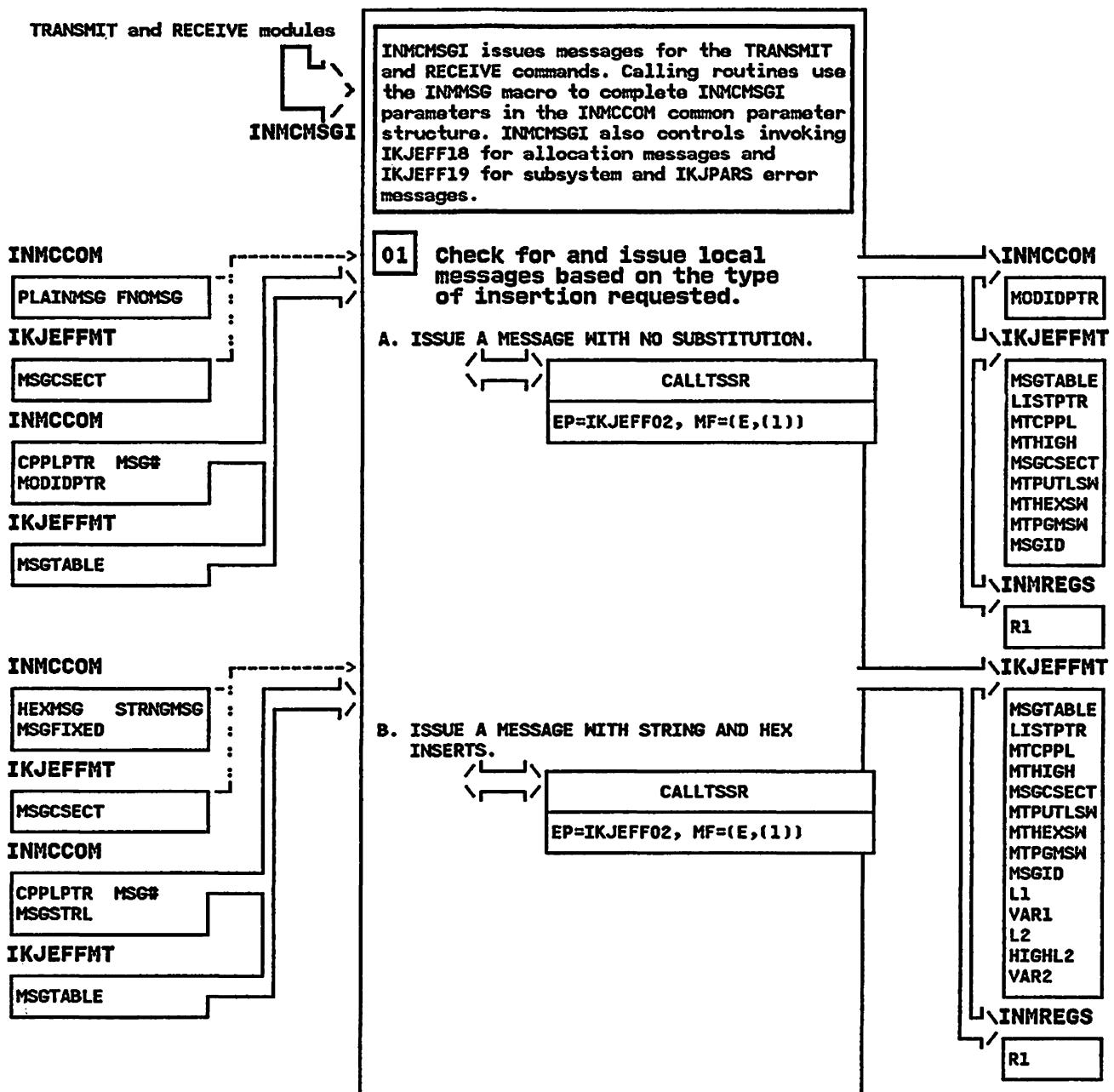
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

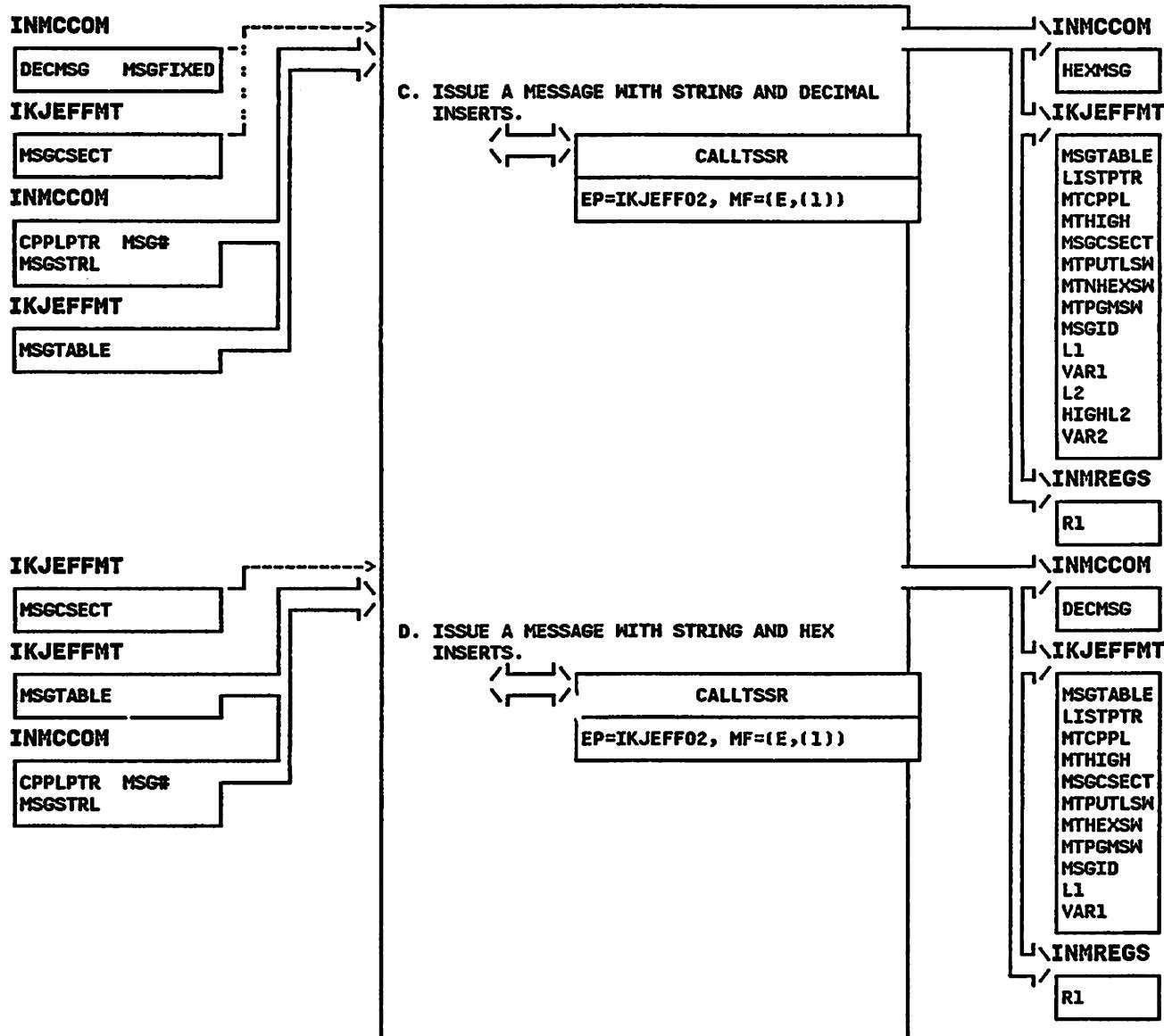
## INMCMMSGI - Message Issuing Routine

STEP 01



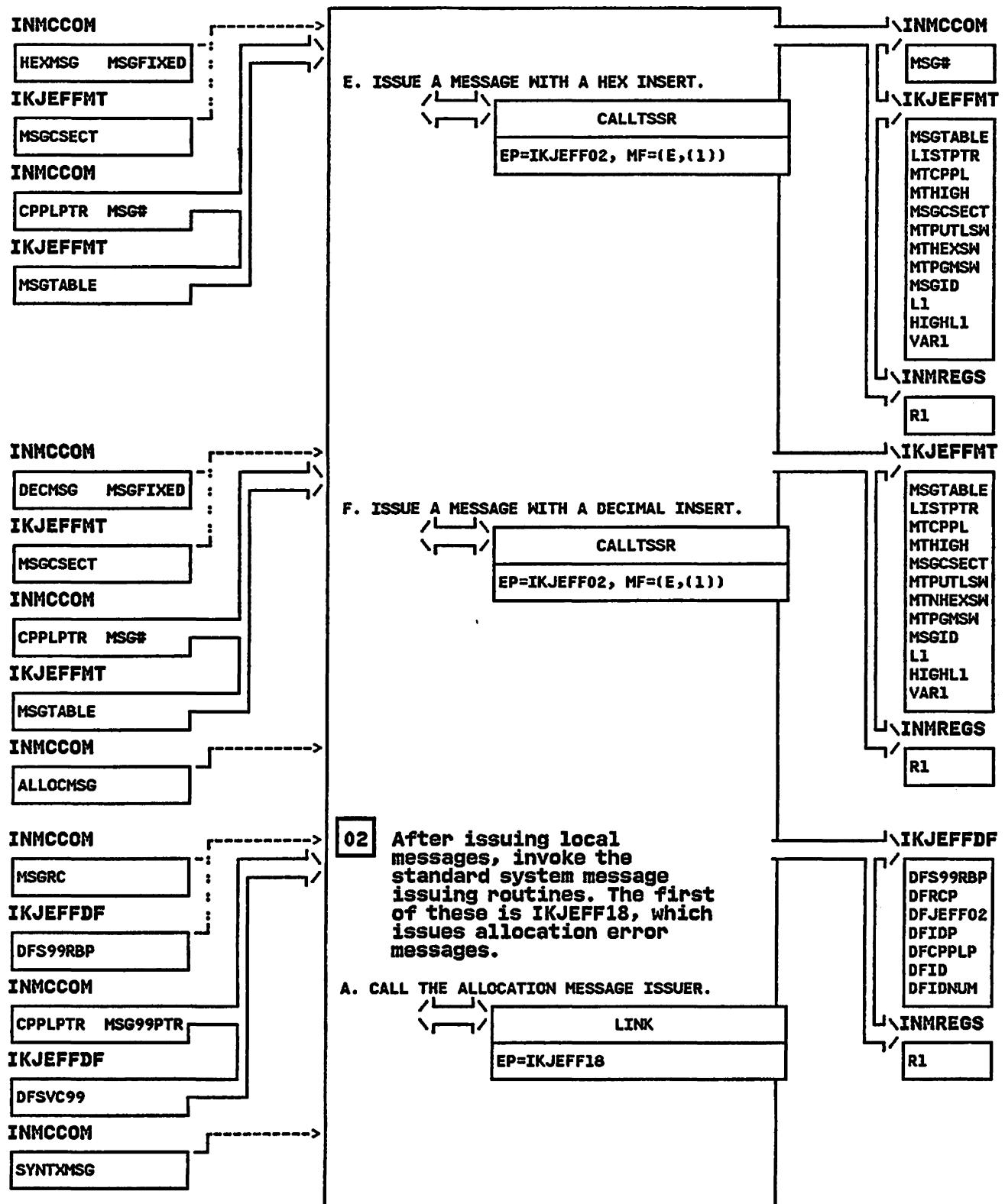
INMCMMSGI - Message Issuing Routine

STEP 01C



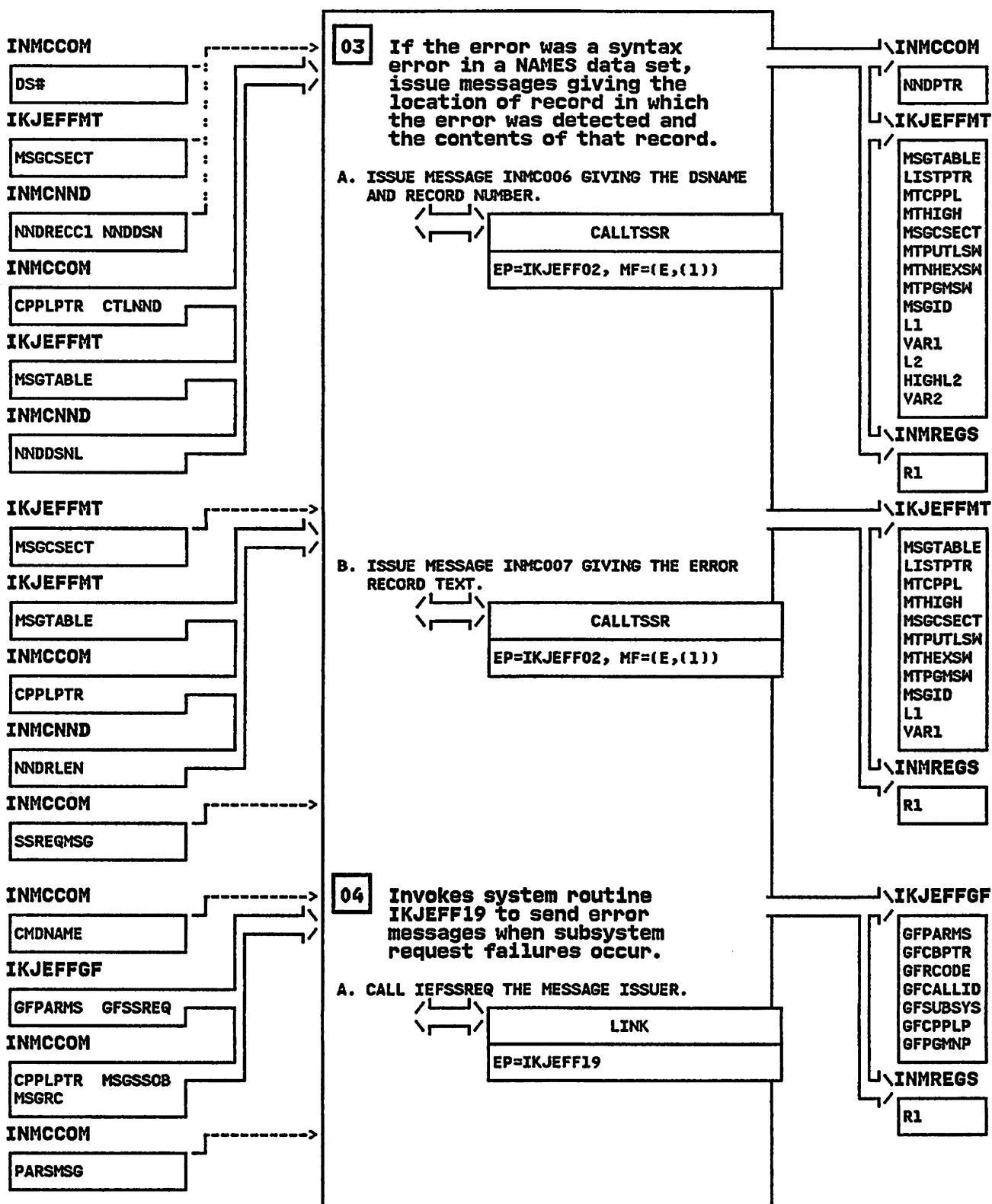
**INMCMMSGI - Message Issuing Routine**

**STEP 01E**



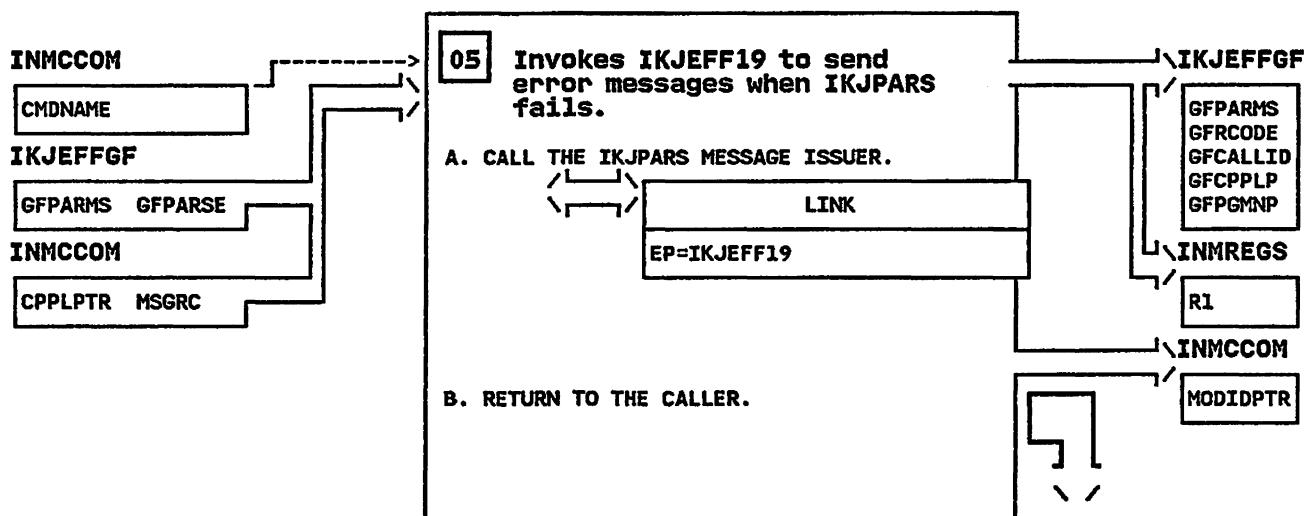
**INMCMSGI - Message Issuing Routine**

**STEP 03**



INMCMMSGI - Message Issuing Routine

STEP 05



## INMCR - MODULE DESCRIPTION

### DESCRIPTIVE NAME: TRANSMIT and RECEIVE ESTAE routine

#### FUNCTION:

INMCR consists of two sections. The first, uses GETMAIN to obtain a storage area and then issues ESATE to set up the recovery environment. The second section is the ESTAE exit routine. The ESTAE exit routine takes a system dump if required and invokes either INMXR or INMRR for cleanup activities.

#### ENTRY POINT: INMCR

PURPOSE: See FUNCTION

LINKAGE: SYNCH from RTM

CALLERS: RTM

#### INPUT:

User parameter passed via the SDWA is the address of INMCCOM. THE following fields are used:

CMDABEND Save area for ABEND code  
CMDRETRY Address of cleanup routine

OUTPUT: ABEND code is saved in CMDABEND.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

INMXR - TRANSMIT ABEND cleanup routine  
INMRR - RECEIVE ABEND cleanup routine

##### DATA AREAS:

INMCCOM - Common parameter structure  
SDWA - System Diagnostic Work Area

CONTROL BLOCKS: SDWA, VRA

#### **INMCR - MODULE OPERATION**

INMCR obtains a storage area to be used both at setup time and by the ESTAE exit routine. It then issues ESTAE to set up the recovery environment before returning to the caller. If an ABEND occurs, control is passed to the INMCRX entry point by the recovery termination manager (RTM). INMCRX checks for the VRA fields, it then determines if a system dump should be taken by comparing the actual abend code against a list of codes for which a dump should not be taken. If a dump is needed, INMCRX builds the dump title and uses SDUMP to take the dump. If an SDWA was built, either INMXR or INMRR is invoked to perform cleanup and control is returned to RTM.

**INMCR - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMCR

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in register 15

0 - termination should continue

**REGISTER CONTENTS ON ENTRY:**

As described for ESTAE routines

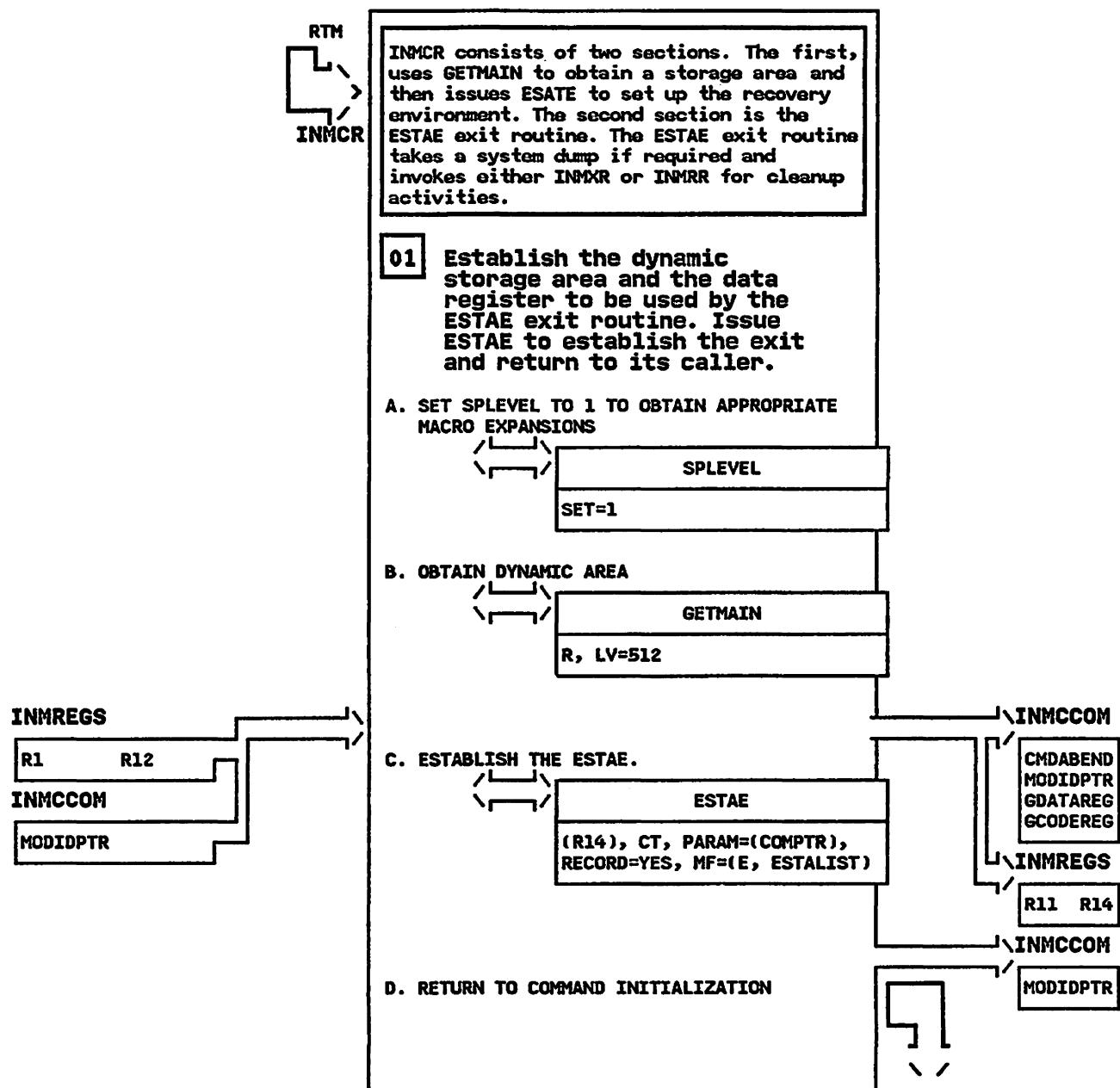
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 14 - Return address  
Register 15 - Return code

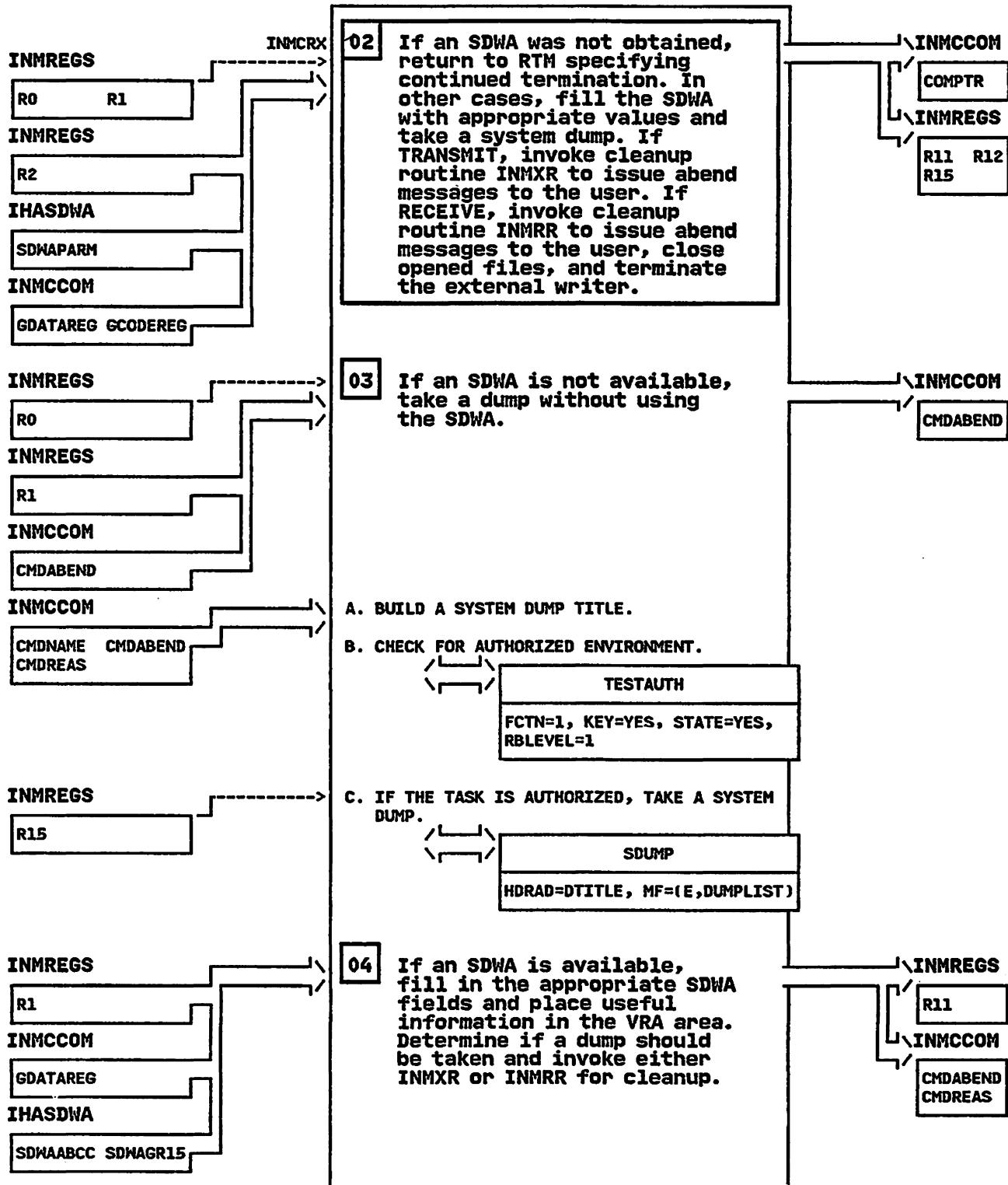
INMCR - TRANSMIT and RECEIVE ESTAE routine

STEP 01



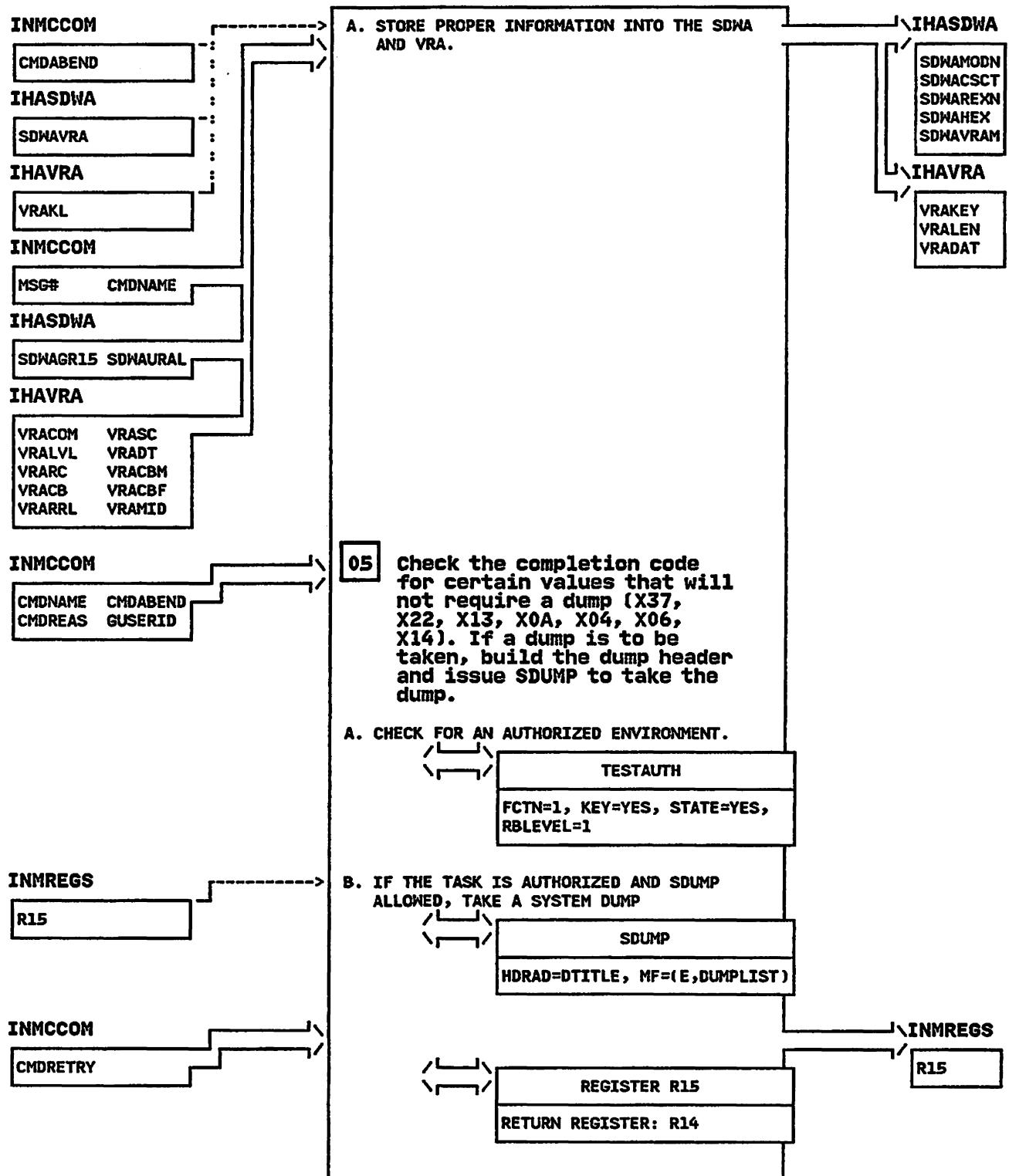
INMCR - TRANSMIT and RECEIVE ESTAE routine

STEP 02



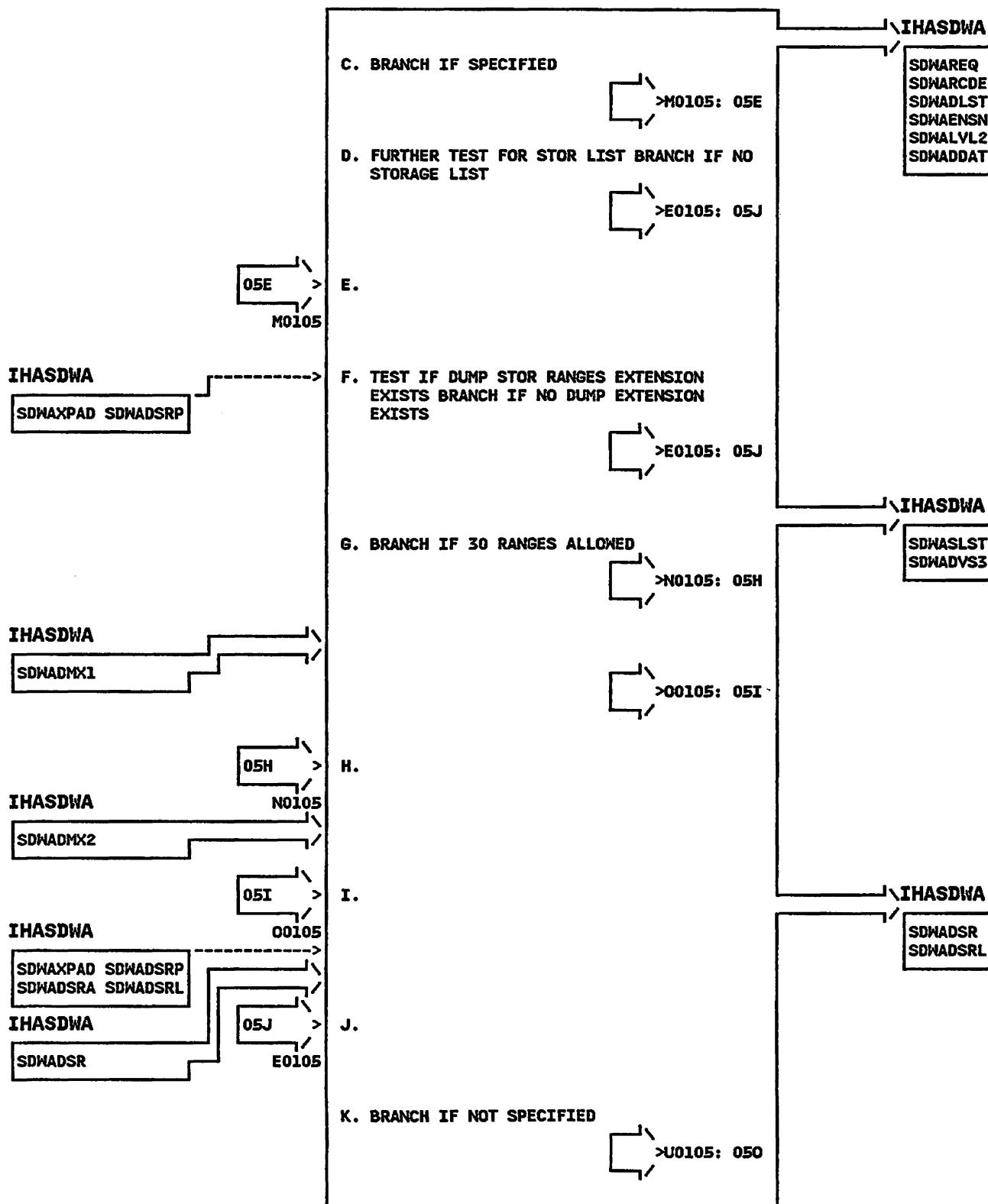
INMCR - TRANSMIT and RECEIVE ESTAE routine

STEP 04A



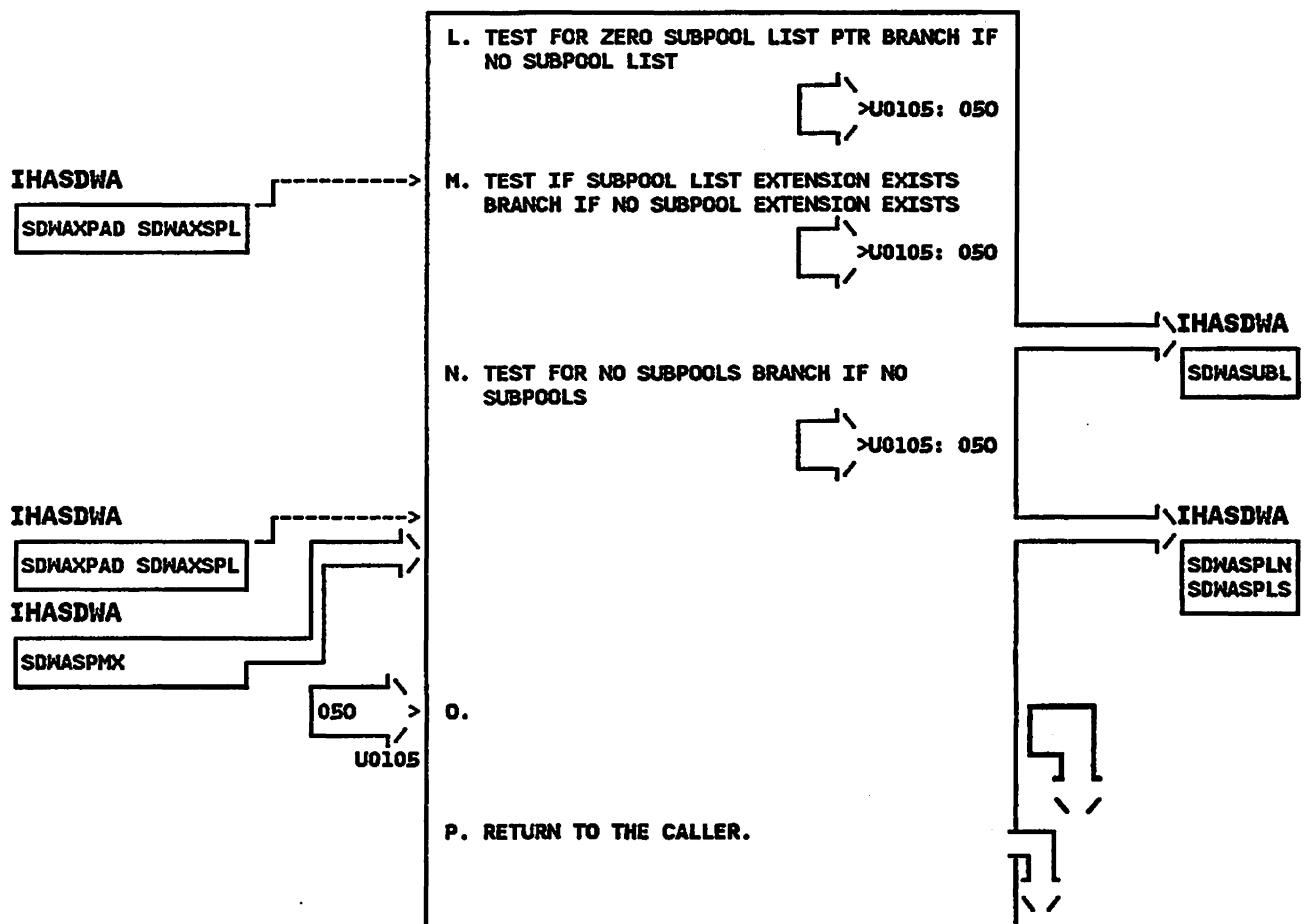
INMCR - TRANSMIT and RECEIVE ESTAE routine

STEP 05C



INMCR - TRANSMIT and RECEIVE ESTAE routine

STEP 05L



**MODULE DESCRIPTION:**

**INMCSPAC - TRANSMIT and RECEIVE Command Storage Management Routine**

**FUNCTION:**

The INMCSPAC routine is invoked by the TRANSMIT and RECEIVE commands as part of their normal entry and exit linkage in order to obtain and release working storage used during program execution.

**ENTRY-POINT:**

GSPACE - Returns the required storage  
FSPACE - Frees the required storage  
GSPACE1 - Resume after obtaining the required storage

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** TRANSMIT and RECEIVE CSECTS

**INPUT:** See REGISTERS above

**OUTPUT:** See REGISTERS above

**EXIT-NORMAL:** BR 14 Return to caller

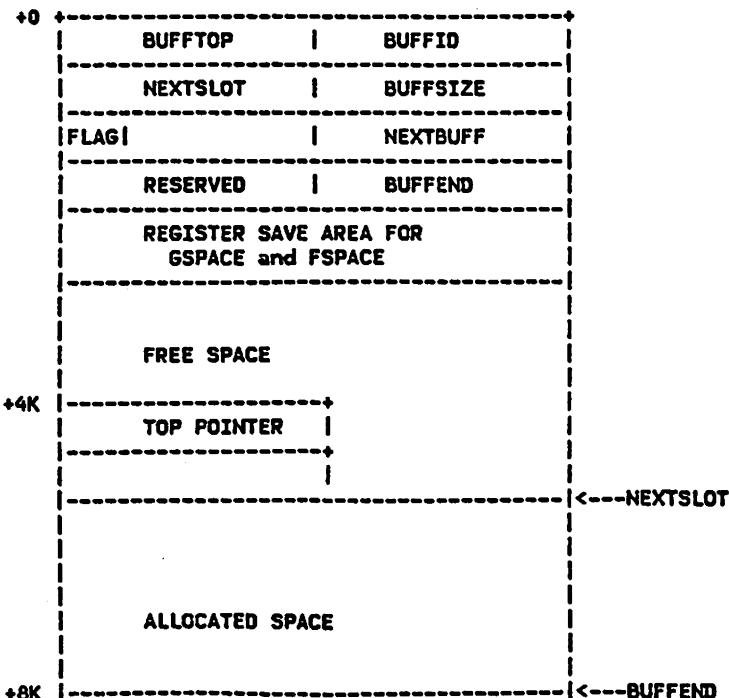
**EXIT-ERROR:**

**EXTERNAL-REFERENCES:**

**ROUTINES:** None

**DATA-AREAS:**

Data structure maintained by INMCSPAC:



**CONTROL-BLOCKS:** None

**MODULE OPERATION: INMCSPAC**

INMCSPAC obtains buffers of storage and then subdivides the storage between calling modules in order to avoid issuing GETMAIN and FREEMAIN SVC requests as part of the normal entry and exit linkage. INMCSPAC provides the caller with the ability to obtain storage for automatic variables and save areas. The use of INMCSPAC is restricted to LIFO allocation (last allocated is the first freed) requests.

**DIAGNOSTIC AIDS: INMCSPAC**

**ENTRY-POINT NAME: GSPACE**

**MESSAGES: None**

**ABEND CODES: None**

**WAIT-STATE CODES: None**

**RETURN CODES: None**

**REGISTER CONTENTS ON ENTRY:**

**ENTRY POINT GSPACE:**

Register 1 - Address of command processor  
                  parameter list (CPPL)  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**ENTRY POINT GSPACE:**

**EXIT NORMAL:**

See REGISTERS above

**INMCSYN - MODULE DESCRIPTION**

**DESCRIPTIVE NAME: Control Data Set SYNAD Routine**

**FUNCTION:**

INMCSYN processes synchronous I/O errors on the NAMES data sets. It receives control from the QSAM check function when an error is detected. INMCSYN uses the SYNAD macro to obtain the standard error text for the problem, issues a message identifying the name of the dataset in error, and issues a message containing the SYNAD text.

**ENTRY POINT: INMCSYN**

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL (from QSAM error processing)

**CALLERS:** Access method CHECK routine

**INPUT:** Address of INMCCOM in register 8

**OUTPUT:** I/O error bit set

**EXIT NORMAL:** BR 14 Return to instruction following GET

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMSSI - Message issuing routine

**DATA AREAS:**

INMNND - Control data set block  
INMCCOM - Common parameter structure

**CONTROL BLOCKS:** None

## INMCSYN - MODULE OPERATION

INMCSYN receives control from the QSAM error checking routine when an error is encountered while processing one of the user's NAMES data sets. INMCSYN uses the SYNAD function to get the standard system text for the error. Next, INMCSYN uses GETMAIN to obtain space for a save area to be used during calls to INMCMSGI, which will issue the error messages. The first message issued indicates a NAMES data set error and gives the name of the data set. The second gives the standard system error text. INMCMSGI finally frees its save area, uses SYNADRLS to clean up after the SYNAD, and returns to QSAM.

**INMCSYN - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMCSYN

**MESSAGES:**

INMC001 THE NAMES DATASET 'dsname' IS NOT USABLE  
INMC008 A PERMANENT I/O ERROR OCCURRED AFTER RECORD  
NUMBER nn +  
INMC009 system I/O error text

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:** None

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Unchanged

**INMCSYN - Control Data Set SYNAD Routine**

Access method CHECK routine



INMCSYN

INMCSYN processes synchronous I/O errors on the NAMES data sets. It receives control from the QSAM check function when an error is detected. INMCSYN uses the SYNAD macro to obtain the standard error text for the problem, issues a message identifying the name of the dataset in error, and issues a message containing the SYNAD text.

**INMCTIME - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** GMT To Local Time Conversion Routine

**FUNCTION:**

INMCTIME converts Greenwich Mean Time (GMT) to local time. INMCTIME uses the CVTTZ value to provide the difference between GMT and local time.

**ENTRY POINT:** INMCTIME

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMMX, INMRO

**INPUT:** 14-character GMT value

**OUTPUT:** 14-character local time value

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:** See below

**ROUTINES:**

The following are invoked via PLS call:  
INMCMMSGI - Message issuing routine

**CONTROL BLOCKS:** CVT

## INMCTIME - MODULE OPERATION

INMCTIME converts time values from GMT to local time. Two parameters are passed to this routine: TIME1, which is the GMT, and TIME2, which is the area for the local time. Both time values are assumed to be 14 characters long and have the standard transmission time format of YYYYMMDDHHMMSS. The conversion factor for getting local time from GMT is obtained from the CVTTZ value. CVTTZ is in units of 1.048576 seconds and is first converted to units of 1 second by the two factors MULTF and DIVF. There is some probability of round-off error in this process, so INMCTIME makes a test for zero seconds and rounds up the time difference if it is close to a minute boundary.

**INMCTIME - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMCTIME**

**MESSAGES:**

**INMR007I** Time stamp in the incoming data is not valid. Zero will be substituted.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15  
0 -- Data set open and available

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

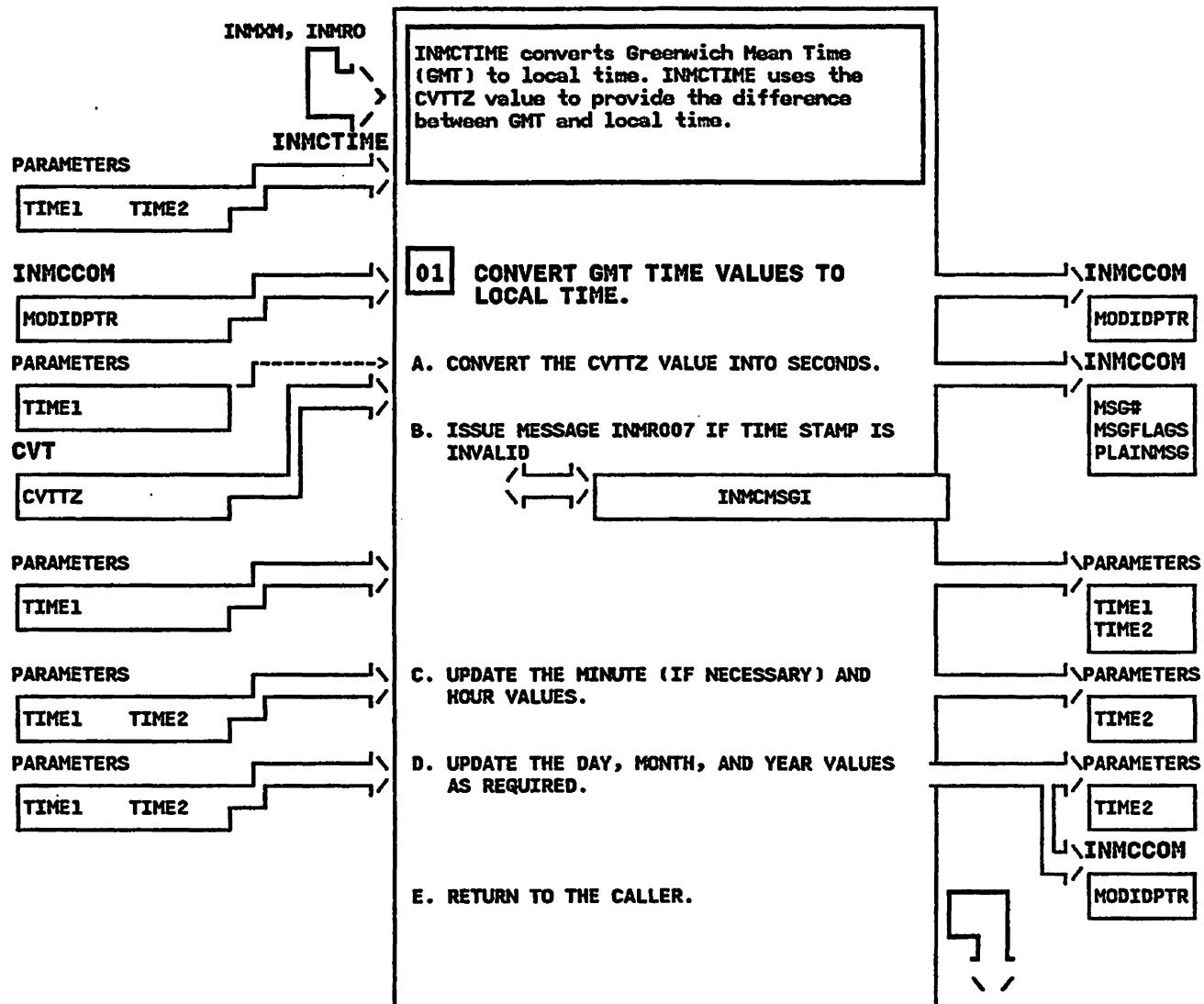
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Return code  
Other - Unchanged

INMCTIME - GMT To Local Time Conversion Routine

STEP 01



## INMCX - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Attention Handling Routine For The  
TRANSMIT Command.

**FUNCTION:**

INMCX handles attention interrupts for the  
TRANSMIT command during the time it is doing  
full-screen processing. INMCX re-establishes  
full-screen mode if the user requests re-entry  
into TRANSMIT.

**ENTRY POINT:** INMCX

**PURPOSE:** See **FUNCTION**

**LINKAGE:** SYNCH from the attention handler

**CALLERS:** System attention handler

**INPUT:** None

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to the caller

**EXTERNAL REFERENCES:**

**ROUTINES:** IKJEFF02 - Issue the prompt message.

**DATA AREAS:**

INMCCOM - Common parameter structure  
IKJEFFMT - IKJEFF02 parameter format

**CONTROL BLOCKS:** CVT

## INMCX - MODULE OPERATION

INMXTIN establishes INMCX as an attention handler during the time it is using full-screen TPUT and TGET to read terminal input. INMCX receives control when the user presses the attention key. It issues a prompt message to allow the user to repeat the attention and return to the TMP in "READY" mode or to make some other response and return to the TRANSMIT command. If the user wishes to re-enter TRANSMIT, INMCX issues the STFSMODE macro to reestablish full screen mode before allowing the TRANSMIT command to be re-started.

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Licensed Materials - Property of IBM

**INMCX - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMCX

**MESSAGES:**

INMC005I PRESS THE PA1 KEY TO EXIT FROM cmdname.  
ANY OTHER RESPONSE WILL CAUSE THE  
COMMAND TO CONTINUE.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

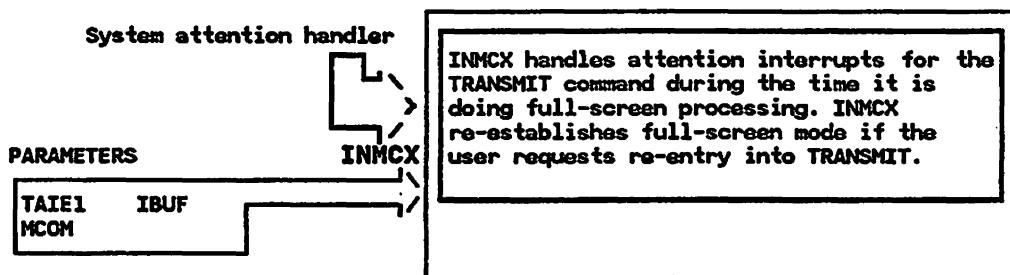
As described for attention exits

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Return code

**INMCX - Attention Handling Routine For The TRANSMIT Command.**



## INMRALLO - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Allocate Output Data Set Routine

#### FUNCTION:

INMRALLO allocates all the output data sets for the RECEIVE operation. The output data sets include the primary output data set specified by user and also temporary data files which will be used by the partitioned data set reload and data decipher processes.

#### ENTRY POINT: INMRALLO

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRO

#### INPUT:

All input is provided via the common parameter structure INMCCOM. The following fields are used:

ATXTPTTR, FSPACE1, FDIR, FMEM, FIEBCOPY, FDFTDSP,  
FVOL, FREST2

#### OUTPUT:

DD names for the allocated files, stored in the INMCCOM variables: OUTDDN, REST2DDN, ULPDSDDN, CODEDDN

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

#### DATA AREAS:

INMRATXT - Output data set allocation text  
units  
INMRCINF - Received file description table  
INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block

#### CONTROL BLOCKS:

CVT, DCB, CPPL, ECT,  
IEFZB4D0, IEFZB4D2

## INMRALLO - MODULE OPERATION

- INMRALLO performs the following functions:
- 1) Allocation parameters, supplied previously either via transmitted data or directly by the user are completed.
  - 2) Initial allocation of the data set is attempted with disposition OLD. If this fails, another attempt is made by adding space information and setting DISP=NEW.
  - 3) If the allocation is successful, the target data set is checked for proper type (sequential or partitioned).
  - 4) If IEBCOPY is to be used for rebuilding a partitioned data set, a temporary data set data set, which will be used to contain the IEBCOPY input file is allocated.
  - 5) If Access Method Services REPRO is to be used for deciphering the incoming data, a temporary data set, which will be used to contain the REPRO input file is allocated.

## INMRALLO - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMRALLO

### MESSAGES:

INMR042I RECEIVE FAILED; SYSTEM CANNOT PROMPT  
YOU FOR INFORMATION.  
INMR043I PROMPTING WAS INHIBITED.  
INMR044I RETURN CODE nn FROM IKJEFF02.  
INMR045I DATASET 'dsname' ALREADY EXISTS. REPLY  
'R' TO REPLACE IT.  
INMR046I ANY OTHER REPLY WILL CAUSE RECEIVE TO  
TERMINATE WITHOUT OVERWRITING THE FILE.  
INMR060I RECEIVE COMMAND TERMINATED. OUTPUT  
DATASET UNUSABLE. +  
INMR061I 'dsname' IS A SEQUENTIAL DATASET BUT THE  
DATASET BEING RECEIVED IS PARTITIONED.  
INMR062I 'dsname' IS A PARTITIONED DATASET BUT NO  
MEMBER NAME WAS SPECIFIED.  
INMR063I ALLOCATION FAILURE FOR DATASET 'dsname'.  
INMR067I DATA SET 'dsname' IS INVALID. ENTER  
RECEIVE. WHEN PROMPTED SPECIFY VALID  
DATA SET NAME.  
INMR069I DATASET ORGANIZATION OF DATASET  
'dsname' IS NOT SUPPORTED.  
INMR070I RECEIVE COMMAND TERMINATED. FAILURE IN  
PARTITIONED DATASET RELOADING PROCESS. +  
INMR071I ALLOCATION FAILED FOR IEBCOPY xxx FILE.  
INMR080I RECEIVE COMMAND TERMINATED. FAILURE IN  
DECRYPTION PROCESSING. +  
INMR081I ALLOCATION FAILED FOR REPRO COMMAND xxx  
FILE.  
INMR800I THE RECEIVE COMMAND FAILED. THE  
PUTGET SERVICE ROUTINE ISSUED  
RETURN CODE 'nn'.

ABEND CODES: None

WAIT STATE CODES: None

### RETURN CODES:

EXIT NORMAL:

Return code in register 15 is always zero.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

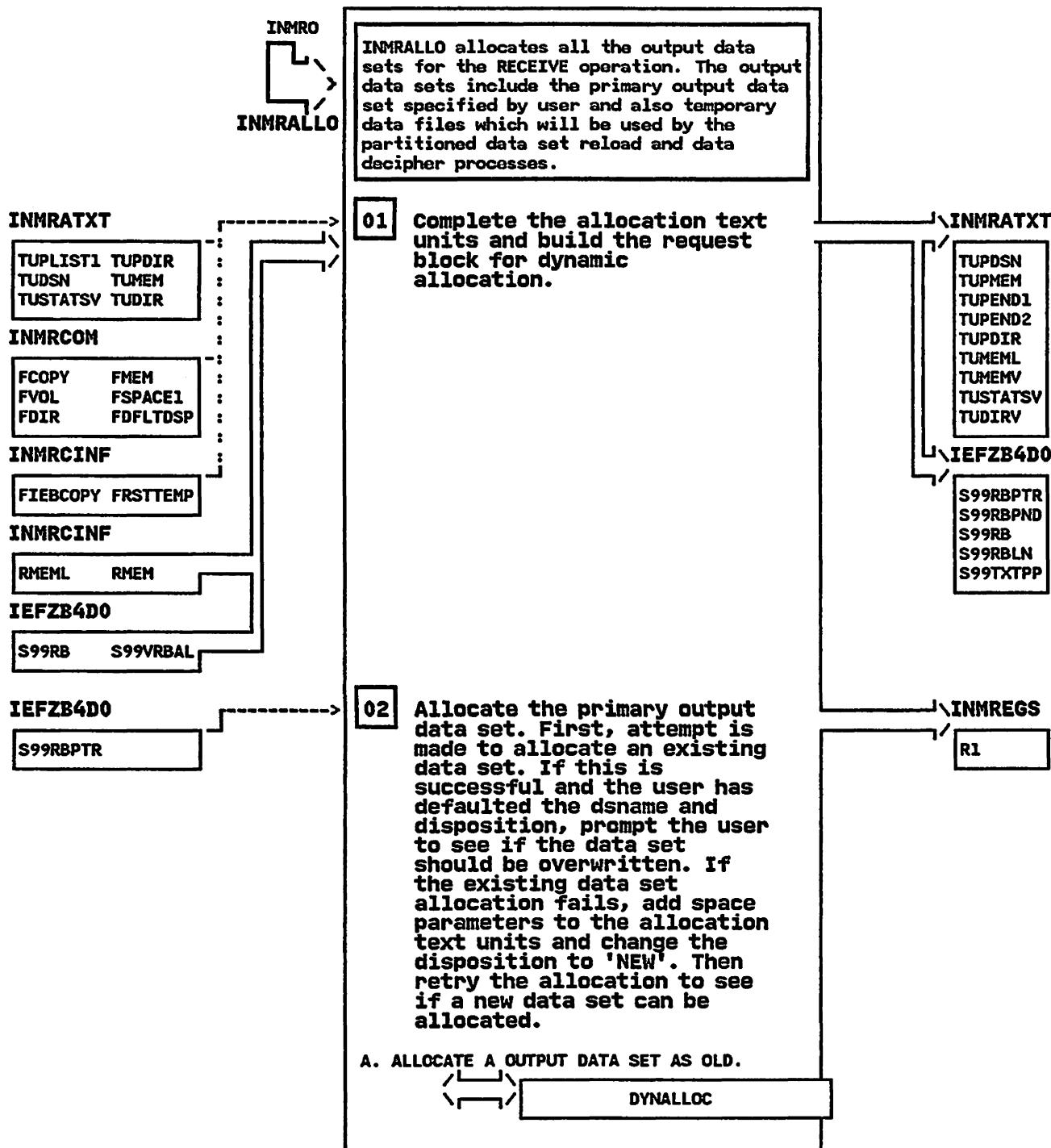
### REGISTER CONTENTS ON EXIT:

EXIT NORMAL:

Register 8 - Address of INMCCOM  
Register 15 - Always zero  
Other - Unchanged

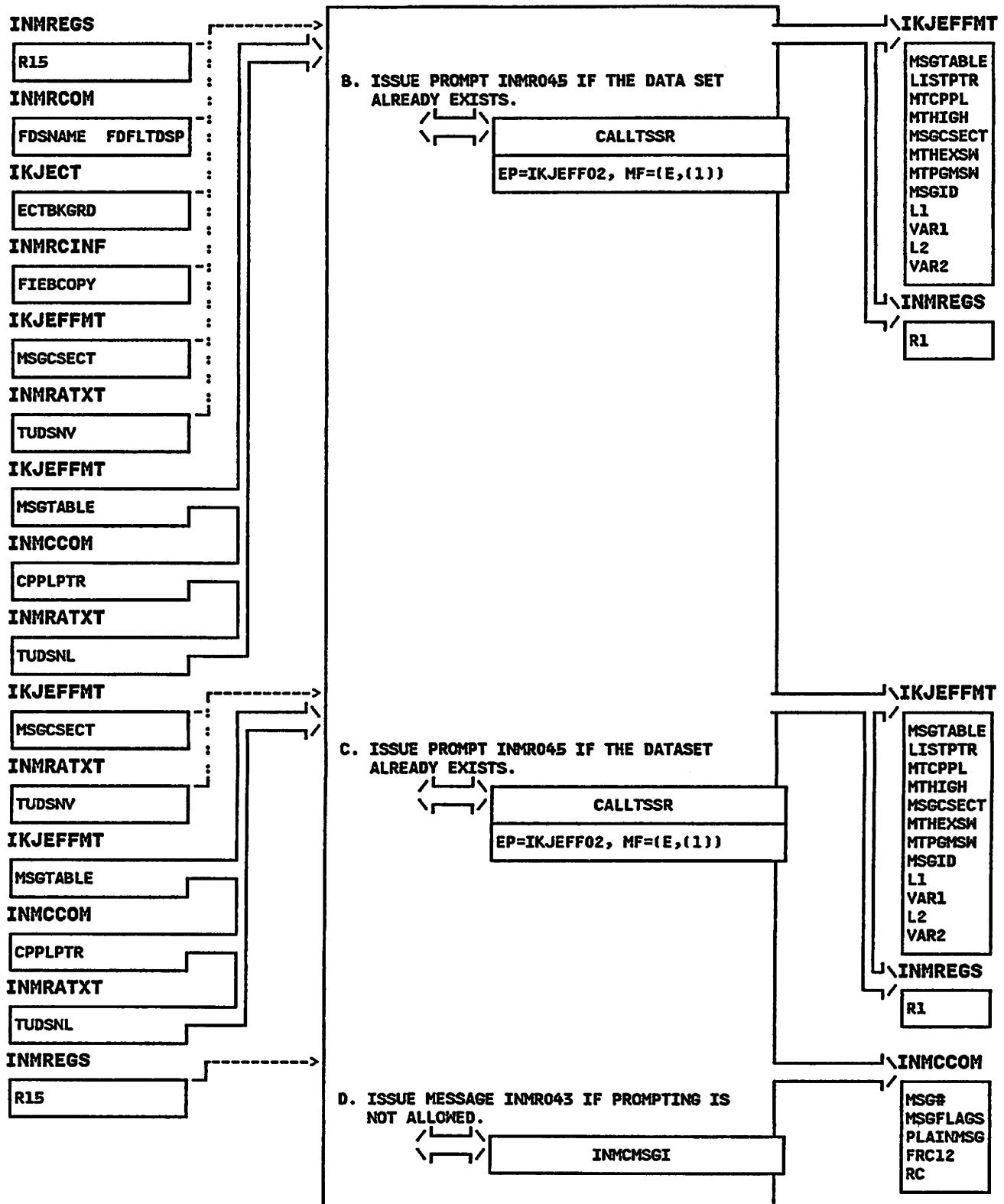
INMRALLO - Allocate Output Data Set Routine

STEP 01



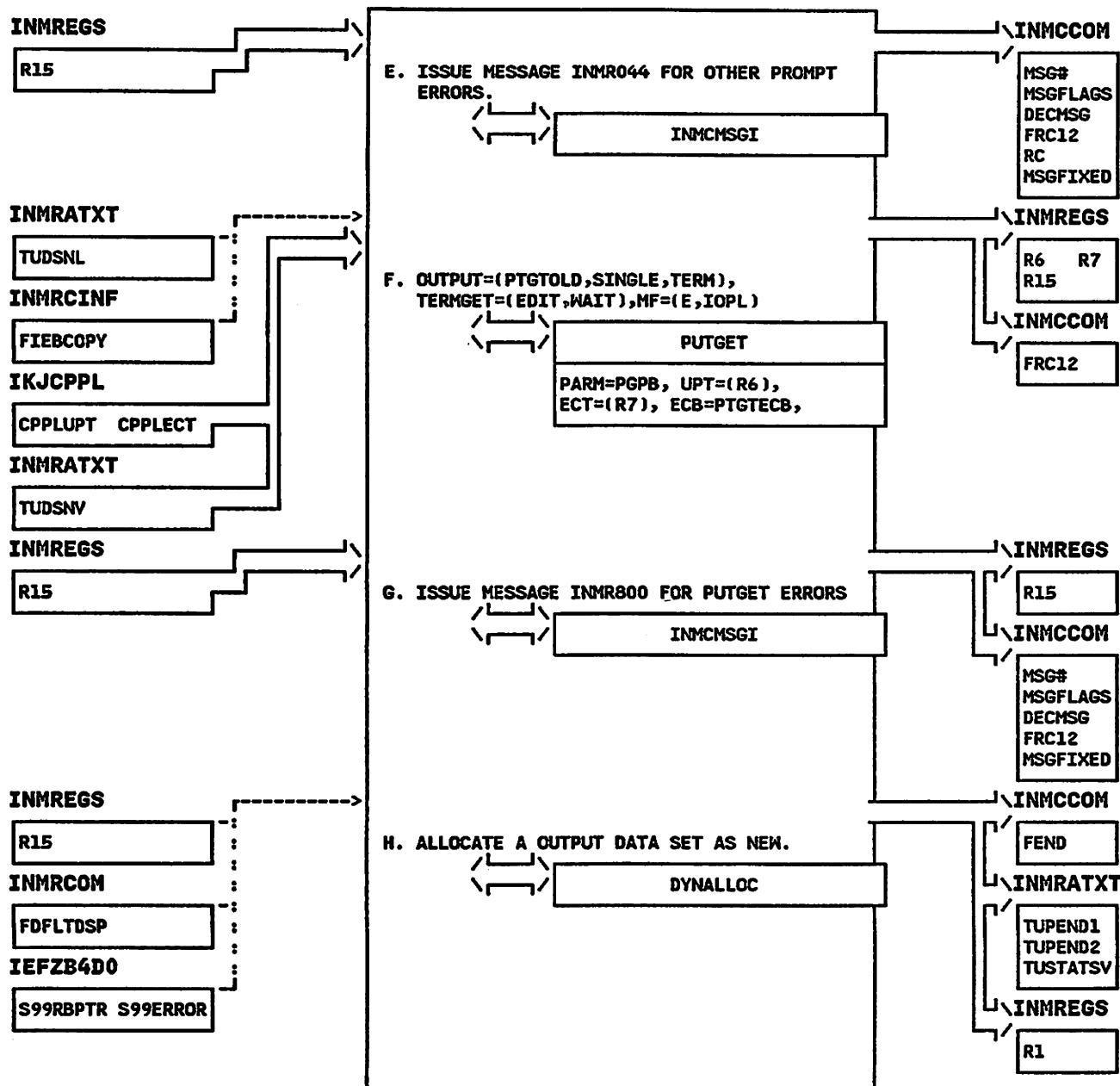
INMRALLO - Allocate Output Data Set Routine

STEP 02B



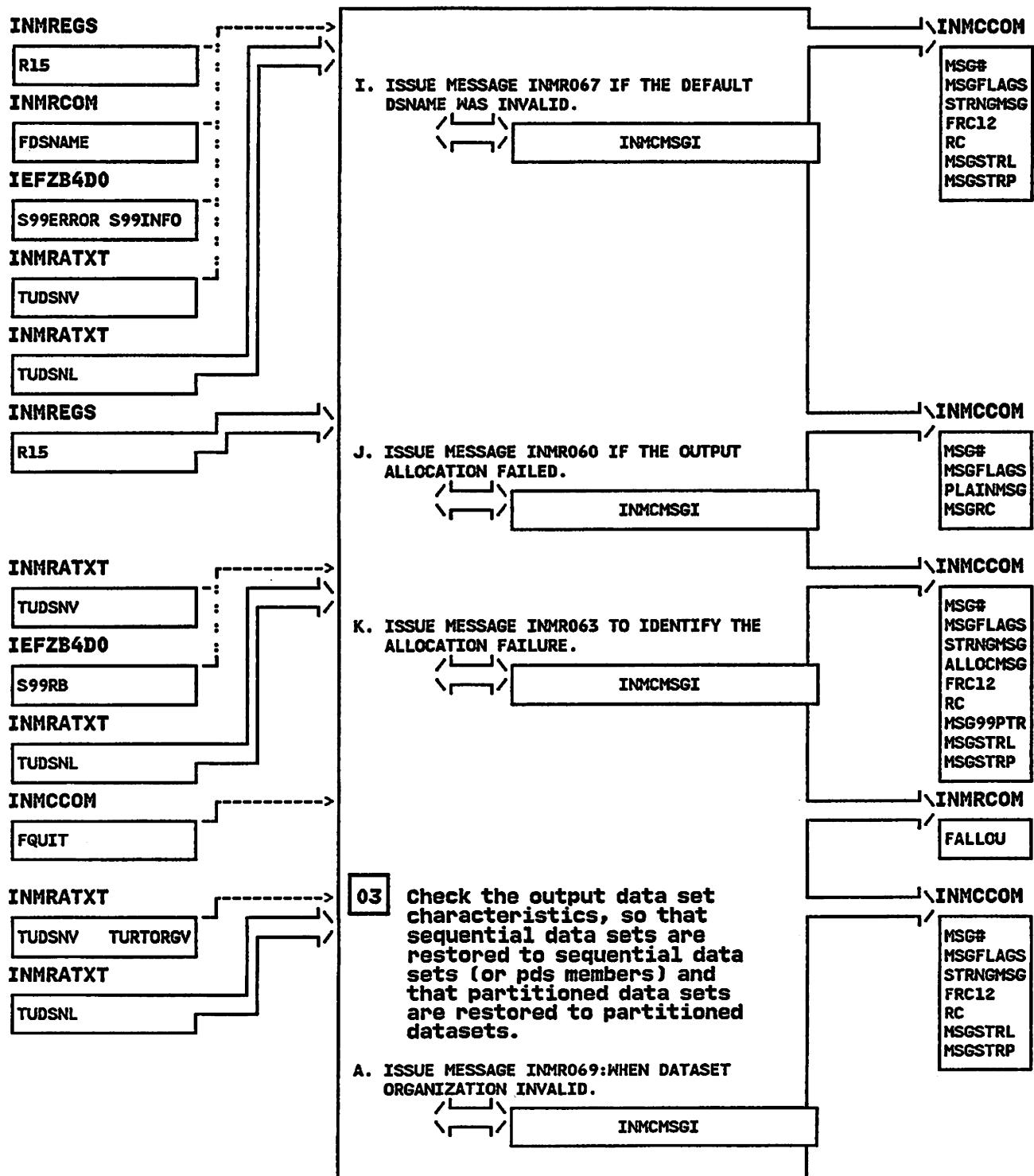
INMRALLO - Allocate Output Data Set Routine

STEP 02E



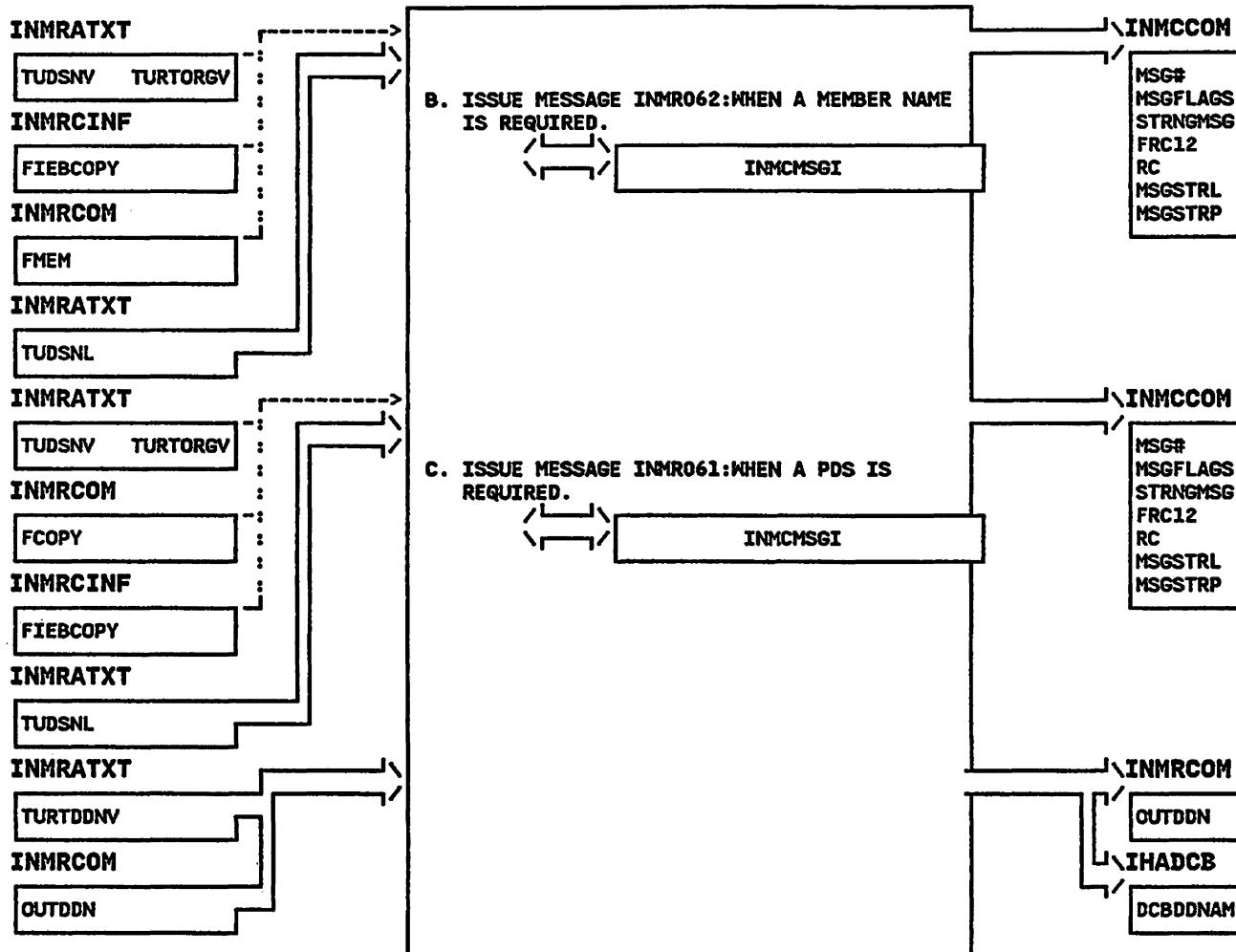
INMRALLO - Allocate Output Data Set Routine

STEP 02I



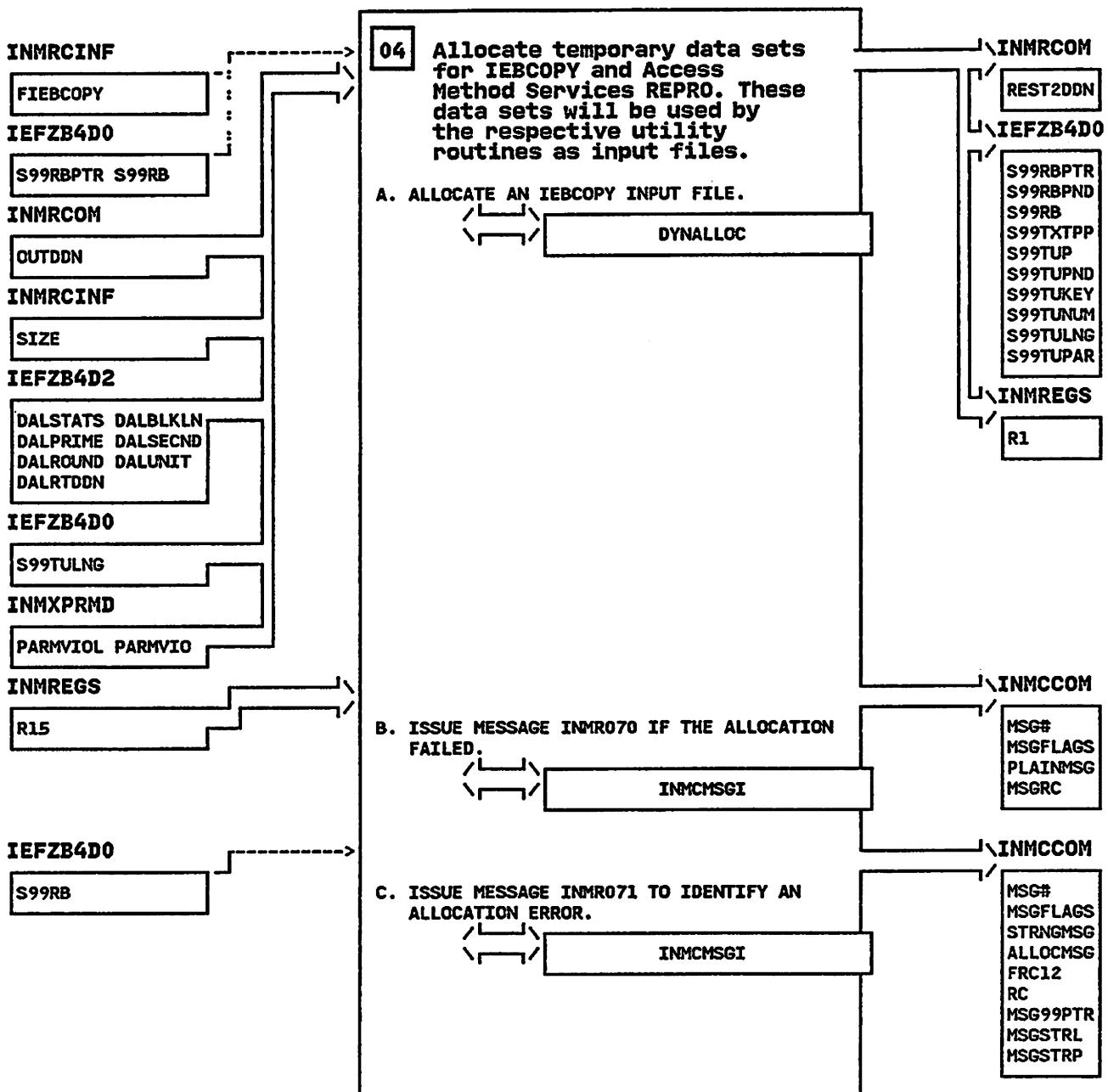
INMRALLO - Allocate Output Data Set Routine

STEP 03B



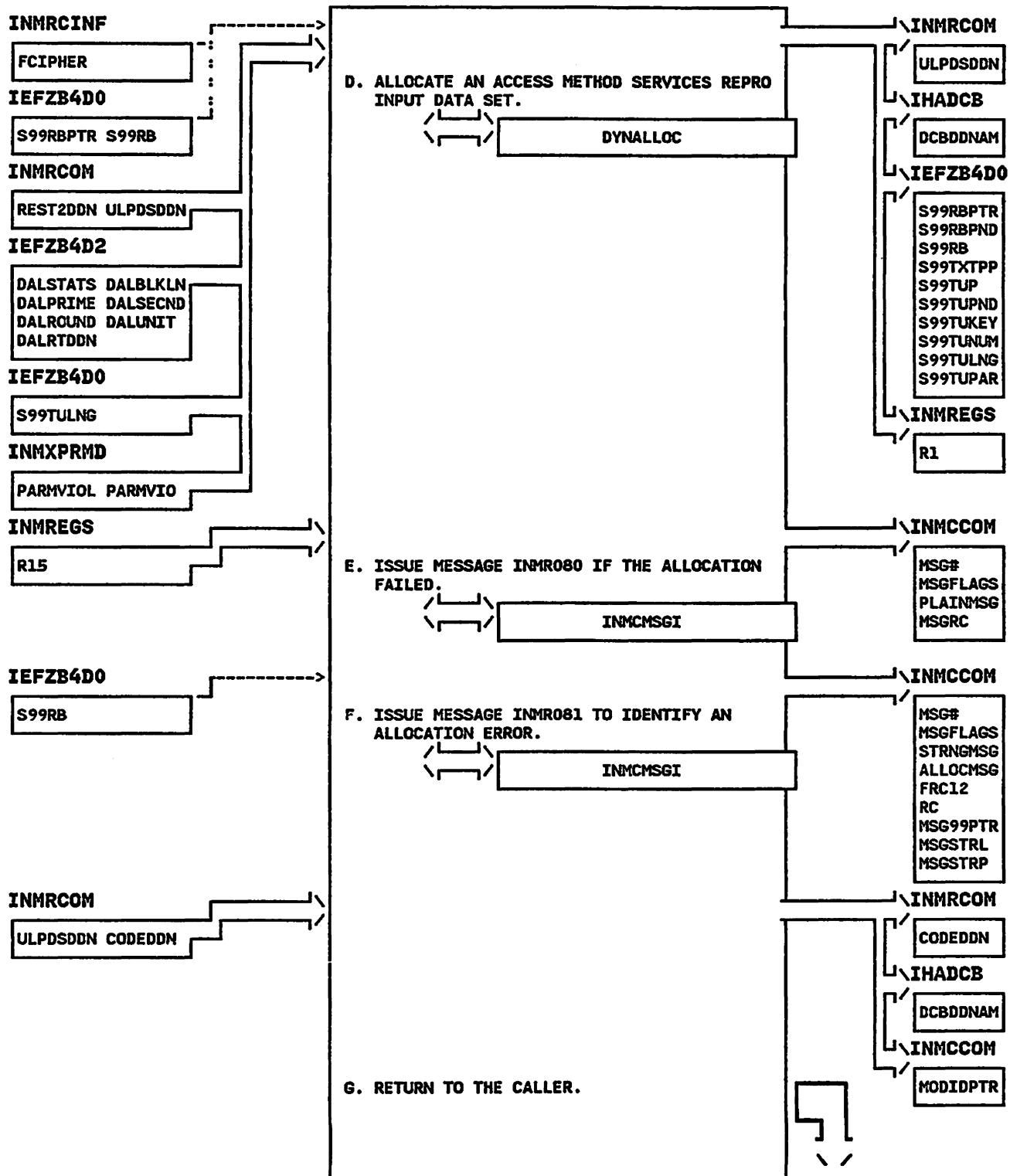
INMRALLO - Allocate Output Data Set Routine

STEP 04



**INMRALLO - Allocate Output Data Set Routine**

**STEP 04D**



## INMRCODE - MODULE DESCRIPTION

### DESCRIPTIVE NAME: File Decryption Routine

#### FUNCTION:

INMRCODE invokes the Access Method Services REPRO command to decipher the incoming data. The command input file is allocated and written by INMRCODE based on DECIPHER options obtained from the user. Message output will be either to a sysout file or to the terminal.

#### ENTRY POINT: INMRCODE

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRM

#### INPUT:

All input is provided via the RECEIVE command communications area INMRCOM. The following fields are used:

CODEDDN (input file for AMS), ULPDSDDN (output file for AMS)

#### OUTPUT:

Decrypted file written to DDNAME specified by ULPDSDDN.

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine  
INMRZ - Receive exit-invocation routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

The following are invoked via LINK SVC:  
IDCAMS - Decrypt the file

#### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure  
INMRCINF - Received file description table  
INMXPRMD - Installation options block

#### CONTROL BLOCKS:

DCB, CVT, IKJEFFMT,  
IEFZB4D0, IEFZB4D2, ECT, CPPL

#### TABLES:

CODESTMT - AMS control statement structure  
COPYDDNM - DDNAME substitution table for IEBCODE

## INMRCODE - MODULE OPERATION

INMRCODE performs the following functions:

- 1) Allocate temporary files for the control statements and output messages.
- 2) OPEN the plain text file to insure that it has DCB values assigned.
- 3) Prompt the user to supply decipher options for the REPRO command.
- 4) Invoke the INMRZ13 exit routine.
- 5) Build the REPRO command and write to the control statement file.
- 6) Invoke IDCAMS to perform decryption.
- 7) Free control input and message files.

**INMRCODE - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMRCODE**

**MESSAGES:**

INMR042I RECEIVE FAILED; SYSTEM CANNOT PROMPT YOU  
FOR INFORMATION.  
INMR043I PROMPTING WAS INHIBITED.  
INMR044I RETURN CODE *nn* FROM IKJEFF02.  
INMR080I RECEIVE COMMAND TERMINATED. FAILURE IN  
DECRYPTION PROCESSING.  
INMR081I ALLOCATION FAILED FOR REPRO COMMAND  
*>>> FILE.*  
INMR082I RETURN CODE *nn* FROM IDCAMS REPRO COMMAND  
INMR800I THE RECEIVE COMMAND FAILED. THE  
PUTGET SERVICE ROUTINE ISSUED  
RETURN CODE '*nn*'.  
INMR916I DATASET WAS ENCIPHERED. ENTER AMS REPRO  
DECIPHER OPTIONS TO RESTORE THE FILE.+  
INMR917I YOU MAY ENTER ANY SUBFIELD OF THE  
DECIPHER OPERAND OF THE AMS REPRO COMMAND.  
INMR918I VALID OPTIONS INCLUDE: DATAKEYFILE,  
DATAKEYVALUE, SYSTEMKEY, SYSTEMDATAKEY,  
AND SYSTEMKEYNAME.

**ABEND CODES: None**

**WAIT STATE CODES: None**

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry Point address  
Other - Unpredictable

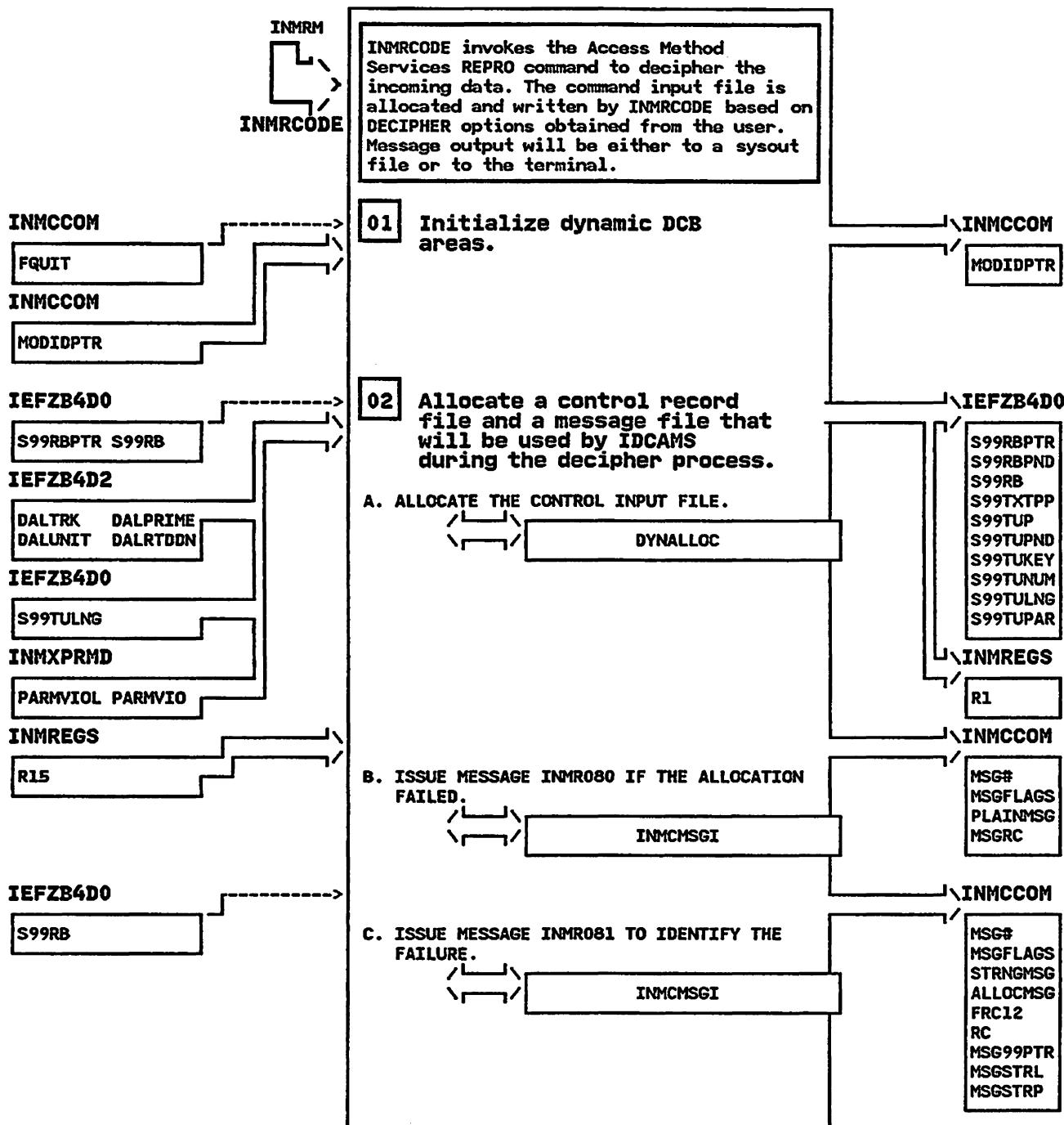
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

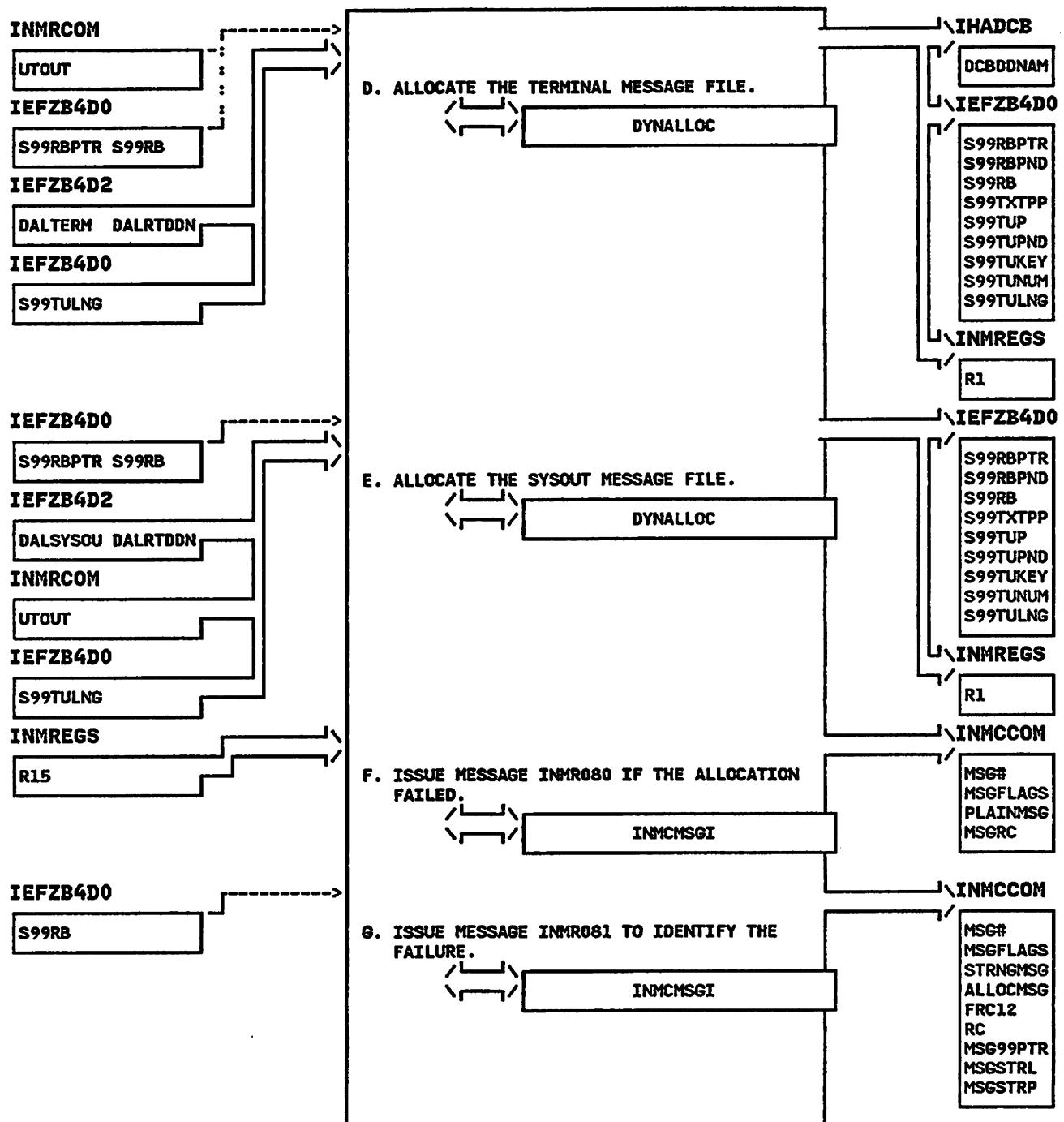
INMRCODE - File Decryption Routine

STEP 01



INMRCODE - File Decryption Routine

STEP 02D



INMRCODE - File Decryption Routine

STEP 03

IHADCB

DCBDDNAM

INMRCOM

ULPDSDDN

03

Perform an OPEN of the file that will be used as the output file of the IDCAMS decipher process. This OPEN is done to insure that the file has valid LRECL, BLKSIZE, and RECFM values assigned. Use the DEVTYPE macro to determine the maximum blocksize and choose a reasonable blocksize. The actual assignment of new values is performed by the OPEN exit in segment INMRCOPX.

A. GET OUTPUT DEVICE TYPE INFORMATION.

DEVTYPE

(R1), DEVTYPEA, DEVTAB

\IHADCB

DCBDDNAM

\INMREGS

R1

B. OPEN THE OUTPUT FILE.

OPEN

(OUTDCB, OUTPUT), MF=(E,  
OPENLIST)

\IHADCB

DCBEXLST

IHADCB

DCBOFOPN

C. CLOSE THE OUTPUT FILE IN ORDER TO SET ATTRIBUTES.

CLOSE

(OUTDCB), MF=(E, OPENLIST)

INMCCOM

FQUIT

IKJECT

ECTBKGRD

IKJEFFMT

MSGCSECT

INMCCOM

CPPLPTR

IKJEFFMT

MSGTABLE

04

Prompt the user for decipher options. Pass these to IDCAMS as subfields of the DECIPHER keyword.

A. ISSUE PROMPT INMR916 TO OBTAIN THE DECIPHER OPTIONS.

CALLTSSR

EP=IKJEFF02, MF=(E,(1))

\IKJEFFMT

MSGTABLE

LISTPTR

MTCPL

MTHIGH

MSGCSECT

MTHEXSN

MTPGMSN

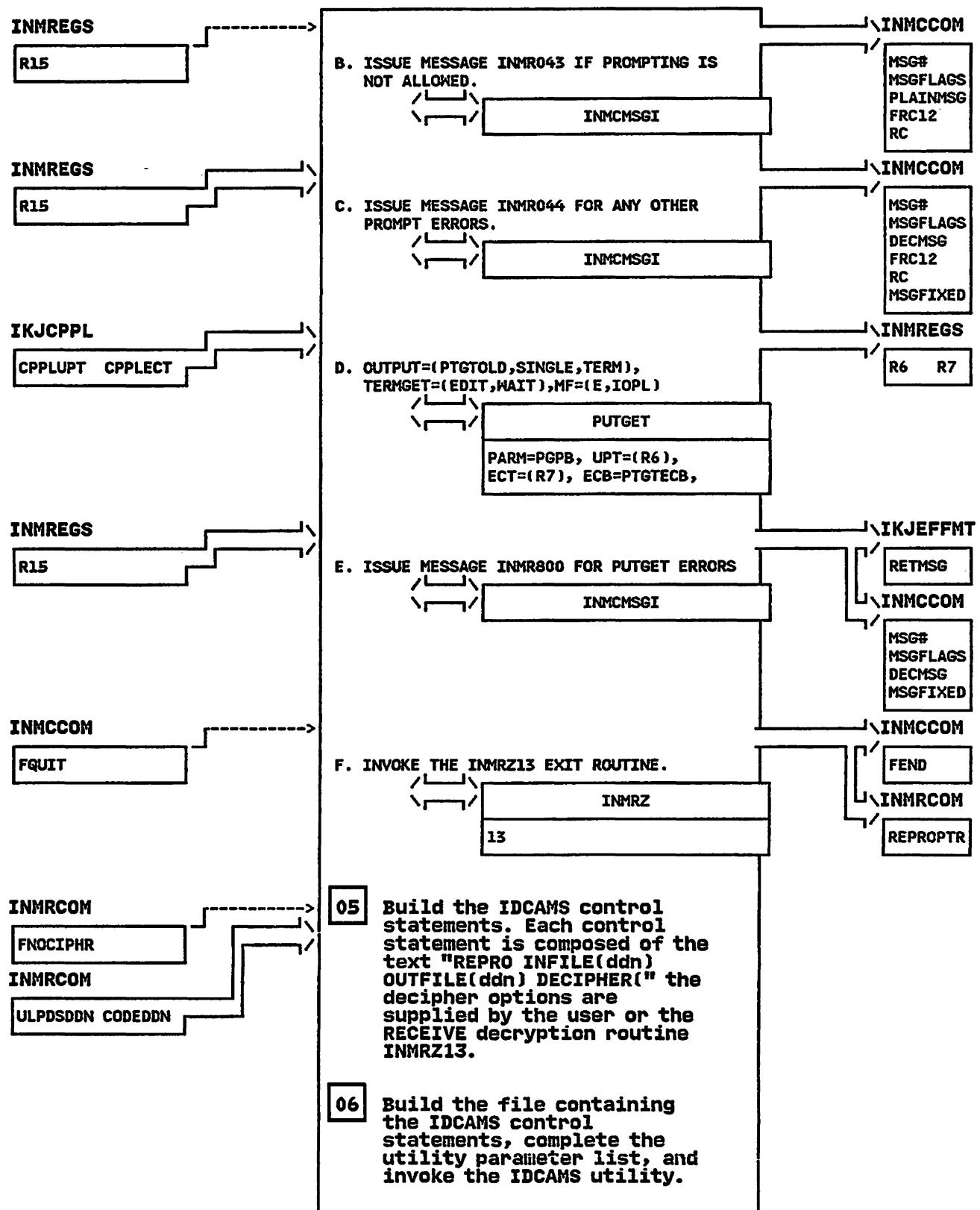
MSGID

\INMREGS

R1

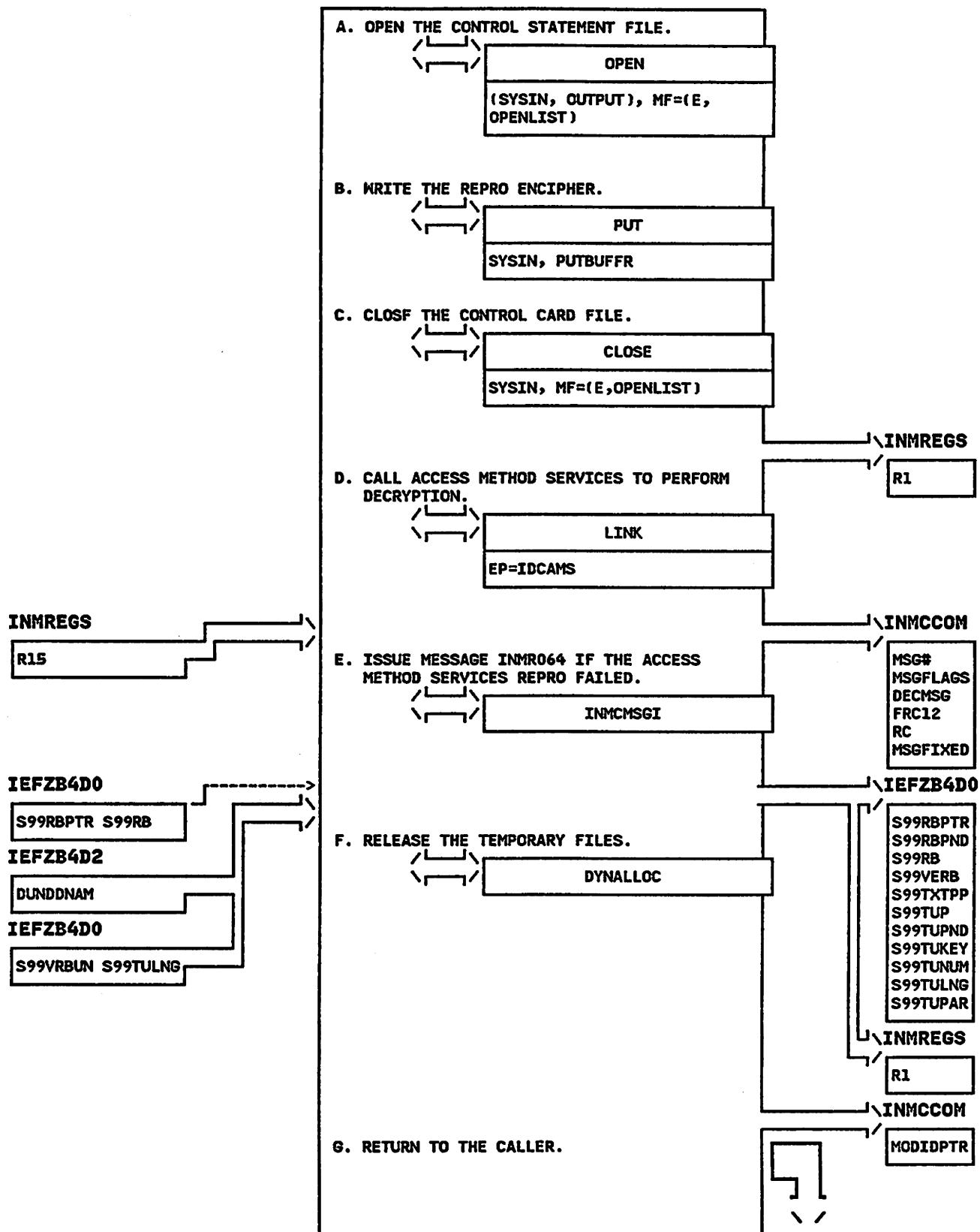
**INMRCODE - File Decryption Routine**

**STEP 04B**



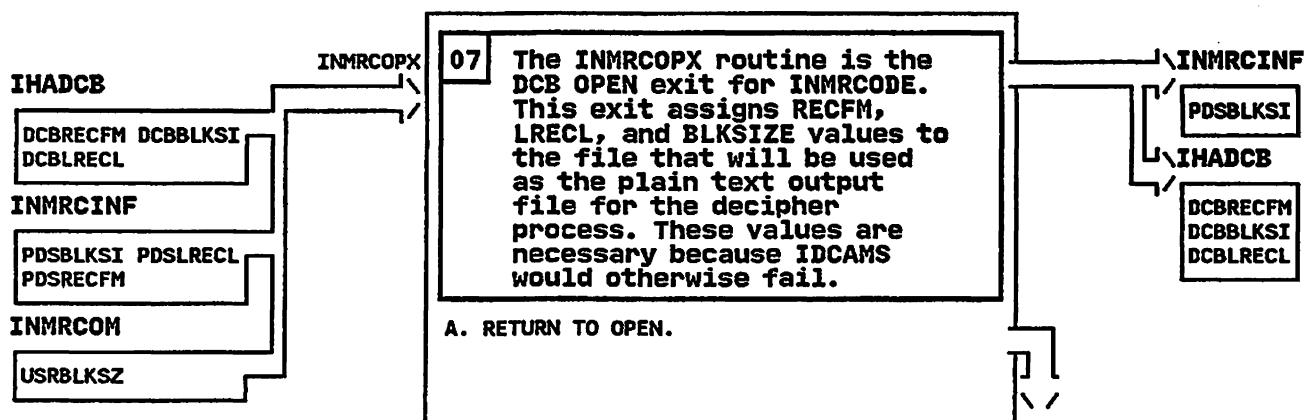
INMRCODE - File Decryption Routine

STEP 06A



INMRCODE - File Decryption Routine

STEP 07



## INMRF - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Transmission File Reload To Log Routine

#### FUNCTION:

INMRF reads converted records from the JES spool and rebuilds them in their original format. INMRF then writes to the log file.

#### ENTRY POINT: INMRF

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INNRM

#### INPUT:

Input parameters via the RECEIVE command communications area INMRCOM. The following fields are used:

INPDCBP, LOGPTR, RRECL, FPREVIEW

Input data is read from the input file whose DCB is pointed to by INPDCBP.

#### OUTPUT:

Output data is written to the user's log file (DCB pointed to by LOGPTR).

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

#### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure  
INMRCINF - Received file description file

CONTROL BLOCKS: CVT, DCB, IKJEFFMT, CPPL, ECT

TABLES: INREC - Input file record

## INMRF - MODULE OPERATION

The function of this module is to copy records from an input file (normally JES) to the user's log file. The following steps are performed:

- 1) Read the input records. Look at the contents of the record to see if carriage control was appended by another operating system.  
If so, skip past the first character.
- 2) Using pieces from the input records, build the output records. Write each record to the user's log file and write it to the terminal.

## INMRF - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMRF

### MESSAGES:

INMR043I PROMPTING WAS INHIBITED.  
INMR044I RETURN CODE 'nn' FROM IKJEFF02.  
INMR068I RECEIVE ENDED. INPUT RECORD LENGTH nnn  
IS TOO LONG.  
INMR108I RECEIVE COMMAND TERMINATED. TRAILER  
RECORD MISSING.  
INMR130I RECEIVE COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMR136I system standard I/O error message.  
INMR138I RECEIVED RECORD LONGER THAN OUTPUT  
BLOCKSIZE.  
INMR800I THE RECEIVE COMMAND FAILED. THE  
PUTGET SERVICE ROUTINE ISSUED  
RETURN CODE 'nn'.  
INMR933A TRAILER RECORD MISSING. ENTER  
DELETE OR END.

ABEND CODES: None

WAIT STATE CODES: None

### RETURN CODES:

EXIT NORMAL:

Return code in register 15 is always zero.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

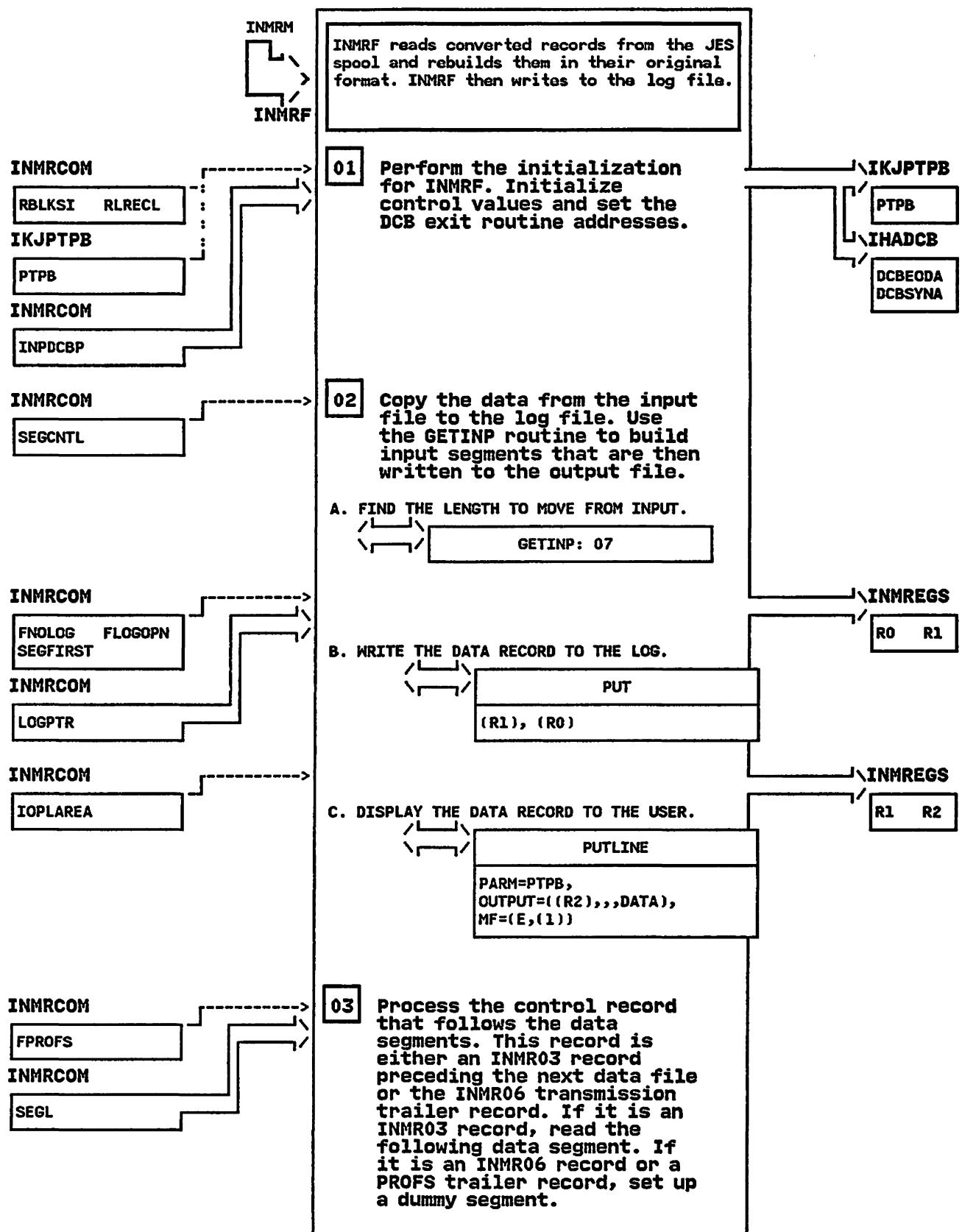
### REGISTER CONTENTS ON EXIT:

EXIT NORMAL:

Register 15 - Always zero  
Other - Unchanged

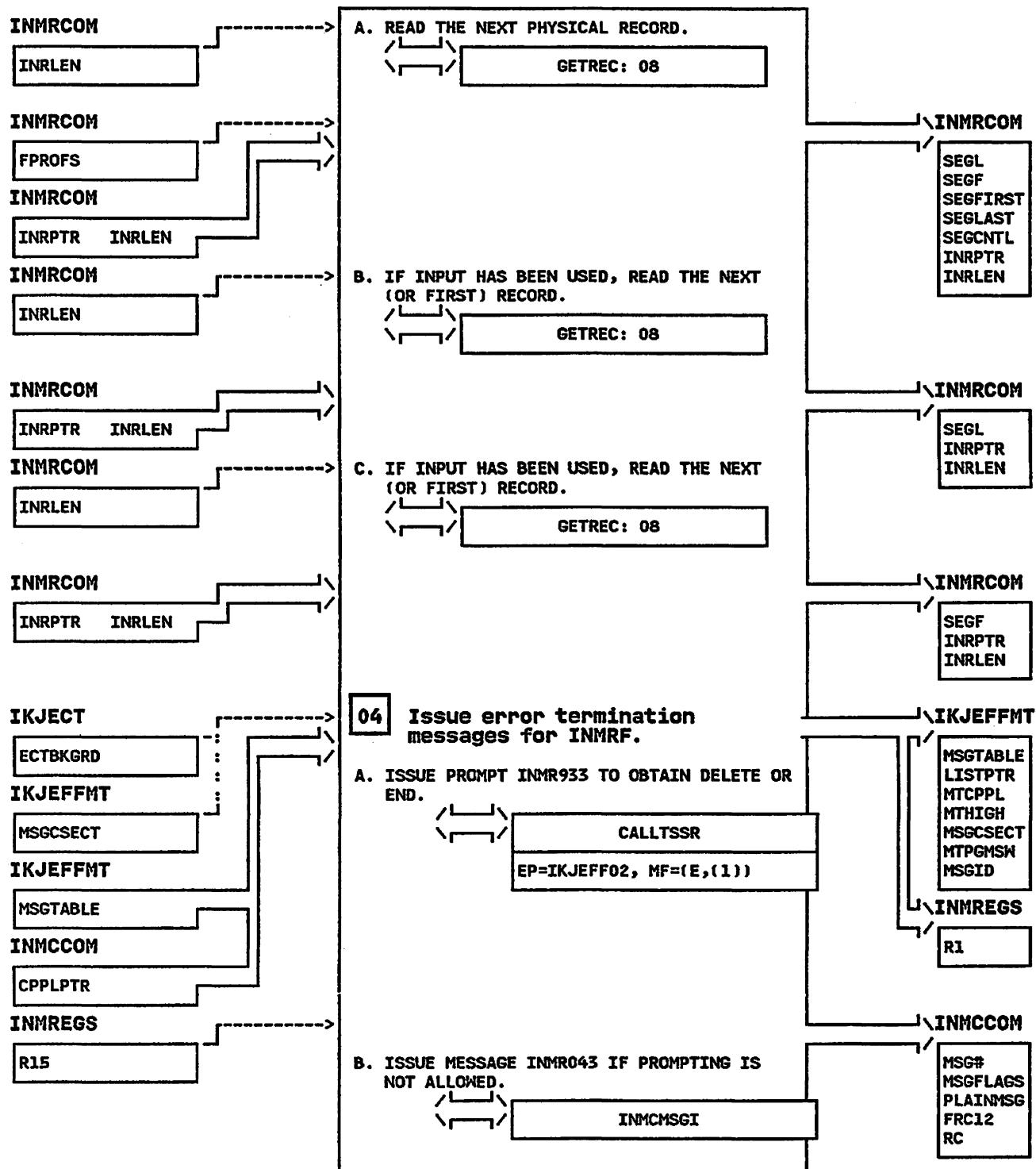
INMRF - Transmission File Reload To Log Routine

STEP 01



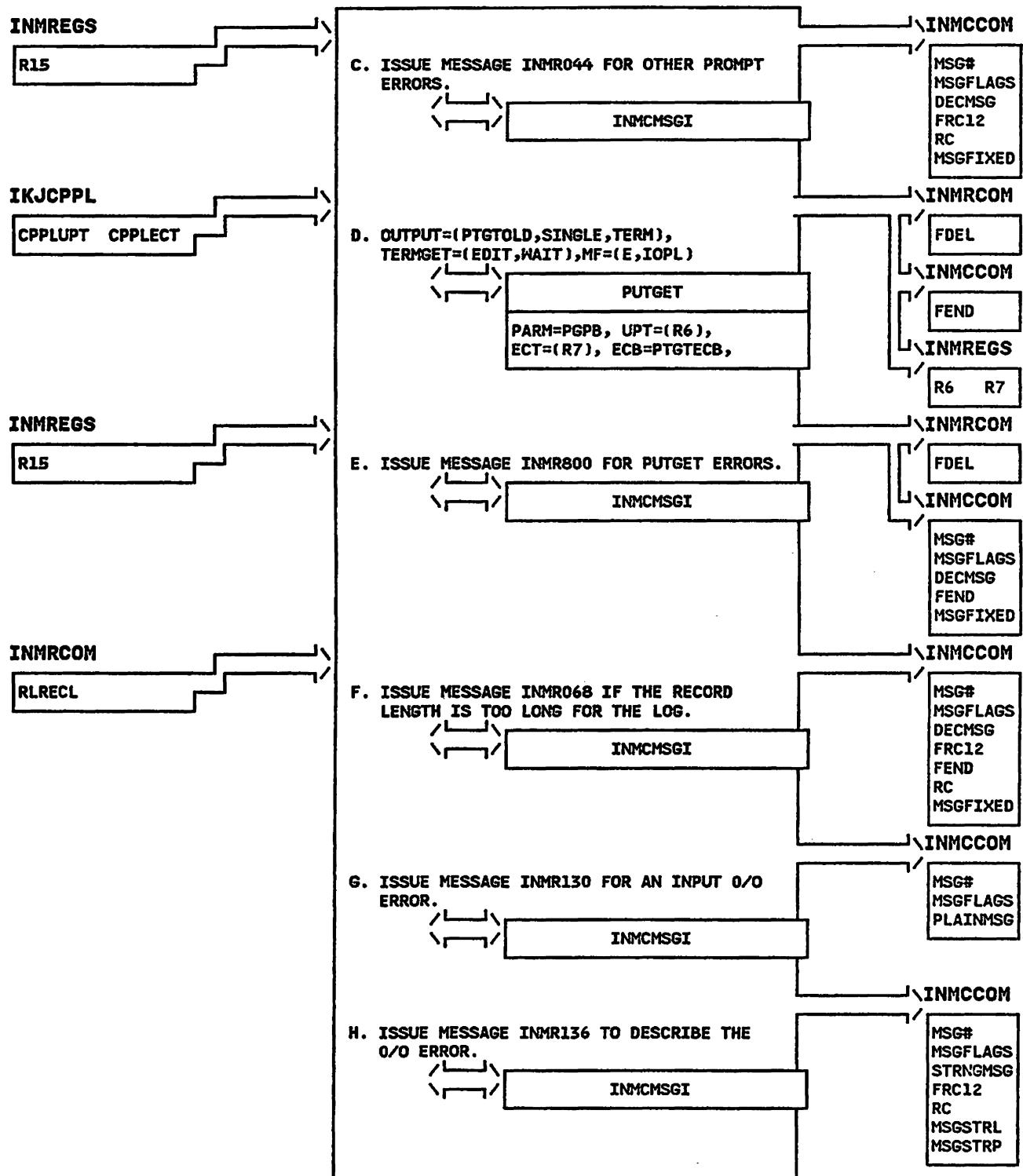
INMRF - Transmission File Reload To Log Routine

STEP 03A



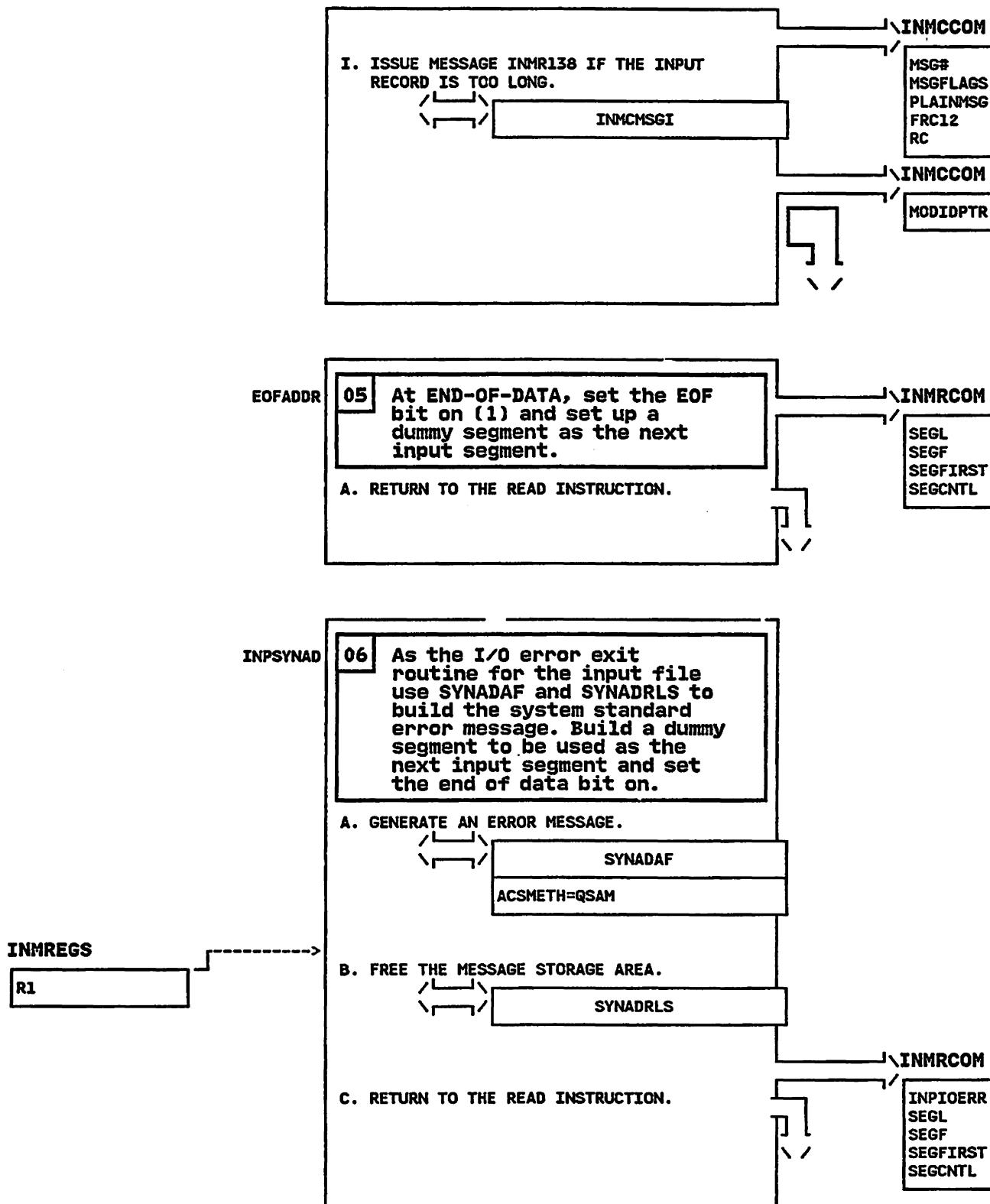
INMRF - Transmission File Reload To Log Routine

STEP 04C



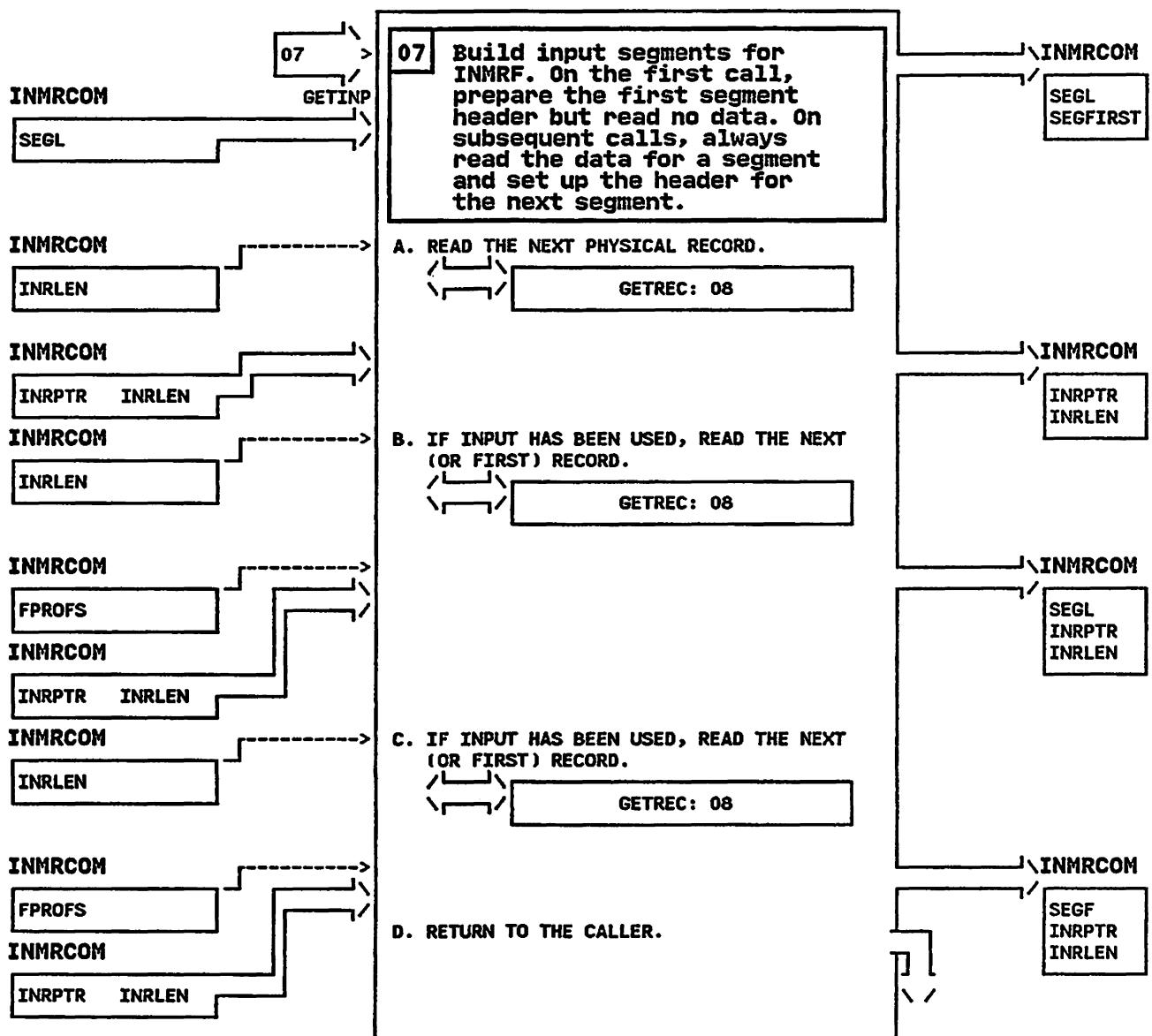
INMRF - Transmission File Reload To Log Routine

STEP 04I



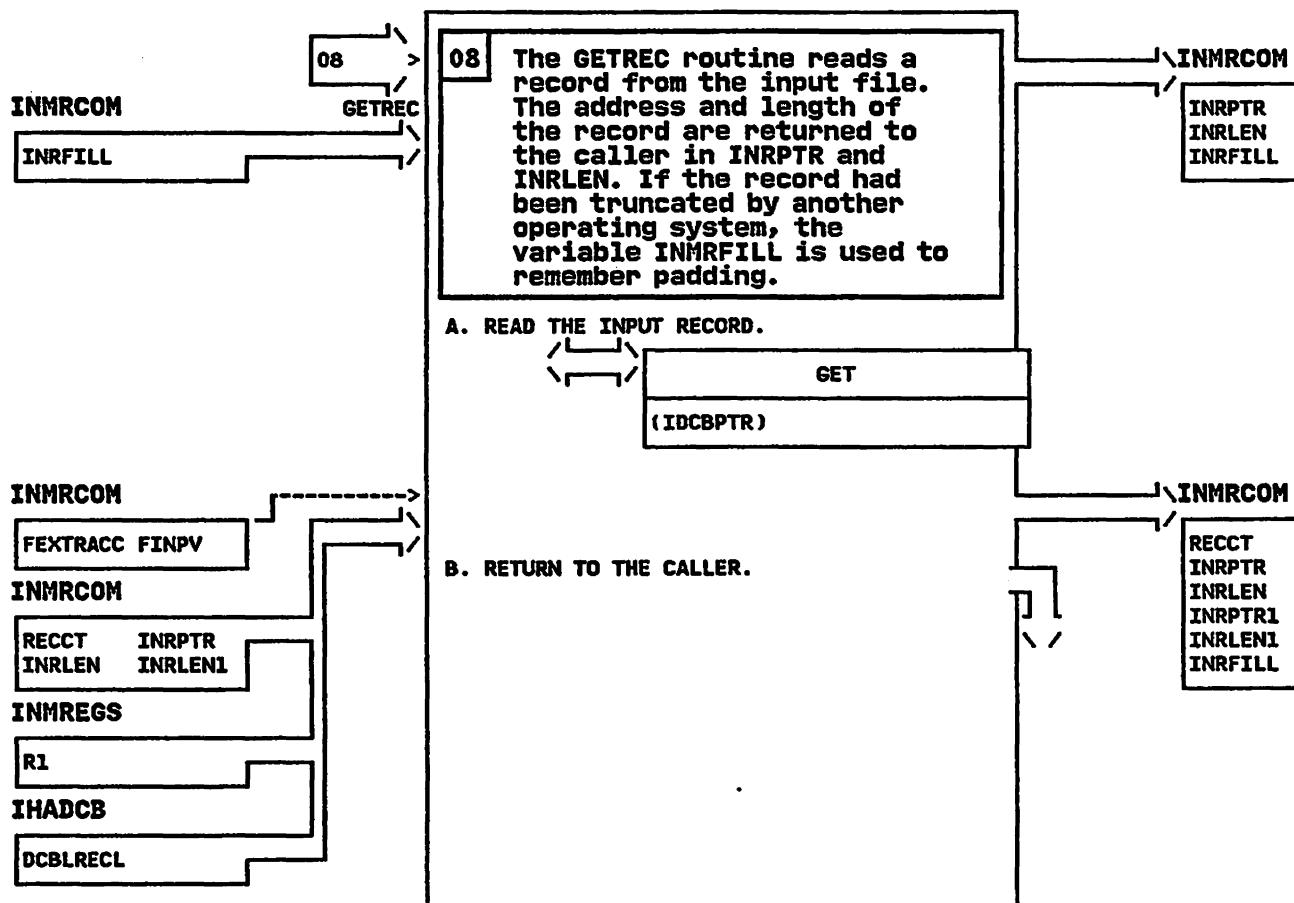
INMRF - Transmission File Reload To Log Routine

STEP 07



INMRF - Transmission File Reload To Log Routine

STEP 08



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## INMRLOGO - MODULE DESCRIPTION

### DESCRIPTIVE NAME: LOG OPEN Routine

#### FUNCTION:

INMRLOGO performs initialization for the log data set used by the RECEIVE command. It uses a previously initialized log data set if that is appropriate, otherwise it issues SVC 99 to allocate the new data set and issues OPEN to open the data set. INMRLOGO writes the header records in each log entry.

#### ENTRY POINT: INMRLOGO

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRO

#### INPUT:

All input is provided via the RECEIVE command communications area. The following fields are used:

NICKNAME, USERID, LOGUID, LOGNODE, CPPLPTR,  
LOGDSN, FLOGPN, LOGPTR

#### OUTPUT:

The log data set is open. The log entry in the data set contains the separator record and the log header record.

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine  
INMRQ - Nickname resolution routine

#### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure

#### CONTROL BLOCKS:

DCB,  
IEFZB4D0, IEFZB4D2

TABLES: LOGMSG - Log header record

## INMRLOGO - MODULE OPERATION

INMRLOGO performs the following functions:

- 1) Invokes the nickname lookup routine (INMRQ) to get a nickname for this user.
- 2) Builds the name of the log data set. The name is 'prefix.LOG.MISC' if there is no entry in the nicknames file. If there is an entry in the nicknames file and it specifies LOGNAME, the specified name is used as the last qualifier of the log data set name.
- 3) Invoke IKJDAIR to search the system catalog to find an entry for the log dataset. If the log dataset is cataloged, the log dataset is allocated as (mod,keep), otherwise the log dataset is allocated as (new,catlg).
- 4) Opens the log data set and write a separator record and the entry header record.

**INMRLOGO - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMRLOGO**

**MESSAGES:**

INMRO90I RECEIVE COMMAND LOGGING FUNCTION  
TERMINATED.  
INMRO91I ERROR ALLOCATING LOG DATASET 'dsname'.  
INMRO92I OPEN ERROR FOR LOG DATASET 'dsname'.  
INMRO93I LOG ENTRY WILL BE WRITTEN TO DATASET  
'dsname'.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in register 15  
0 - Everything is normal.  
4 - Some Kind of an error.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

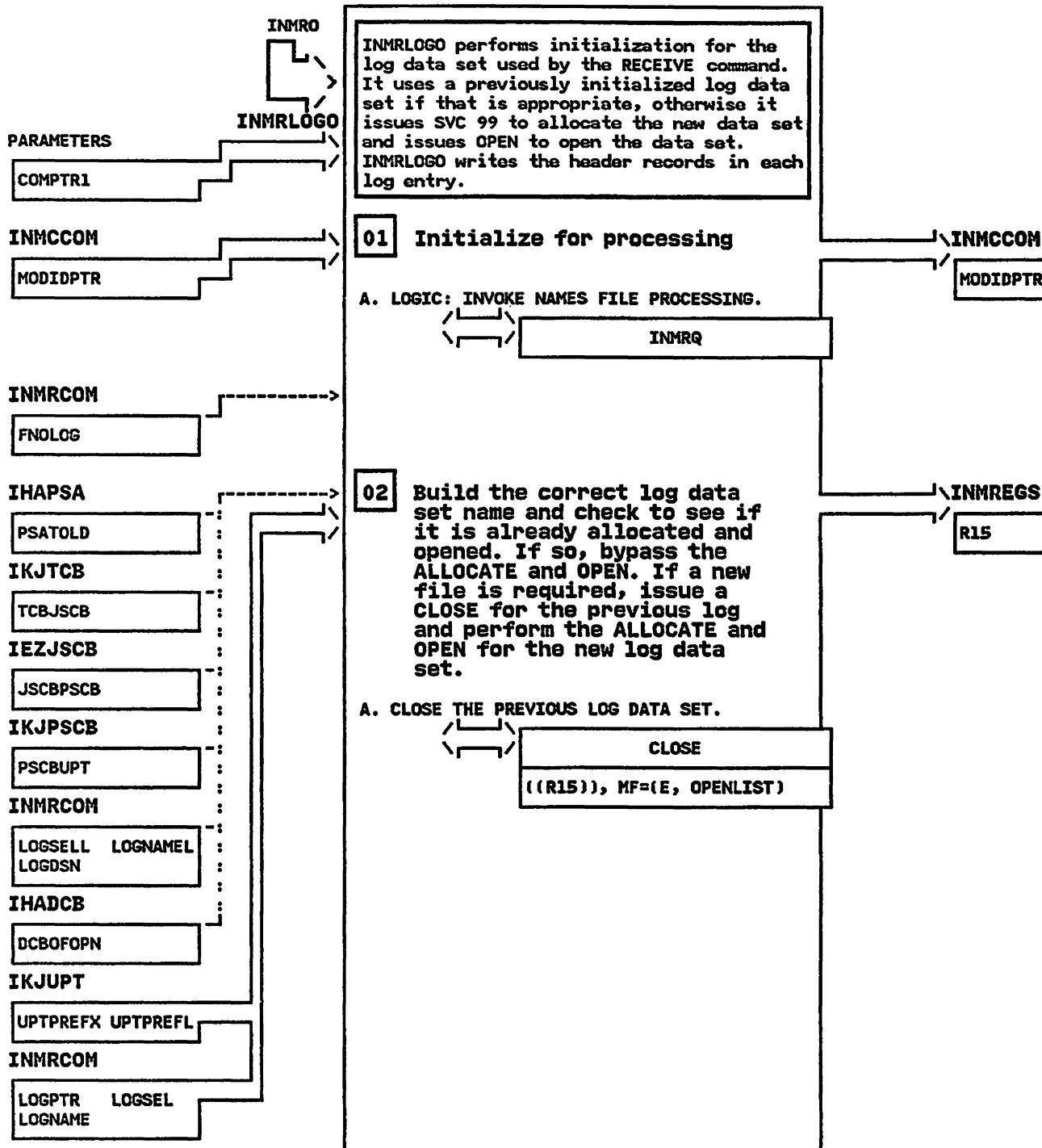
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 8 - Address of INMCCOM  
Register 15 - Return code  
Other - Unchanged

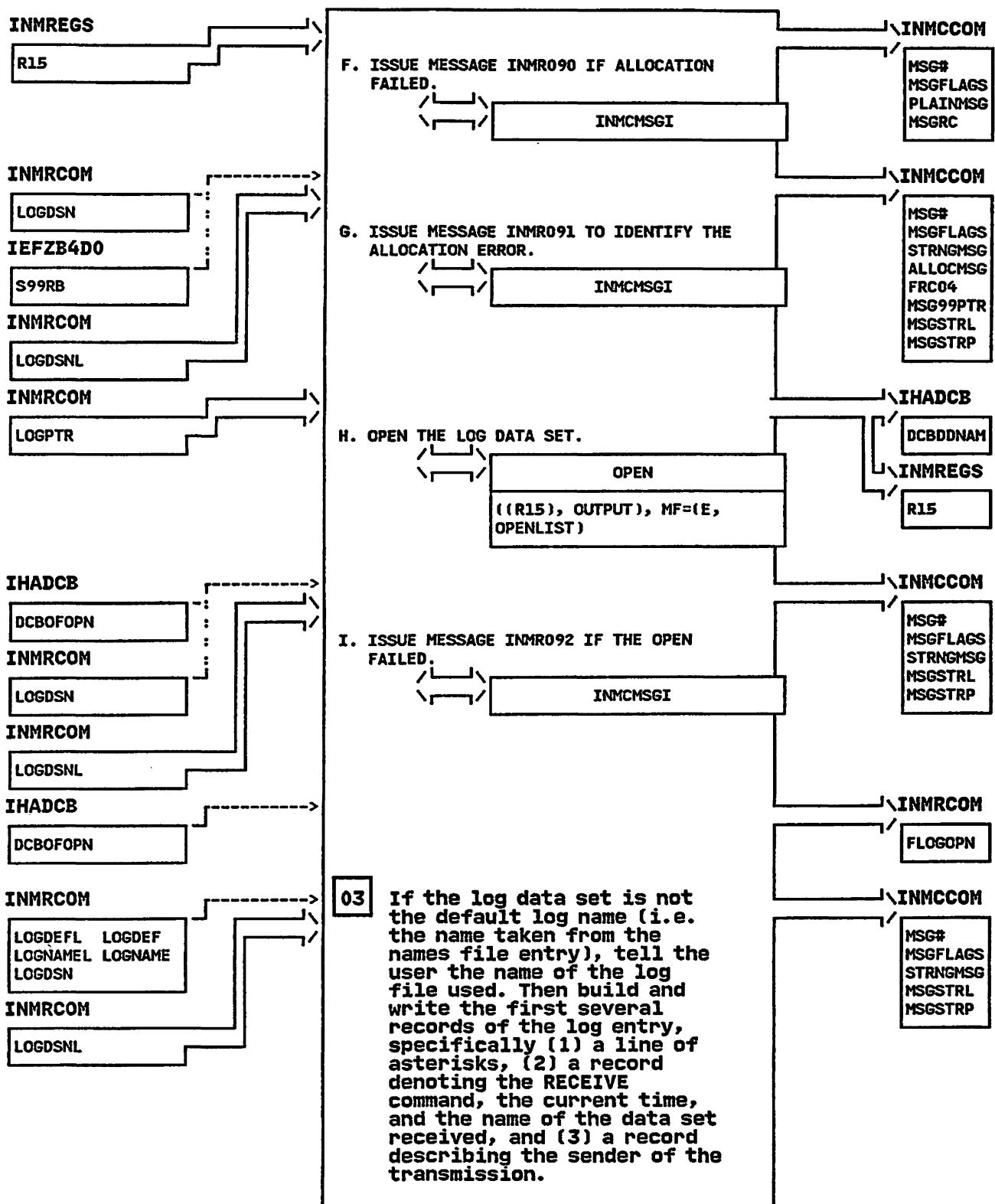
INMRLGO - LOG OPEN Routine

STEP 01



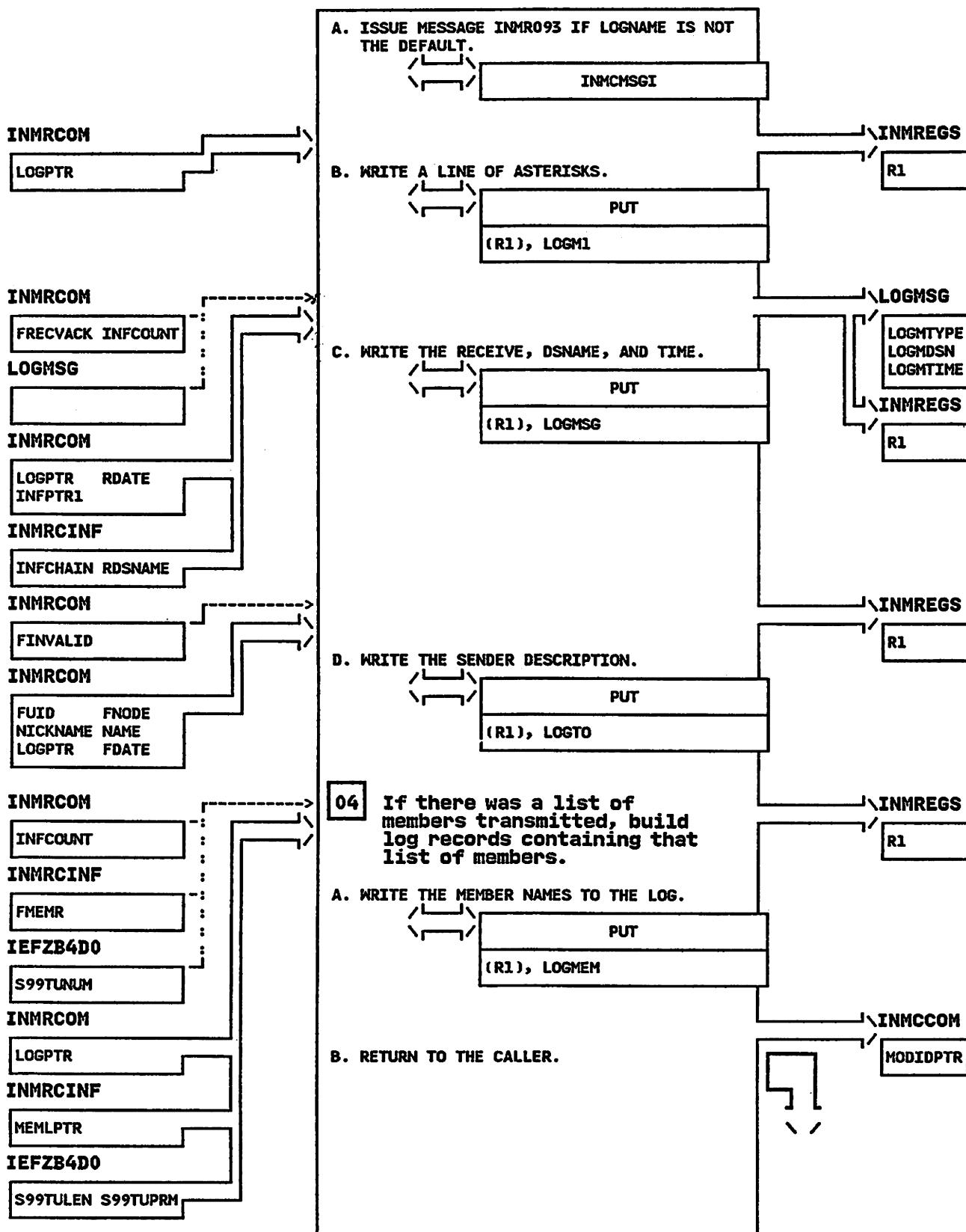
**INMRLOGO - LOG OPEN Routine**

**STEP 02F**



**INMRLOGO - LOG OPEN Routine**

**STEP 03A**



## INMRM - MODULE DESCRIPTION

### DESCRIPTIVE NAME: RECEIVE Command Main Module

#### FUNCTION:

The INM RM module is the controlling module for the RECEIVE command. It performs command initialization functions, allocates the input file(s) and then invokes other routines to do the remaining functions.

#### ENTRY POINT: INM RM

PURPOSE: See FUNCTION

LINKAGE: ATTACH

CALLERS: TSO terminal monitor program

INPUT: Standard TSO parameter list from the TMP.

OUTPUT: Received file stored in the users data set.

EXIT NORMAL: BR 14 Return to Caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via PLS CALL:

INMCMMSG - Message issuing routine  
INMCR - TRANSMIT and RECEIVE ESTAE routine  
INMCTIME - Convert GMT to local time routine  
INMRALLO - Allocate output data set routine  
INMRCODE - File decryption routine  
INMRMSG - Message module  
INMRF - Transmission file reload to log routine  
INMRNTFY - Send user notification routine  
INMRO - Read and process control records routine  
INMRPDS - PDS reload routine  
INMRSCMD - Command scan subroutine  
INMRUINP - User prompt routine  
INMRVBS - INMCOPY restore routine  
INMR80 - Read as is routine  
INMRZ - RECEIVE exit-invocation routine

The following are invoked via CALLTSSR:

IKJEFF02 - TSO terminal message routine

##### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Message issuing parameter area  
INMXPRMD - Installation options block

##### CONTROL BLOCKS:

CVT, DCB, SSOB, SSIB, DSCB, PSCB, IOPL,  
JESCT, CPPL, PPL, TCB, JSCB, PSA,  
IEFZB4D0, IEFZB4D2, UPT, ECT

##### TABLES:

INREC - Input record general format  
CBUF - TSO command buffer format  
LOGDEL - "DELETED" record for log  
LOGSTOR - "STORED" record for log  
LOGERR - "ERROR" record for log  
GETLBUF - GETLINE buffer

## INMRRM - MODULE OPERATION

INMRRM is a TSO command that reconstructs data transmitted via the TRANSMIT command. It will either process a single data set or will scan all data sets and prompt the user for reconstruction information.

Input files to this program are normally kept on the spool by JES and accessed via the external writer interface.

The RECEIVE command processes all files queued for the user. First, the top file is selected, allocated, and opened. Header and message records are read and sent to the user. IKJEFF02 is used to prompt for overriding data set parameters. The data set is restored, copied, or deleted and RECEIVE processing continues with the next file.

## INMMR - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMMR

### MESSAGES:

INMR000I NO MORE FILES REMAIN FOR THE RECEIVE  
COMMAND TO PROCESS.  
INMR001I RESTORE SUCCESSFUL TO DATASET 'dsn'.  
INMR002I FILE DELETED.  
INMR003I YOU HAVE NO MESSAGES OR DATA SETS TO  
RECEIVE.  
INMR004I DELETE IGNORED; FILE CONTAINS PREVIOUSLY  
RECEIVED DATA.  
INMR037I ERROR FROM JES.  
INMR040I ERROR ATTEMPTING TO PROMPT FOR DATASET  
DELETION INFORMATION.  
INMR041I PROMPTING WAS INHIBITED.  
INMR042I RECEIVE FAILED; SYSTEM CANNOT PROMPT YOU  
FOR INFORMATION.  
INMR044I RETURN CODE 'nn' FROM IKJEFF02.  
INMR056I RECEIVE COMMAND TERMINATED. YOU ARE NOT  
AUTHORIZED TO RECEIVE DATA FOR 'userid'.  
INMR127I ERROR IN ALLOCATION FOR JES INPUT  
DATASET.  
INMR128I DATASET ORGANIZATION FOR DATASET 'dsname'  
IS NOT SUPPORTED FOR RECEIVE INPUT.  
INMR129I ERROR IN ALLOCATION FOR DSNAME dsname.  
INMR130I RECEIVE COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMR131I ERROR IN OPEN FOR DDNAME ddname.  
INMR132I ERROR IN OPEN FOR DATASET dsname.  
INMR133I ERROR IN OPEN FOR JES INPUT FILE.  
INMR134I DEALLOCATION FAILED FOR INPUT FILE.  
INMR137I UNABLE TO TERMINATE EXTERNAL WRITER.  
INMR145I JES IS NOT ACTIVE.  
INMR152I RECEIVE FAILED. SENDER'S NODE ID NOT  
RECOGNIZED.  
INMR153I RECEIVE failed. Userid not available.  
  
INMR800I THE RECEIVE COMMAND FAILED. THE  
PUTGET SERVICE ROUTINE ISSUED  
RETURN CODE 'nn'.  
INMR900I -----  
INMR910I REPLY "K" TO KEEP THIS FILE ON THE SPOOL.  
INMR911I ANY REPLY OTHER THAN "K" CAUSES FILE TO  
BE DELETED.  
INMR913I THE PREVIEW OPTION IS INVALID WITH  
PARTITIONED DATASETS OR ENCIPHERED FILES.  
IT HAS BEEN IGNORED.

### ABEND CODES:

OAF Reason code: 37 IEFSSREQ failed.  
OAF Reason code: 127 Allocation of JES input file  
failed.  
OAF Reason code: 132 OPEN of JES input file or input  
data set failed.  
OAF Reason code: 134 Deallocation of JES file failed.  
OAF Reason code: 137 Termination of external writer  
failed.

### WAIT STATE CODES: None

**INMRM - DIAGNOSTIC AIDS (Continued)**

**RETURN CODES:**

**EXIT NORMAL:**

Return code is set in register 15.

- 0 - Everything is normal.
- 4 - Warning. Everything might be correct.
- 8 - Error. Some function failed.
- 12 - Severe error. RECEIVE terminated because of the error.
- 16 - Terminal error: ABEND.

**REGISTER CONTENTS ON ENTRY:**

Register 1	- Address of command processor parameter list (CPPL)
Register 13	- Save area address
Register 14	- Return address
Register 15	- Entry point address
Other	- Unpredictable

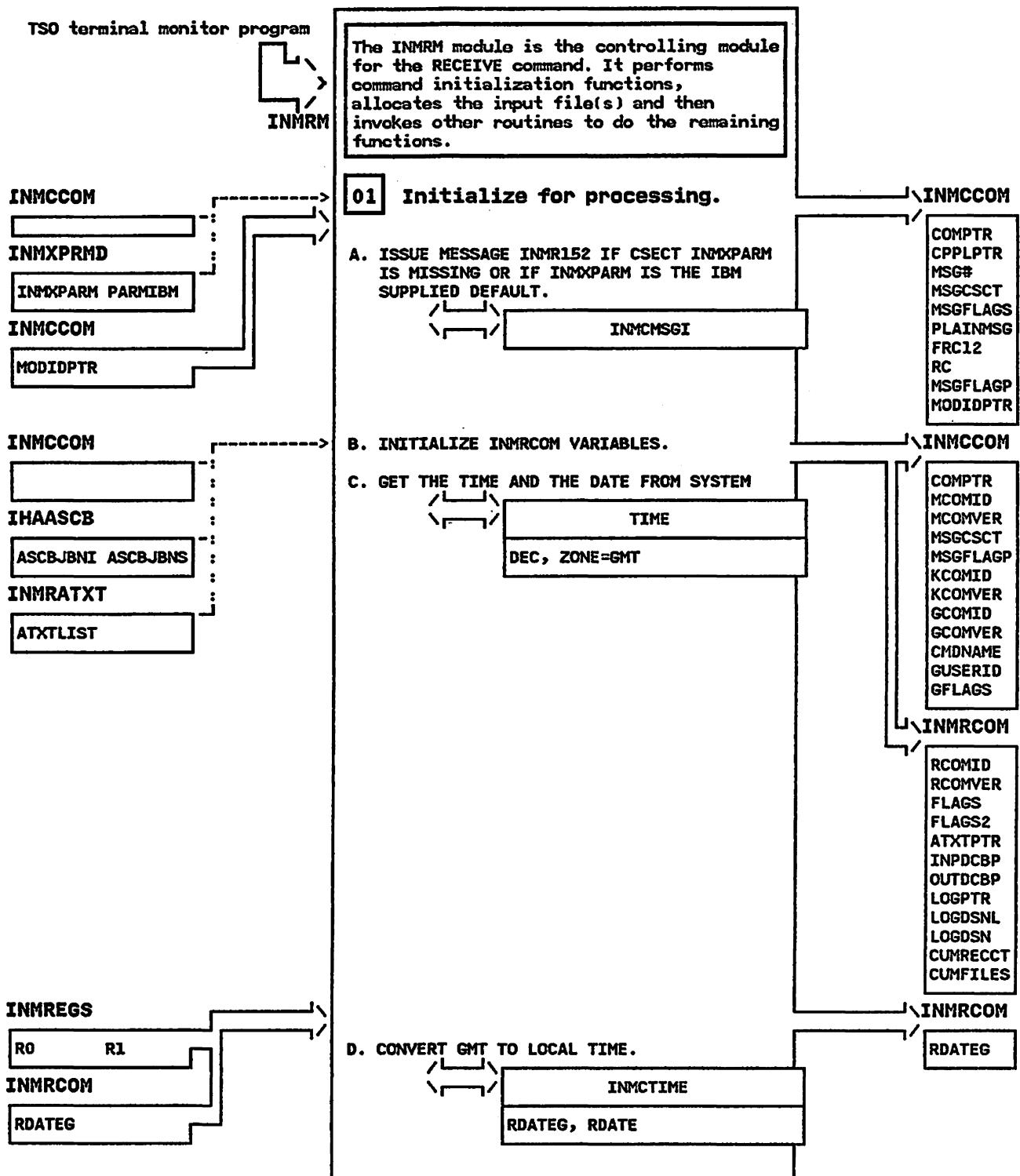
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

- Register 15 - Return code
- Other - Unchanged

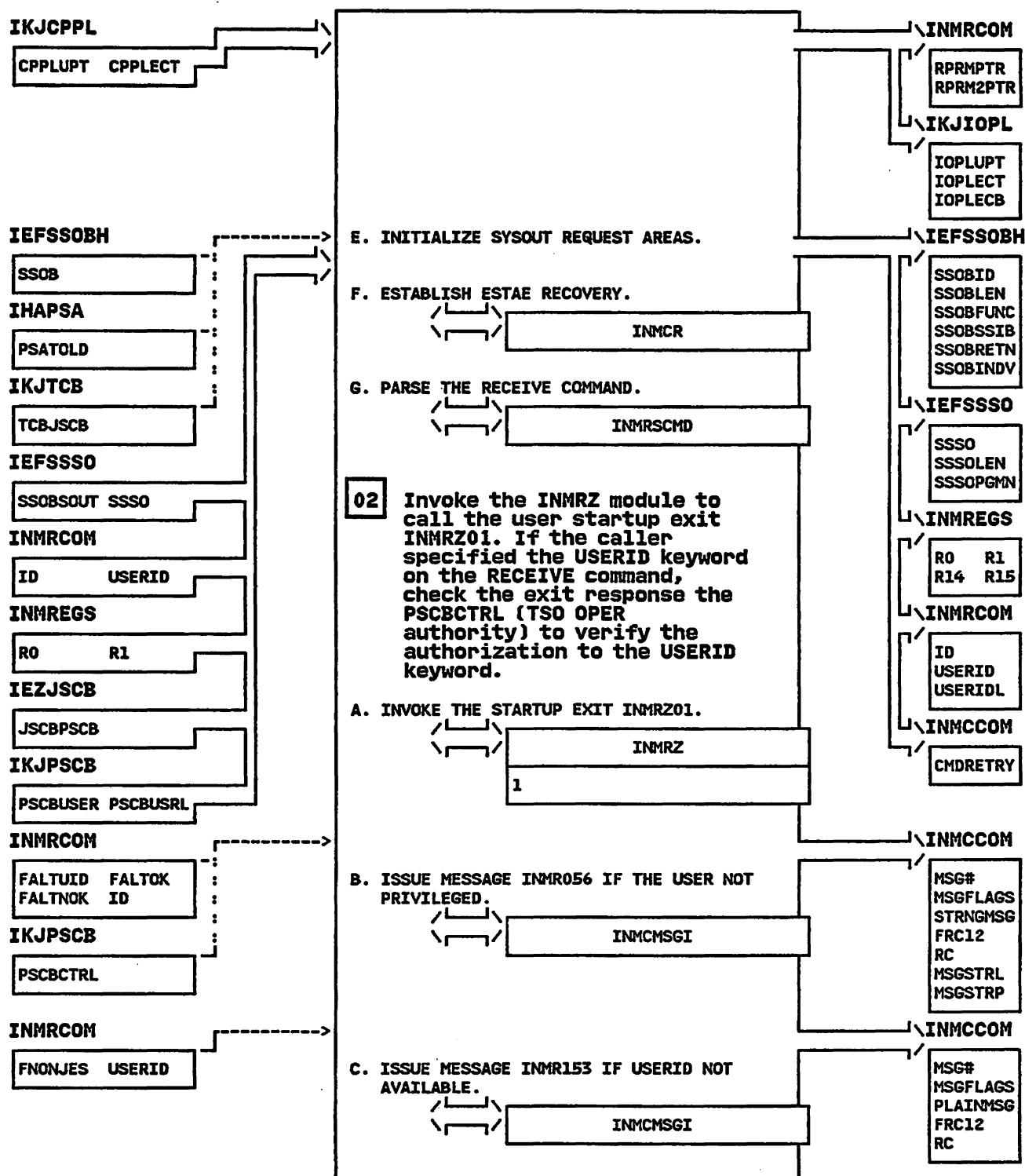
INMRRM - RECEIVE Command Main Module

STEP 01



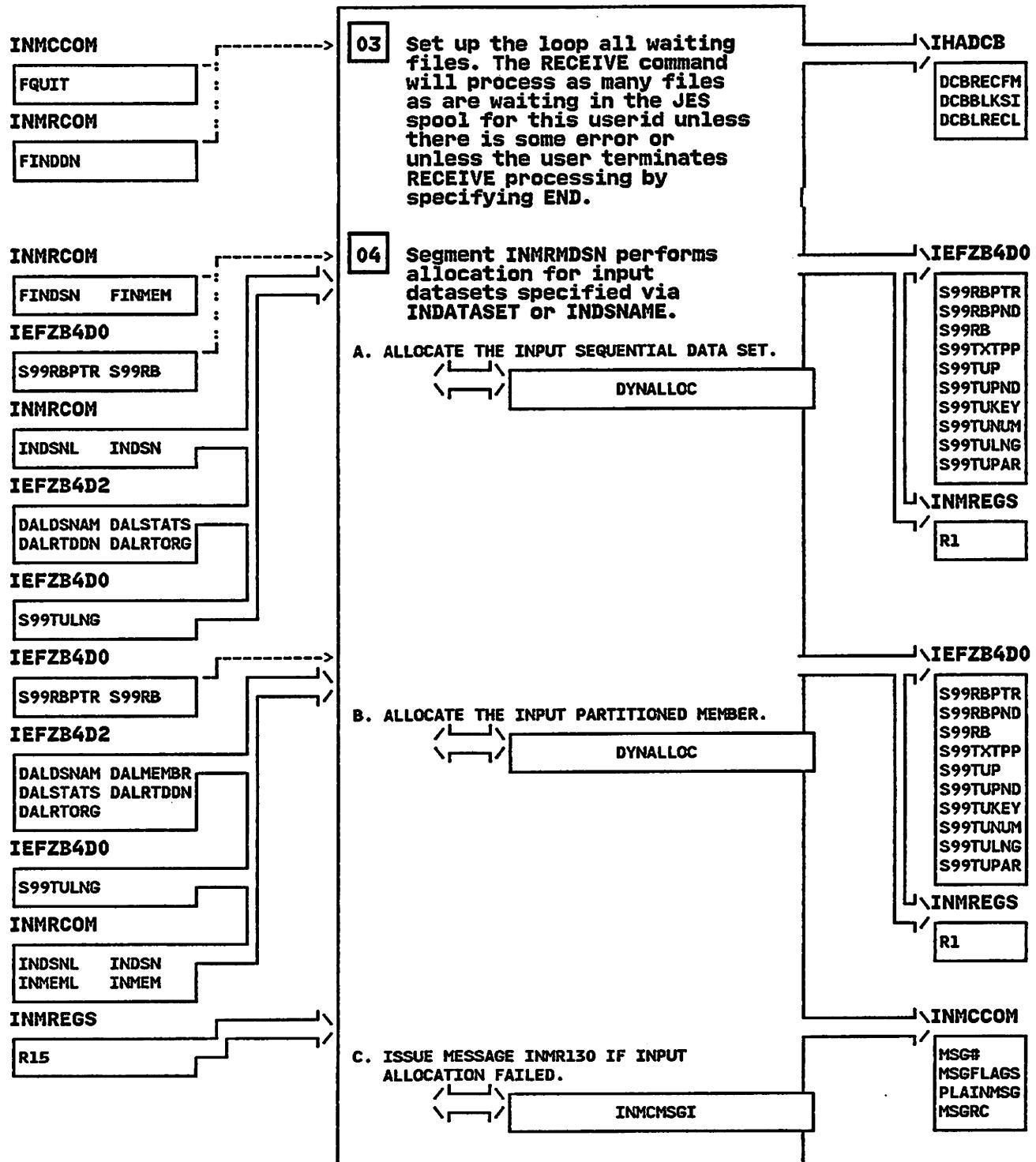
INNMRM - RECEIVE Command Main Module

STEP 01E



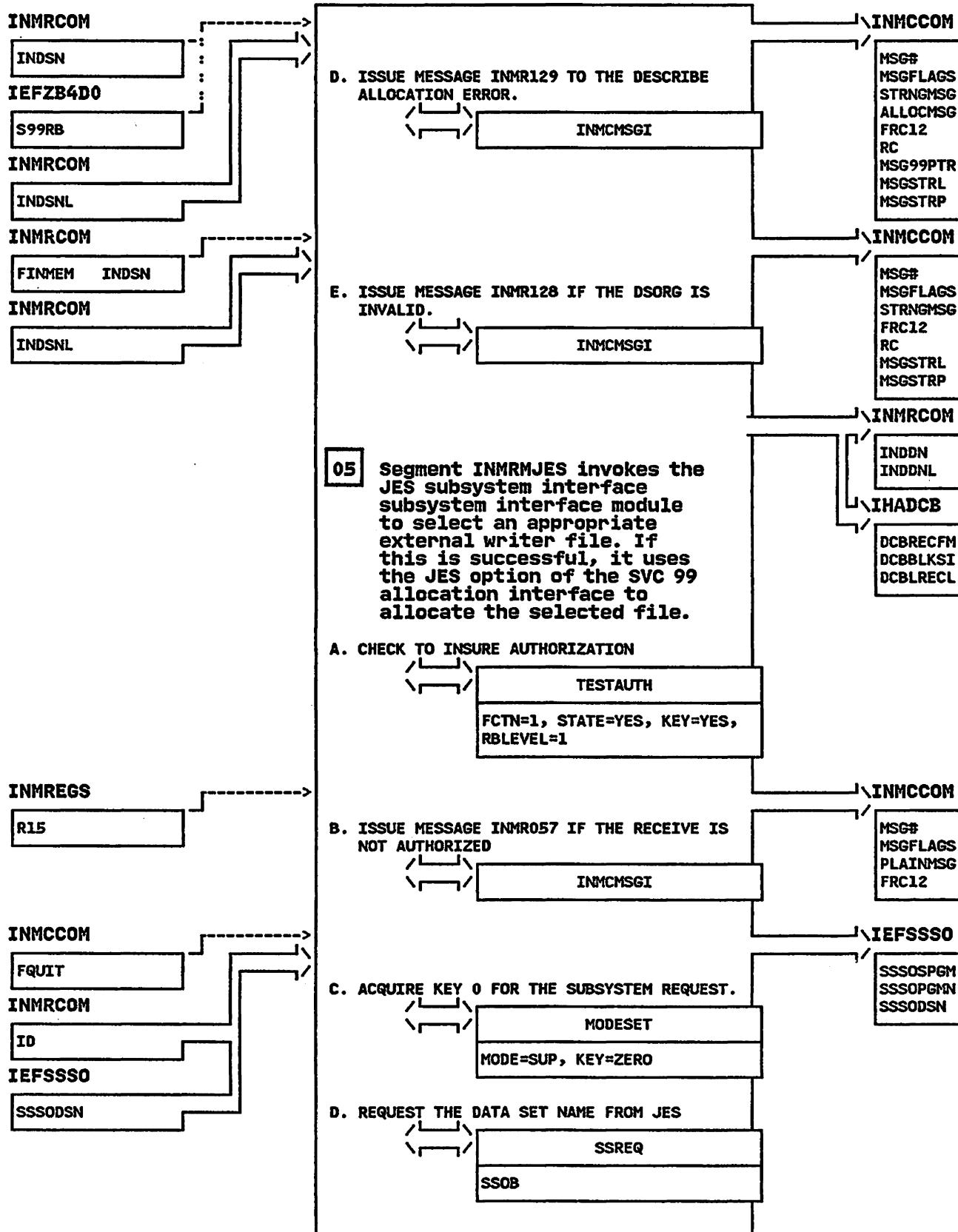
INMRCM - RECEIVE Command Main Module

STEP 03



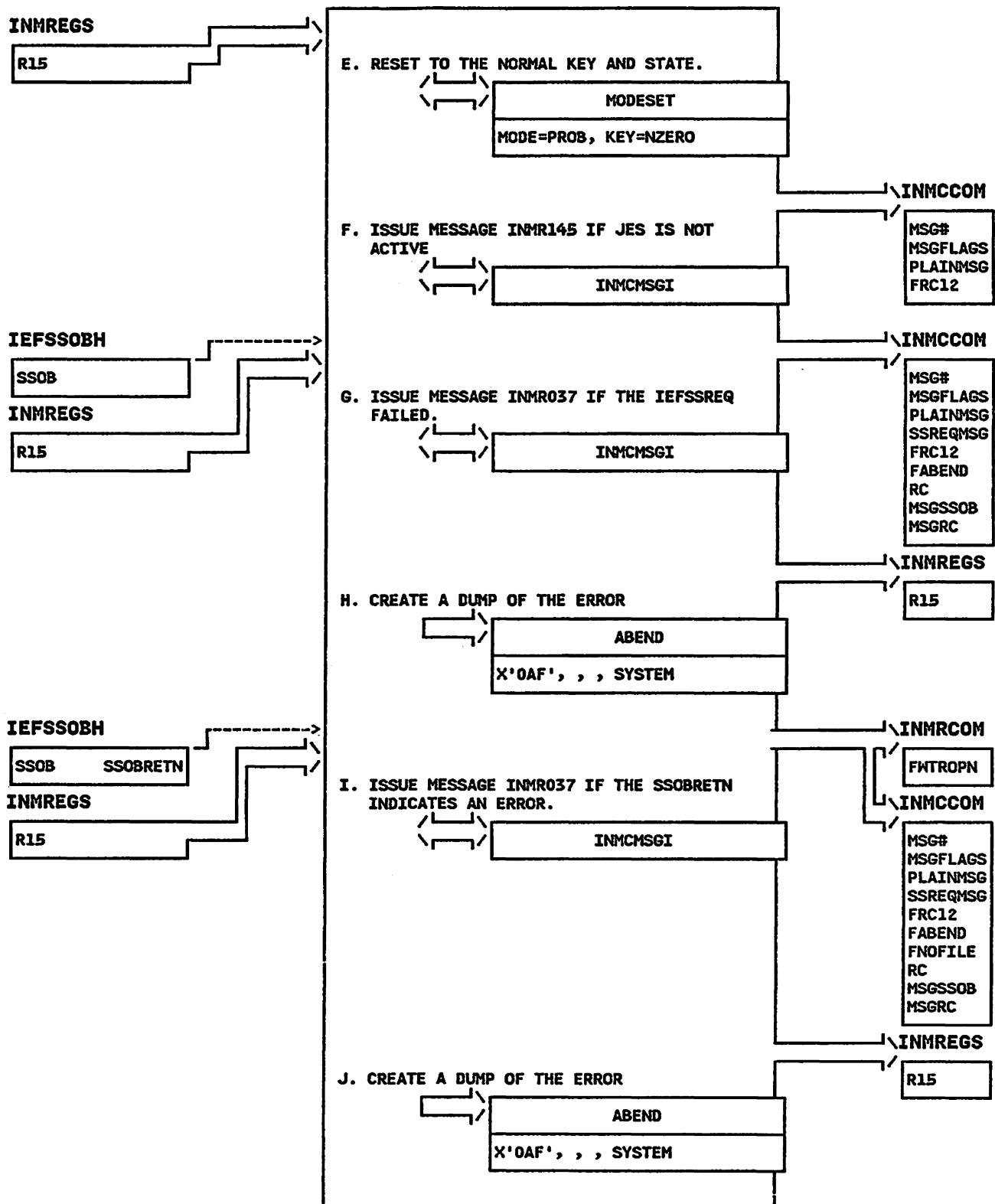
INMRRM - RECEIVE Command Main Module

STEP 04D



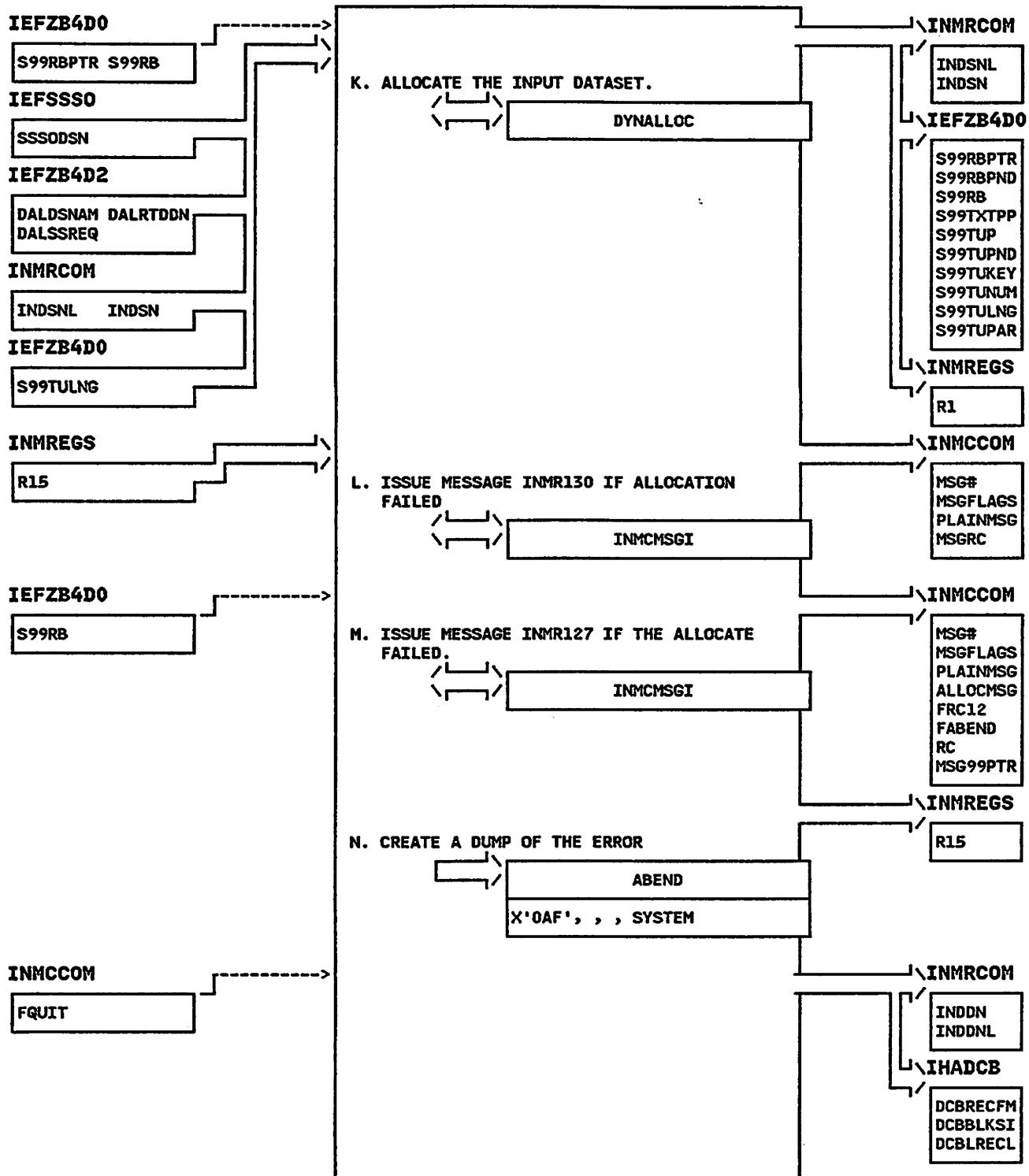
INMRM - RECEIVE Command Main Module

STEP 05E



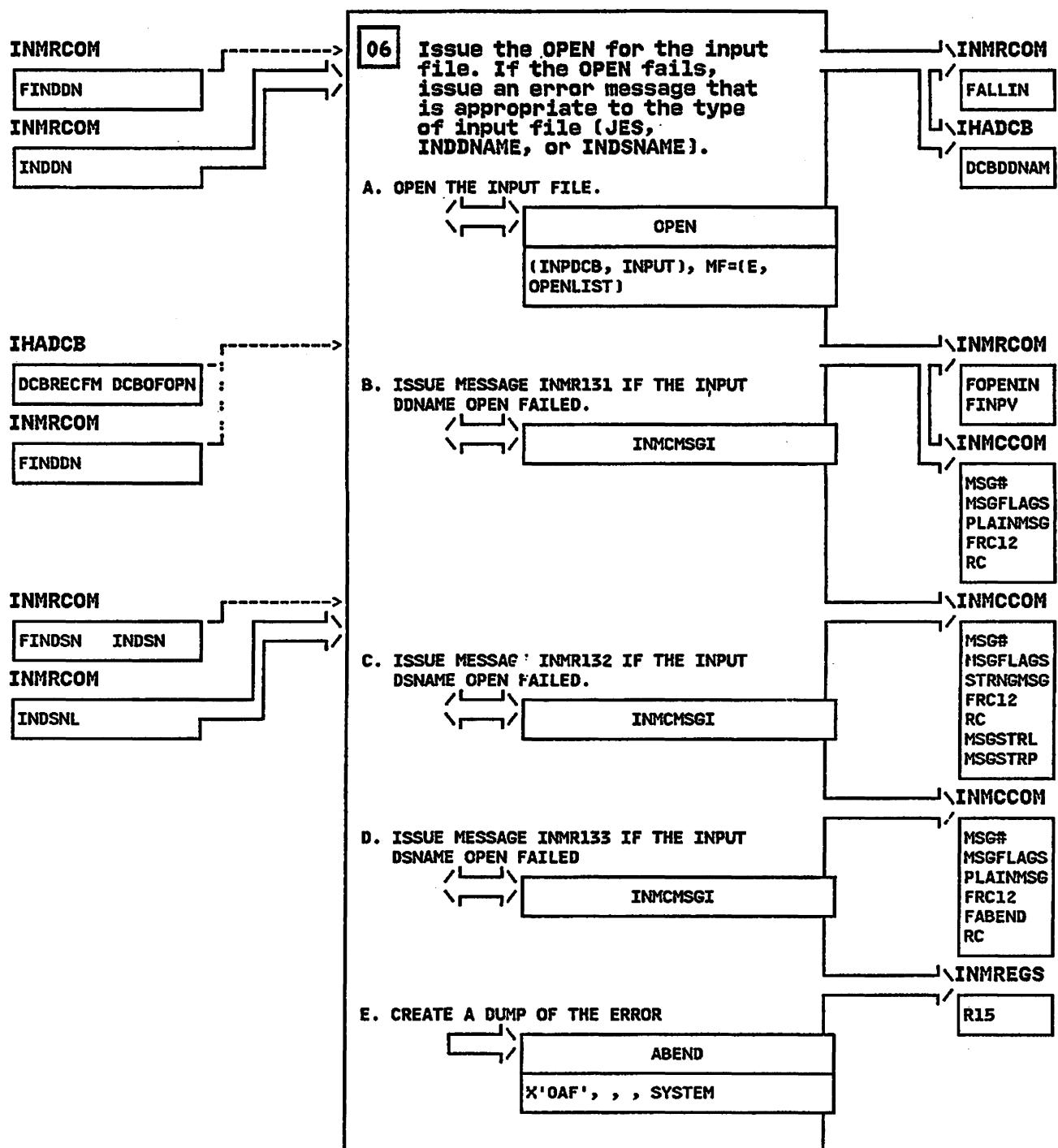
INMRCM - RECEIVE Command Main Module

STEP 05K



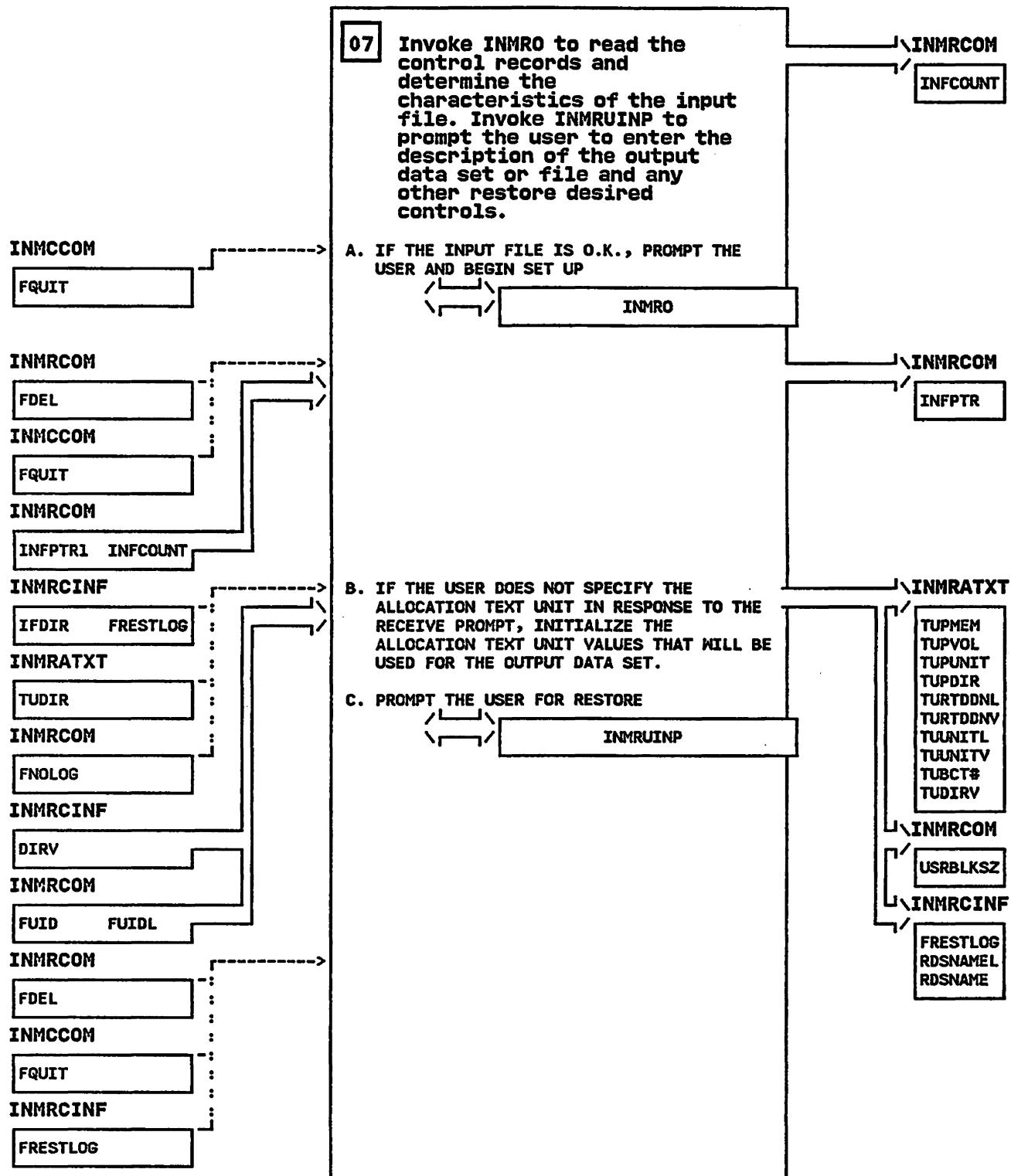
INMRRM - RECEIVE Command Main Module

STEP 06



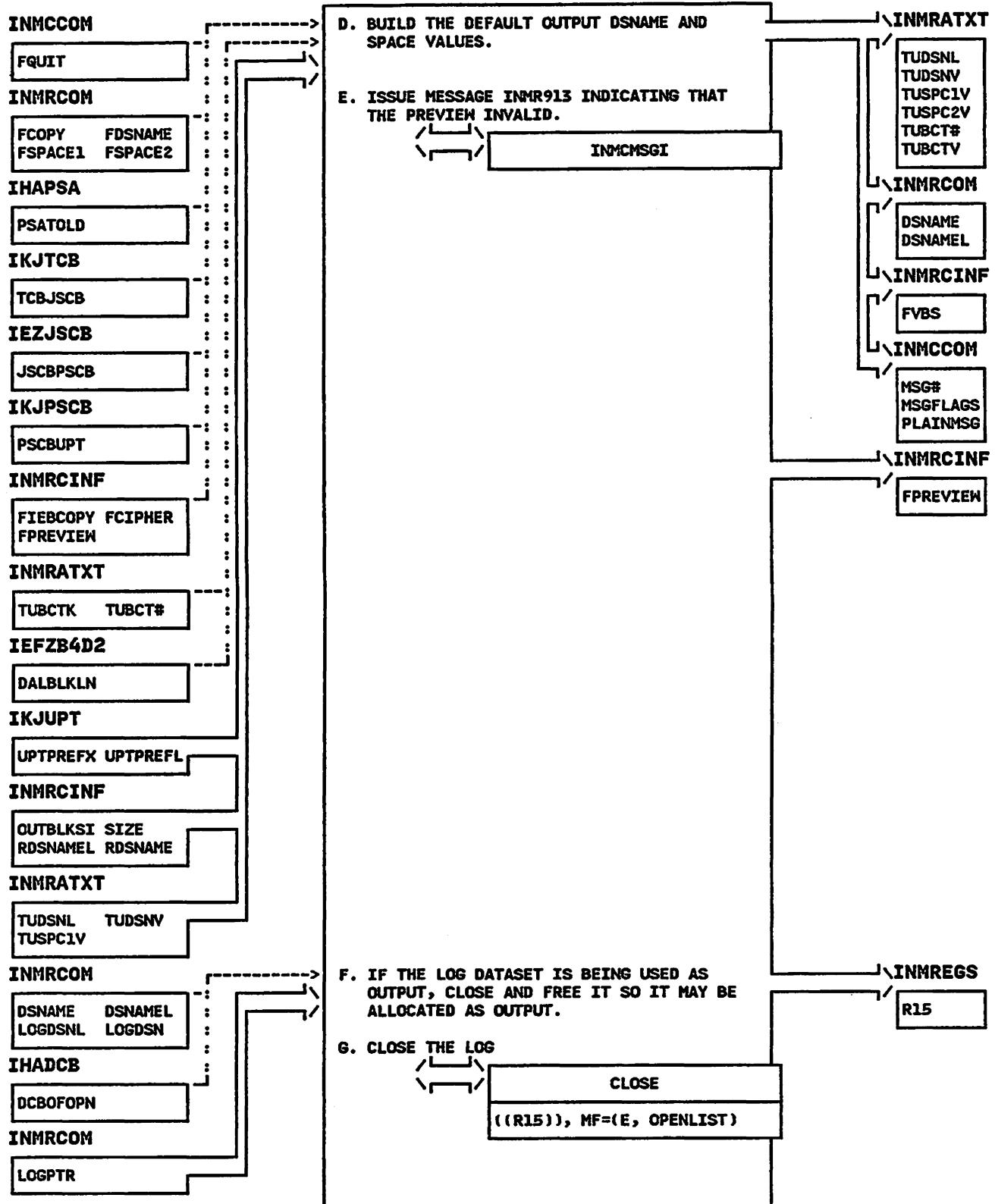
INMRM - RECEIVE Command Main Module

STEP 07



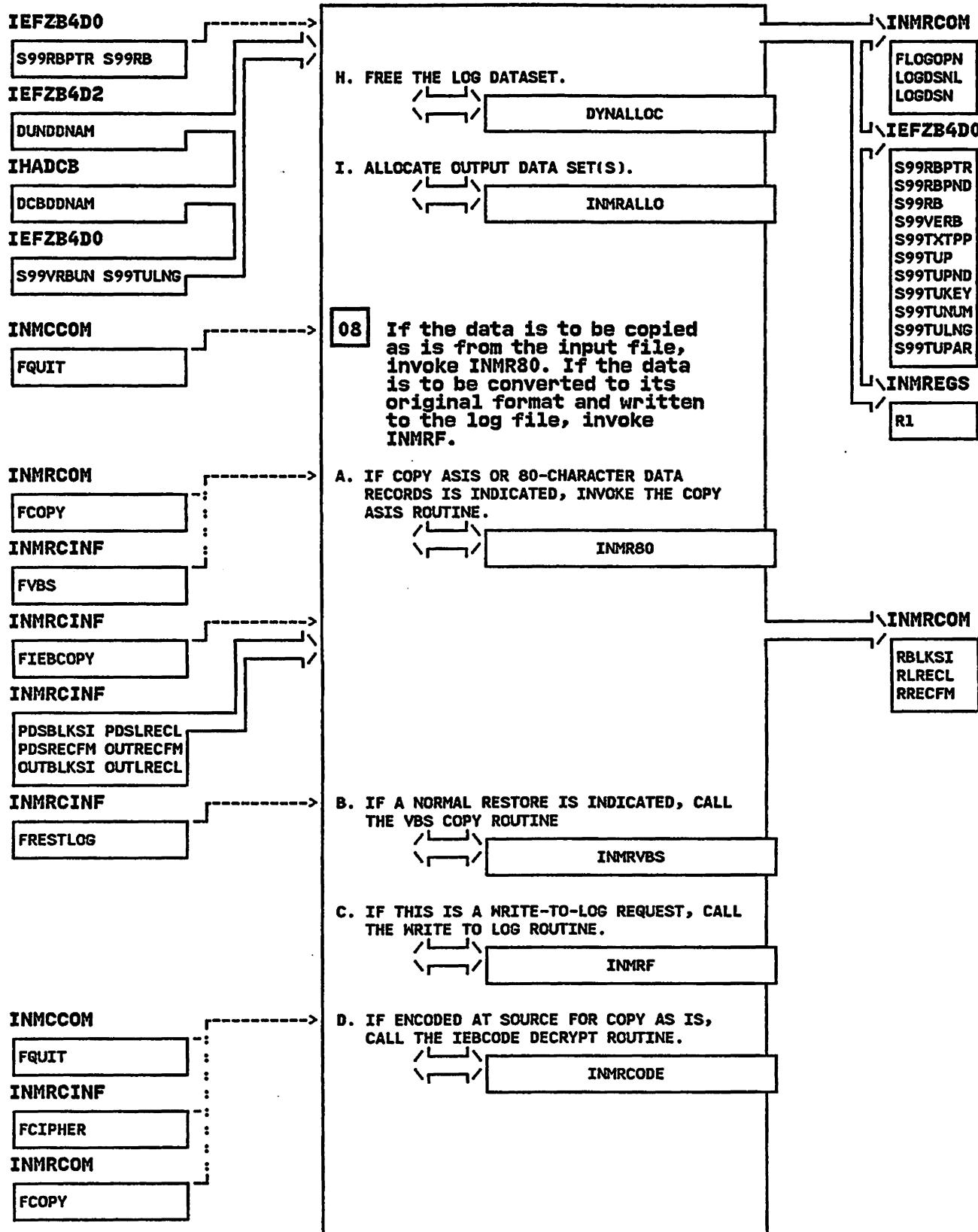
INMRCOM - RECEIVE Command Main Module

STEP 07D



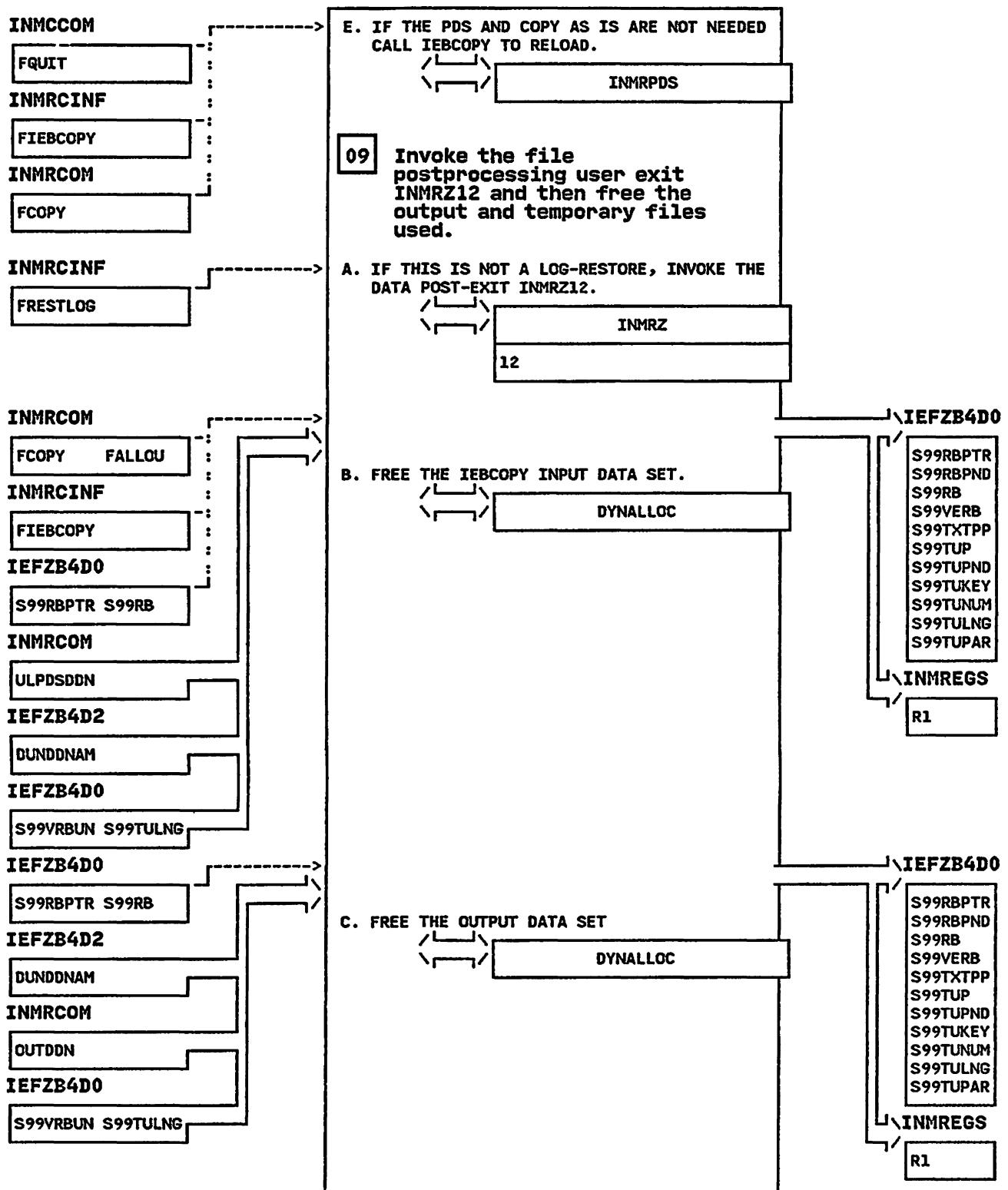
INMRCOM - RECEIVE Command Main Module

STEP 07H



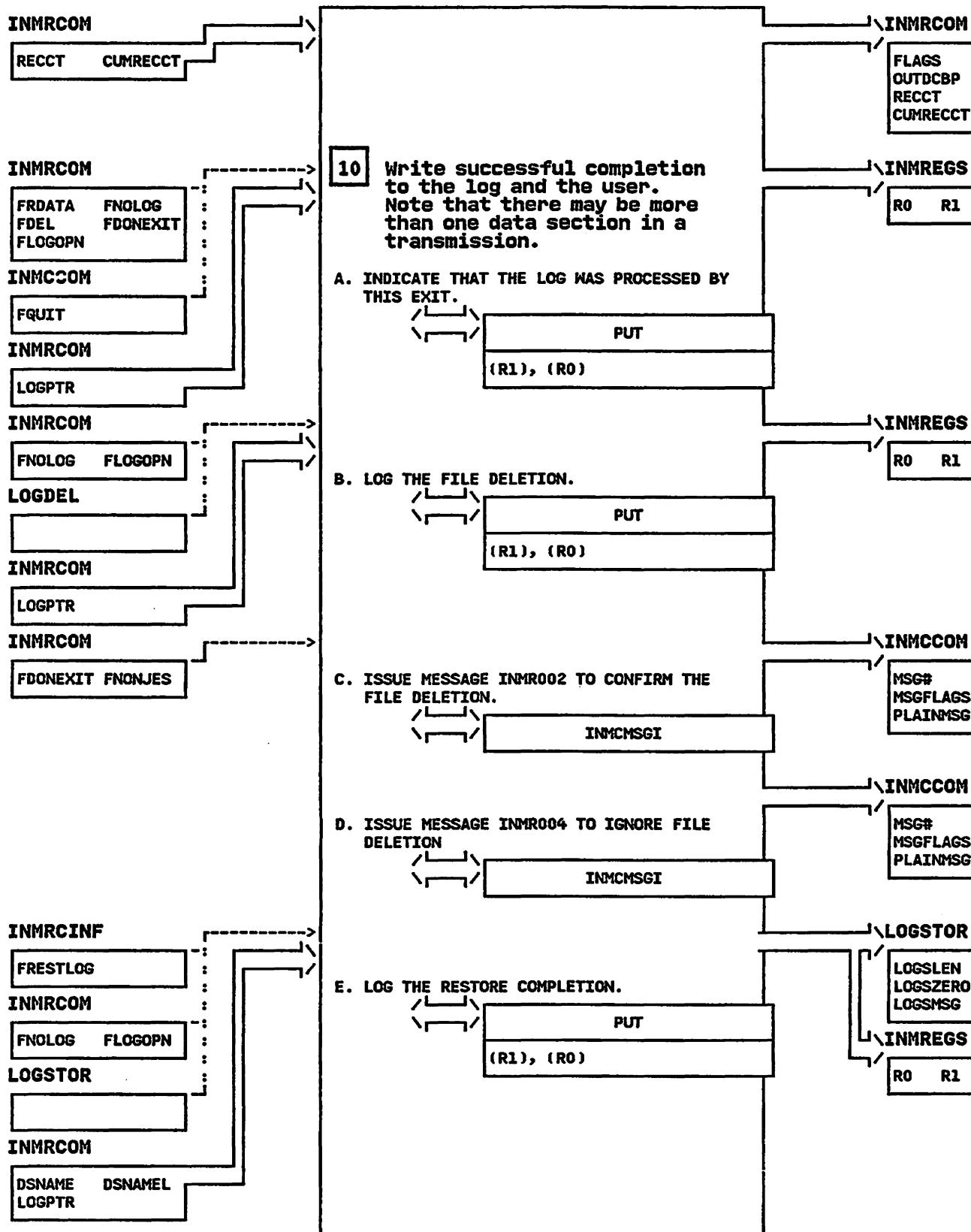
INMRC - RECEIVE Command Main Module

STEP 08E



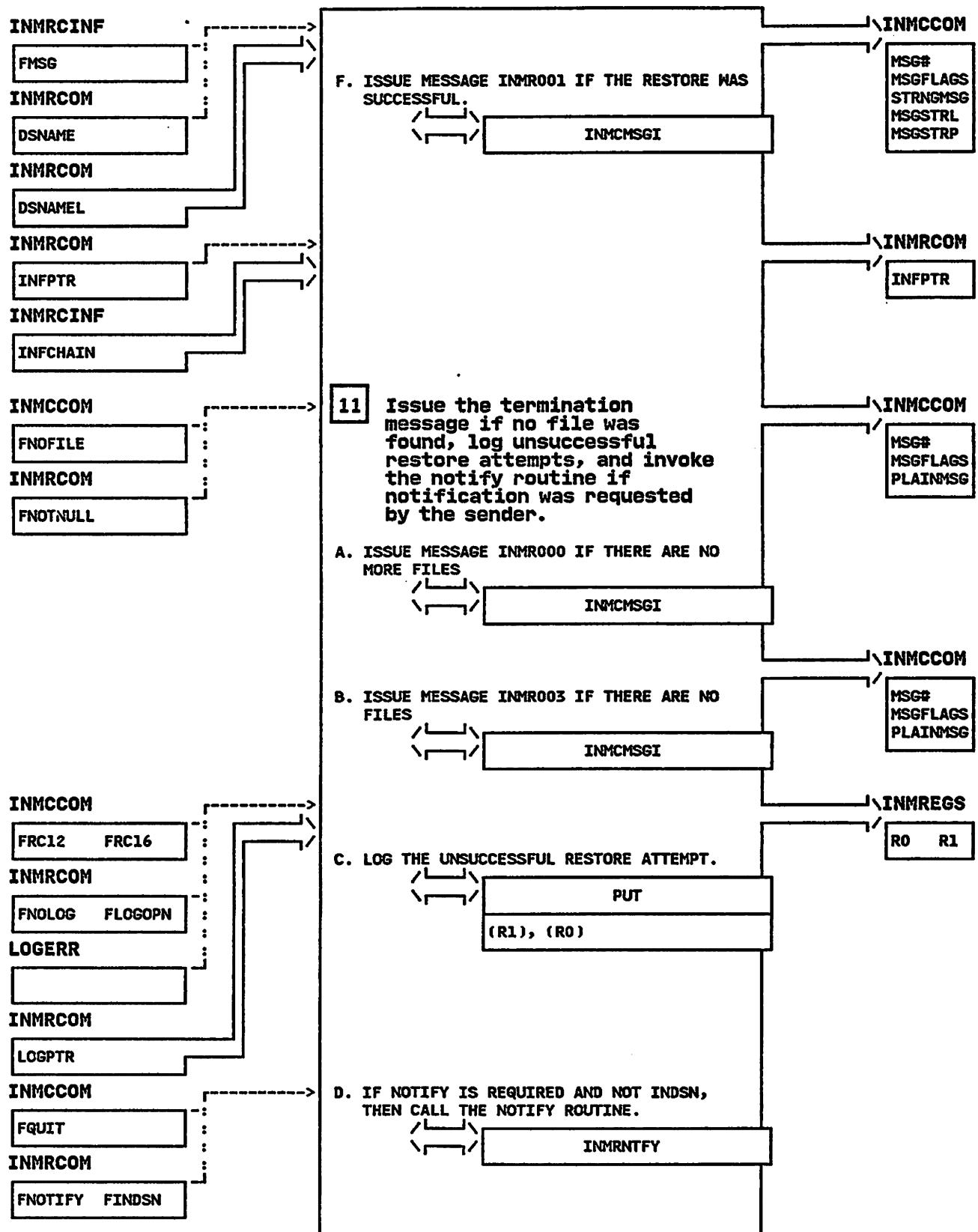
INMRCOM - RECEIVE Command Main Module

STEP 10



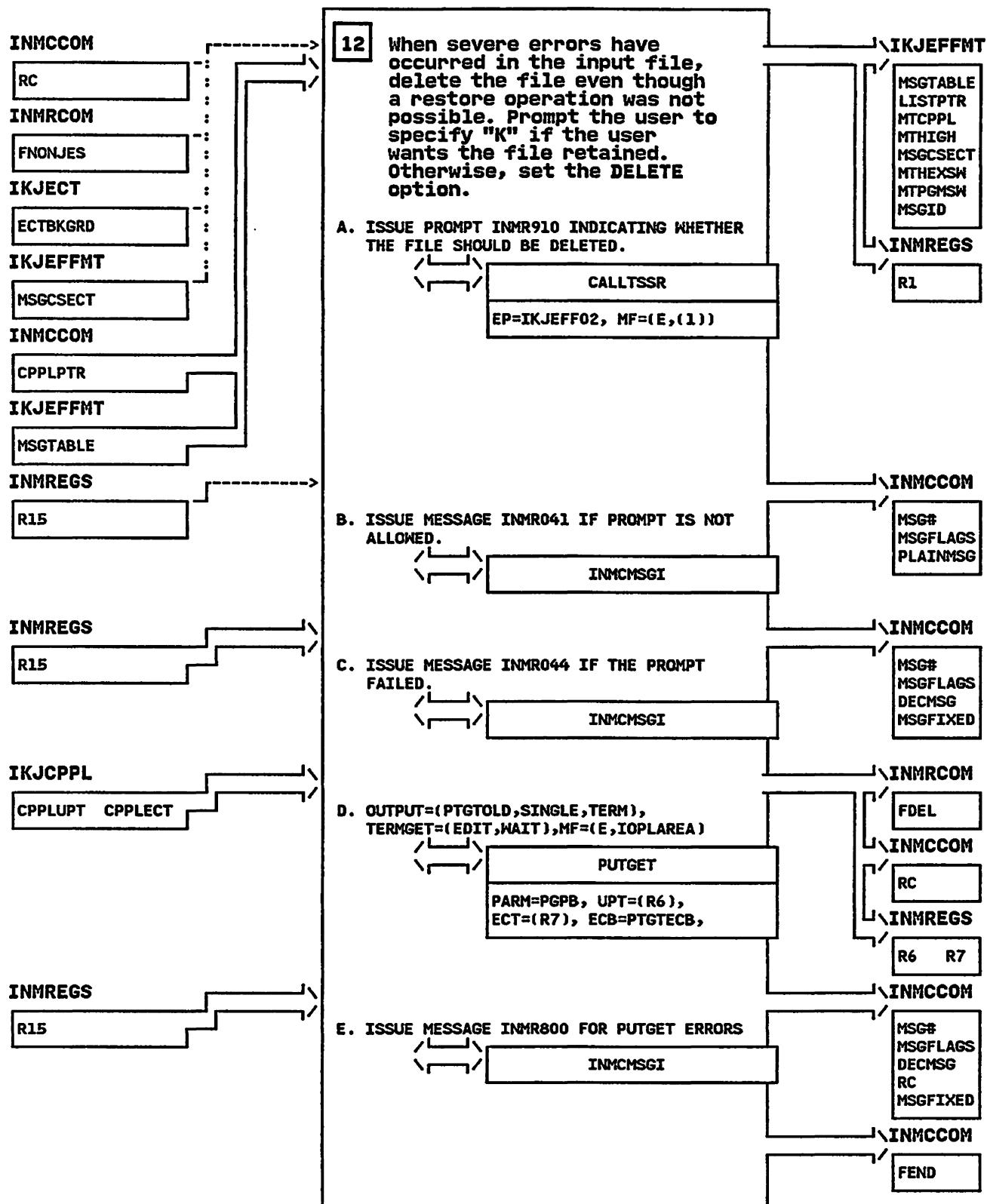
INNRM - RECEIVE Command Main Module

STEP 10F



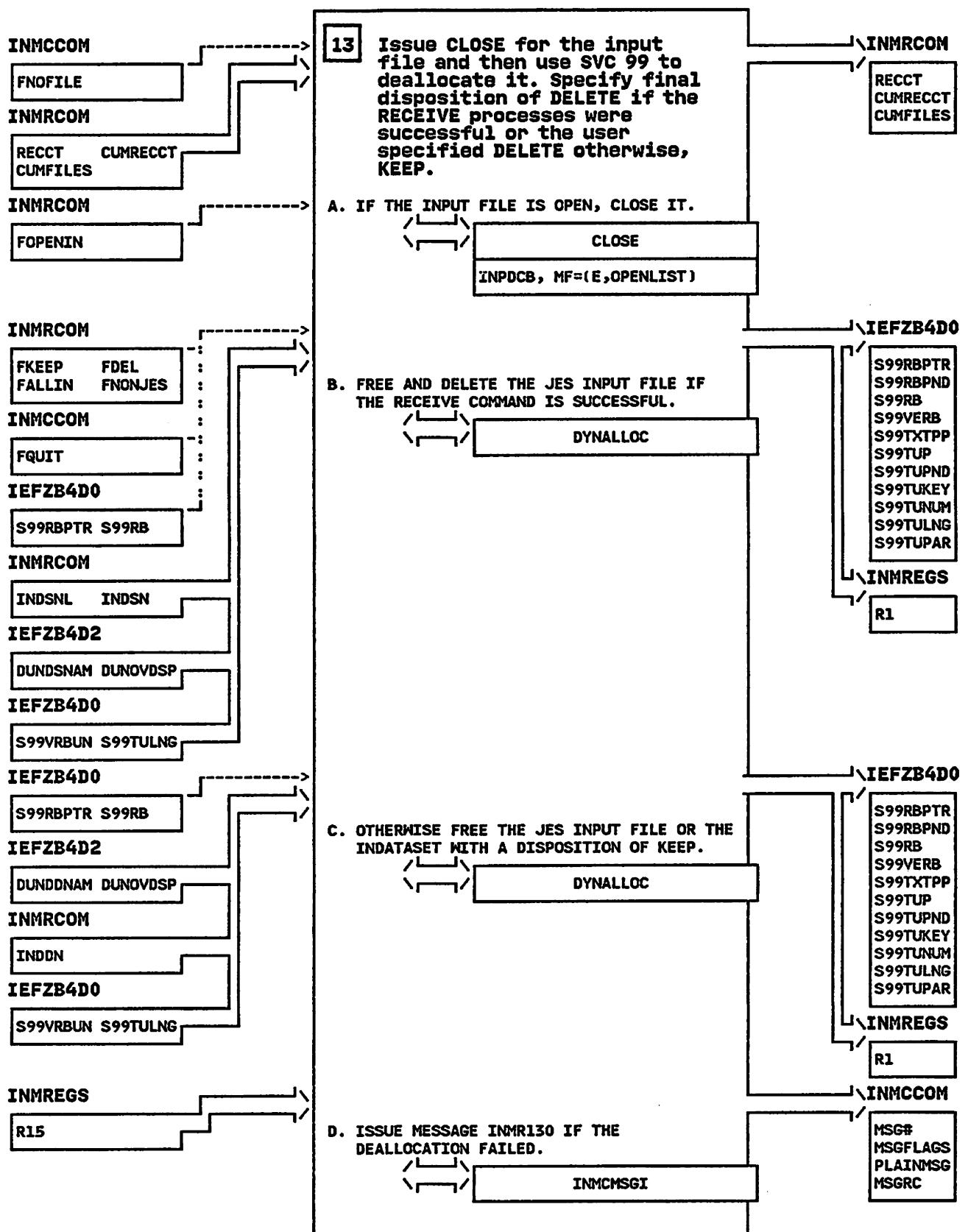
INMRM - RECEIVE Command Main Module

STEP 12



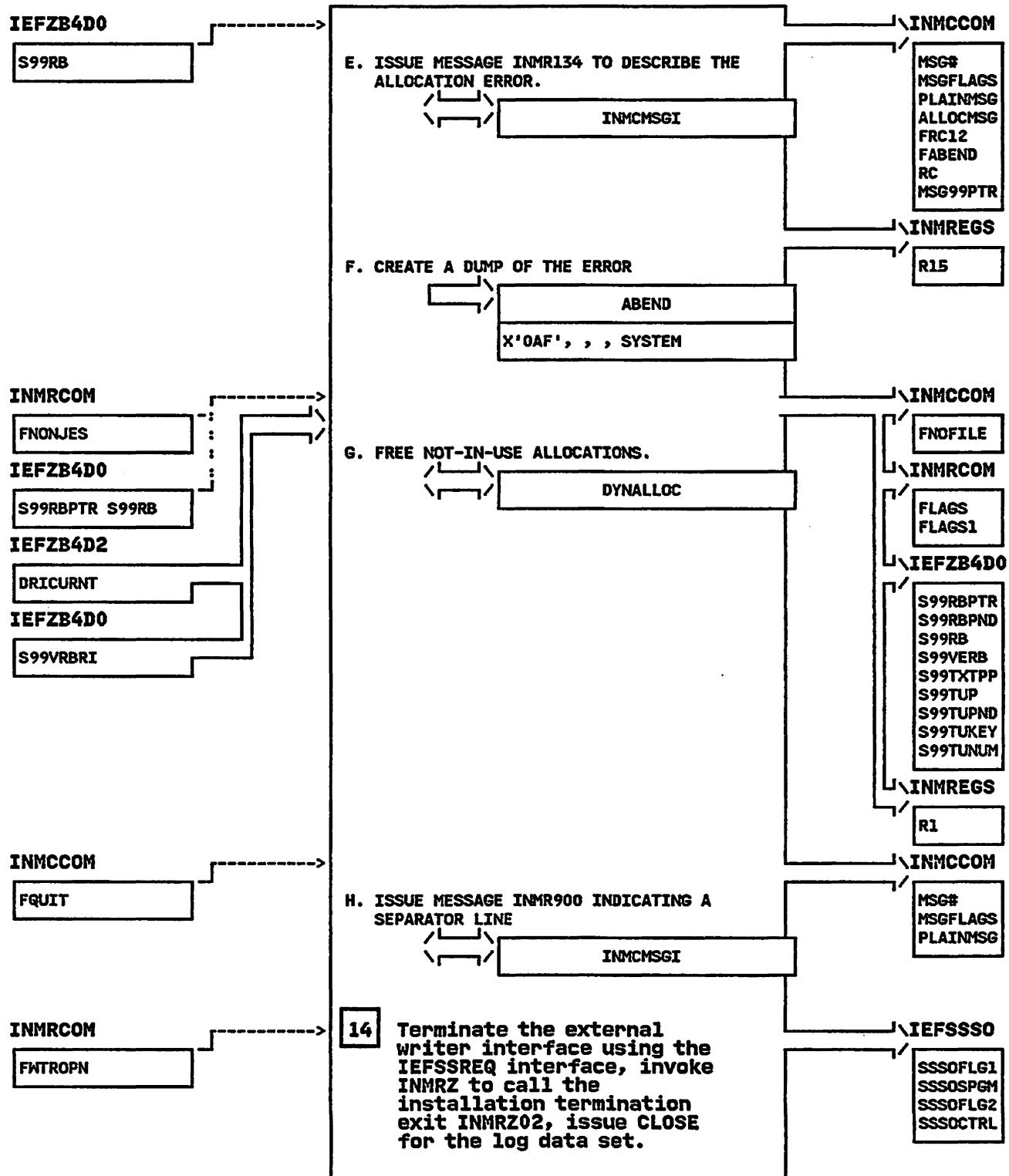
INMRRM - RECEIVE Command Main Module

STEP 13



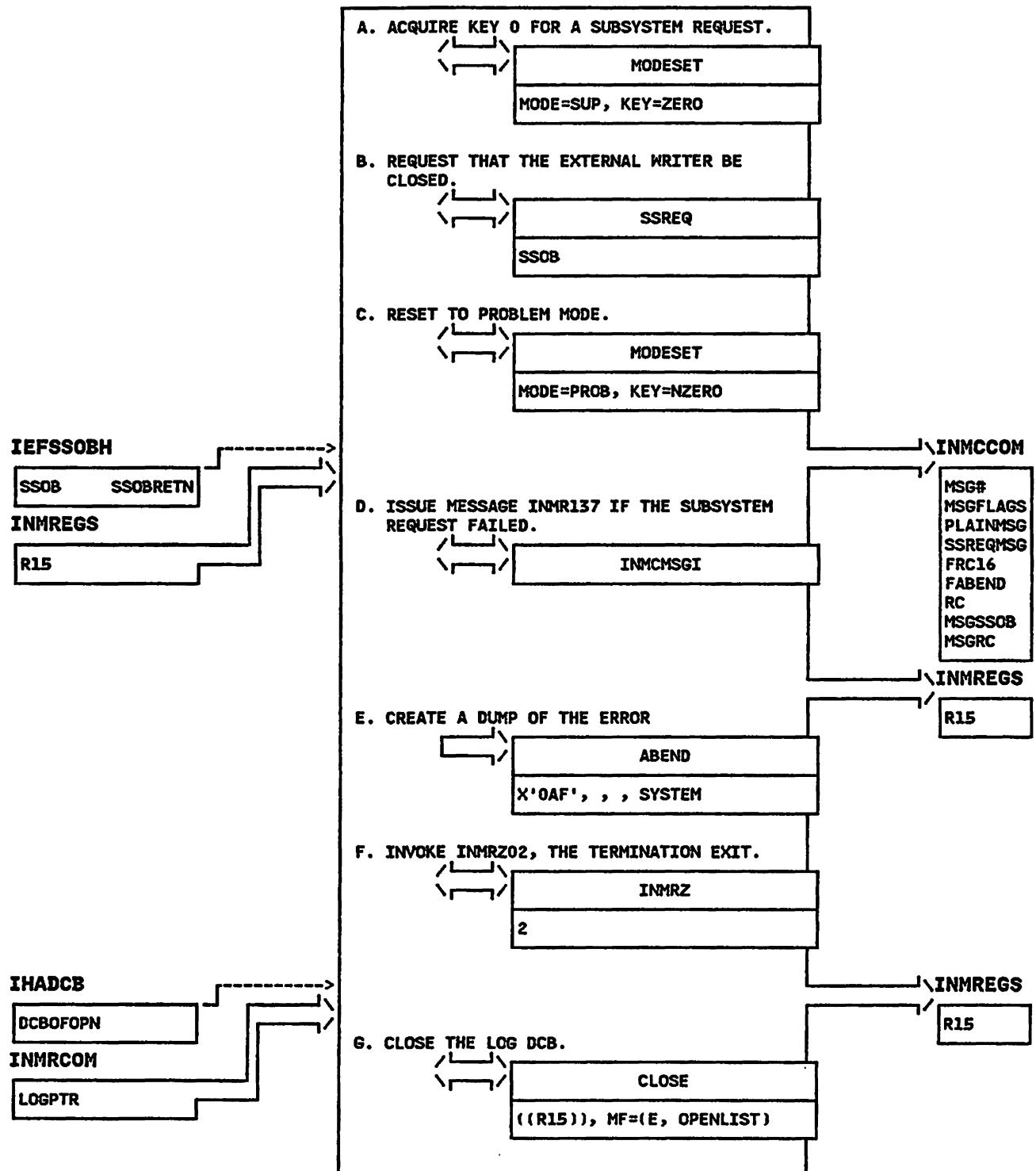
INMRRM - RECEIVE Command Main Module

STEP 13E



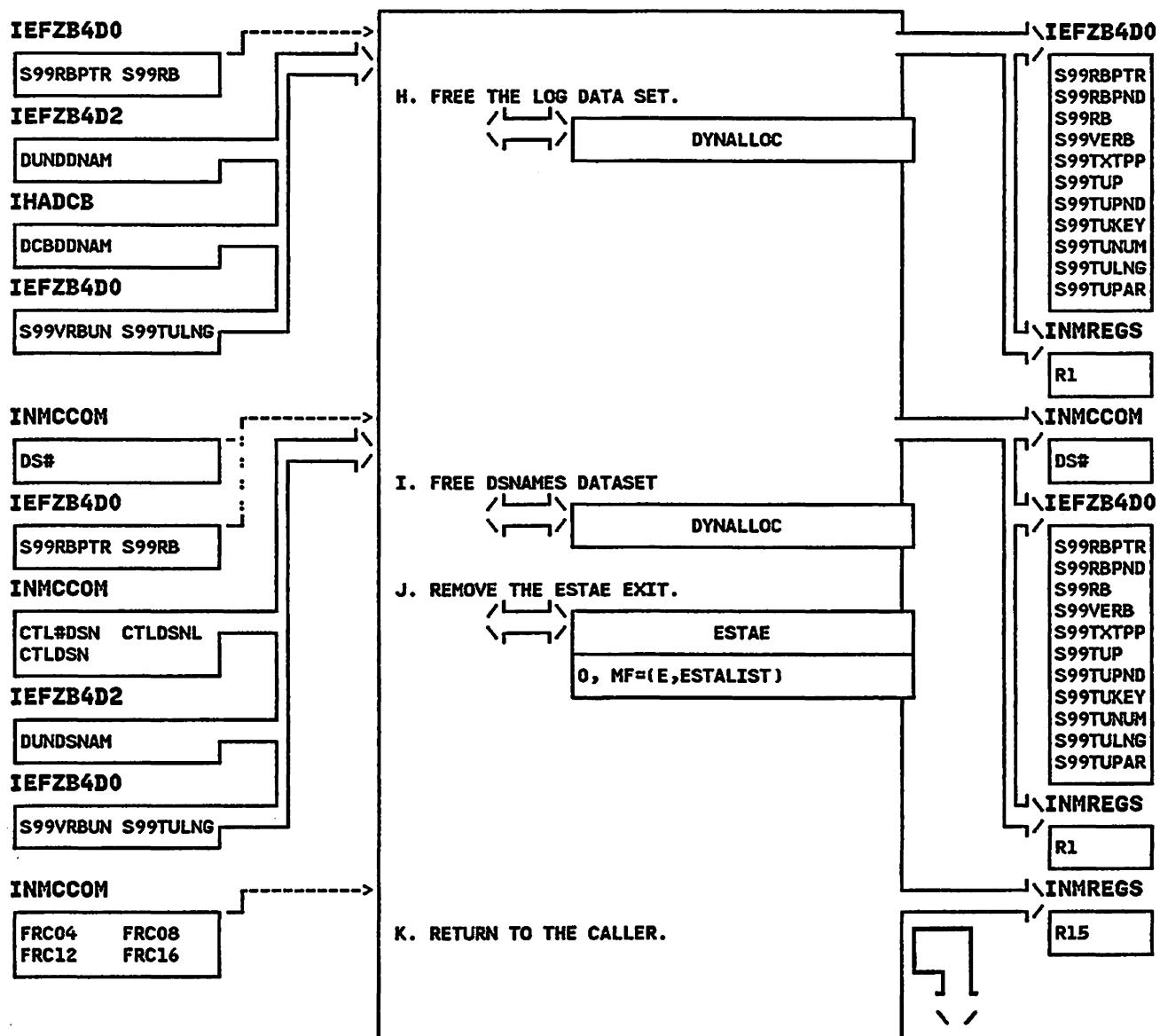
INMRM - RECEIVE Command Main Module

STEP 14A



INMRR - RECEIVE Command Main Module

STEP 14H



**INMRMSG - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** RECEIVE Command Message Module

**FUNCTION:**

Contains all messages used for the RECEIVE command.

**ENTRY POINT:**

**PURPOSE:** None

**LINKAGE:** None

**CALLERS:** None

**INPUT:** None

**OUTPUT:** None

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** IKJTSMSG

**INMRMSG - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** None

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

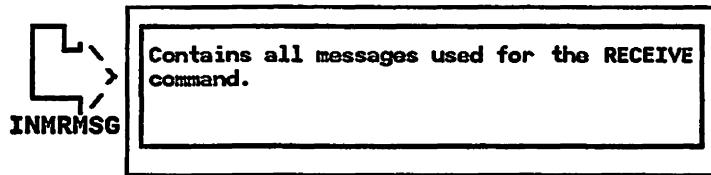
**RETURN CODES:** None

**REGISTER CONTENTS ON ENTRY:** Irrelevant

**REGISTER CONTENTS ON EXIT:** Irrelevant

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**INMRRMSG - RECEIVE Command Message Module**



## INMRNTFY - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Send User Notification Routine

#### FUNCTION:

INMRNTFY sends notifications back to the originator of a transmission.

#### ENTRY POINT: INMRNTFY

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRM

#### INPUT:

All input is provided via the INMCCOM common parameter structure. The following fields are used:

NOTNODE (node to notify)  
NOTUID (userid to notify)  
NOTDSN (name of received dataset)  
USERID (callers userid)  
RC (status of RECEIVE operation)

#### OUTPUT:

Message sent to originating user acknowledging the transmission.

EXIT NORMAL: BR 14 return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine

#### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure  
INMRCLNF - Received file description table  
INMXPRMD - Installation options block  
INMTESTU - Transmission text unit keys

#### CONTROL BLOCKS:

CVT, DCB, SMCA,  
IEFZB4D0, IEFZB4D2

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**INMRNTFY - MODULE OPERATION**

Allocate a SYSOUT file specifying the destination and external writer name to be used for the notification. OPEN the file, write the message header record and the acknowledgement record and CLOSE the file. Deallocate the file so it can be transmitted by JES.

**INMRNTFY - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRNTFY

**MESSAGES:**

INMR140I RECEIPT NOTIFICATION UNSUCCESSFUL  
INMR141I OPEN FAILED FOR JES OUTPUT FILE  
INMR142I NODE NAME nodename NOT KNOWN TO JES  
INMR143I ERROR ALLOCATING JES OUTPUT FILE  
INMR144I SENDER NOTIFIED OF RECEIPT  
INMR146I ERROR ON NOTIFY USERID

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code is set in register 15.

- 0 - Everything is normal.
- 4 - No acknowledgment, allocate failed.
- 8 - No acknowledgment, OPEN failed.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

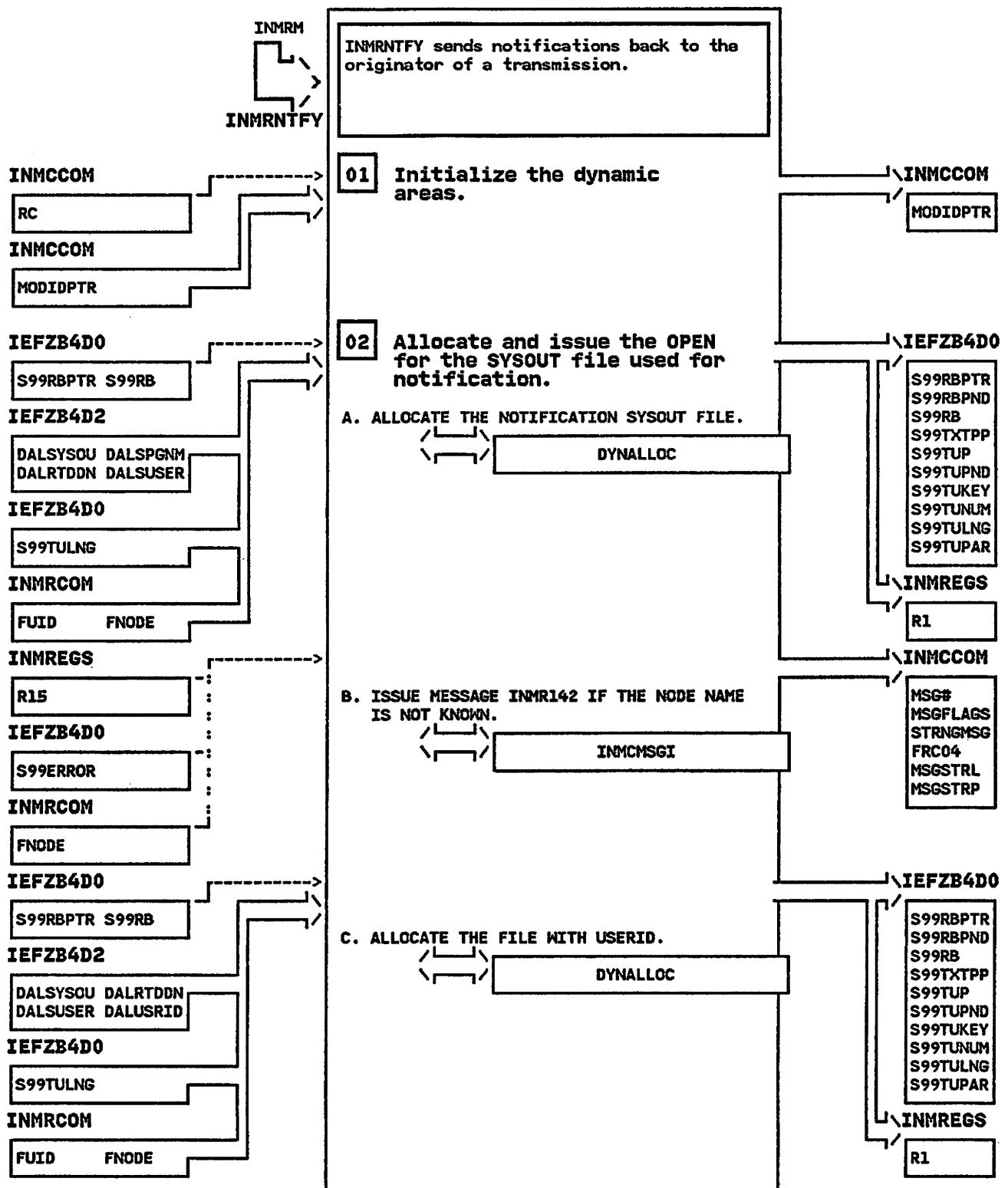
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Return code  
Other - Unchanged

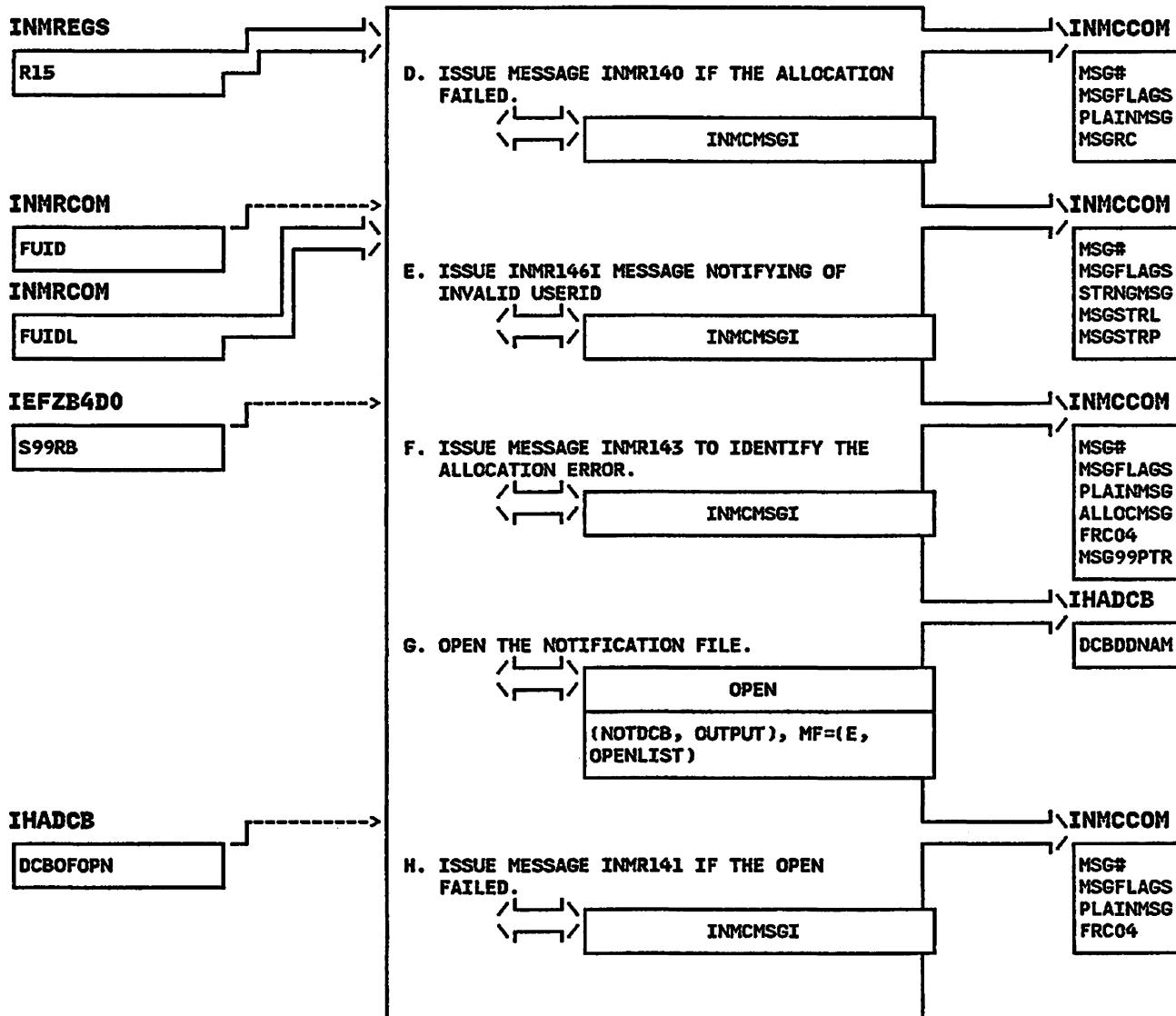
INMRNTFY - Send User Notification Routine

STEP 01



INMRNTFY - Send User Notification Routine

STEP 02D



**INMRNTFY - Send User Notification Routine**

**STEP 03**

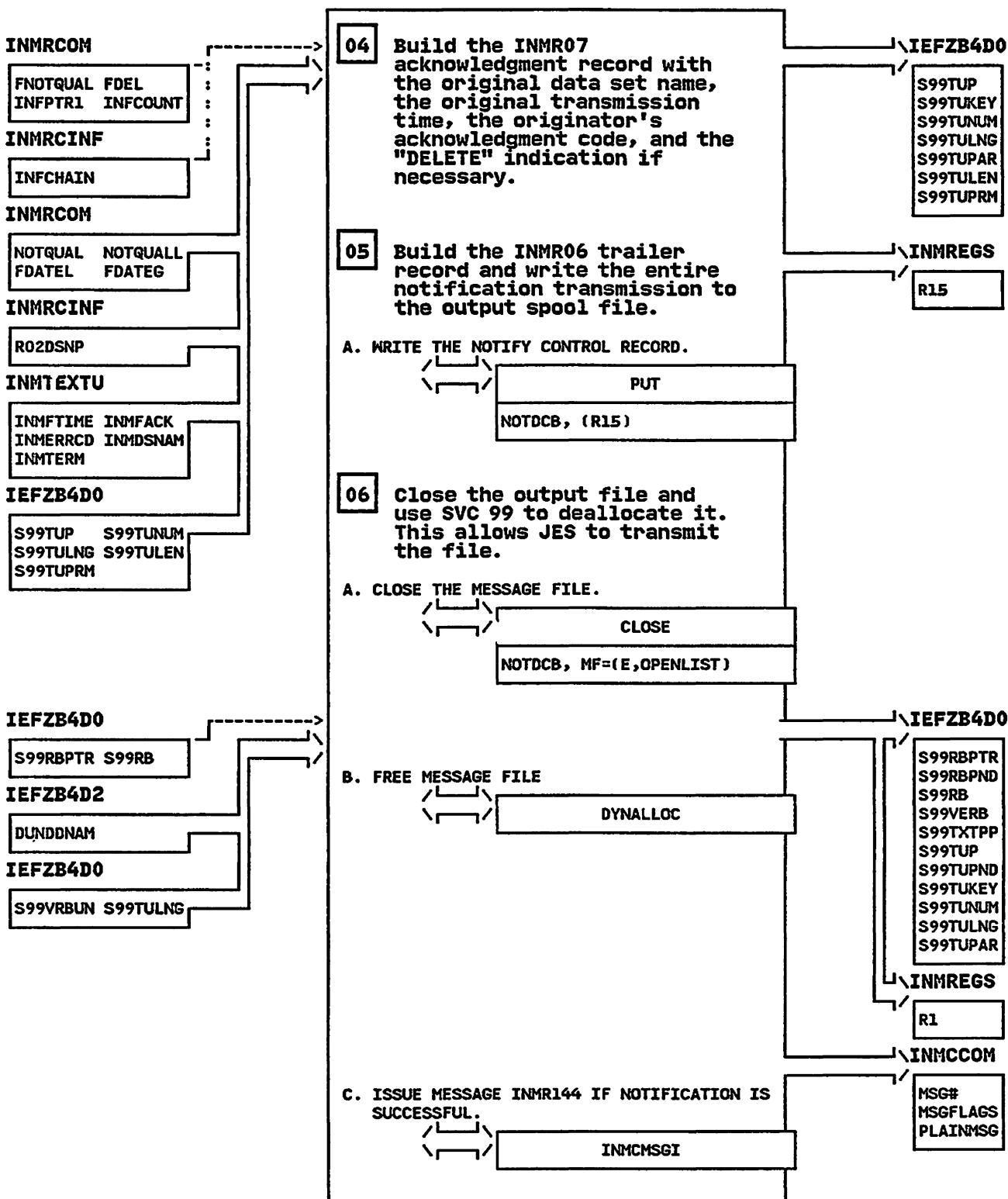
INMXPRMD  
NODEENT NODESMF  
:  
IEESMCA  
:  
SMCASID  
:  
IEFBZB4D0  
:  
S99TUPAR  
  
INMTEXTU  
  
INMTNODE INMTUID  
INMFNODE INMFUID  
INMFTIME  
  
INMXPRMD  
  
PARMNOD PARMNPTR  
NODENAME  
  
IEFBZB4D0  
  
S99TUP S99TULNG  
  
INMRCOM  
  
USERID USERIDL  
FUID FUIDL  
FNODE FNODEL  
RDATEG

**03 Build the INMR01 transmission header record for the acknowledgement.**

\IEFBZB4D0  
/  
S99TUP  
S99TUKEY  
S99TUNUM  
S99TULNG  
S99TUPAR

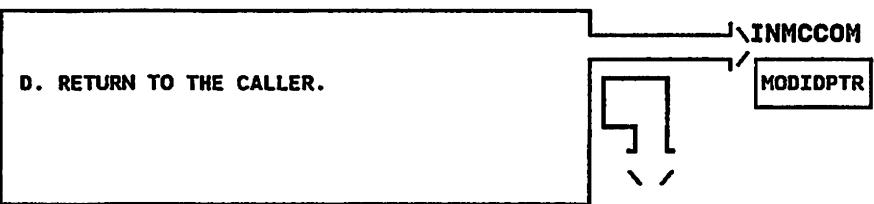
INMRNTFY - Send User Notification Routine

STEP 04



**INMRNTFY - Send User Notification Routine**

**STEP 06D**



## INMRO - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Read and Process Control Records Routine

**FUNCTION:**

INMRO reads and processes the control records at the beginning of each transmission. INMRO sets up the originator fields from the INMR01 record, builds zero or more INF descriptors for incoming data files based on the INMR02 records, and completely processes any acknowledgements received.

**ENTRY POINT:** INMRO

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRM

**INPUT:**

All input is provided via the RECEIVE command communications area INMRCOM. Most of the fields in this area are used or set by INMRO.

**OUTPUT:** Allocated output files for RECEIVE, OPEN LOG file

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine  
INMCTIME - Convert GMT to local time routine  
INMRLOGO - Log open routine  
INMRZ - RECEIVE exit - invocation routine

The following are invoked via CALLTSSR:  
IKJEFF02 - Issue terminal messages

**DATA AREAS:**

INMRCOM - RECEIVE command communications area  
INMRCINF - RECEIVE file description table  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block  
INMRATXT - Output data set allocation text units

**CONTROL BLOCKS:** CVT, DCB, IKJEFFMT, IKJCPPL, IEFZB4D2

**TABLES:**

LOGMSG - Log buffer format  
NOTLOG - Notify message format

## INMRO - MODULE OPERATION

INMRO performs the following functions:

- 1) Initializes allocation text units for output data set allocation.
- 2) Reads first record of an incoming file and checks for data transmission or message transmission.
- 3) Obtain storage for the number of input file descriptors indicated on the INMR01 record.
- 4) Copies information from the INMR02 records to the proper INF block.
- 5) Processes any acknowledgement records received, including logging and notifying the user.
- 6) When the first INMR03 data header record is encountered, returns control to INMRM to continue processing.

**INMRO - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRO

**MESSAGES:**

INMR101I RESTORE NOT POSSIBLE. UNSUPPORTED  
UTILITY xxxx REQUESTED BY INPUT FILE.  
INMR102I RESTORE NOT POSSIBLE. INPUT DATA IS NOT  
COMPLETE.  
INMR130I RECEIVE COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMR135I PERMANENT I/O ERROR READING INPUT FILE.  
INMR136I system synad message.  
INMR139I INPUT FILE IS EMPTY.  
INMR901I DATASET 'dsn' FROM userid ON node'.  
INMR921E RECEIVED FILE APPEARS NOT TO BE A NETMAIL  
FILE. THE FIRST RECORD IS:  
INMR922I first input record.  
INMR931I ACKNOWLEDGMENT FROM userid ON nodename.  
INMR932I DATASET dsname SENT date time STORED.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:** None

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - unpredictable

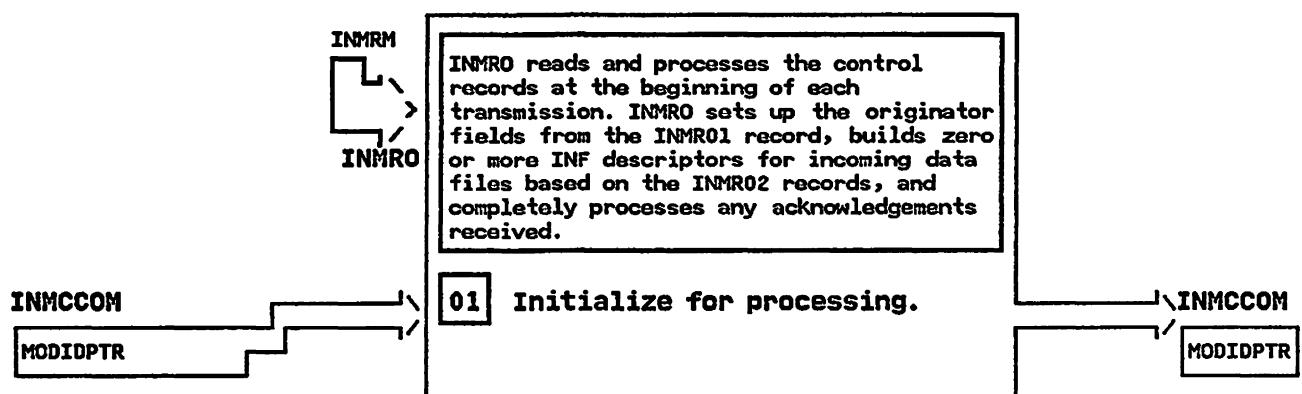
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

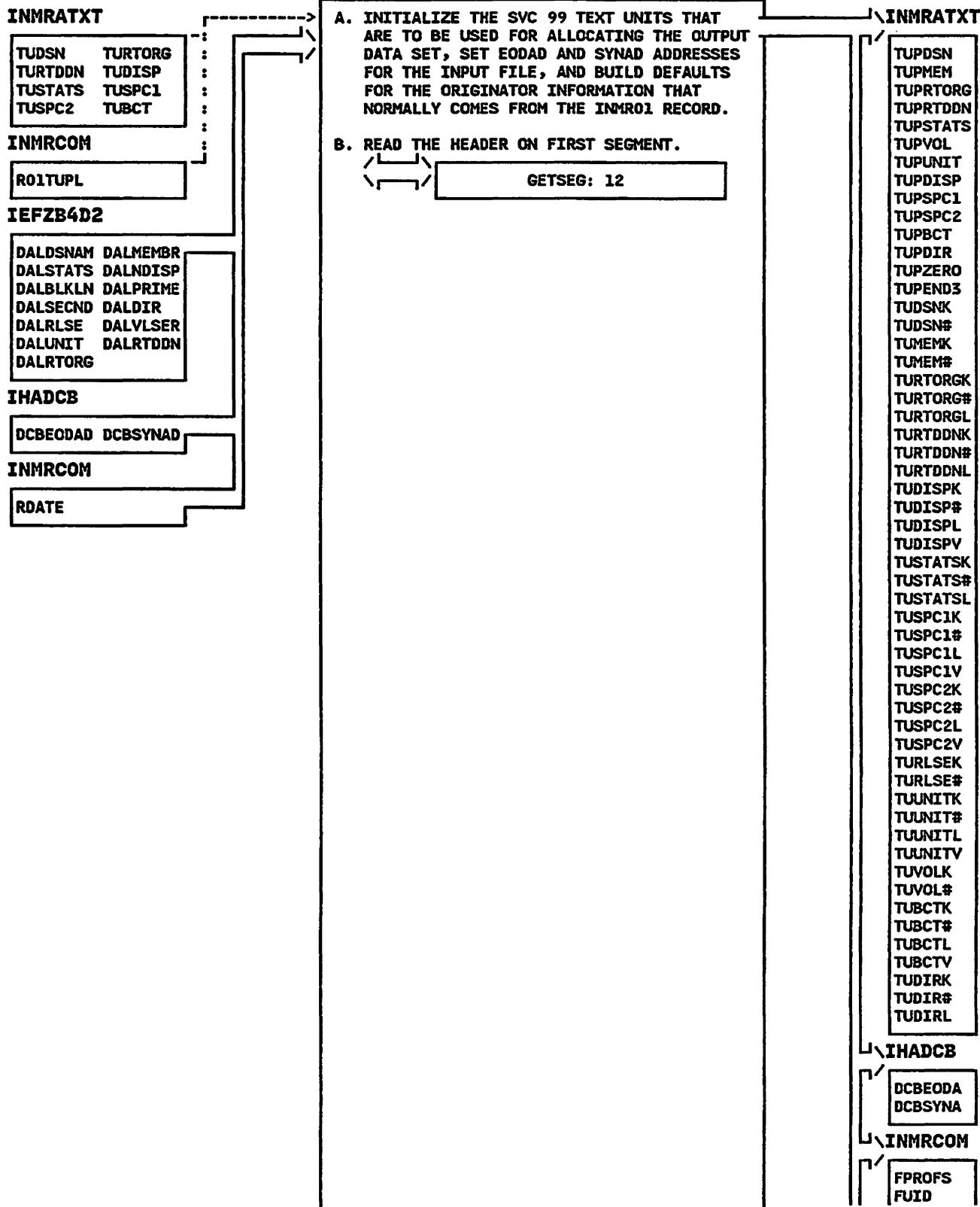
INMRO - Read and Process Control Records Routine

STEP 01



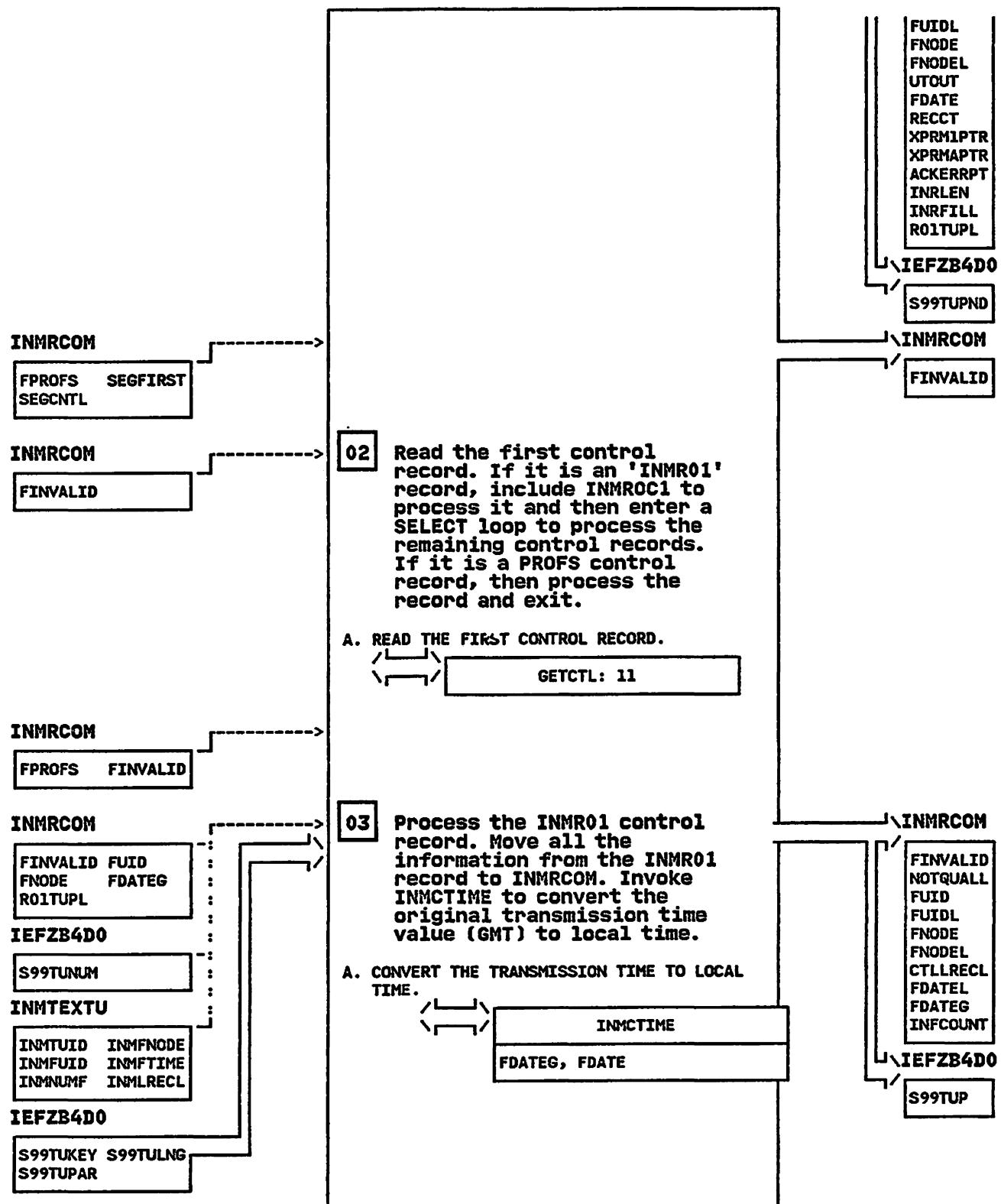
INMRO - Read and Process Control Records Routine

STEP 01A



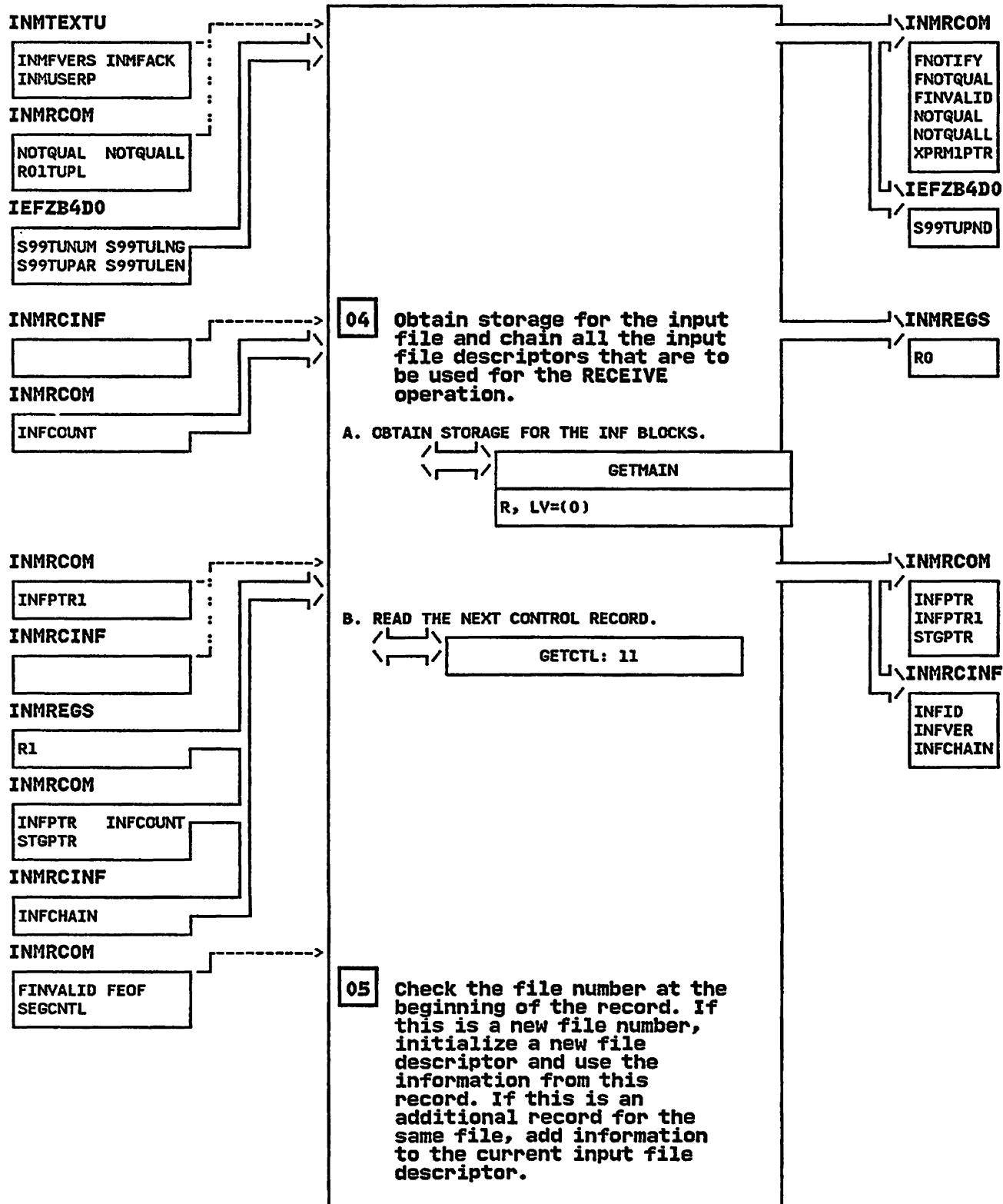
INMRO - Read and Process Control Records Routine

STEP 02



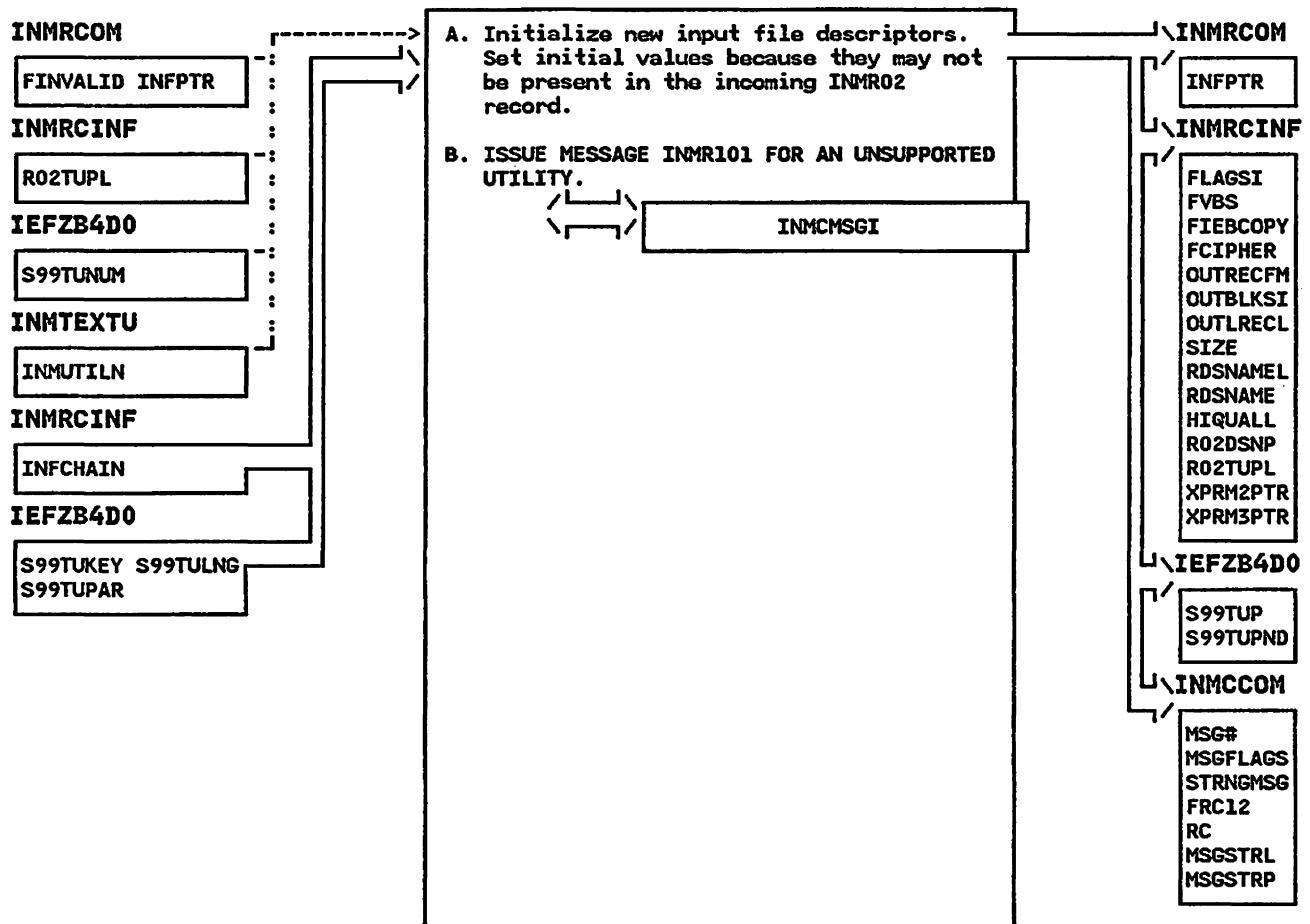
INMRO - Read and Process Control Records Routine

STEP 04



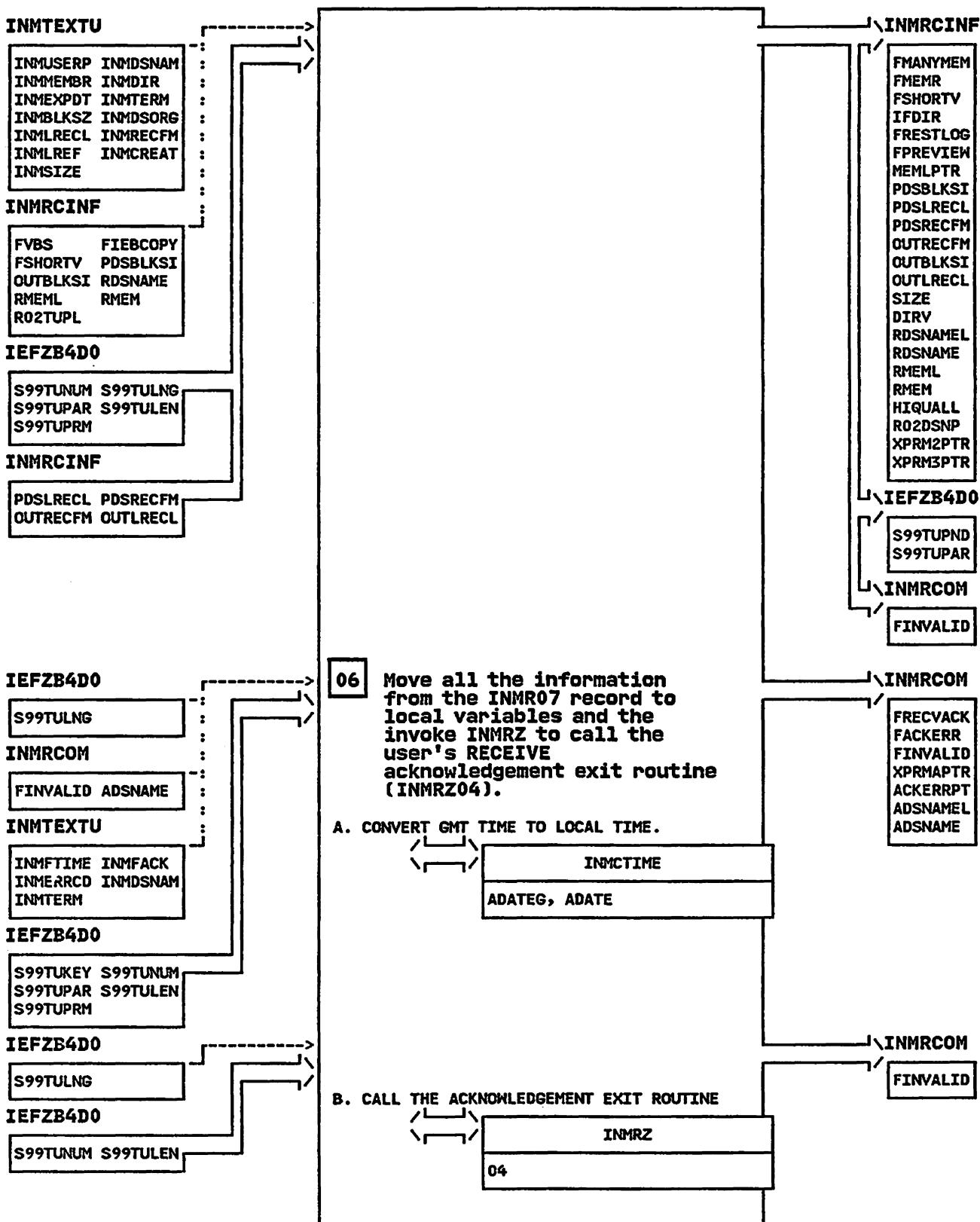
INMRO - Read and Process Control Records Routine

STEP 05A



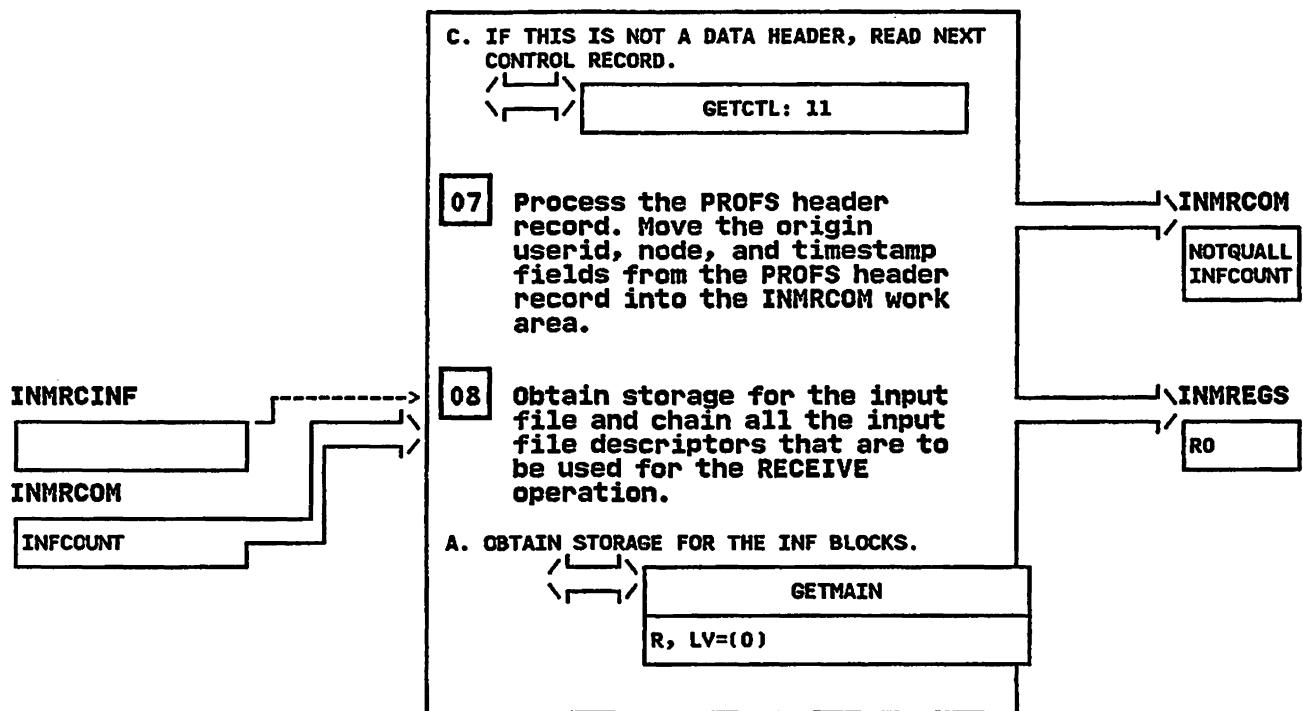
INMRO - Read and Process Control Records Routine

STEP 06



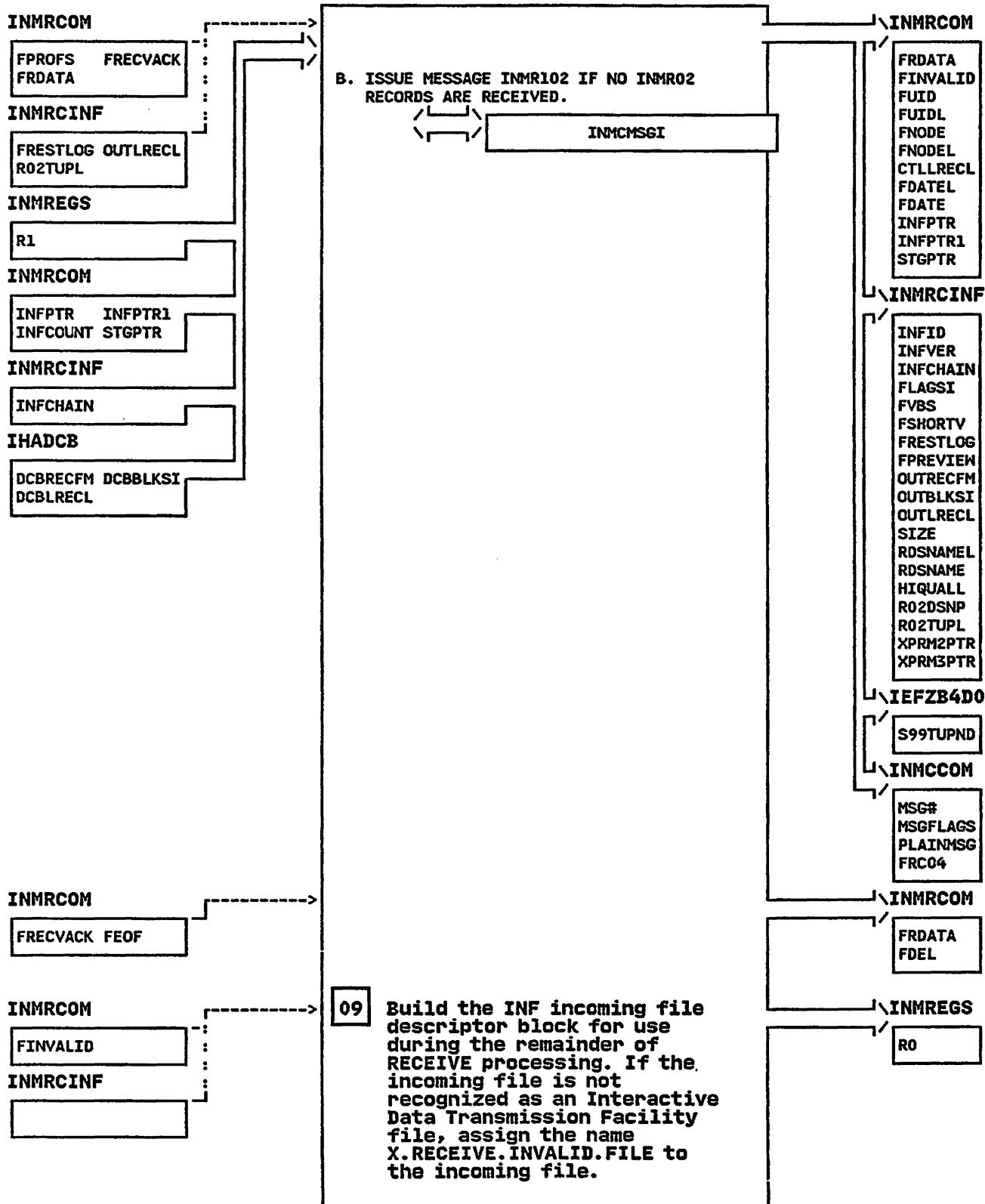
INMRO - Read and Process Control Records Routine

STEP 06C



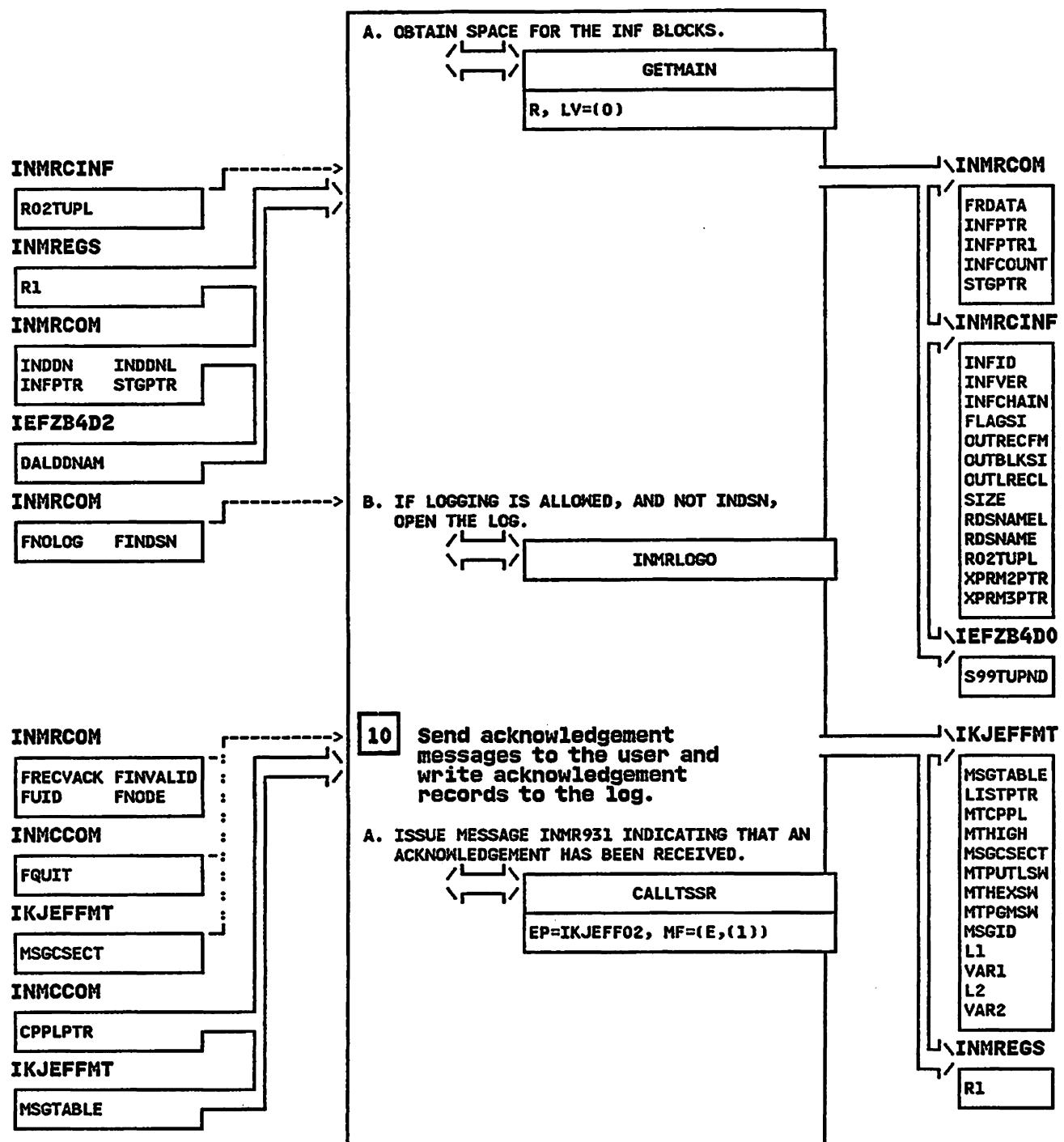
INMRCOM - Read and Process Control Records Routine

STEP 08B



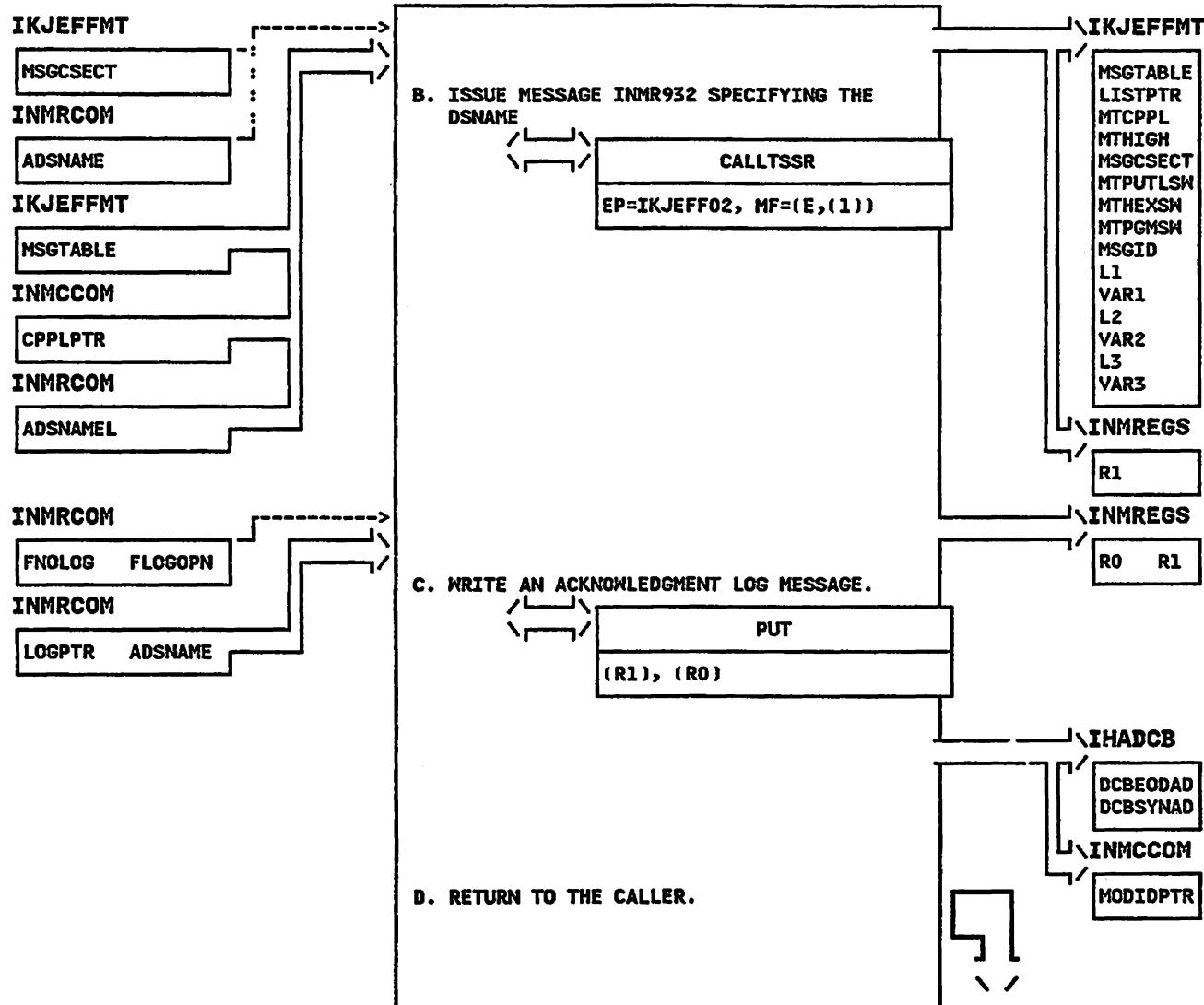
**INMRO - Read and Process Control Records Routine**

**STEP 09A**



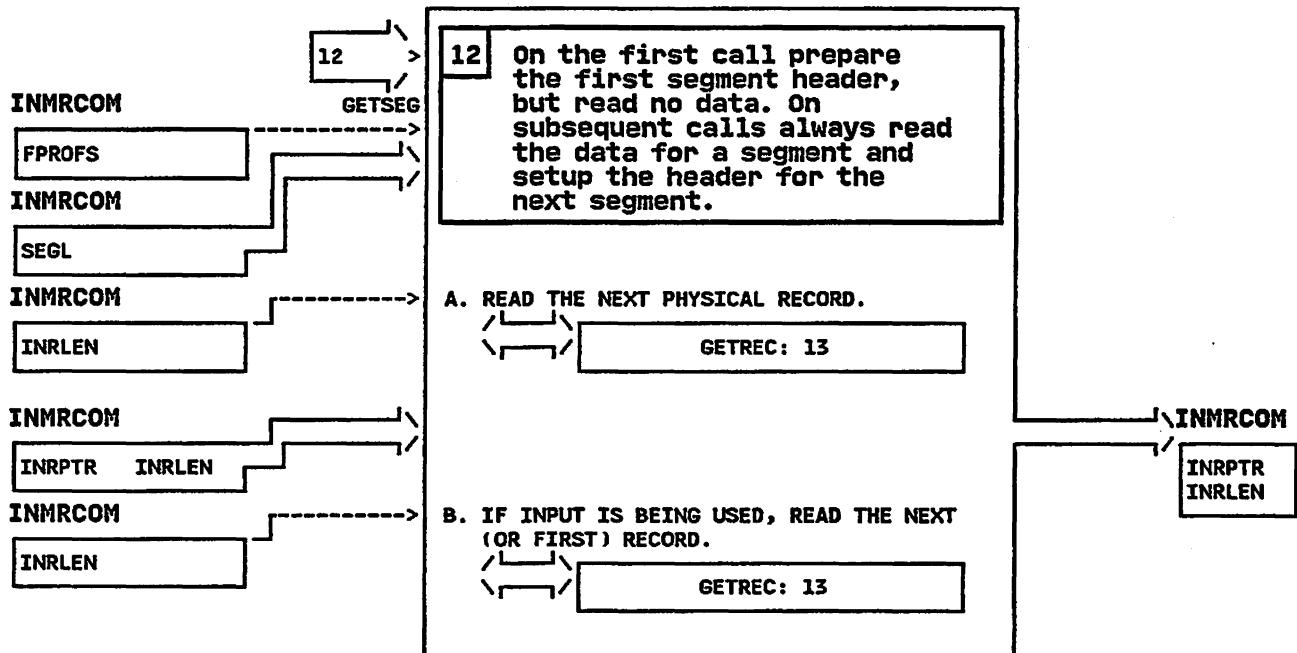
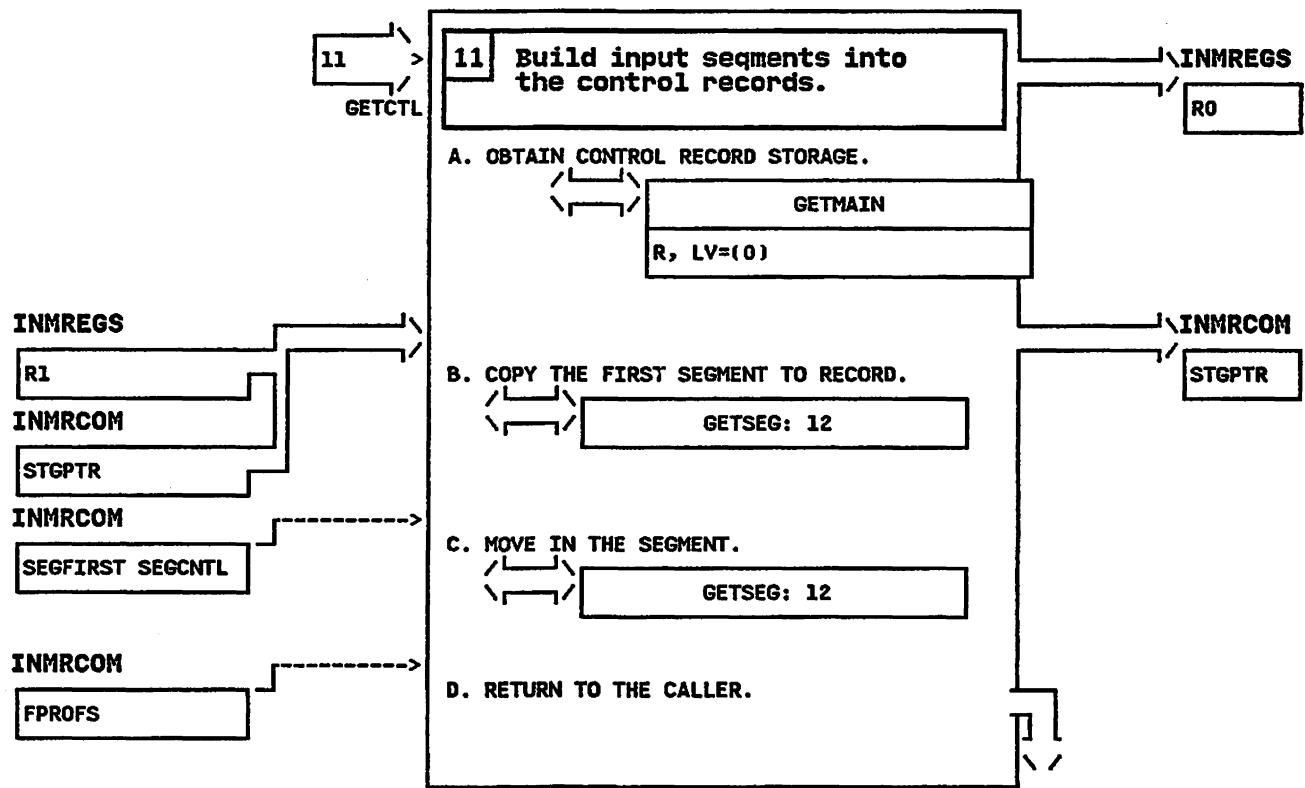
INMRO - Read and Process Control Records Routine

STEP 10B



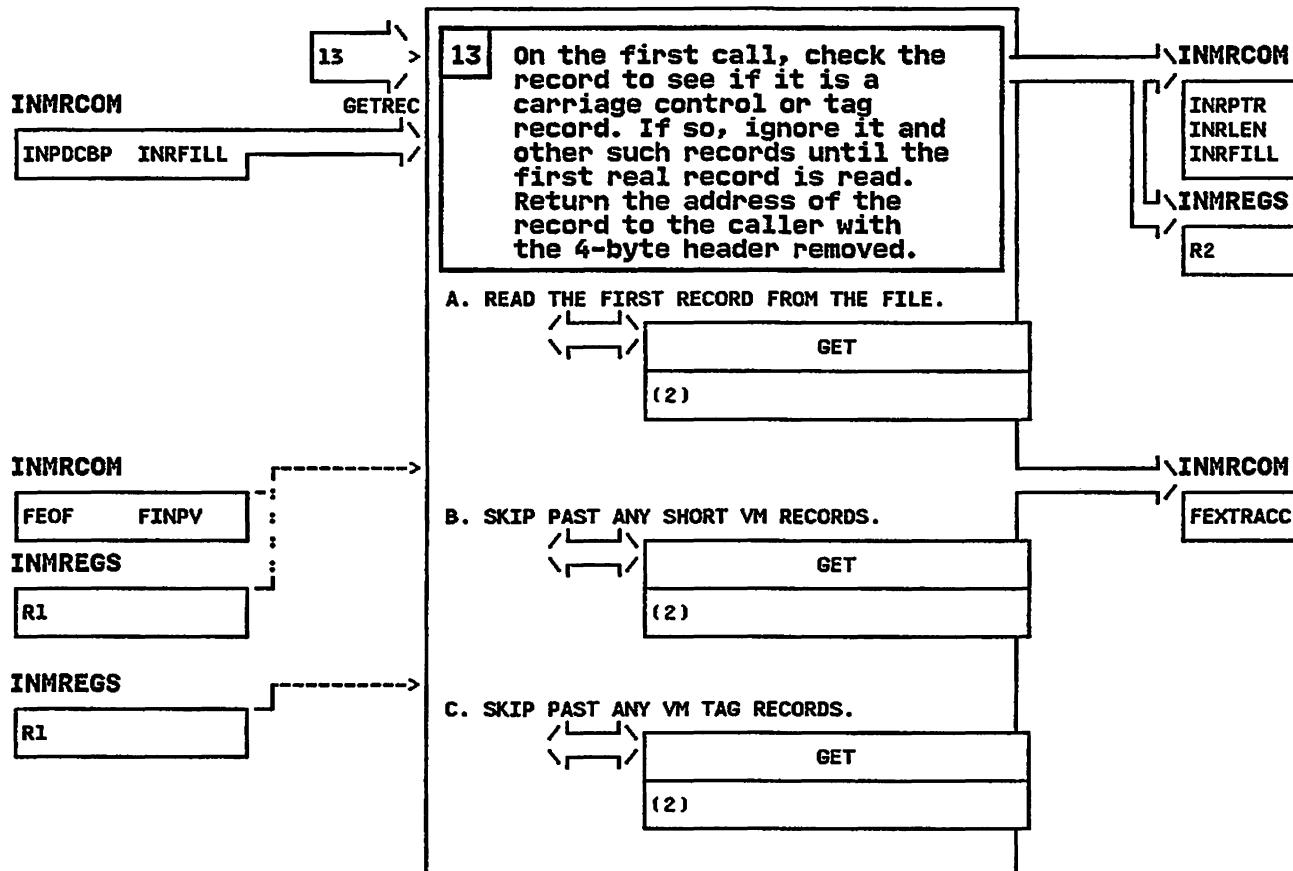
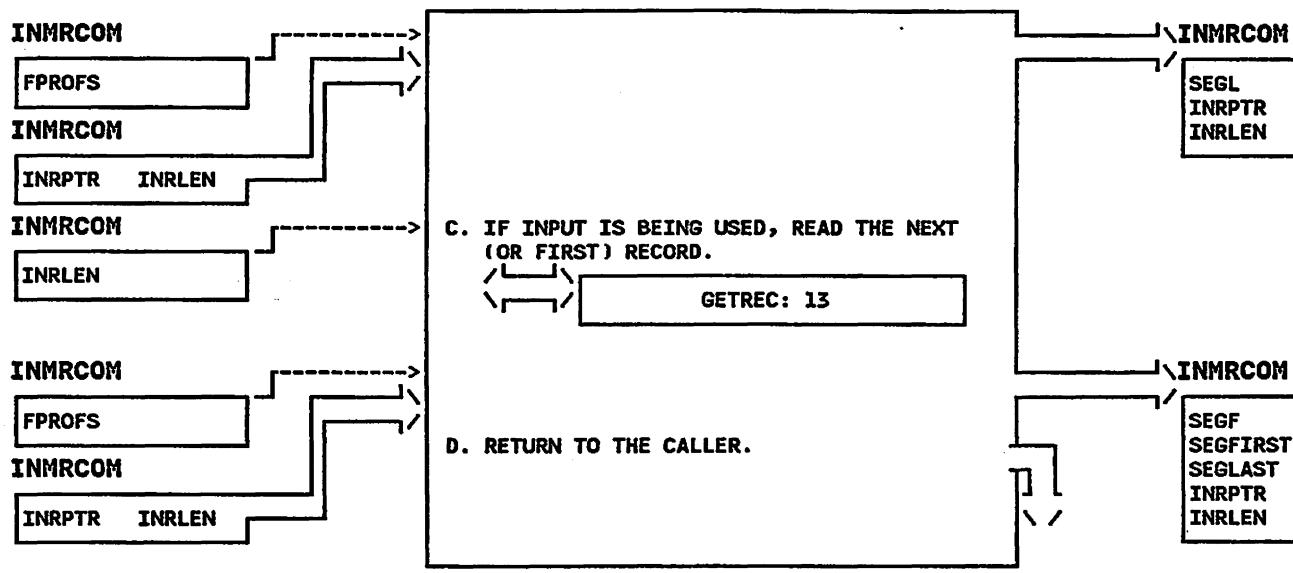
INMRO - Read and Process Control Records Routine

STEP 11



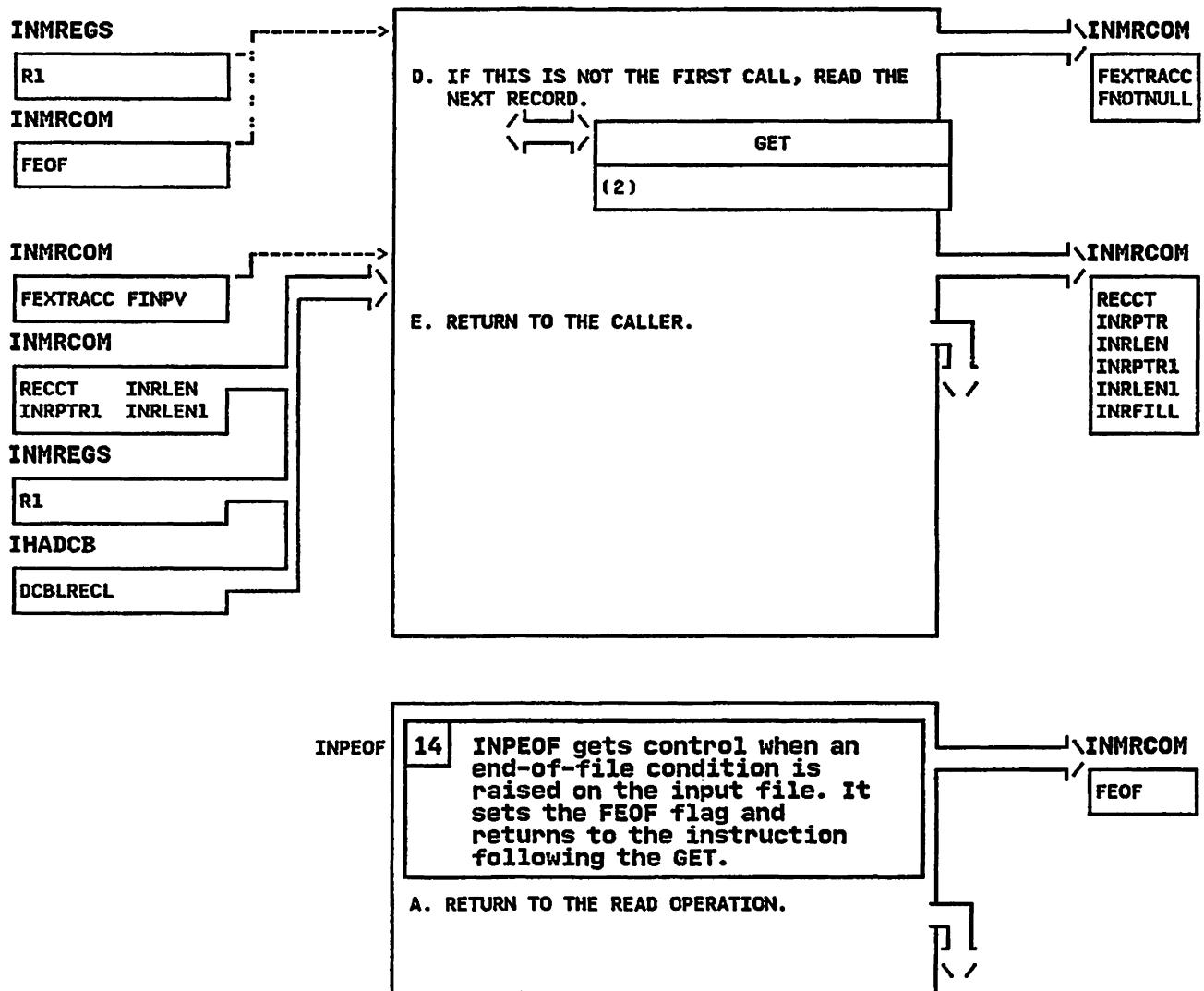
INMRO - Read and Process Control Records Routine

STEP 12C



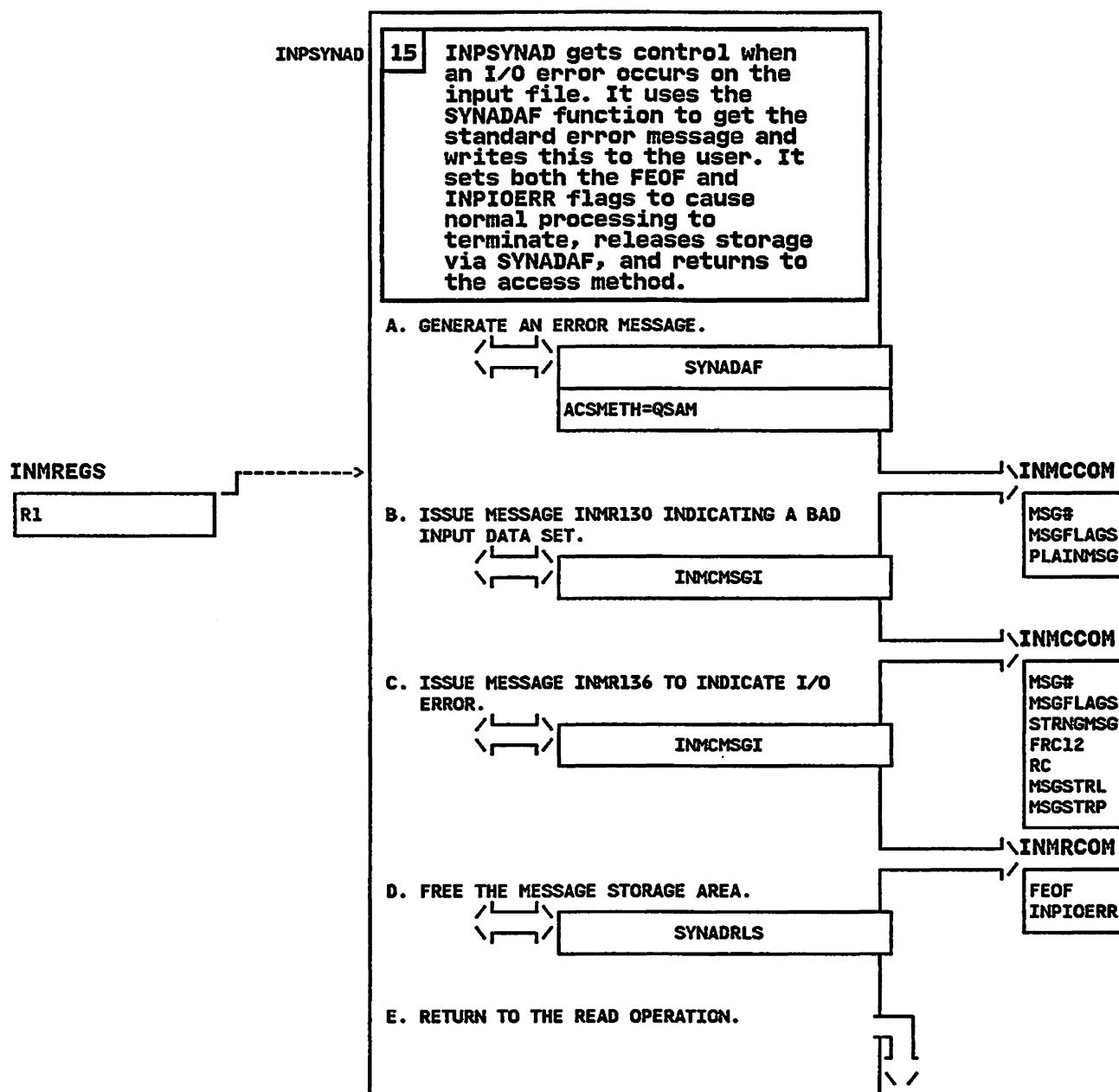
INMRO - Read and Process Control Records Routine

STEP 13D



INMRO - Read and Process Control Records Routine

STEP 15



## INMRPDS - MODULE DESCRIPTION

### DESCRIPTIVE NAME: PDS Reload Routine

#### FUNCTION:

INMRPDS allocates temporary files, builds control records, and invokes IEBCOPY to reload partitioned data sets.

#### ENTRY POINT: INMRPDS

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INM RM

#### INPUT:

All input is provided via the RECEIVE command communications area INMRCOM. The following fields are used:

REST2DDN (for output ddname)  
ULPDSDDN (for input ddname)  
MEMBER1, MEMBER2, RC

Input file containing IEBCOPY unloaded data set

OUTPUT: Partitioned data set reloaded by IEBCOPY

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

#### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block

#### CONTROL BLOCKS:

DCB,  
IEFZB4D0, IEFZB4D2

#### TABLES:

COPYSTMT - IEBCOPY COPY statement  
SELSTMT - IEBCOPY SELECT statement  
COPYDDNM - IEBCOPY substitute ddname list

## INMRPDS - MODULE OPERATION

Allocate a SYSIN file for IEBCOPY and write control cards to it. The control cards will control partitioned data set reloading. A COPY control card is always created. A SELECT card(s) will be generated if the member is to be renamed. A temporary file is allocated for SYSUT4 space. The SVSPRINT file is allocated either to the users terminal or to a sysout class, as specified in INMXPRMD or via the RECEIVE prompt. The calling routine provides the input and output files for the reload process. INMRPDS invokes IEBCOPY to perform the reload and release temporary files.

**INMRPDS - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMRPDS**

**MESSAGES:**

INMR070I RECEIVE COMMAND TERMINATED. FAILURE IN  
PARTITIONED DATASET RELOAD.  
INMR071I ALLOCATION FAILED FOR IEBCOPY ... FILE.  
INMR072I RETURN CODE *nn* FROM IEBCOPY UTILITY.

**ABEND CODES: None**

**WAIT STATE CODES: None**

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

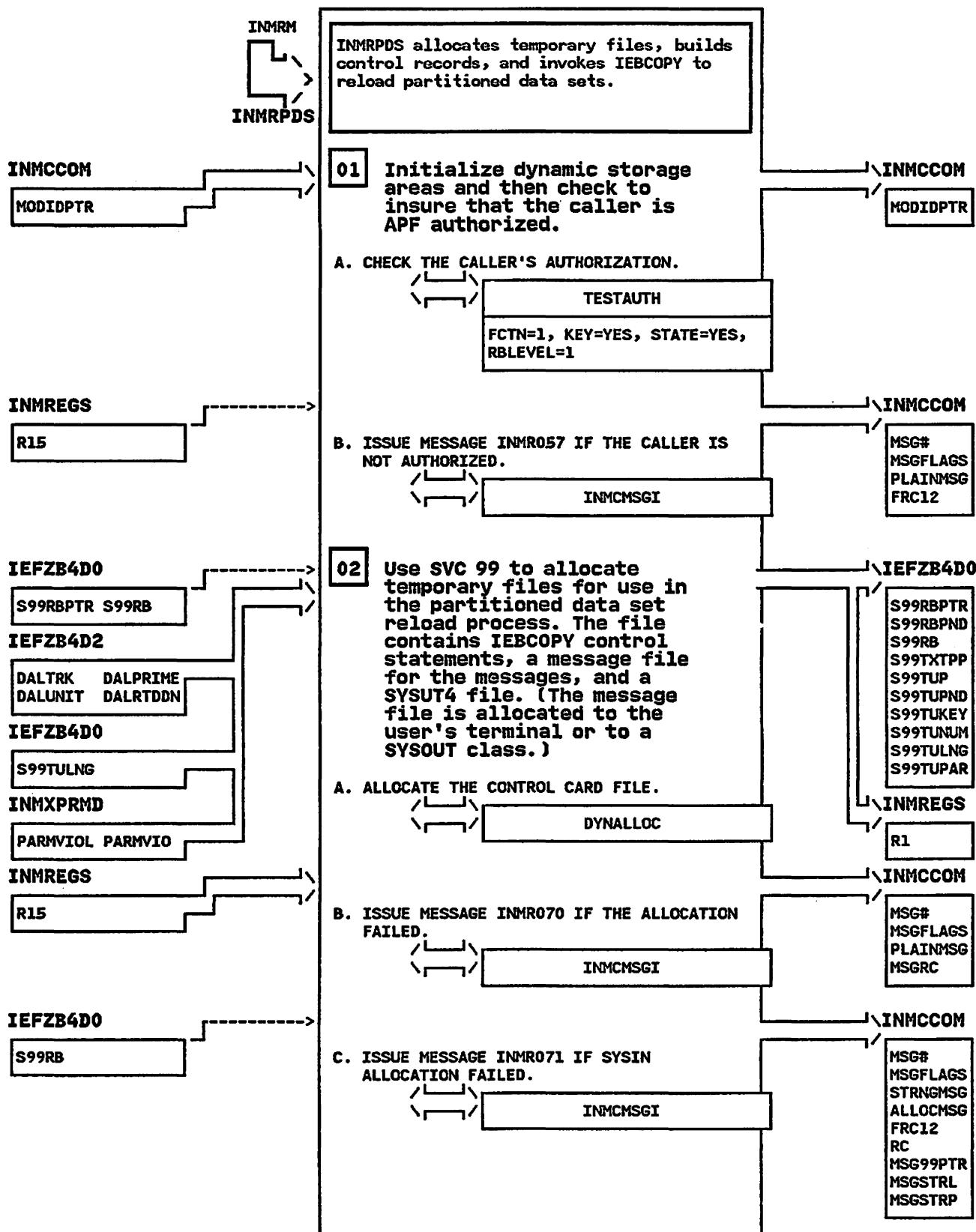
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

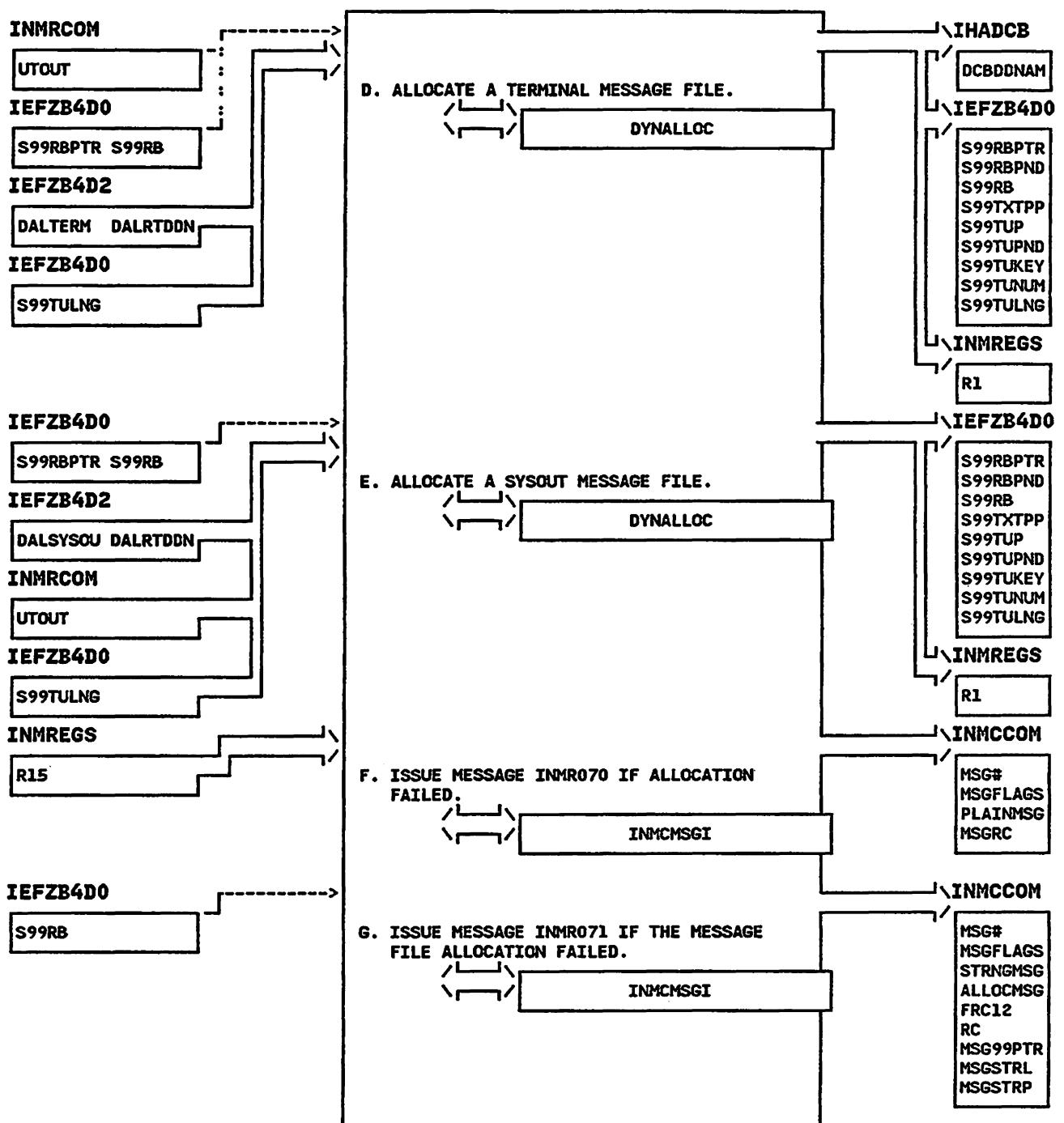
INMRPDS - PDS Reload Routine

STEP 01



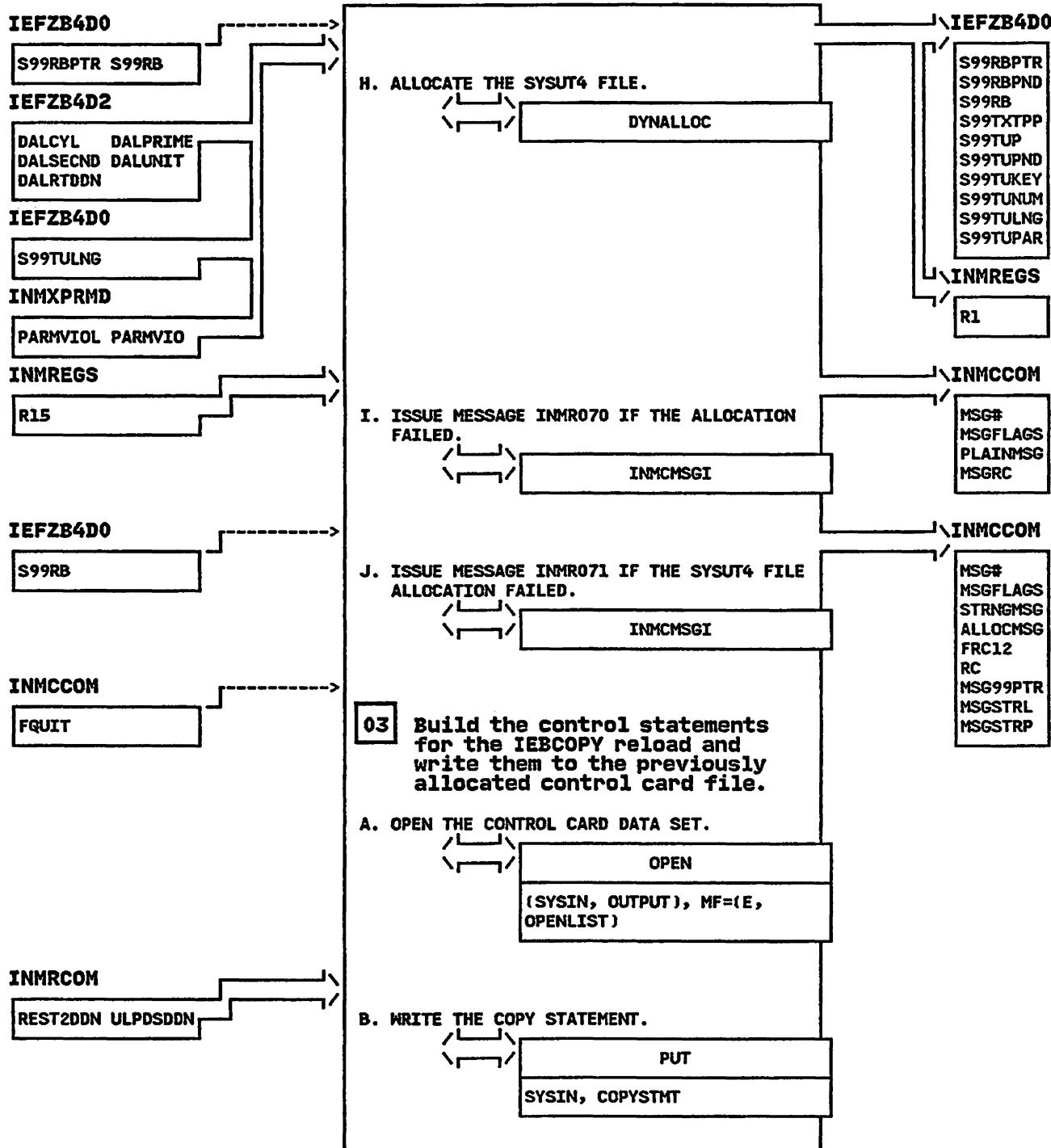
**INMRPDS - PDS Reload Routine**

**STEP 02D**



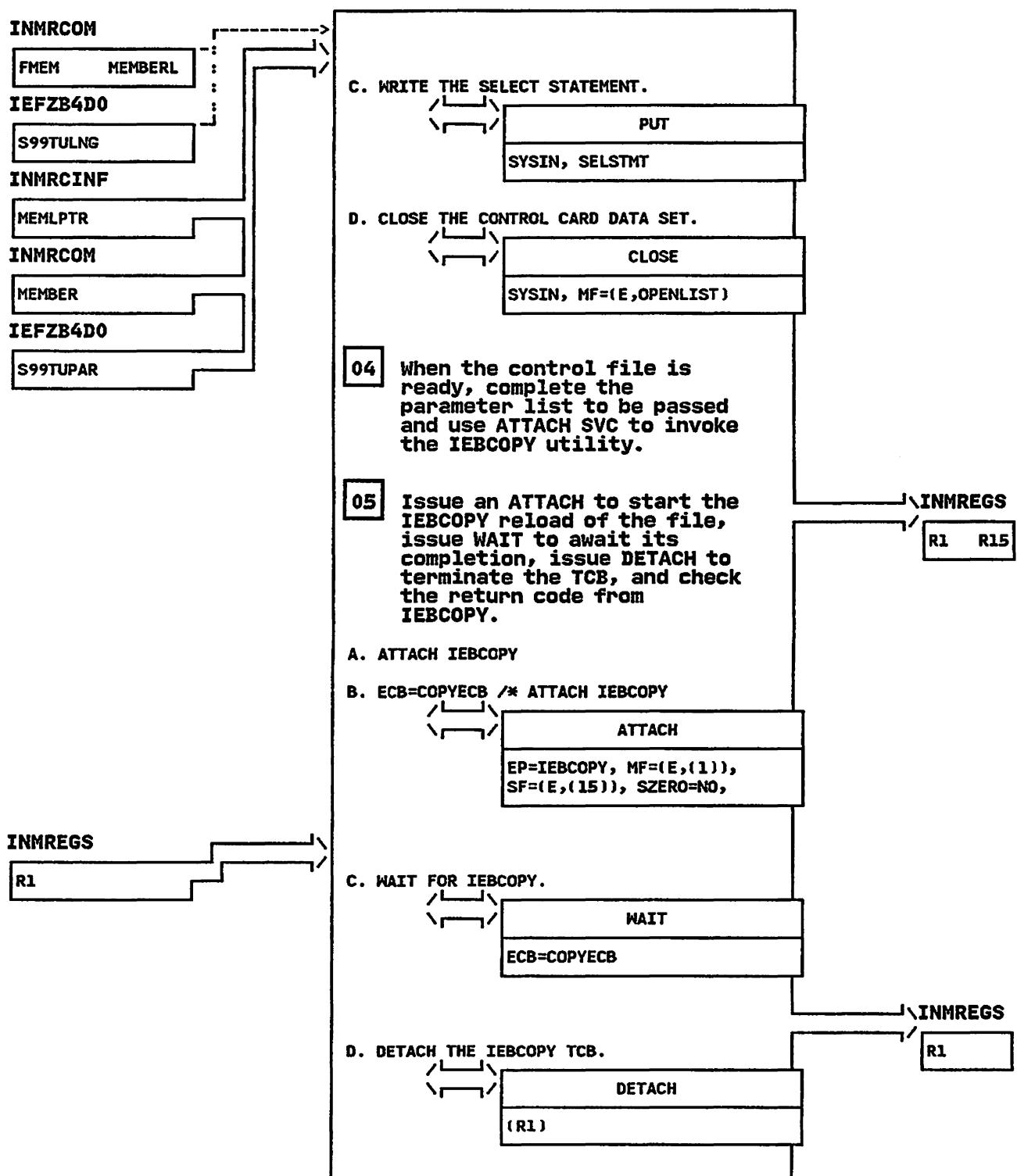
INMRPDS - PDS Reload Routine

STEP 02H



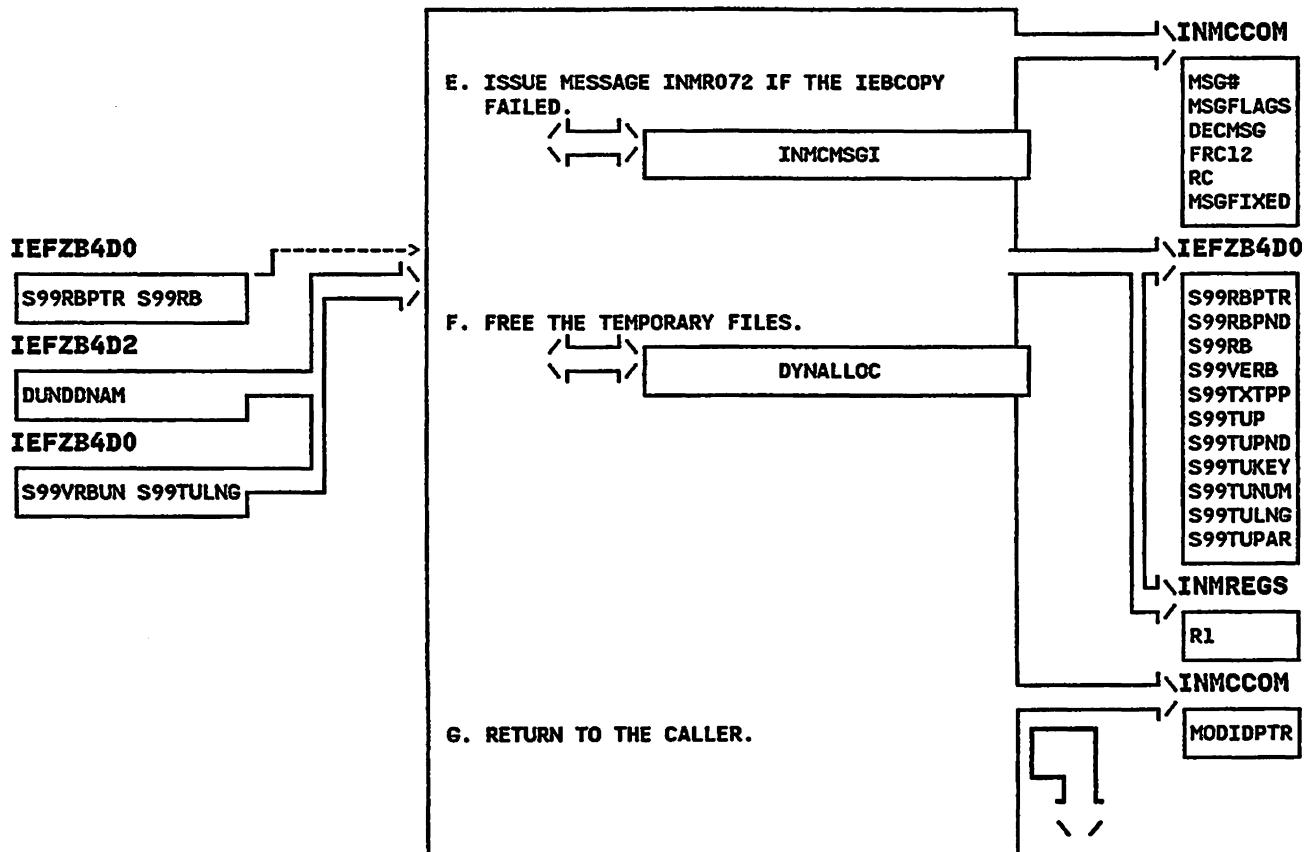
INMRPDS - PDS Reload Routine

STEP 03C



INMRPDS - PDS Reload Routine

STEP 05E



## INMRQ - MODULE DESCRIPTION

### DESCRIPTIVE NAME: RECEIVE Nickname Resolution Routine

#### FUNCTION:

INMRQ attempts to find a nickname entry for the sender of each received file. It scans one or more NAMES files looking for a nickname entry whose userid and nodename match those of the sender. If INMRQ finds the proper nickname entry, it uses it to define the log options and to provide a name for the sender.

#### ENTRY POINT: INMRQ

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRLOG

#### INPUT:

All input is provided via the common parameter structure INMCCOM. The following fields are used:

FUID, FUIDL, FNODE, and FNODEL are the node and userid.

OUTPUT: NICKNAME, NAME, and LOGNAME fields may be set.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine  
INMCA - Control data set allocate routine

##### DATA AREAS:

INMCCOM - Common parameter structure  
INMRCOM - RECEIVE command communications area

CONTROL BLOCKS: DCB

## INMRQ - MODULE OPERATION

First, allocate and open the data set "prefix.NAMES.text". If the allocation or open fails, and the installation has specified a system names data set, attempt to use it. If using the system names data set fails, no NAMES data set is used and all nicknames are invalid. If a "prefix.NAMES.text" data set or system names data set is used, read the first section of the data set for values logselector, logname, and names of alternate NAMES data sets. After this, read the remainder of the data set looking for the incoming user. If the incoming user is not found in the first data set, continue the search by allocating the next NAMES data set (via call to INMCA) and reading that data set.

**INMRQ - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRQ

**MESSAGES:**

INMC001I THE NAMES DATASET dsname IS UNUSABLE.  
INMC003I OPEN FAILED FOR THE DATASET.  
INMC010I ONLY 10 ALTCTL TAGS ARE ALLOWED.  
SUBSEQUENT ONES ARE BEING IGNORED.  
INMC011I THE VALUE dsname IS TOO LONG FOR AN  
ALTCTL. IT WILL BE IGNORED.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable RC of  
the RECEIVE command communications  
area INMRCOM.

0 - Everything is normal.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

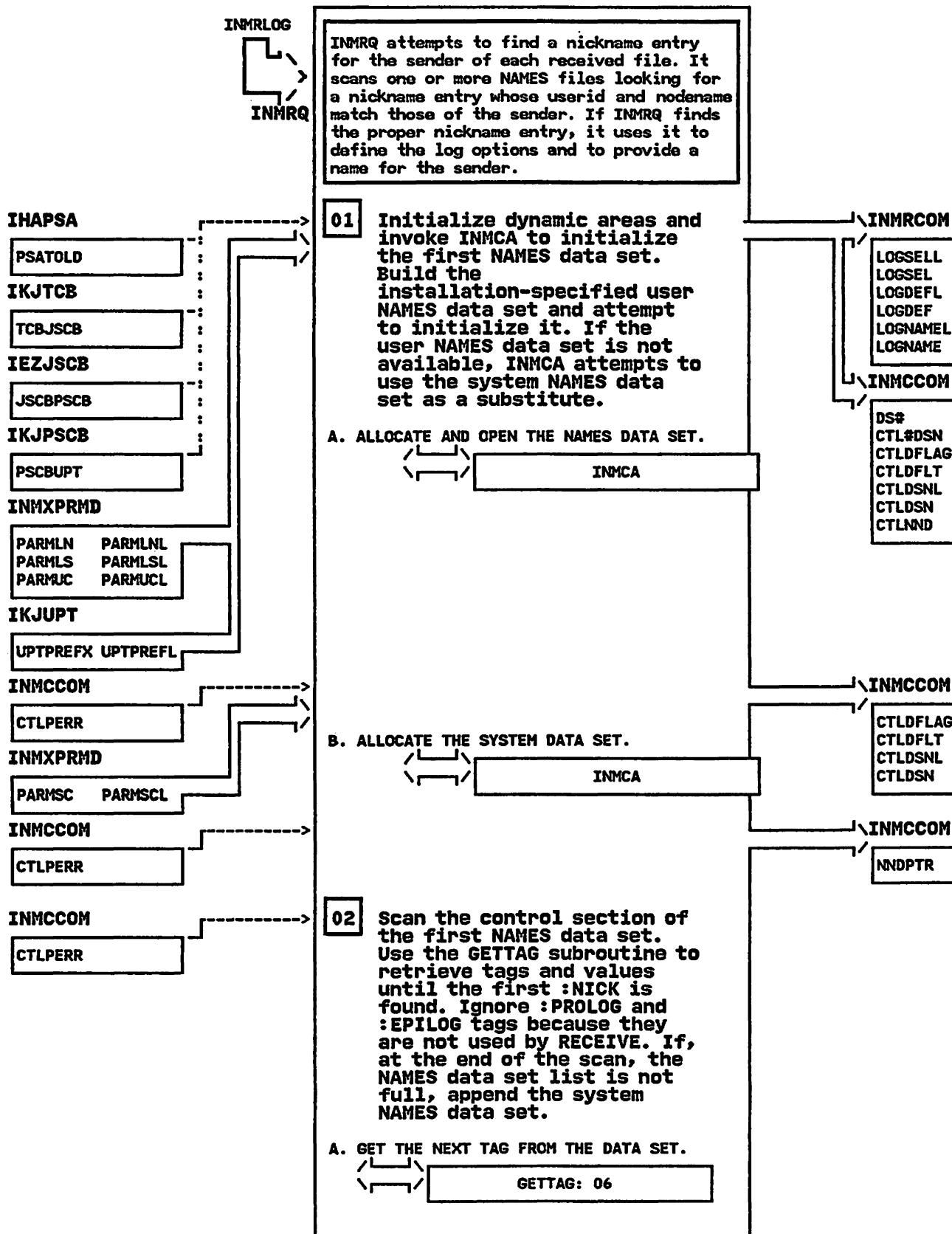
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

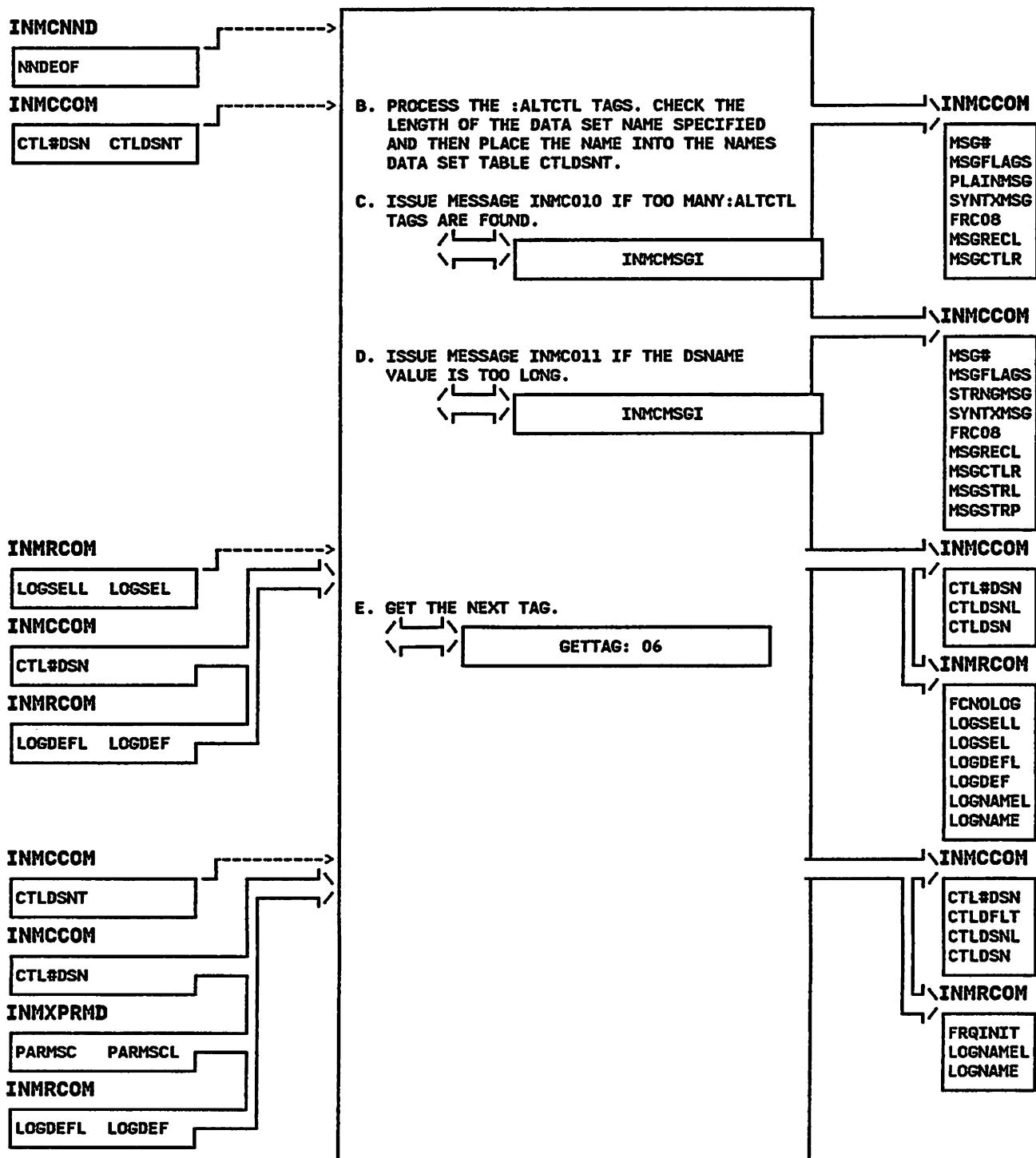
**INMRQ - RECEIVE Nickname Resolution Routine**

**STEP 01**



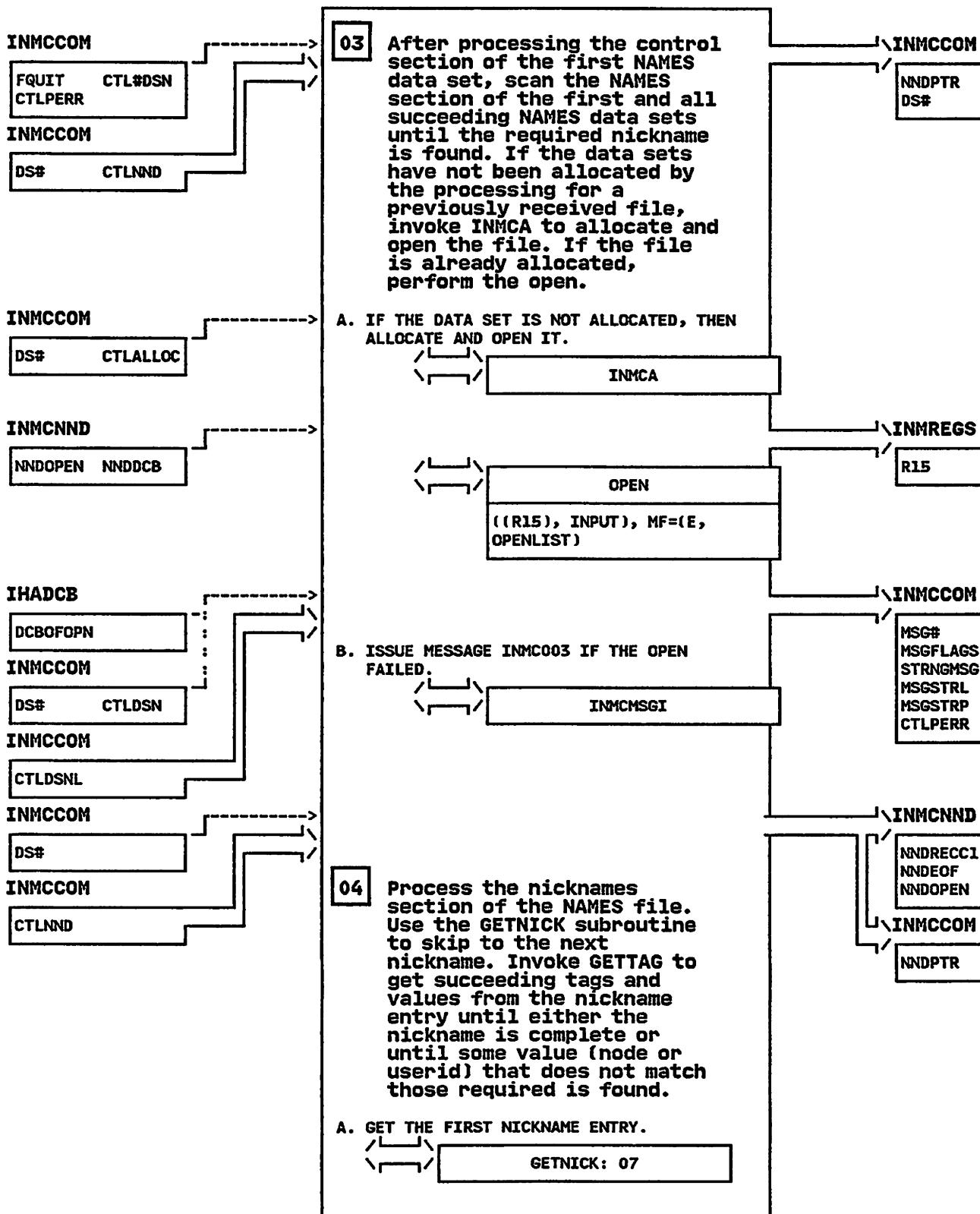
**INMRQ - RECEIVE Nickname Resolution Routine**

**STEP 02B**



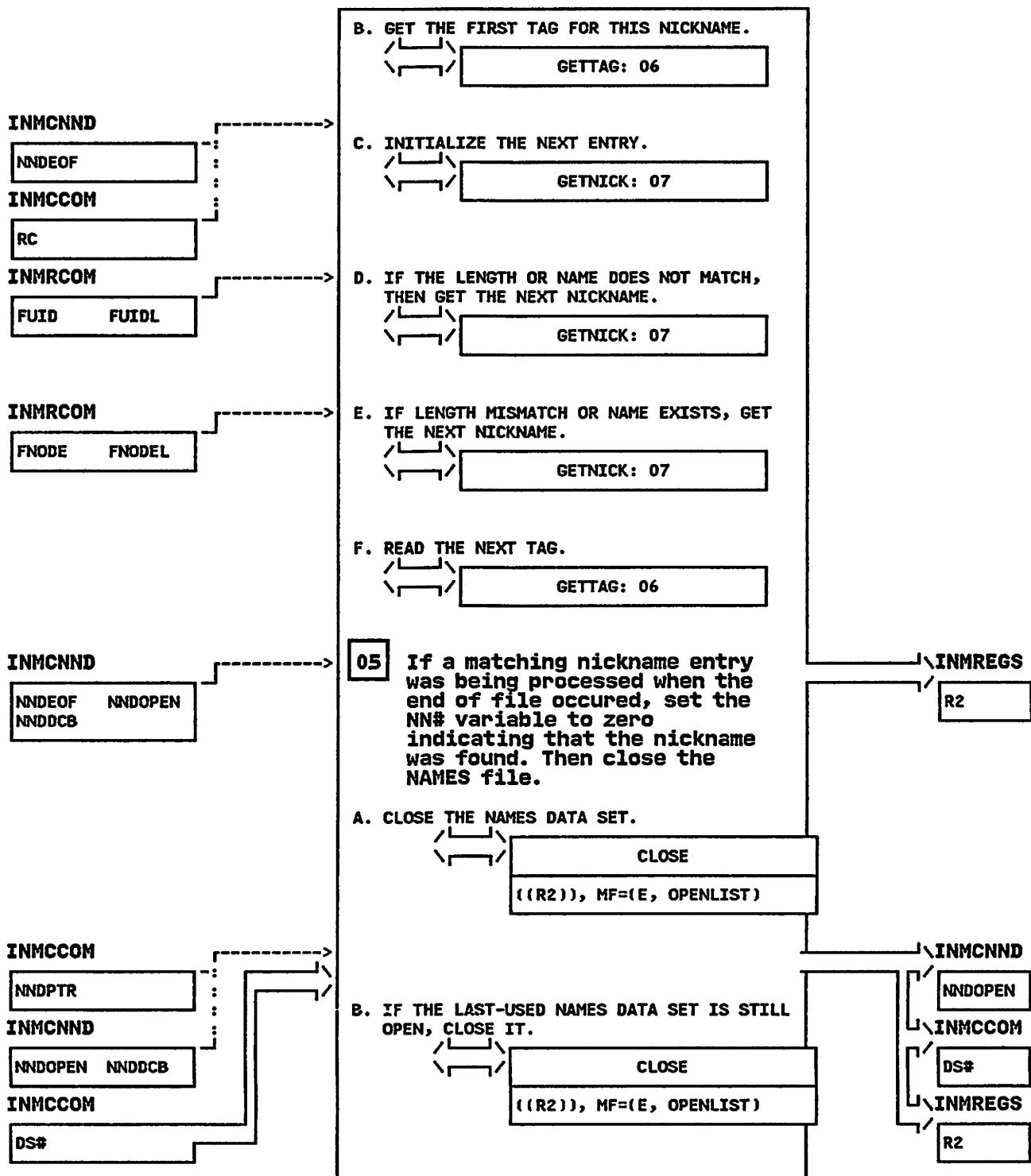
INMRQ - RECEIVE Nickname Resolution Routine

STEP 03



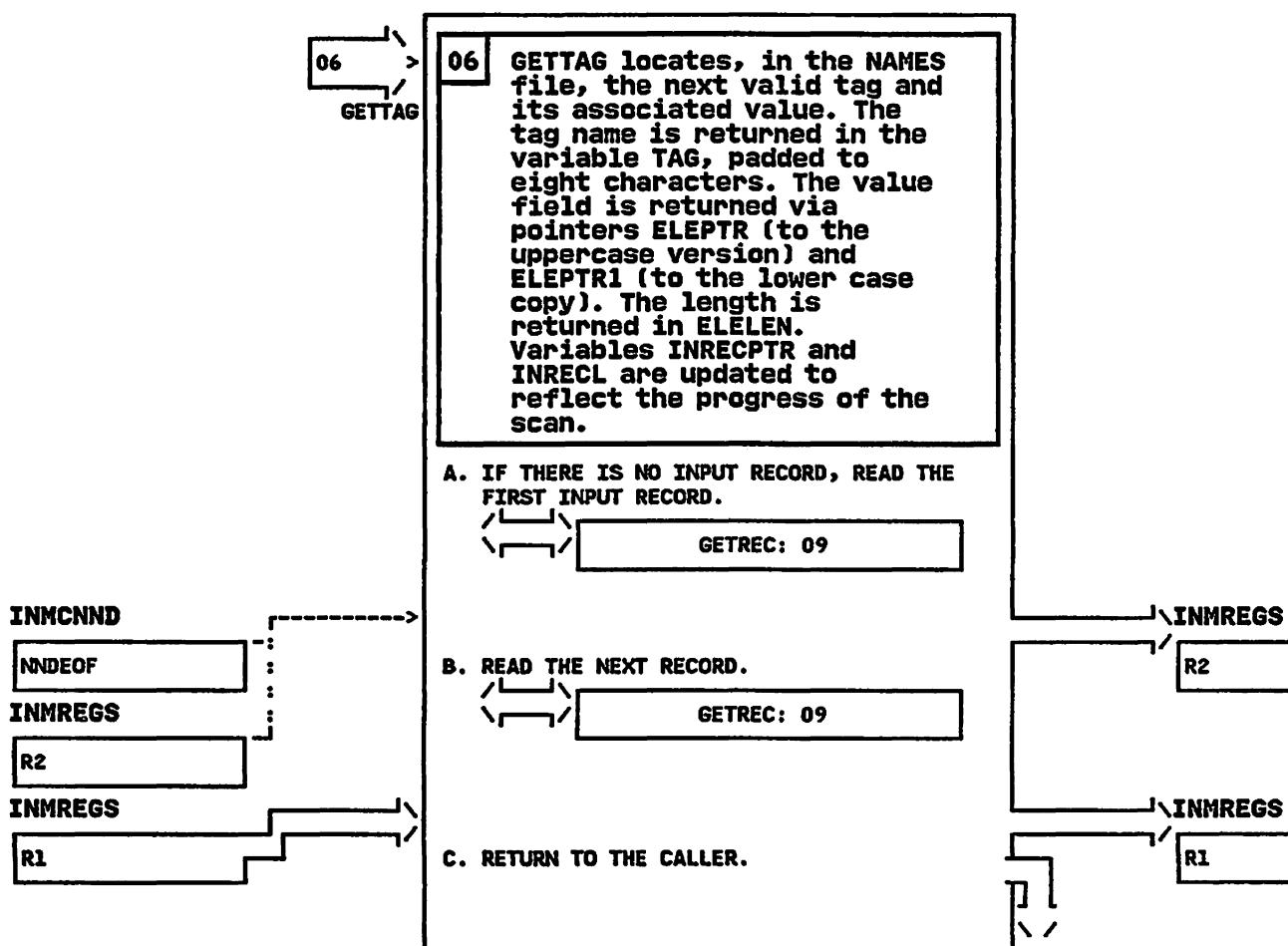
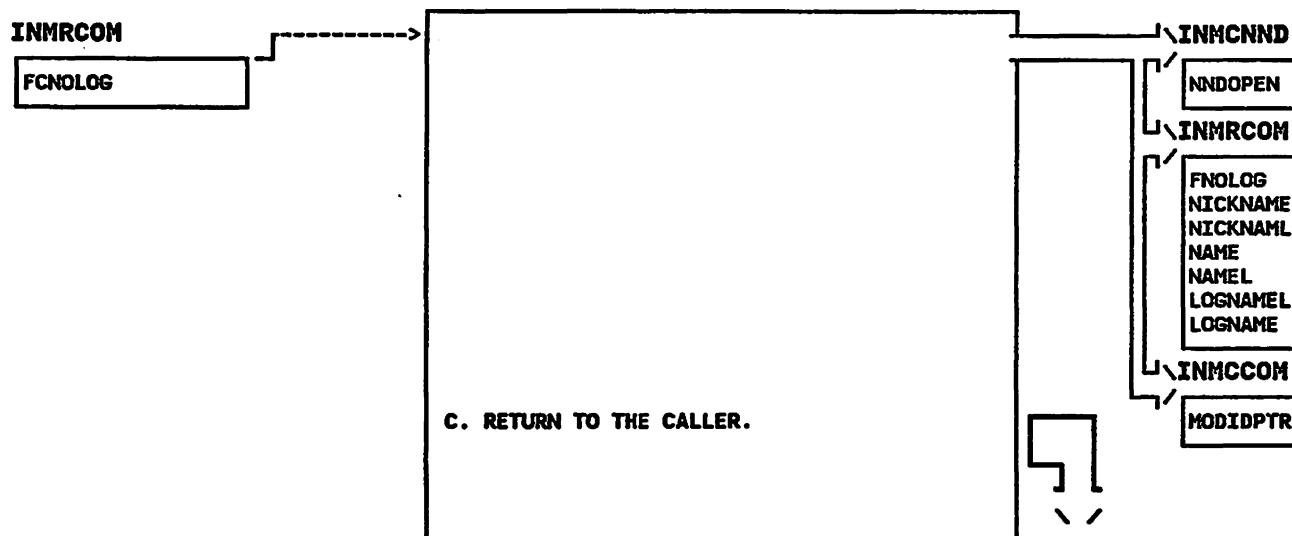
INMRQ - RECEIVE Nickname Resolution Routine

STEP 04B



INMRQ - RECEIVE Nickname Resolution Routine

STEP 05C



## INMRR - MODULE DESCRIPTION

### DESCRIPTIVE NAME: ABEND cleanup routine

#### FUNCTION:

INMRR is invoked by the INMCR ESTAE exit to perform cleanup. It sends ABEND messages to the user and attempts to terminate important RECEIVE processes, particularly the external writer.

#### ENTRY POINT: INMRR

PURPOSE: See FUNCTION

LINKAGE: BALR FROM INMCR

CALLERS: INMCR

INPUT: CMDABEND field in INMCCOM contains the ABEND code.

OUTPUT: Message issued to the user giving the ABEND code.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

ROUTINES: None

#### DATA AREAS:

INMCCOM - Common parameter structure  
INMRCOM - RECEIVE command communications area  
INMRCINF - Received file description table  
IEFSSOB - Subsystem communications area  
IEFZB4D0 - Allocation SVC control blocks  
IEFZB4D2 - Allocation text unit key names

CONTROL BLOCKS: DCB

## INMRR - MODULE OPERATION

INMRR receives control after an ABEND, converts the abend code to printable format, and writes a message to the user. Then, INMRR attempts to clean up the external writer processing by closing and freeing the currently active file and by using IEFSSREQ to terminate the external writer. INMRR also closes and frees the output dataset.

**INMRR - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRR

**MESSAGES:**

INMR030I RECEIVE COMMAND TERMINATED. ABEND **xxx**  
INMR031I REGISTER 15 VALUE AT ABEND WAS **xxxxxxxx**

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point ADDRESS  
Other - Unpredictable

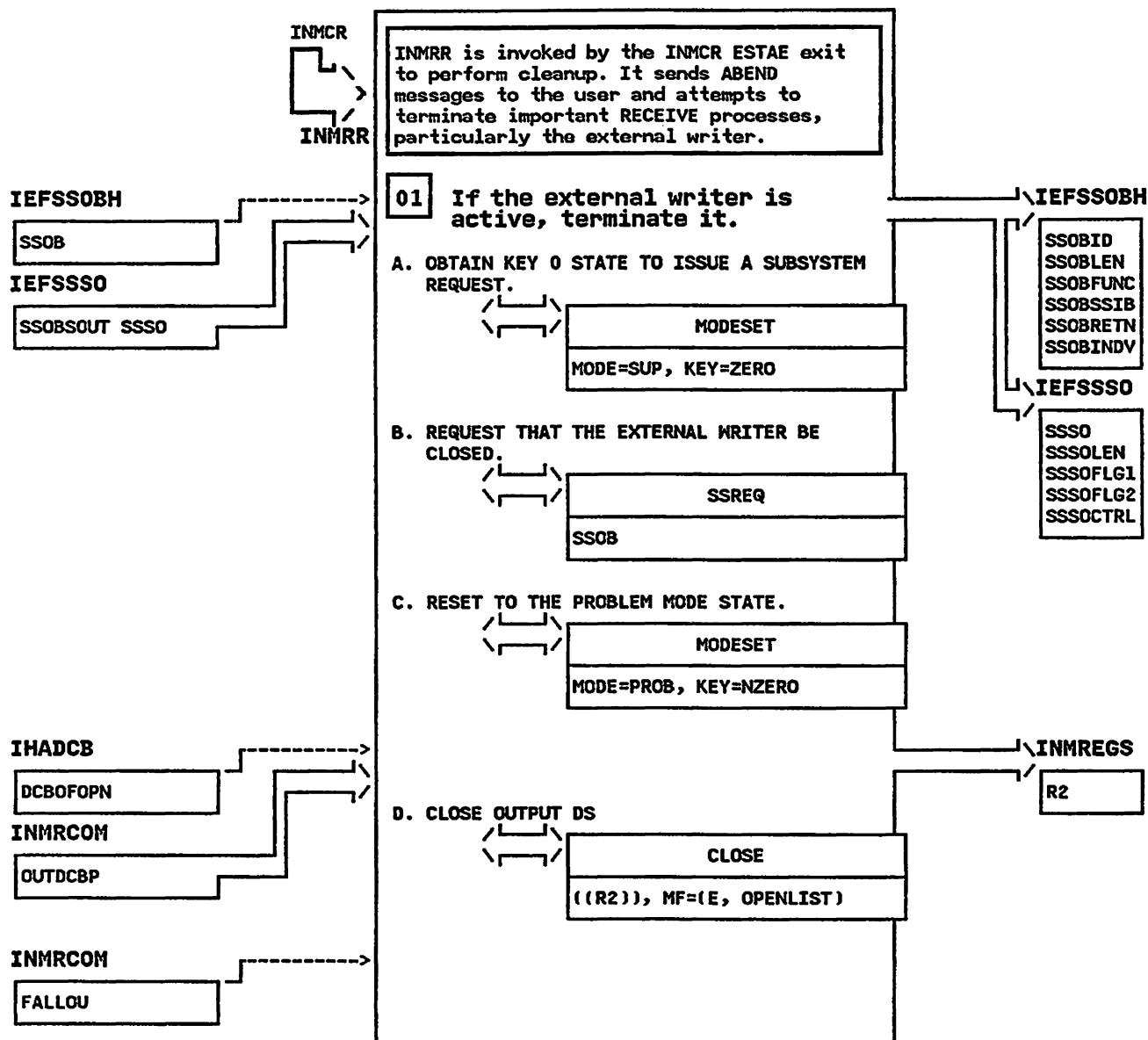
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unpredictable

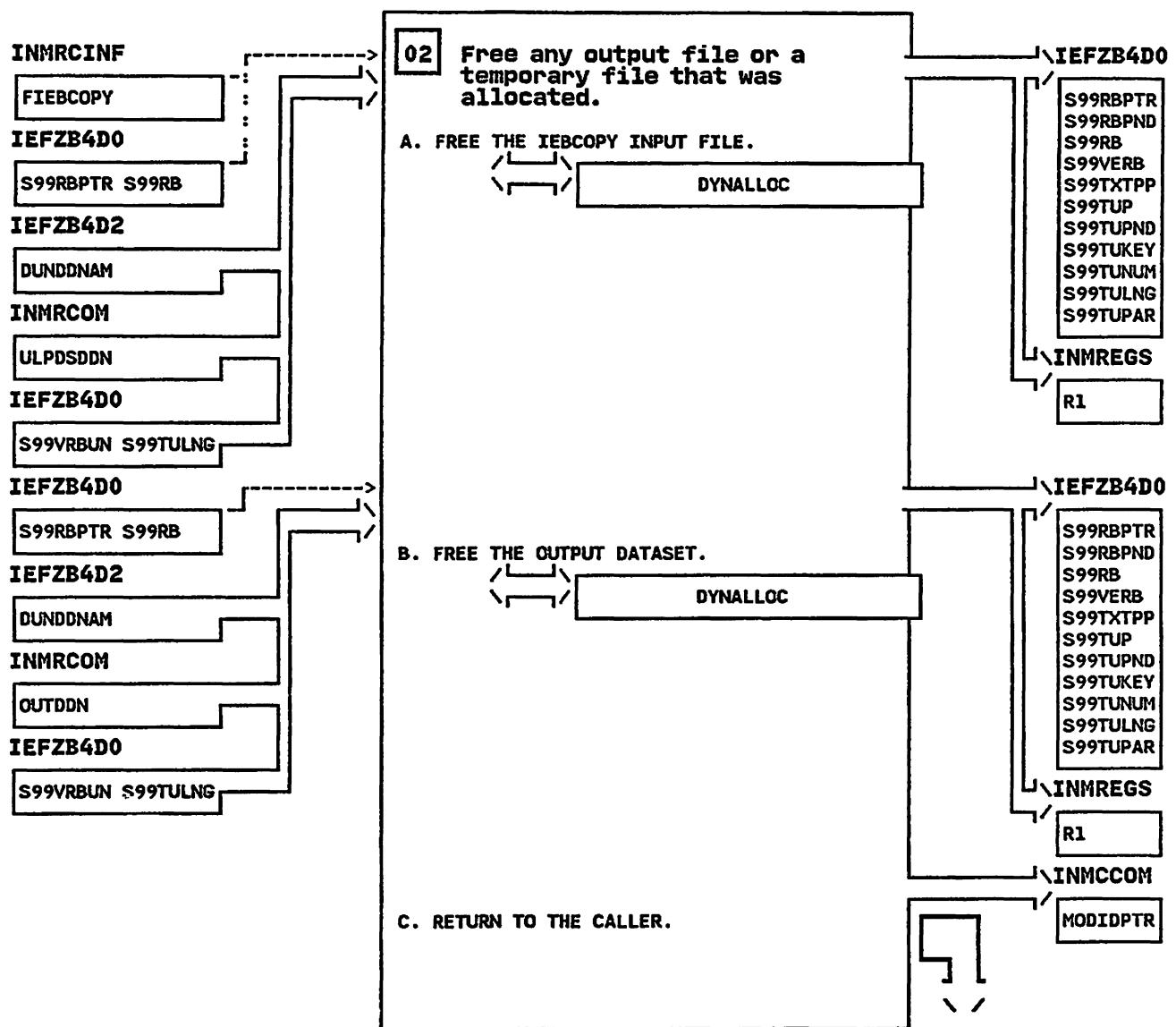
INMRR - ABEND cleanup routine

STEP 01



INMRR - ABEND cleanup routine

STEP 02



## INMRSCMD - MODULE DESCRIPTION

### DESCRIPTIVE NAME: RECEIVE Command Scan Subroutine

#### FUNCTION:

INMRSCMD invokes IKJPARS to scan the RECEIVE command parameters. After syntax checking, INMRSCMD moves the values into local variables.

#### ENTRY POINT: INMRSCMD

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMRM

#### INPUT:

All input is provided via the INMCCOM parameter structure. The following fields are used:

CPPLPTR (for IKJPARS parms and command buffer)

OUTPUT: Values set in INMCCOM.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJPARS - Command parse routine

##### DATA AREAS:

INMXCOM - RECEIVE command communications area  
INMCCOM - Command parameter structure  
INMXPRMD - Installation options block  
INMPDL - Parameter description lists

##### CONTROL BLOCKS:

CVT, PSA,  
CPPL, PPL, ECT, UPT

"Contains Restricted Materials of IBM"  
Licensed Materials - Property of IBM

#### **INMRSCMD - MODULE OPERATION**

- INMRSCMD performs the following functions:
- (1) Build the IKJPARS parameter list and pass the user's command to IKJPARS.
  - (2) Move the values extracted by IKJPARS into local variables (in INMCCOM, INMRCOM)
  - (3) Release IKJPARS space.
  - (4) Invoke the RECEIVE start up exit routine, INMRZ01, to verify parameters.

**INMRSCMD - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRSCMD

**MESSAGES:** INMR008I IKJPARS FAILED. ERRCODE: mnn

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable FQUIT of  
the common parameter structure INMCCOM.

- 0 - Everything is normal.
- 8 - Bad return code from IKJPARS.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

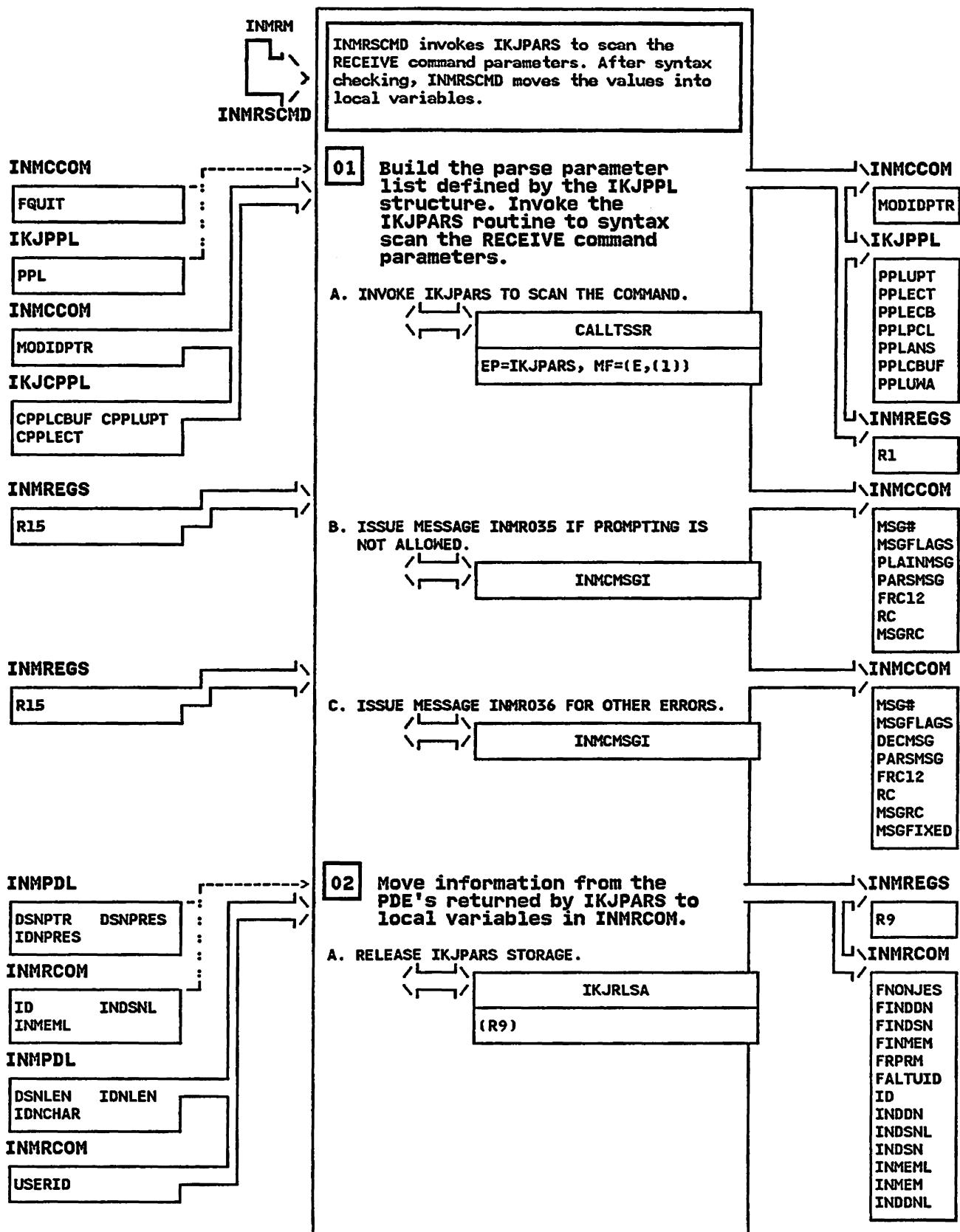
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

- Register 15 - Always zero
- Other - Unchanged

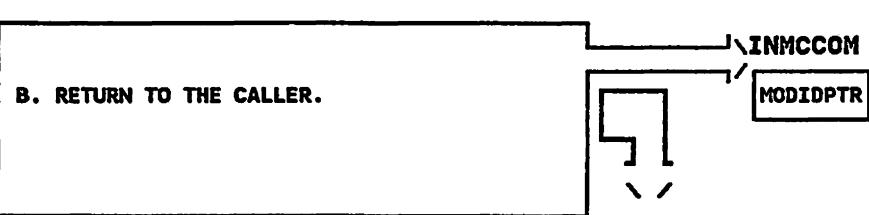
**INMRSCMD - RECEIVE Command Scan Subroutine**

**STEP 01**



INMRSCMD - RECEIVE Command Scan Subroutine

STEP 02B



## INMRUINP - MODULE DESCRIPTION

### DESCRIPTIVE NAME: User Prompt Routine

#### FUNCTION:

INMRUINP is the RECEIVE command routine that prompts the user for information to control the restoring of data files. It first invokes the INMRZ11 exit routine that can choose to bypass the user prompt and supply the RECEIVE controls directly. Normally, however, INMRUINP sends messages telling the user what has arrived and then syntax checks the reply.

#### ENTRY POINT: INMRUINP

#### PURPOSE: See FUNCTION

#### LINKAGE: PLS CALL

#### CALLERS: INMRO

#### INPUT:

All input is provided via the common parameter structure INMCCOM. The following fields are used:

FINVALID, FEOF, CPPLPTR

#### OUTPUT:

Control variables for the RECEIVE operation stored in the common parameter structure INMCCOM.

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine  
IKJPARS - Command pause routine

#### DATA AREAS:

INMRCOM - RECEIVE command communications area  
INMCCOM - Common parameter structure  
INMRCINF - Received file description table  
INMXPRMD - Installation options block  
INMRATXT - Output data set allocation text unit list  
INMPDL - Parameter description list

#### CONTROL BLOCKS:

CVT, DCB, CPPL, PPL, IEFZB4D2, IKJEFFMT,  
ECT

#### TABLES:

CBUF - User input buffer  
TRTBLL - Hex to EBCDIC conversion

## INMRUINP - MODULE OPERATION

- 1) Invoke the RECEIVE exit - invocation routine INMRZ. INMRZ Gives control to the RECEIVE data processing exit routine INMRZ11.  
The EXIT can request RECEIVE termination or it can choose to specify all the RECEIVE controls directly.
- 2) Send messages to the user identifying the sender of the transmission and giving the names of the transmitted data.
- 3) Prompt the user for restore or copy parameters.
- 4) Pass the prompt reply (or string from exit INMRZ11) to IKJPARS and, on return, moves the values into INMRCOM.

## INMRUINP - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMRUINP

### MESSAGES:

INMR032I RECEIVE COMMAND TERMINATED. INCORRECT  
USE OF THE RESTORE KEYWORD.  
INMR033I FILE TYPE CANNOT BE RESTORED.  
INMR034I RECEIVE COMMAND TERMINATED. FAILURE IN  
COMMAND SYNTAX CHECKING.  
INMR035I THE COMMAND WAS INCOMPLETE OR IN ERROR,  
BUT PROMPTING WAS INHIBITED.  
INMR036I RETURN CODE nn FROM IKJPARS.  
INMR042I RECEIVE FAILED; SYSTEM CANNOT PROMPT YOU  
FOR INFORMATION.  
INMR043I PROMPTING WAS INHIBITED.  
INMR044I RETURN CODE nn FROM IKJEFF02.  
INMR060I RECEIVE COMMAND TERMINATED. OUTPUT  
DATASET UNUSABLE.  
INMR064I A SINGLE MEMBER WAS SPECIFIED, BUT MORE  
THAN ONE MEMBER WAS BEING RECEIVED.  
INMR800I THE RECEIVE COMMAND FAILED. THE  
PUTGET SERVICE ROUTINE ISSUED  
RETURN CODE 'nn'.  
INMR901I DATASET dsname FROM userid ON nodename  
INMR902I MEMBERS: memberlist  
INMR906I ENTER RESTORE PARAMETERS OR 'DELETE' OR  
'END'.  
INMR907I ENTER COPY PARAMETERS OR 'DELETE' OR  
'END'.  
INMR908I THE INPUT FILE ATTRIBUTES ARE: DSORG=>x,  
RECFM=rr, BLKSIZE=nn, LRECL=nn,  
SIZE=nnK BYTES.  
INMR909I YOU MAY ENTER DSNAME, SPACE, UNIT, VOL,  
OLD/NEW, OR RESTORE/COPY/DELETE/END.  
INMR934I A SINGLE MEMBER WAS SPECIFIED, BUT AN  
ENTIRE PARTITIONED DATA SET WAS BEING  
RECEIVED.

ABEND CODES: None

WAIT STATE CODES: None

### RETURN CODES:

#### EXIT NORMAL:

Return code set in the variable FQUIT of  
the common parameter structure INMCCOM.

- 0 - Everything is normal.
- 12 - An error has occurred.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**INMRUINP - DIAGNOSTIC AIDS (Continued)**

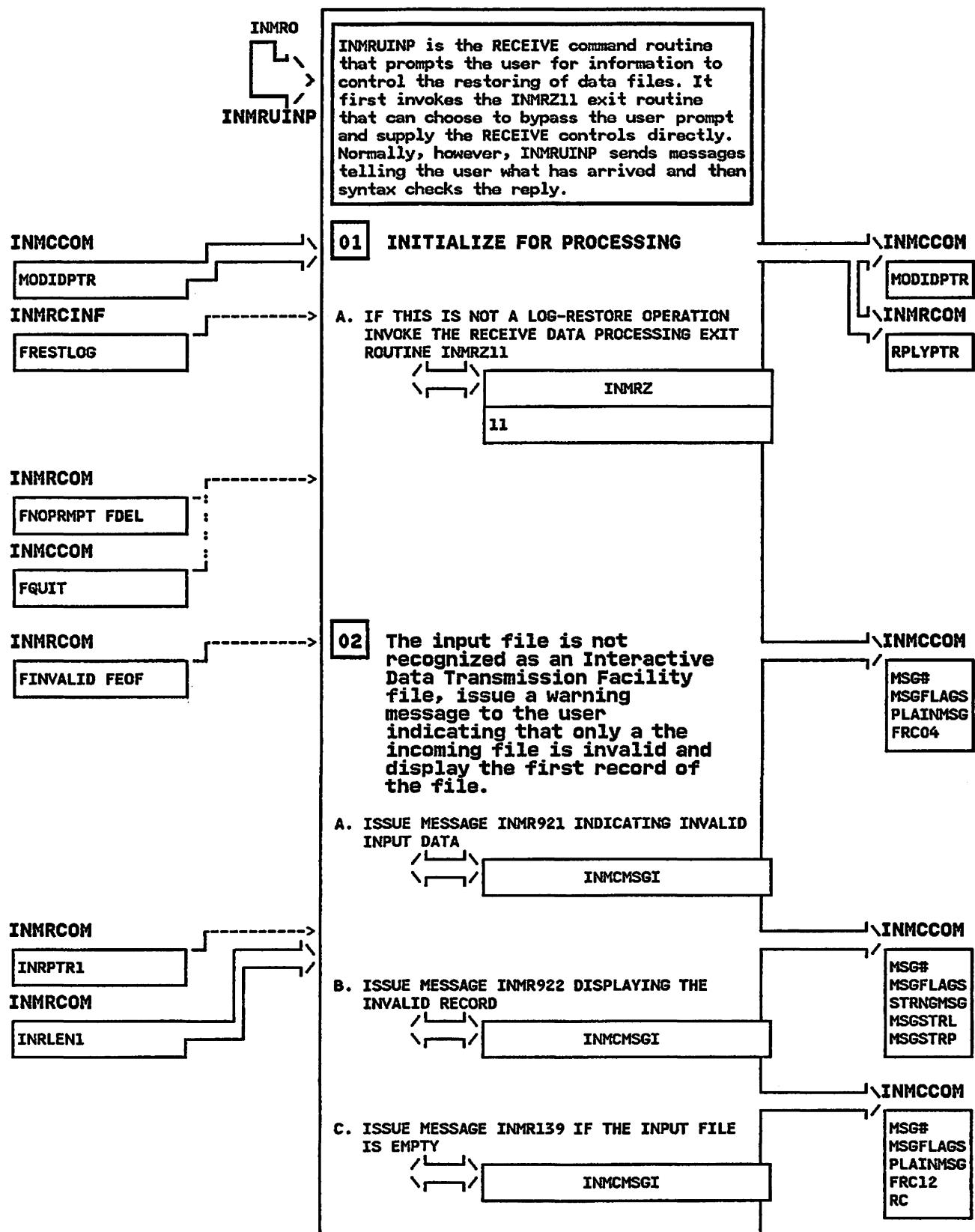
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

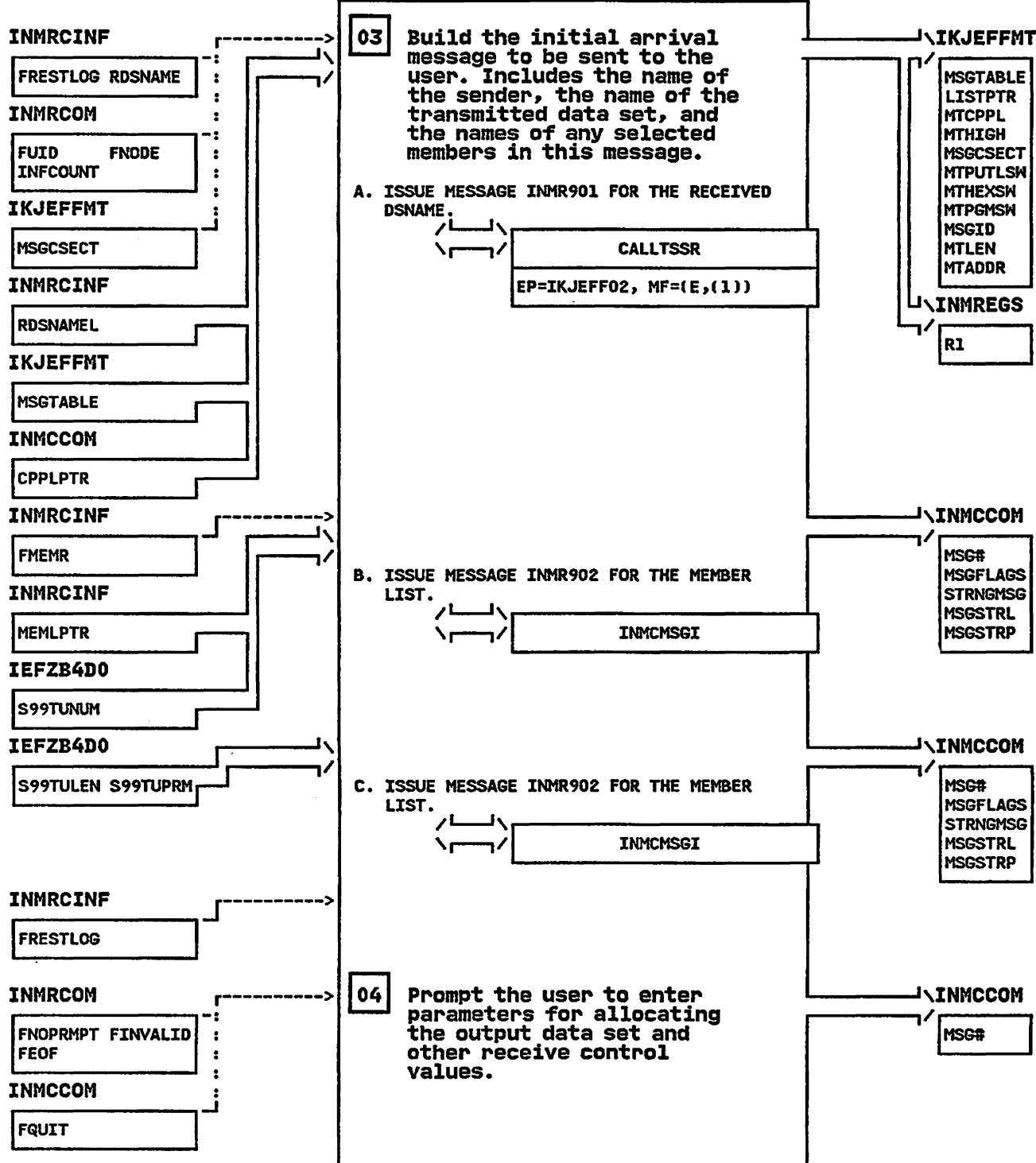
INMRUINP - User Prompt Routine

STEP 01



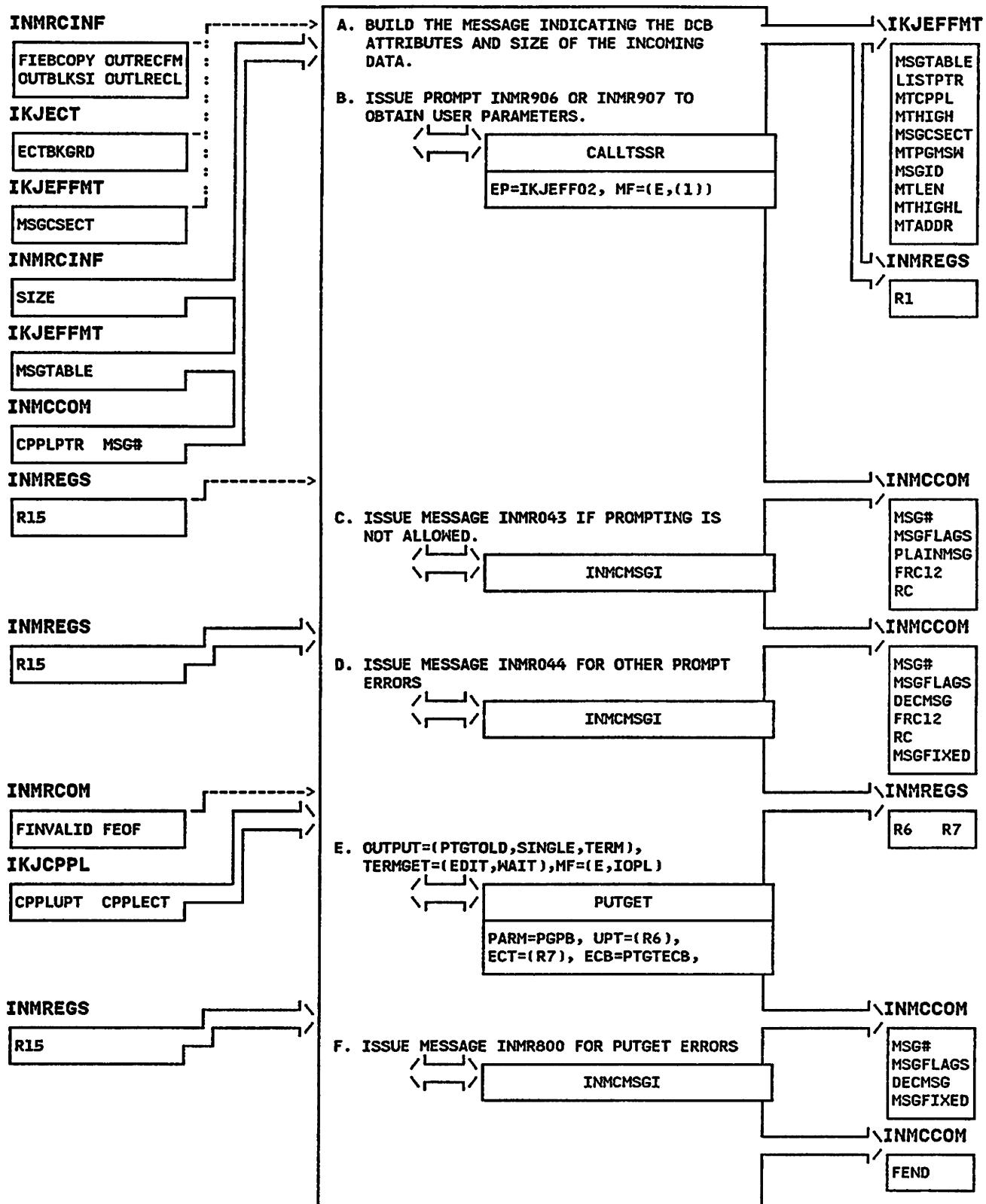
INMRUINP - User Prompt Routine

STEP 03



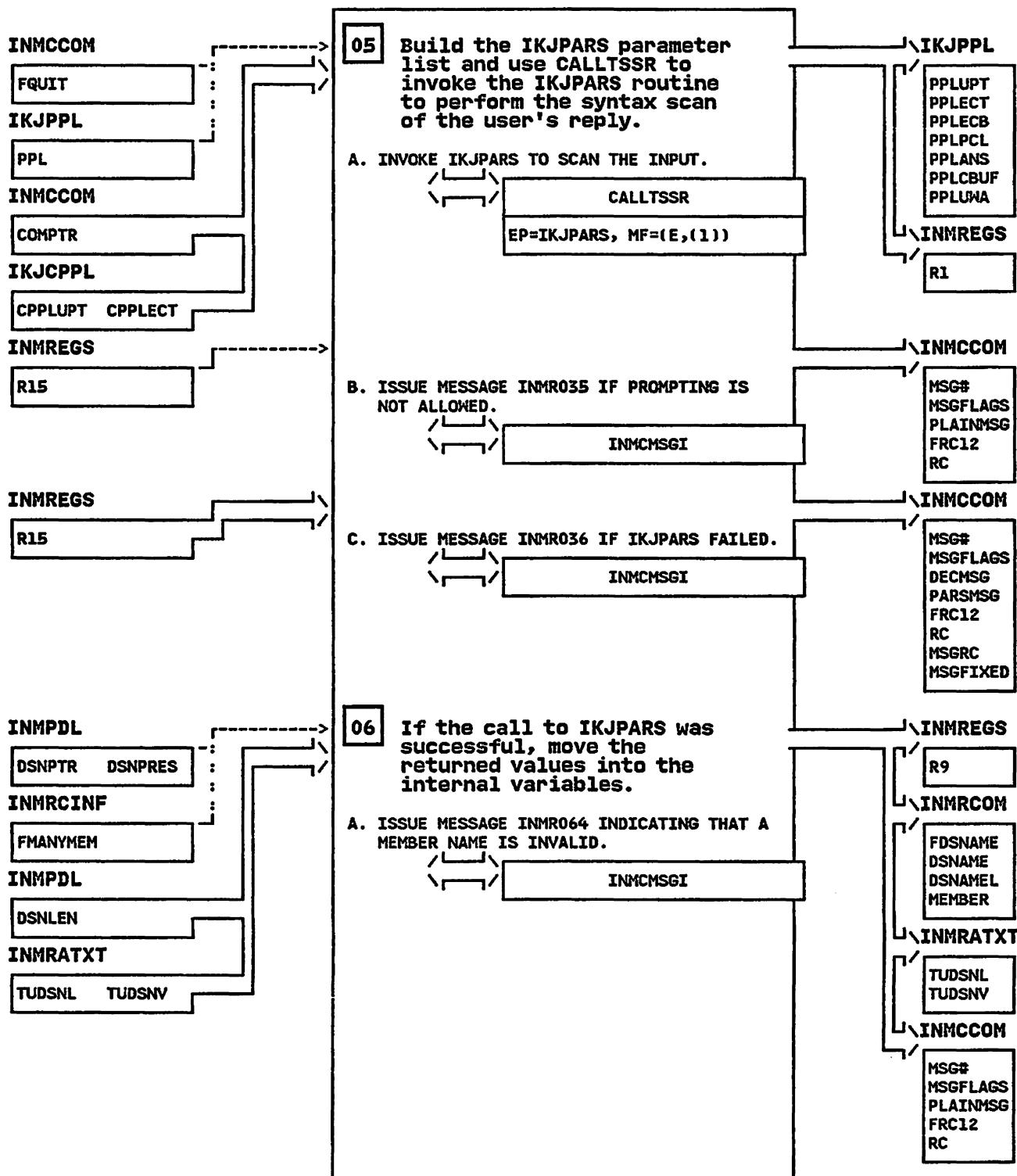
**INMRUINP - User Prompt Routine**

**STEP 04A**



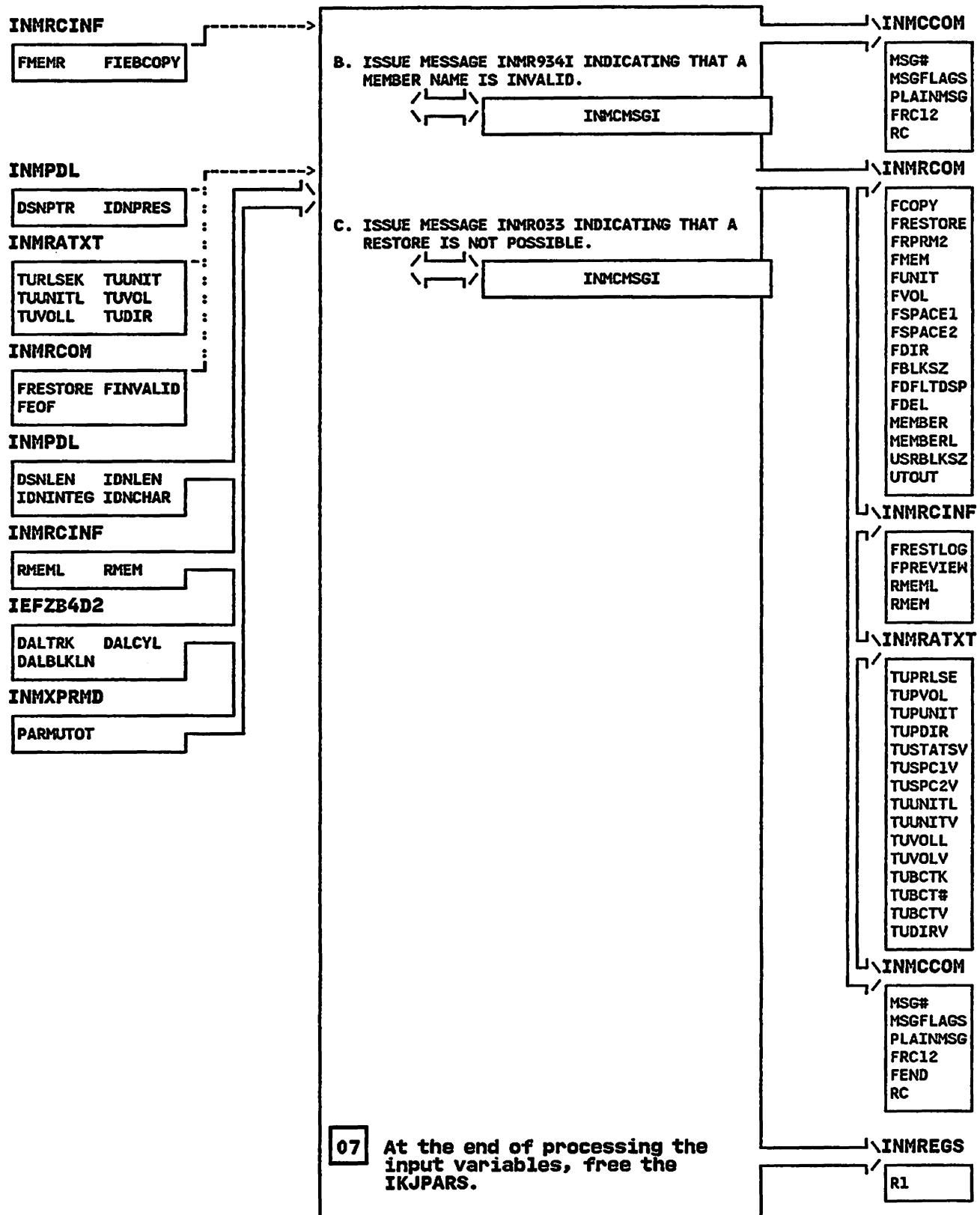
INMRUINP - User Prompt Routine

STEP 05



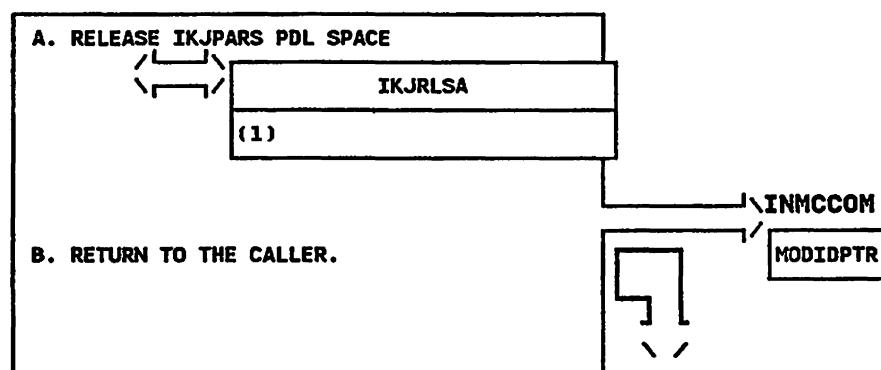
INMRUINP - User Prompt Routine

STEP 06B



INMRUINP - User Prompt Routine

STEP 07A



## INMRVBS - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Transmission File Reload Routine

**FUNCTION:**

INMRVBS reads converted records from the JES spool and rebuilds them in their original format.

**ENTRY POINT:** INMRVBS

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRM

**INPUT:**

Input parameters via the INMRCOM parameter structure. The following fields are used:

INPDCBP, OUTDCBP, RRECFM, RBLKSZ, RLRECL,  
FVBS, FPREVIEW

Input data is read from the input file whose DCB is pointed to by INPDCBP.

**OUTPUT:**

Output data is written to the file whose DCB is pointed to by OUTDCBP.

**EXIT NORMAL:** BR 14 Return to caller

## EXTERNAL REFERENCES:

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

**DATA AREAS:**

INMRCOM - RECEIVE command communication area  
INMCCOM - Common parameter structure  
INMRCINF - Received file description table  
INMXPRMD - Installation options block

**CONTROL BLOCKS:** CVT, DCB, IKJEFFMT

**TABLES:**

BUF	- Output file buffer and control block
INREC	- Input file record
INV	- VBS overlay for input record segment
VSCTL	- VBS control bit overlay
DEVTYPEA	- Overlay for device type information
MMEXLST	- DCB Exit list

## INMRVBS - MODULE OPERATION

Copy records from an input file (normally JES) to an output file. The input file is OPEN at entry, but the output file must be opened. The following steps are performed:

- 1) Use DEVTYPE to determine characteristics of the output device.
- 2) OPEN the output file. A DCB OPEN exit supplies appropriate DCB parameters if they are not already present.
- 3) GETMAIN space for and build buffers and controls for the output file.
- 4) Read input records. Look at contents of record to see if carriage control was appended by another operating system. If so, skip past the first character.
- 5) Using pieces from the input records and build the output blocks (not records). As each block is finished, write it. When the buffer is needed for re-use, issue a CHECK.
- 6) FREEMAIN the space obtained in step (3) and CLOSE the output file.

## INMRVBS - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMRVBS

### MESSAGES:

INMR006I RECEIVE COMMAND TERMINATED.  
THE DATA SET YOU SPECIFIED  
CANNOT BE USED TO RECEIVE THE  
INCOMING DATA SET. THE BLOCK  
SIZES ARE INCOMPATIBLE.  
INMR060I RECEIVE COMMAND TERMINATED. OUTPUT  
DATASET UNUSABLE.  
INMR065I RECORD FORMAT INCOMPATIBLE WITH RECORD  
FORMAT OF INCOMING FILE.  
INMR066I INPUT: RECFM=ff, LRECL=nn, BLKSIZE=rn  
FORMAT OF INCOMING FILE.  
INMR108I RECEIVE COMMAND TERMINATED. TRAILER  
RECORD MISSING.  
INMR109I AN ERROR WAS ENCOUNTERED WHILE  
PROCESSING A CONTROL RECORD.  
INMR130I RECEIVE COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMR135I PERMANENT I/O ERROR READING INPUT FILE.  
INMR136I standard I/O error message  
INMR138I RECEIVED RECORD LONGER THAN OUTPUT  
BLOCKSIZE.

ABEND CODES: None

WAIT STATE CODES: None

### RETURN CODES:

#### EXIT NORMAL:

Return code set in the variable FQUIT of  
the communications area INMRCOM.

- 0 - Everything is normal.
- 12 - An error occurred.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

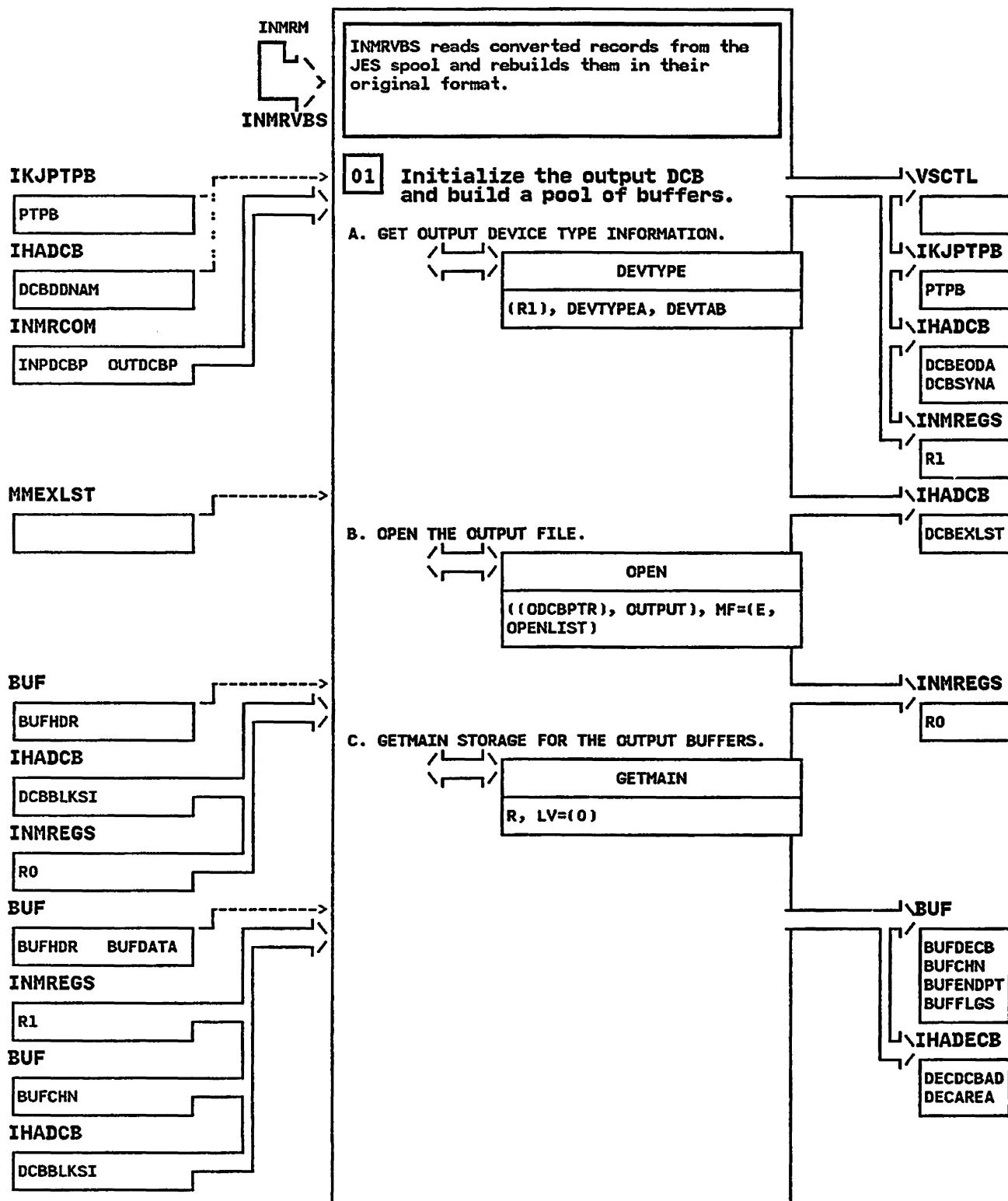
### REGISTER CONTENTS ON EXIT:

#### EXIT NORMAL:

REGISTER 15 - Always zero  
Other - Unchanged

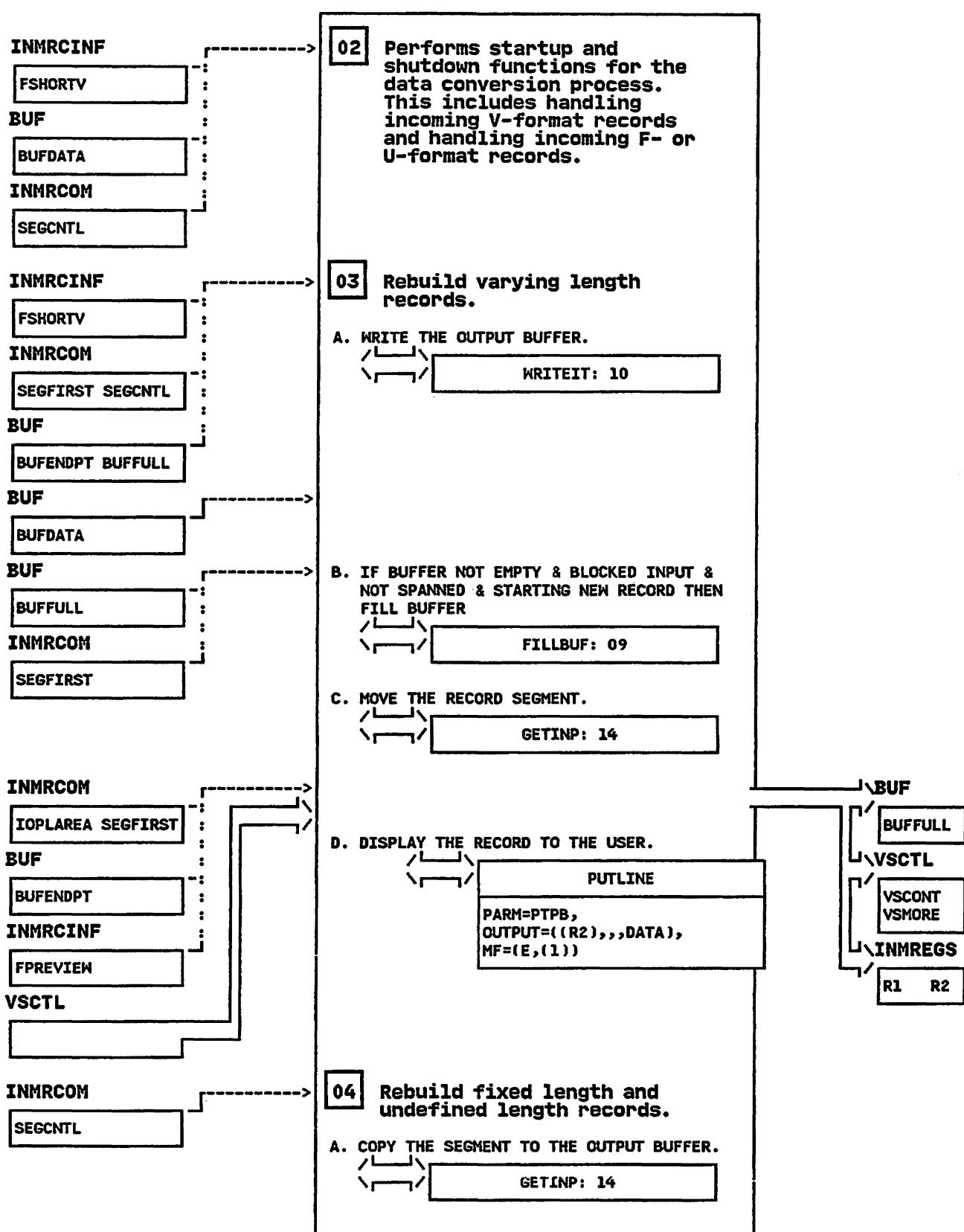
INMRVBS - Transmission File Reload Routine

STEP 01



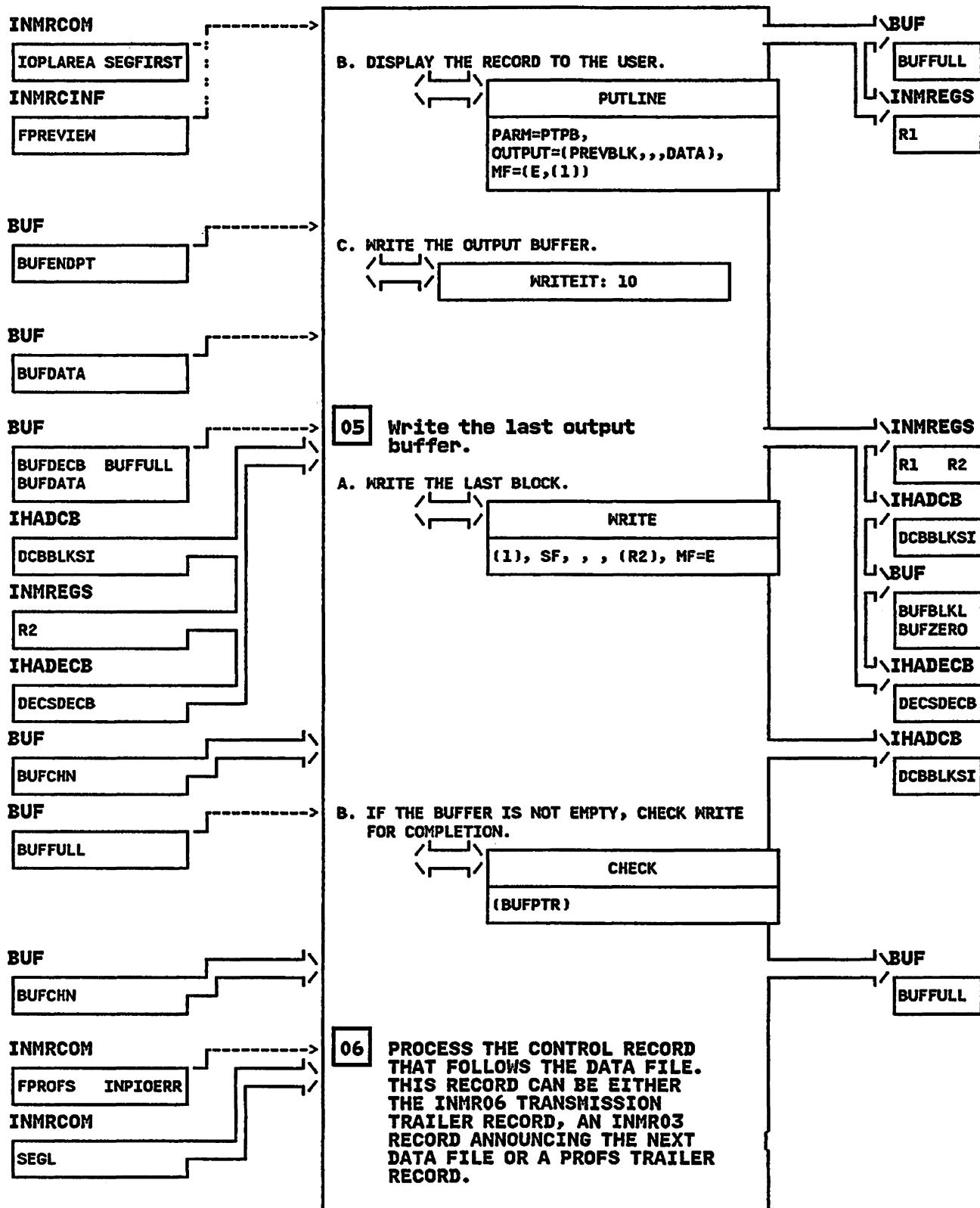
INMRVBS - Transmission File Reload Routine

STEP 02



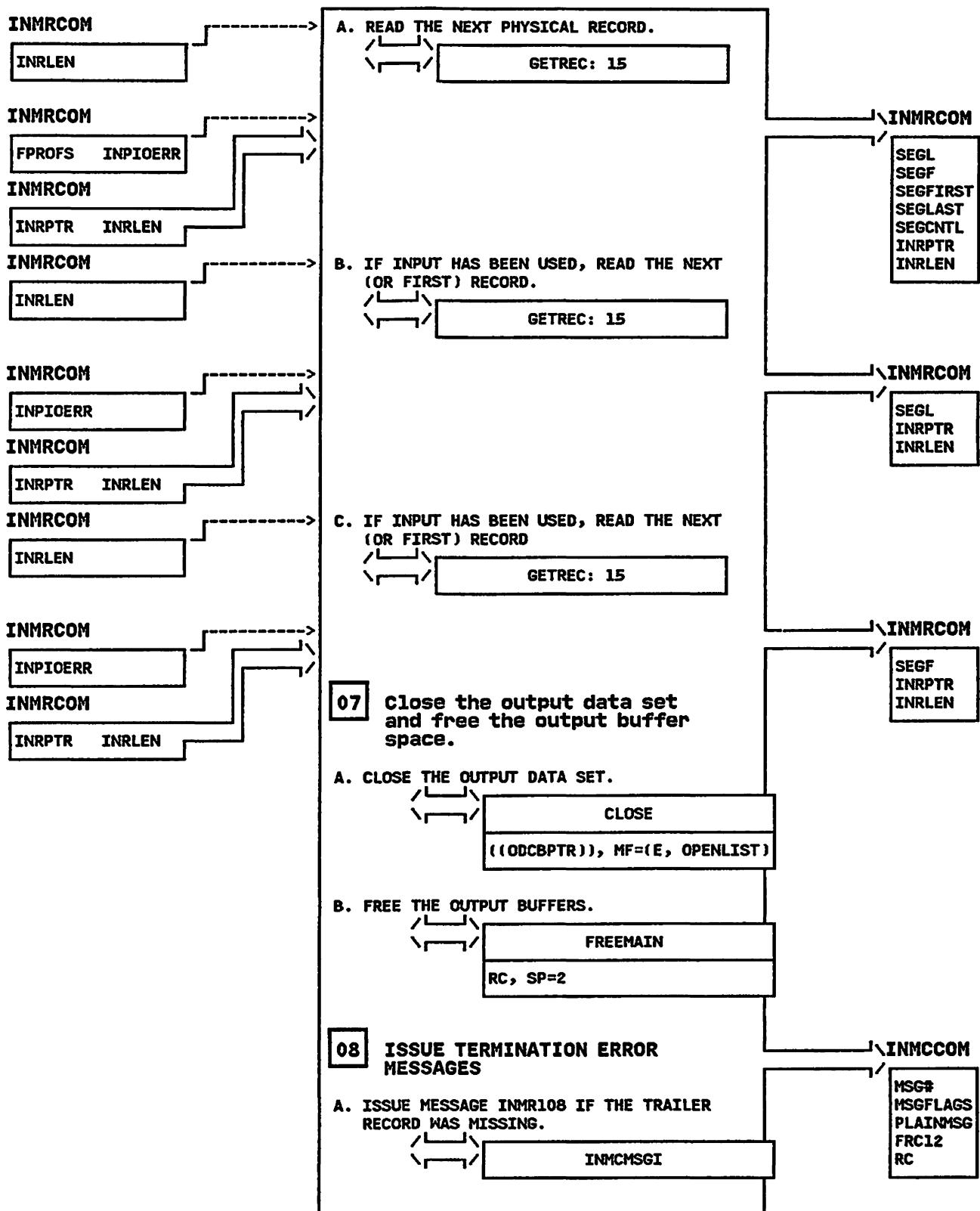
INMRVBS - Transmission File Reload Routine

STEP 04B



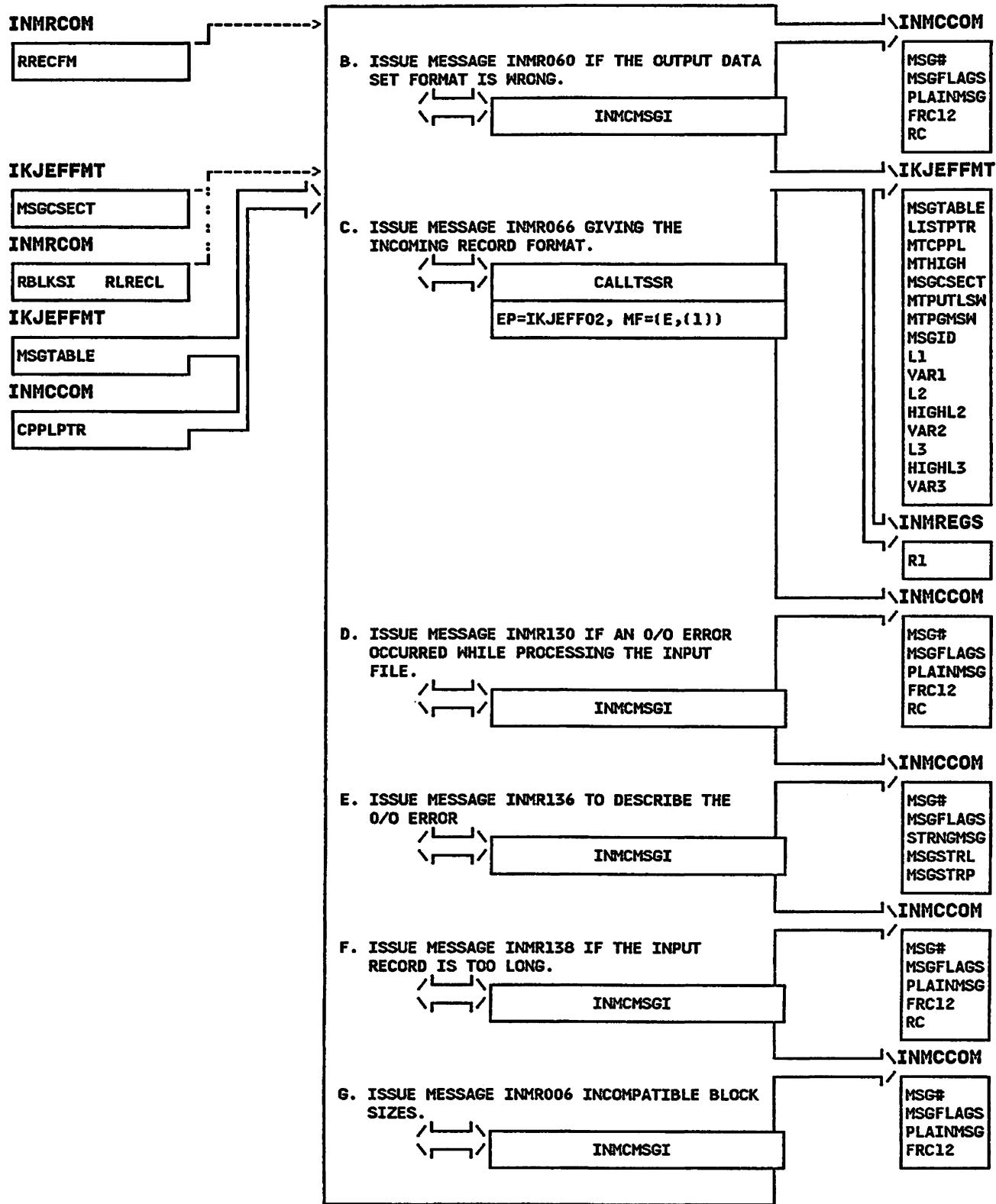
INMRVBS - Transmission File Reload Routine

STEP 06A



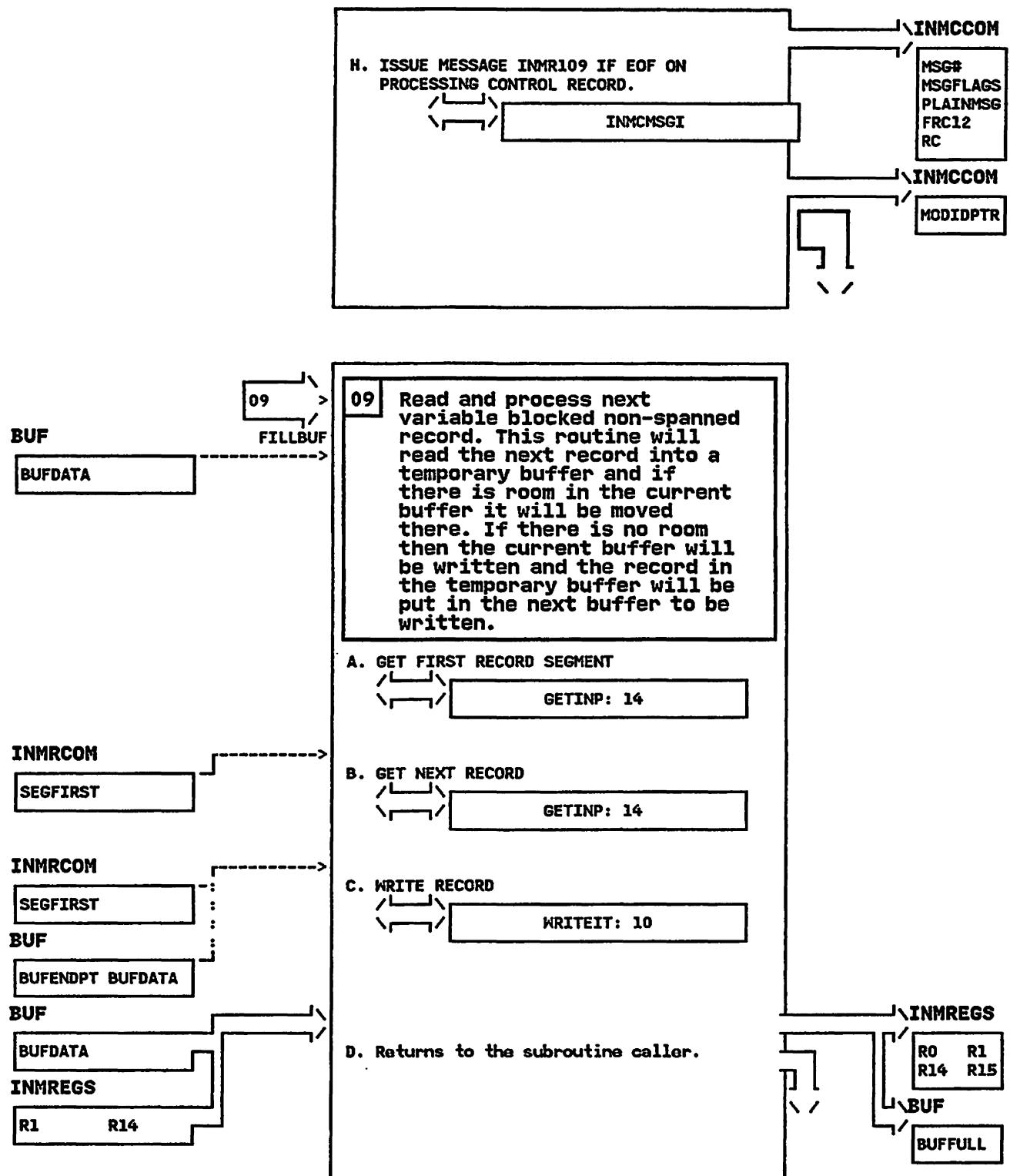
**INMRVBS - Transmission File Reload Routine**

**STEP 08B**



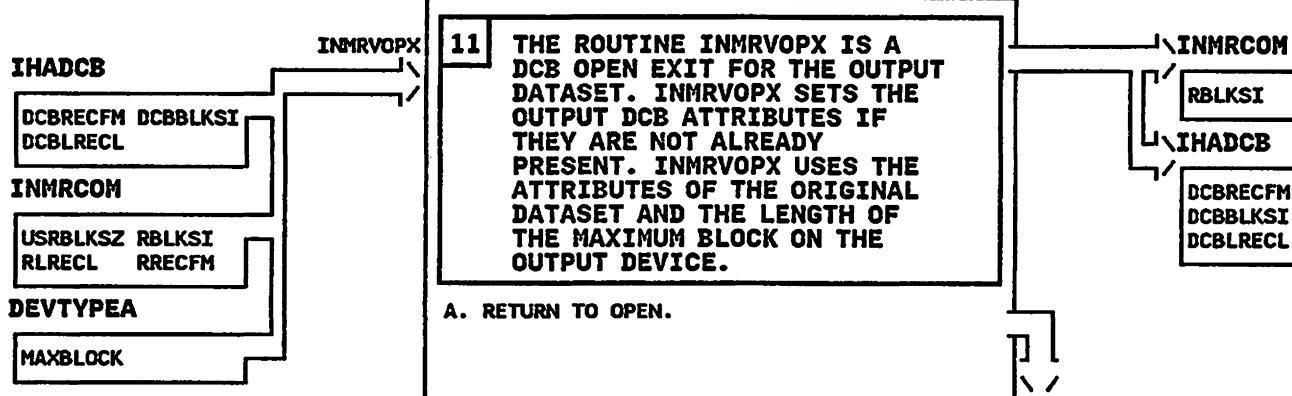
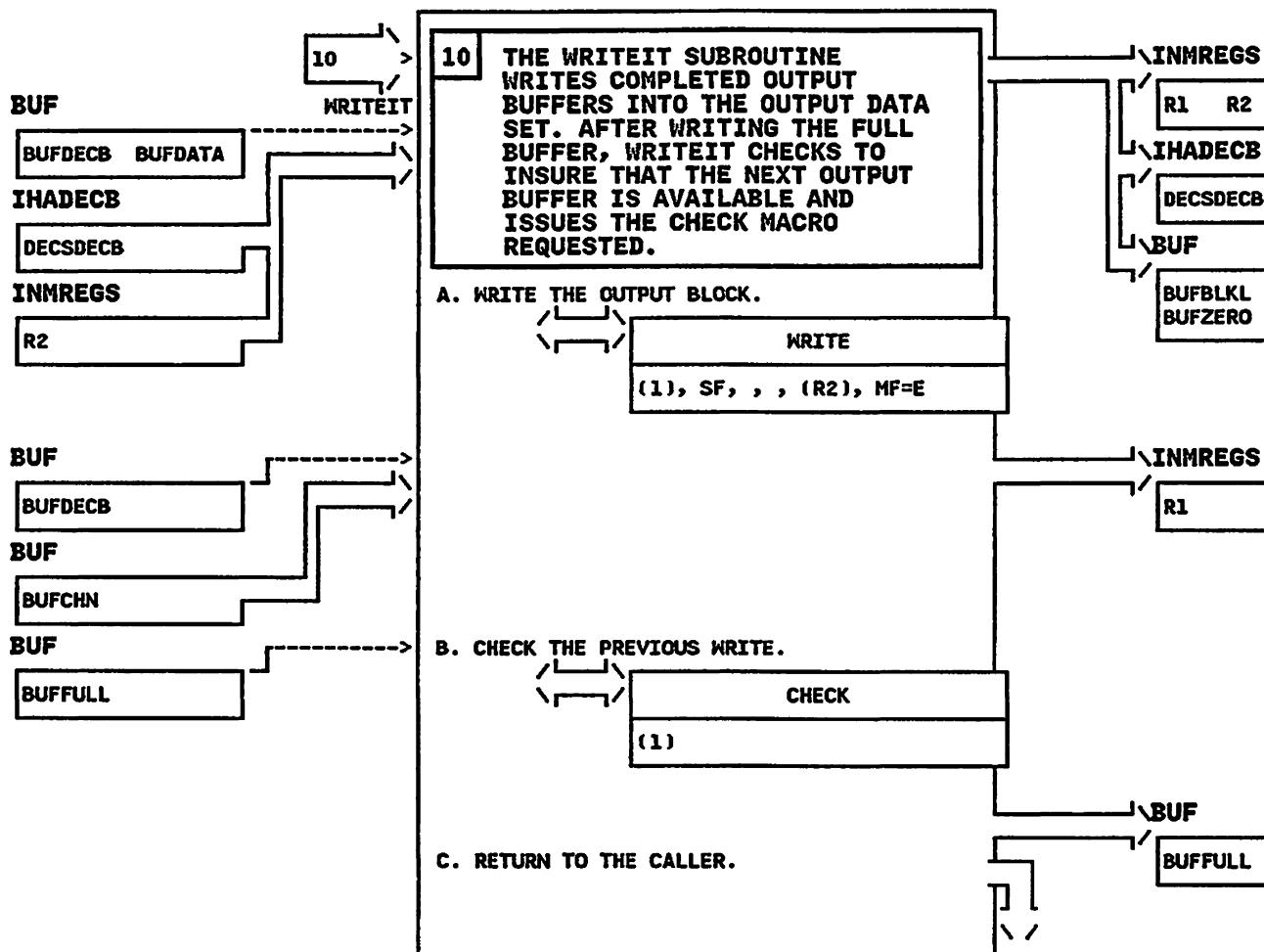
INMRVBS - Transmission File Reload Routine

STEP 08H



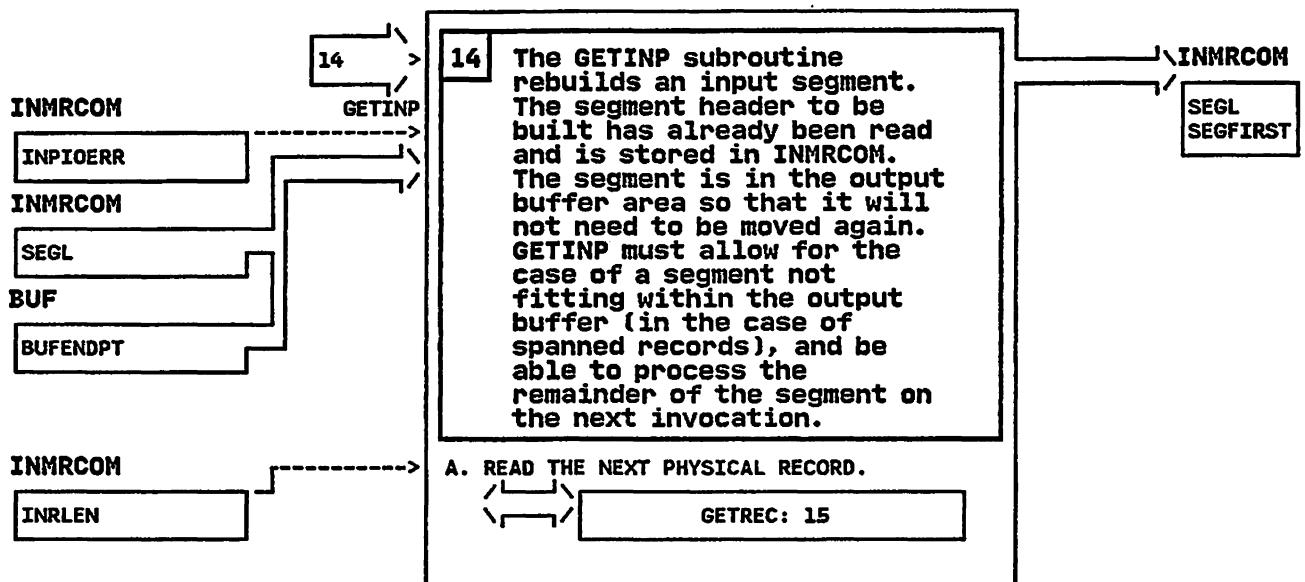
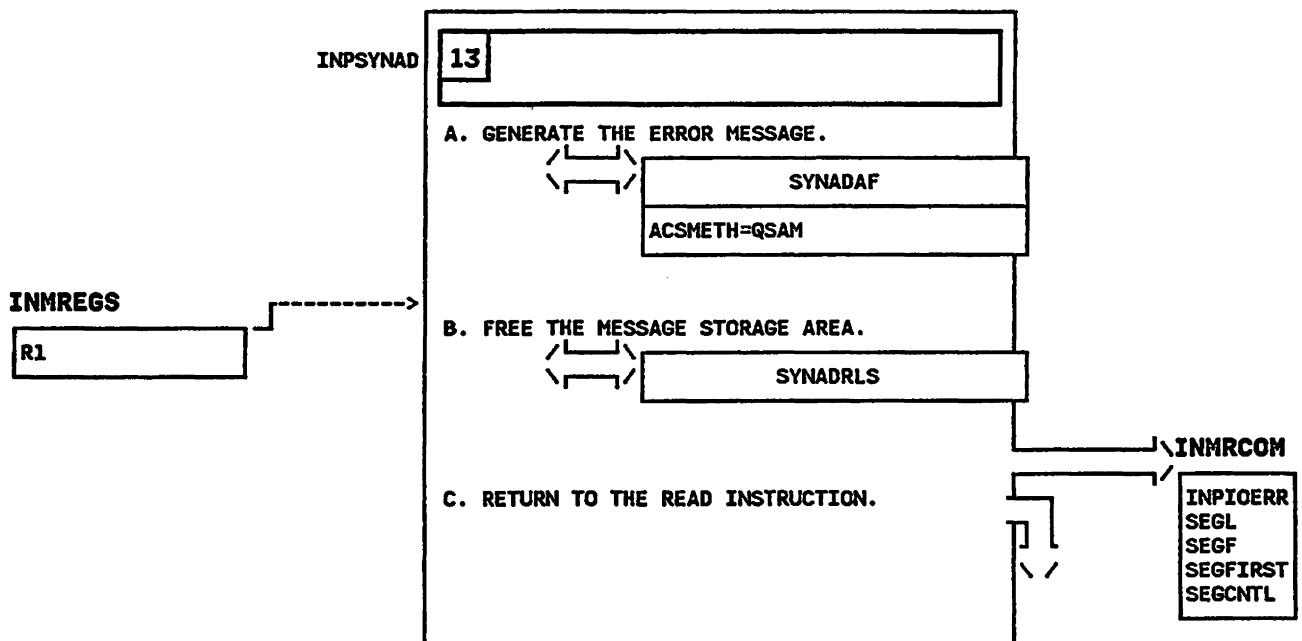
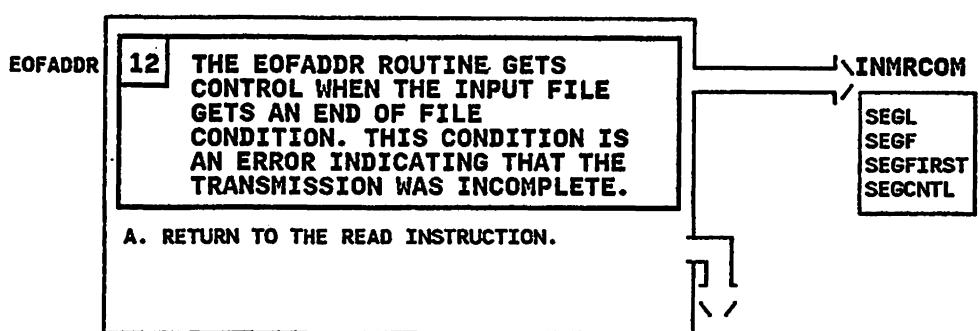
**INMRVBS - Transmission File Reload Routine**

**STEP 10**



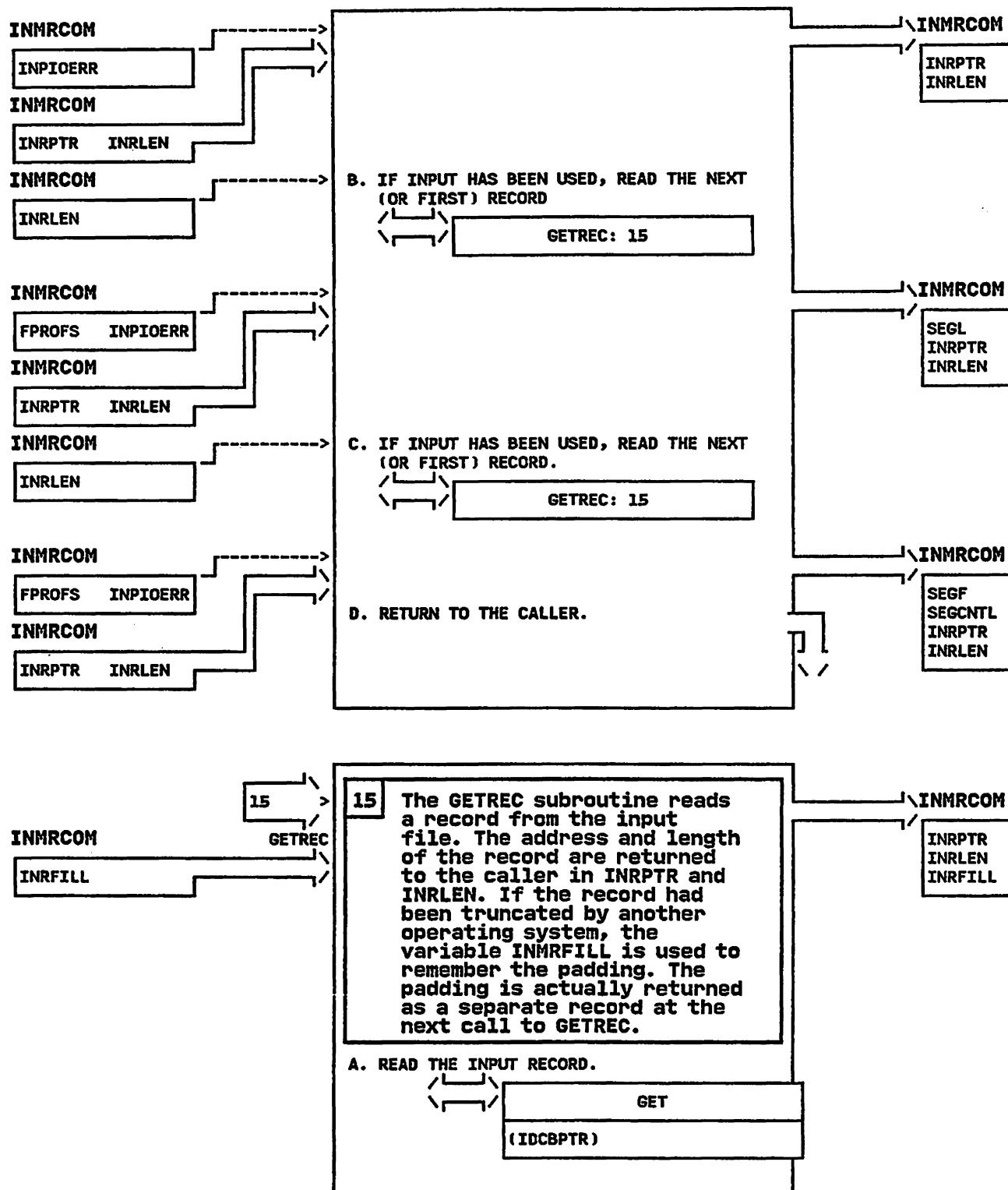
INMRVBS - Transmission File Reload Routine

STEP 12



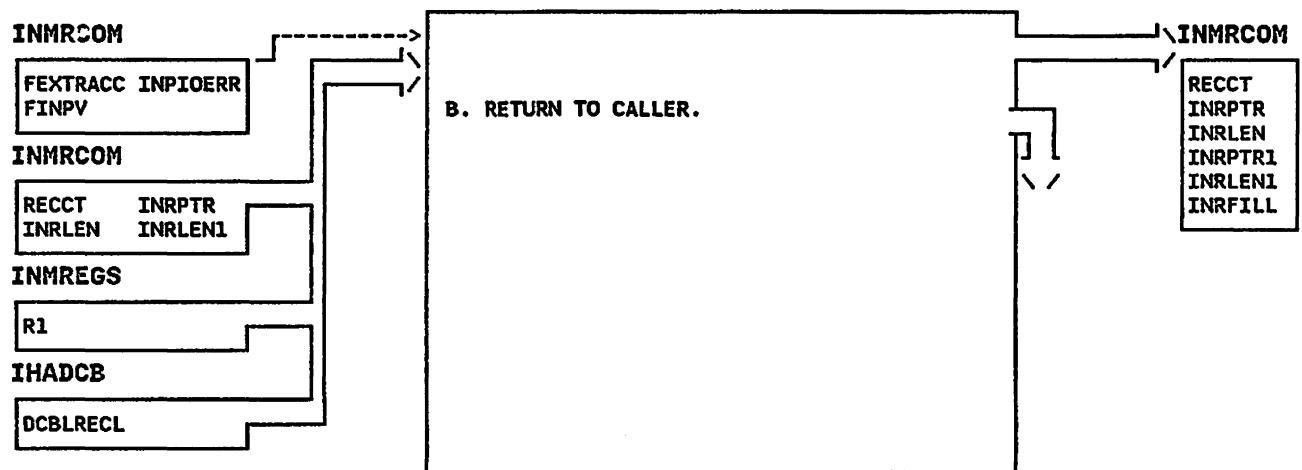
INMRVBS - Transmission File Reload Routine

STEP 14B



**INMRVBS - Transmission File Reload Routine**

**STEP 15B**



## INMRZ - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** RECEIVE Installation Exit-Invocation Routine

### FUNCTION:

INMRZ is invoked by any RECEIVE module that wants to invoke a user exit. INMRZ builds the appropriate parameter list, invokes the exit, and performs initial processing on any returned parameters returned by the exit.

**ENTRY POINT:** INMRZ

**PURPOSE:** See FUNCTION

**LINKAGE:** ATTACH

### CALLERS:

INMRM	- For exit routine INMRZ01
INMRM	- For exit routine INMRZ02
INMRO	- For exit routine INMRZ04
INMRUINP	- For exit routine INMRZ11
INMRM	- For exit routine INMRZ12
INMRCODE	- For exit routine INMRZ13

**INPUT:** None

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - MESSAGE issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

There are weak external references for:  
INMRZ01 - RECEIVE startup exit routine  
INMRZ02 - RECEIVE termination exit routine  
INMRZ04 - RECEIVE acknowledgment exit routine  
INMRZ11 - RECEIVE data preprocessing exit routine  
INMRZ12 - RECEIVE data postprocessing exit routine  
INMRZ13 - RECEIVE decryption exit routine

#### DATA AREAS:

INMRCOM	- RECEIVE command communications area
INMCCOM	- Common parameter structure
INMRCINF	- Received file description table

**CONTROL BLOCKS:** CVT, IKJEFFMT

**TABLES:** PLIST - Parameter list structures

## INMRZ - MODULE OPERATION

All RECEIVE command modules wishing to invoke a user exit routine call INMRZ. INMRZ is divided between common code for those functions that are common to all exits and unique code that builds and processes exit-unique parameter sections.

The common code functions include determining if the exit routine exists, passing of the user word in the parameter list, passing the TSO CPPL, and passing and processing a message area that the exit can use to have messages sent to the user.

**INMRZ - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ

**MESSAGES:**

INMR005I INVALID MESSAGE LENGTH PROVIDED  
BY INSTALLATION EXIT FOR MESSAGE  
INMR151I  
INMR150I RECEIVE TERMINATED BY EXIT INMRZ~~xx~~  
INMR151I message from exit routine

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Exit routine number  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

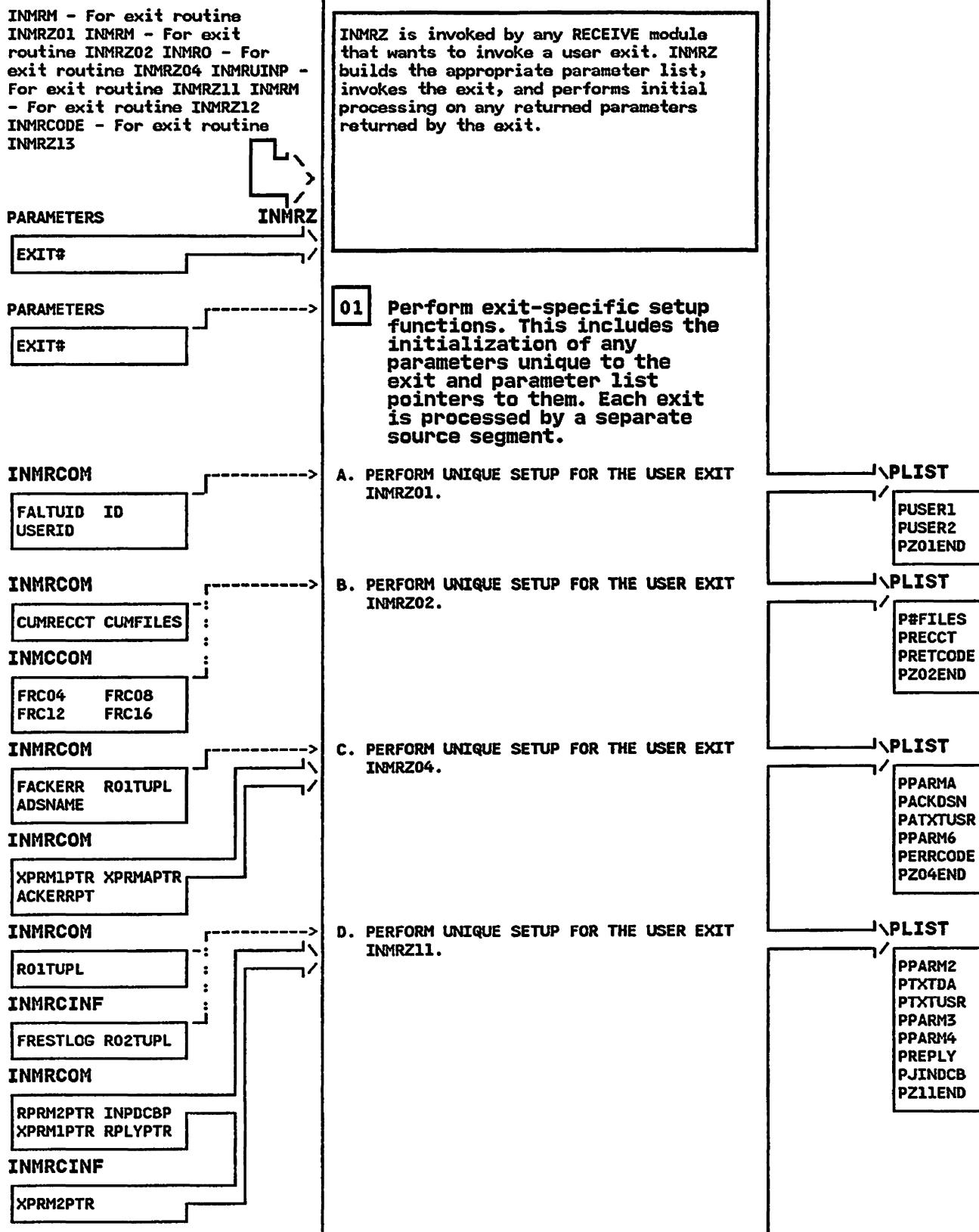
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Zero  
Other - Unchanged

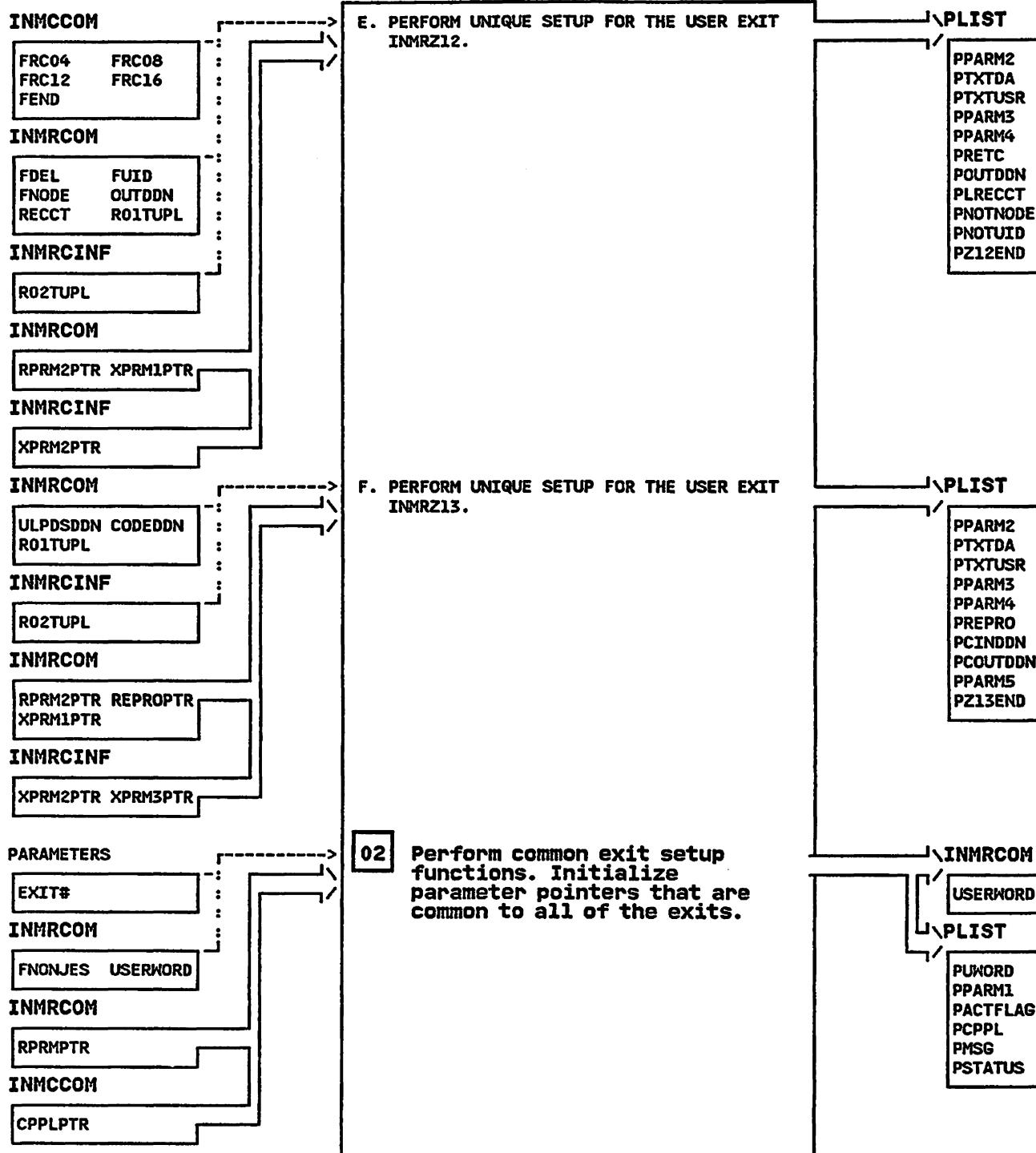
## INMRZ - RECEIVE Installation Exit-Invocation Routine

STEP 01



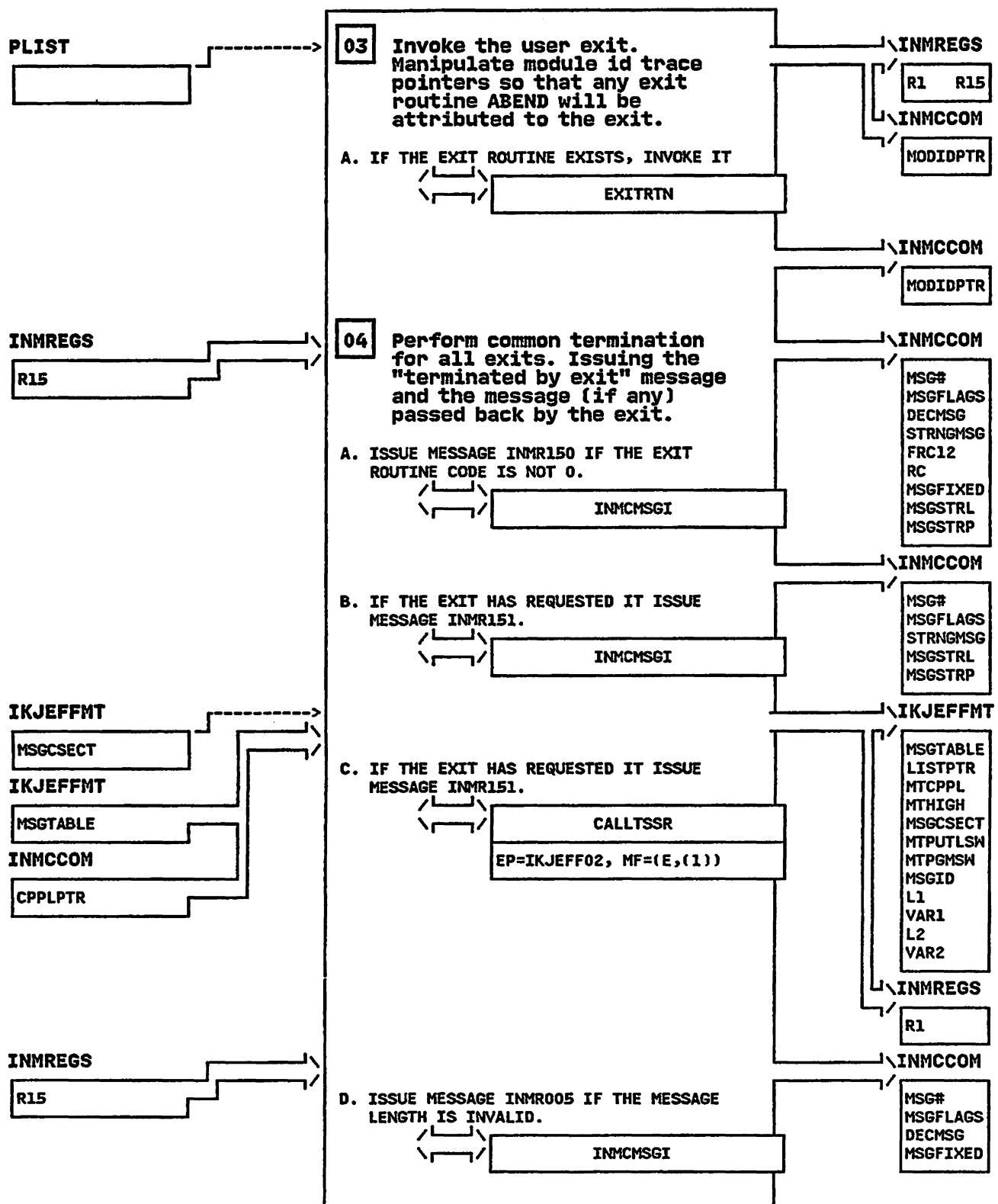
INMRZ - RECEIVE Installation Exit-Invocation Routine

STEP 01E



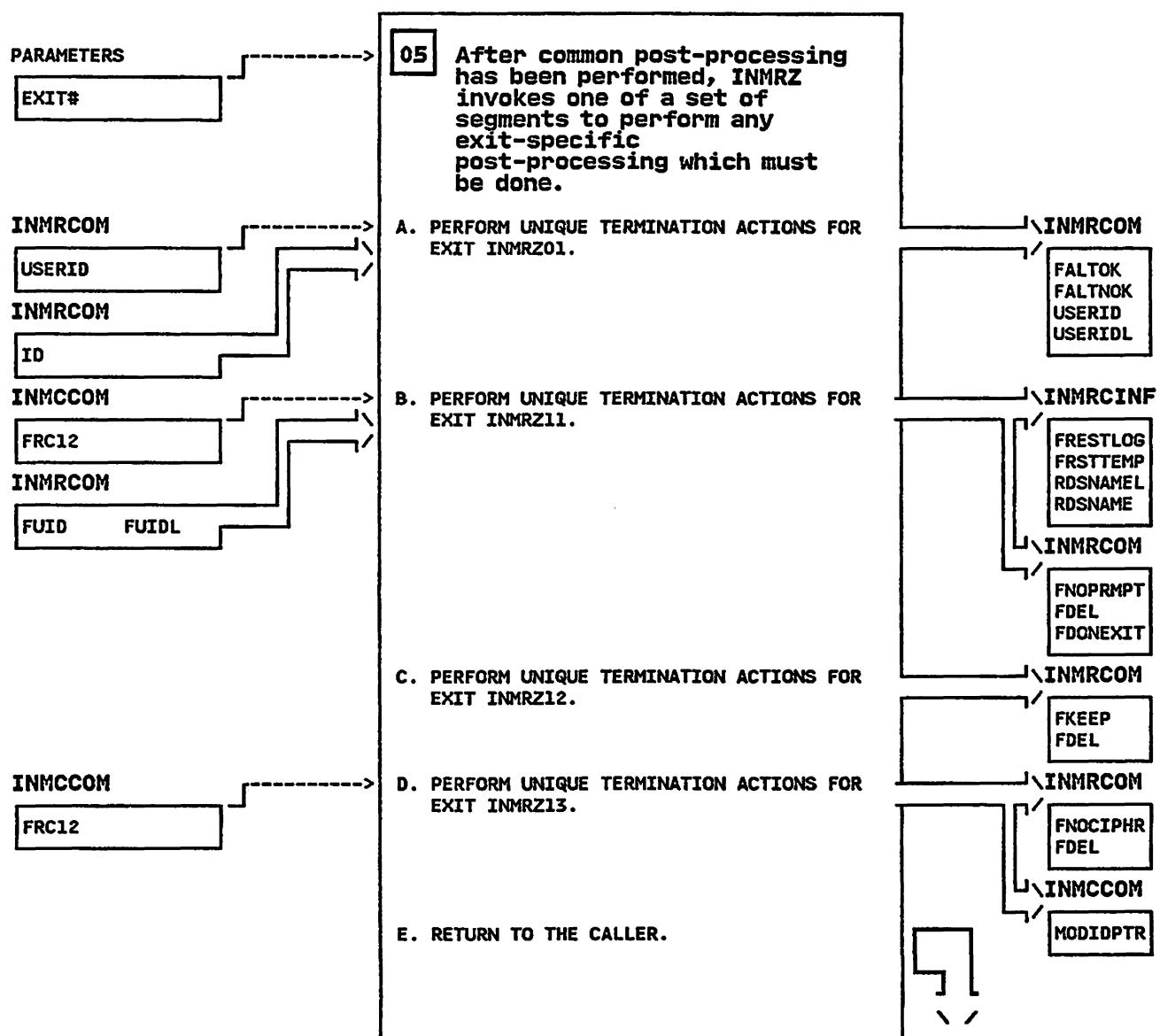
INMRZ - RECEIVE Installation Exit-Invocation Routine

STEP 03



INMRZ - RECEIVE Installation Exit-Invocation Routine

STEP 05



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## INMRZ01 - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** RECEIVE Startup Exit Routine.

**FUNCTION:**

INMRZ01 is an exit routine that can  
be replaced by the installation. It does nothing  
except set return code zero and return to the  
caller.

**ENTRY POINT:** INMRZ01

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

## INMRZ01 - MODULE OPERATION

INMRZ01 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMRZ01 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ01

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

INMRZ01 - RECEIVE Startup Exit Routine.

INMRZ  
└─> /  
INMRZ01

INMRZ01 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMRZ02 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** RECEIVE Termination Exit Routine.

**FUNCTION:**

INMRZ02 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT:** INMRZ02

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

**INMRZ02 - MODULE OPERATION**

**INMRZ02 is an exit routine that can be  
replaced by the installation. It does nothing  
except set return code zero and return to the  
caller.**

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**INMRZ02 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ02

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

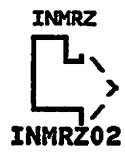
Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMRZ02 - RECEIVE Termination Exit Routine.**



INMRZ02 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

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## **INMRZ04 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** RECEIVE Acknowledgment Exit Routine.

**FUNCTION:**

INMRZ04 is an exit routine than can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT:** INMRZ04

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

## INMRZ04 - MODULE OPERATION

INMRZ04 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMRZ04 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ04

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMRZ04 - RECEIVE Acknowledgment Exit Routine.**

INMRZ  
└─>  
INMRZ04

INMRZ04 is an exit routine than can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMRZ11 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** RECEIVE Data Preprocessing Exit Routine.

**FUNCTION:**

INMRZ11 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT:** INMRZ11

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

## INMRZ11 - MODULE OPERATION

INMRZ11 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMRZ11 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ11

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMRZ11 - RECEIVE Data Preprocessing Exit Routine.**

INMRZ  
INMRZ11

INMRZ11 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

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**INMRZ12 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME: RECEIVE Data Postprocessing Exit Routine.**

**FUNCTION:**

INMRZ12 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT: INMRZ12**

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL: BR 14 Return to caller**

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

## INMRZ12 - MODULE OPERATION

INMRZ12 is an exit routine that can  
be replaced by the installation. It does  
nothing except set return code zero and return  
to the caller.

**INMRZ12 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ12

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

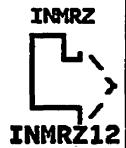
Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMRZ12 - RECEIVE Data Postprocessing Exit Routine.**

INMRZ  
  
INMRZ12

INMRZ12 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMRZ13 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME: RECEIVE Decryption Exit Routine.**

**FUNCTION:**

INMRZ13 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT: INMRZ13**

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMRZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL: BR 14 Return to caller**

**EXTERNAL REFERENCES:**

\***ROUTINES:** None

**CONTROL BLOCKS:** None

## INMRZ13 - MODULE OPERATION

INMRZ13 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

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**INMRZ13 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMRZ13

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMRZ13 - RECEIVE Decryption Exit Routine.**

INMRZ  
└─>  
INMRZ13

INMRZ13 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

## INMR80 - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Read Asis Routine

#### FUNCTION:

INMR80 reads varying length records from the input data set and writes them to the terminal, another sequential data set, or a member of a partitioned data set.

#### ENTRY POINT: INMR80

PURPOSE: See FUNCTION

LINKAGE: PLS call

CALLERS: INMRM

#### INPUT:

All input is provided via the RECEIVE command communications area INMRCOM. The fields used in this area are:

INPDCBP (the DCB is already OPEN),  
OUTDCBP (the DCB is or is not OPEN,  
FMSG, FPVIEW, FNOOUT

OUTPUT: The output file contains a copy of the input file.

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

#### DATA AREAS:

INMRCOM - RECEIVE command communications  
area  
INMCCOM - Common parameter structure  
DCB EXIT LIST

CONTROL BLOCKS: CVT, DCB

#### TABLES:

INBUF - input buffer  
MSGAREA - work area for IKJEFF02 parms

## INMR80 - MODULE OPERATION

INMR80 performs the following functions:

- 1) OPEN and verify the output data set. If no DCB attributes are available, RECFM=VB, LRECL=255,BLKSIZE=3120 are assigned.
- 2) Read records from the input file and write them to the output file. If the file is a message, blank the leading carriage control x'fe'.
- 3) When end-of-file is encountered, close the output file and return to the caller.

**INMR80 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMR80**

**MESSAGES:**

INMR060I RECEIVE COMMAND TERMINATED. OUTPUT  
DATASET UNUSABLE.  
INMR065I RECORD FORMAT OF OUTPUT DATASET  
INCOMPATIBLE WITH RECORD FORMAT OF  
INCOMING FILE.  
INMR066I INPUT: RECFM=rrr, LRECL=nnnn, BLKSIZE=mm  
INMR130I RECEIVE COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMR135I PERMANENT I/O ERROR READING INPUT FILE  
INMR136I standard SYNADAF text

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in variable FQUIT:

0 - Normal return. Everything is OK.  
12 - An error has occurred.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

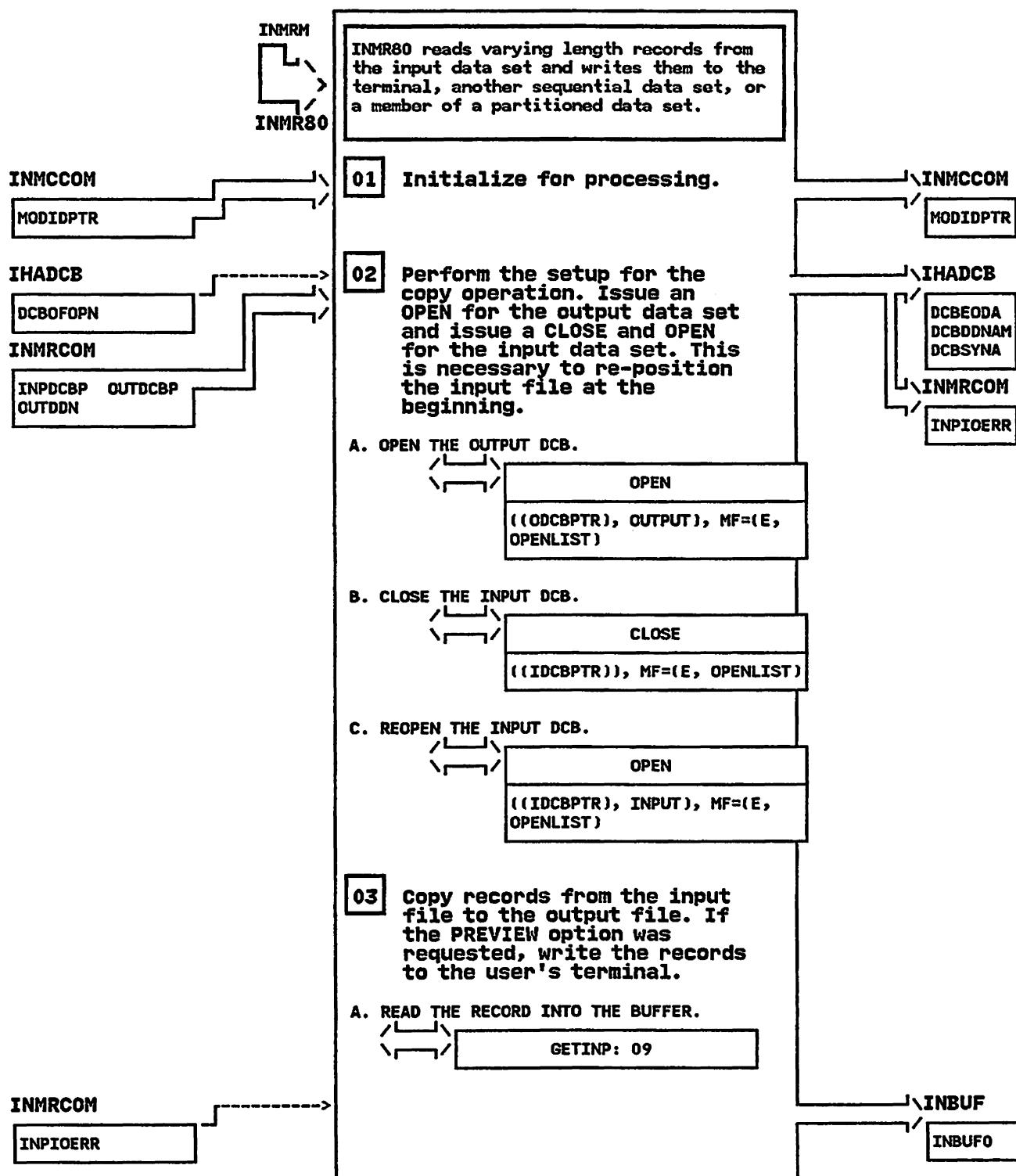
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Return code  
Other - Unchanged

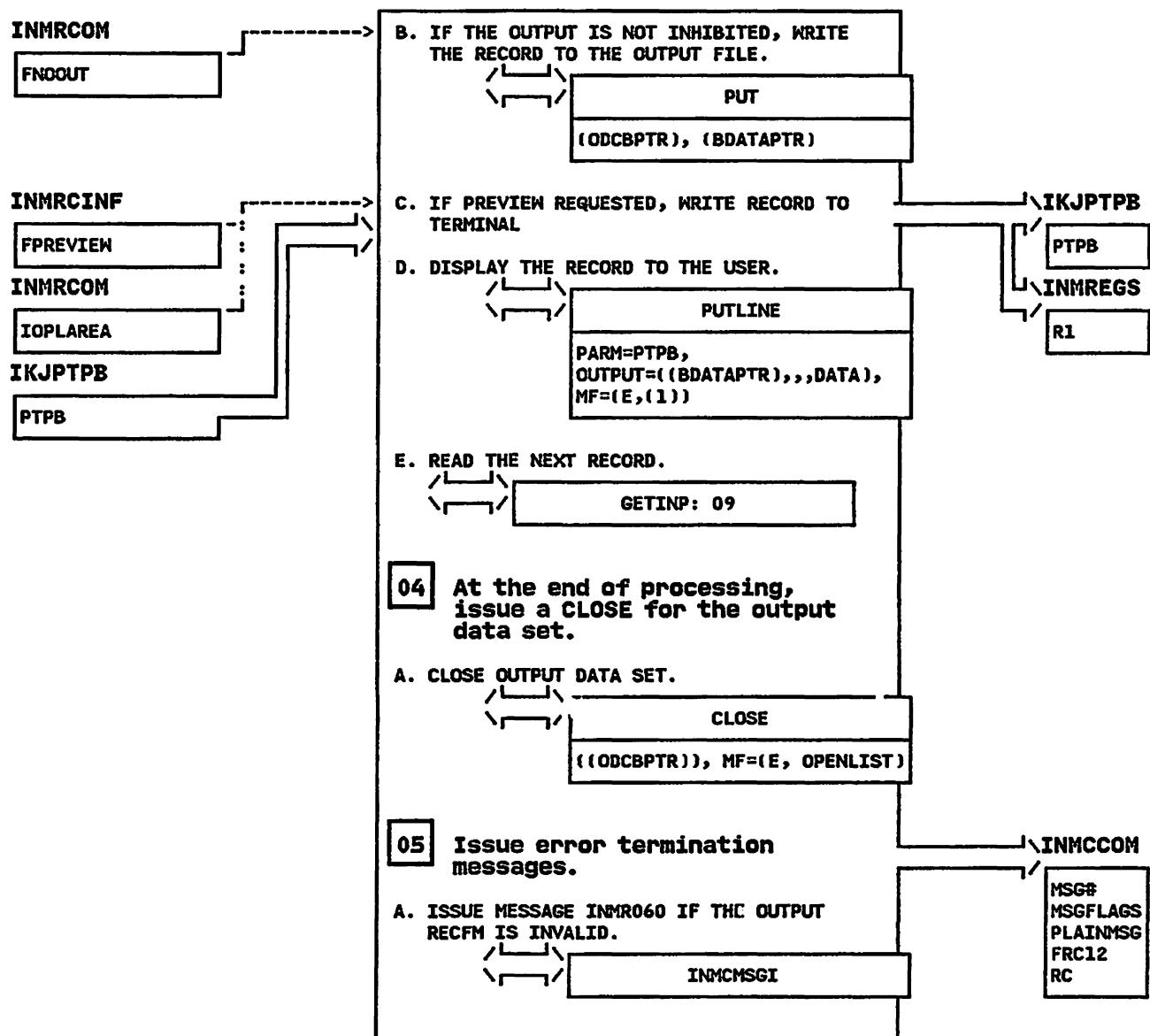
INMRR80 - Read Asis Routine

STEP 01



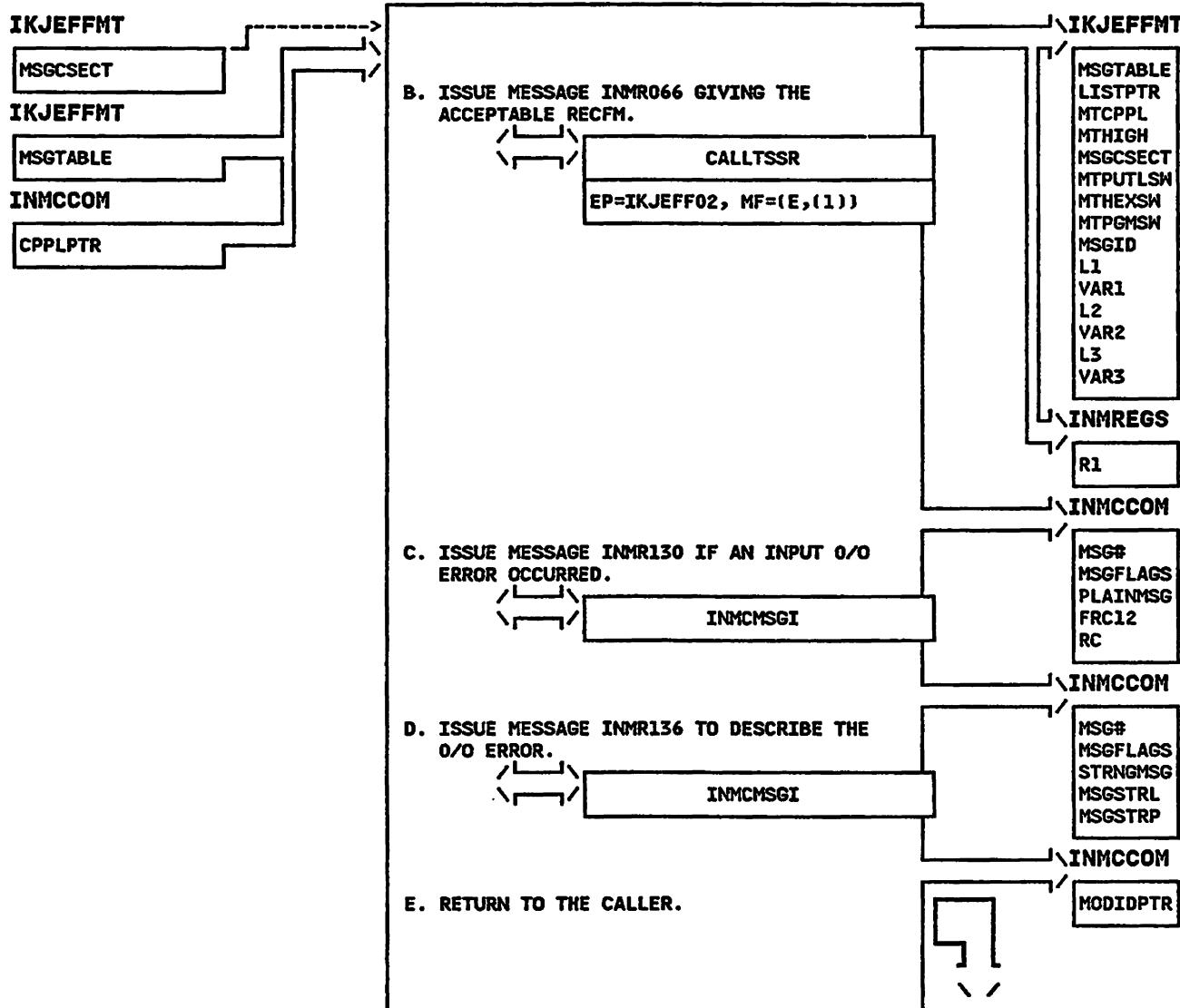
INMRCOM - Read Asis Routine

STEP 03B



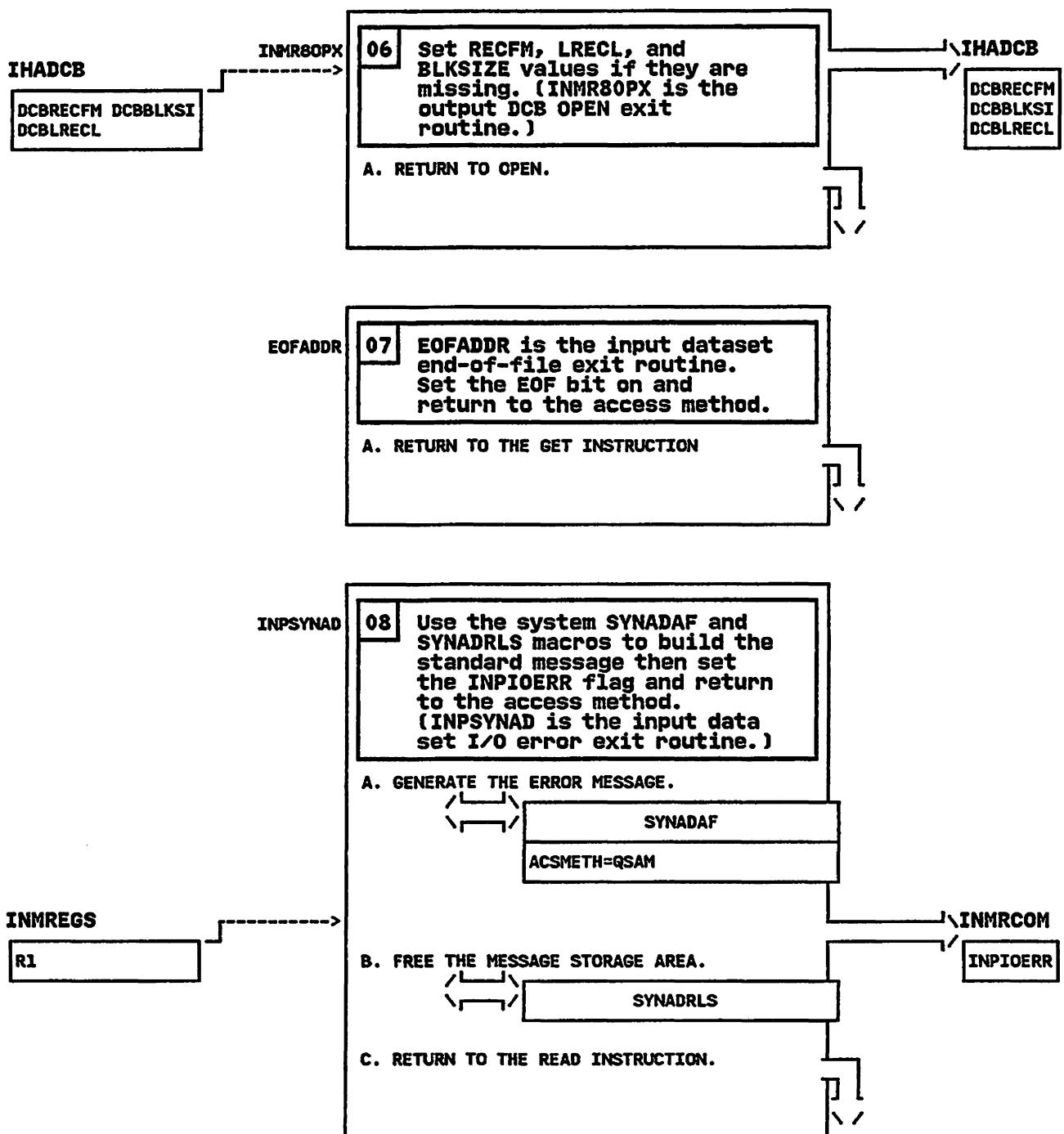
INMR80 - Read Asis Routine

STEP 05B



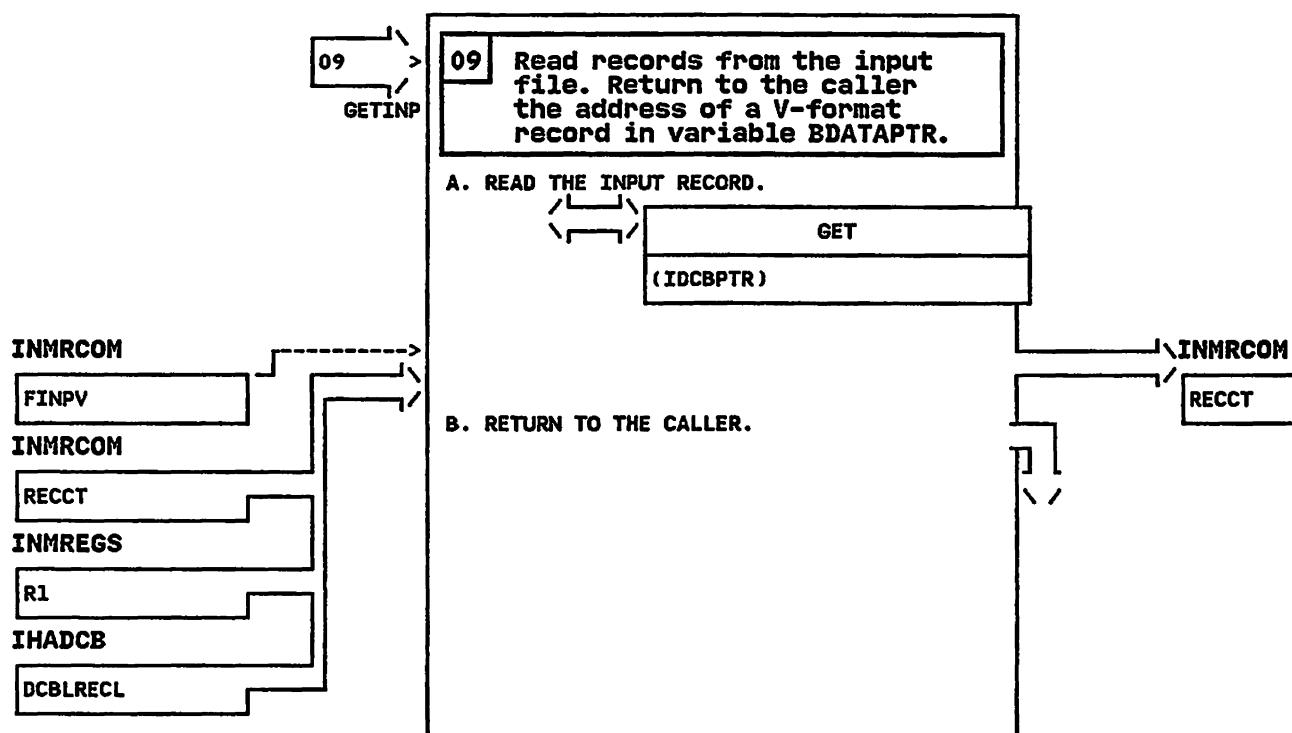
INMR80 - Read Asis Routine

STEP 06



INMR80 - Read Asis Routine

STEP 09



## INMXASYS - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Output File Allocation Routine

**FUNCTION:**

INMXASYS initializes the output file for the TRANSMIT command. Normally this will be a JES SYSOUT file, but it may be a data set or pre-allocated file specified by the user.

**ENTRY POINT:** INMXASYS

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMMX

**INPUT:**

All input is provided via the common parameter INMXCCOM. The following fields are used:

OUTDSDD (output data set or DD name)  
DEST, NODE (output node and userid)  
ODCBPTR (address of output DCB)

**OUTPUT:**

OPENed output DCB pointed by ODCBPTR  
RETURN CODE (in RC field of INMCCOM)

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMMSGI - Issue terminal messages

**DATA AREAS:**

INMCCOM - TRANSMIT communications area  
INMXPARM - Installation parameter CSECT

**CONTROL BLOCKS:**

DCB,  
IEFZB4D0, IEFZB4D2

**TABLES:** NAMETBL - Translate table for verifying userid's

## INMXASYS - MODULE OPERATION

INMXASYS allocates and opens the output file for INMXM.  
The allocation may be done in one of three ways:

1. Allocate the file to a DSNAMES specified by the user. The first attempt is to allocate the file as SHR. If this fails, an attempt is made to create a new data set.
  2. Allocate the output data set to a DDNAME specified by the user. In this case, no allocation is done.
  3. Allocate sysout file. The file is allocated specifying the "DEST" parameter to specify the correct node and the writer name for TSO userid routing.
- After allocating the output file, the DCB for the output file is opened and verified.

**INMXASYS - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMXASYS**

**MESSAGES:**

INMX201I TRANSMISSION FOR node.userid  
UNSUCCESSFUL  
INMX202I NODE NAME xx NOT DEFINED TO JES  
INMX203I JES OUTPUT FILE ALLOCATION ERROR  
INMX204I JES OUTPUT FILE OPEN FAILURE  
INMX206I TRANSMIT COMMAND TERMINATED. OUTPUT  
DDNAME OPEN FAILED.  
INMX208I TRANSMIT COMMAND TERMINATED. OUTPUT  
DATASET ALLOCATION FAILED. DSN=dsname  
INMX209I TRANSMIT COMMAND TERMINATED. OUTPUT  
DATASET dsname IS NOT A SEQUENTIAL  
DATASET  
INMX210I TRANSMIT COMMAND TERMINATED. OPEN  
FAILED FOR OUTPUT DATASET.

**ABEND CODES:**

OAF Reason code 203: JES output allocation  
error  
OAF Reason code 204: JES output file open  
failure  
OAF Reason code 210: Output data set open  
failure

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable FQUIT in  
the common parameter structure INMCCOM.

- 0 - Everything is normal.
- 12 - An error has occurred.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

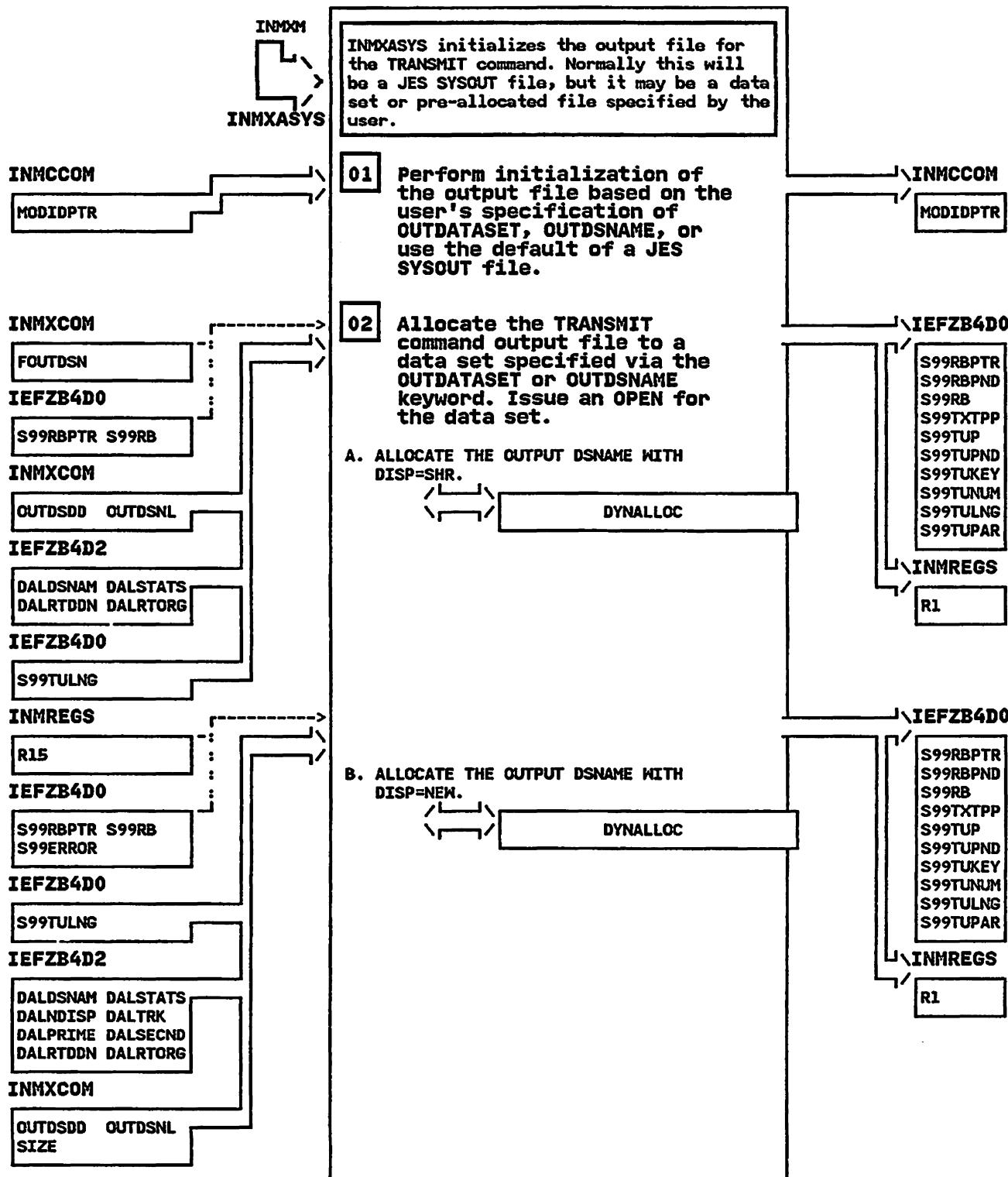
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

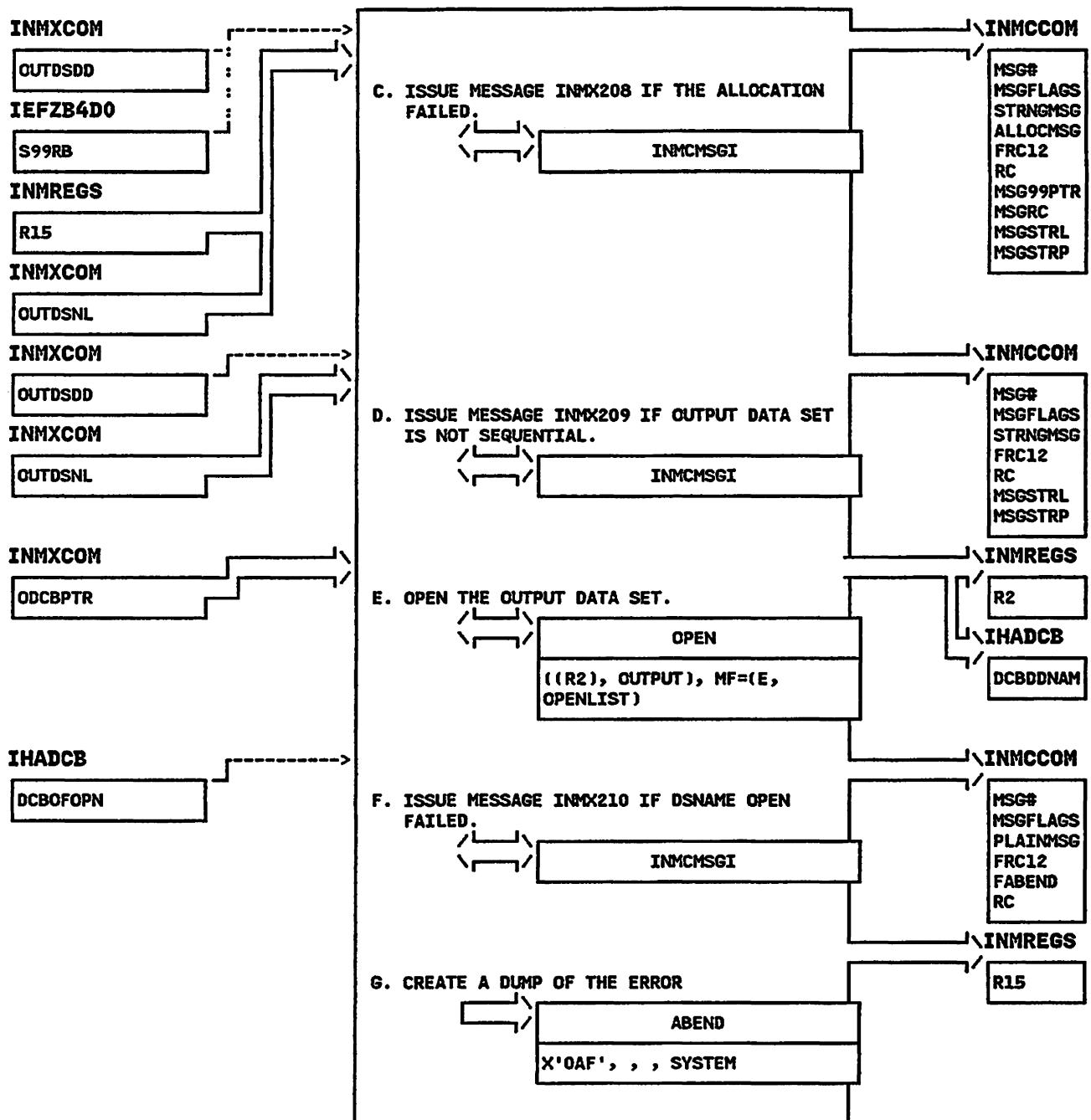
INMXASYS - Output File Allocation Routine

STEP 01



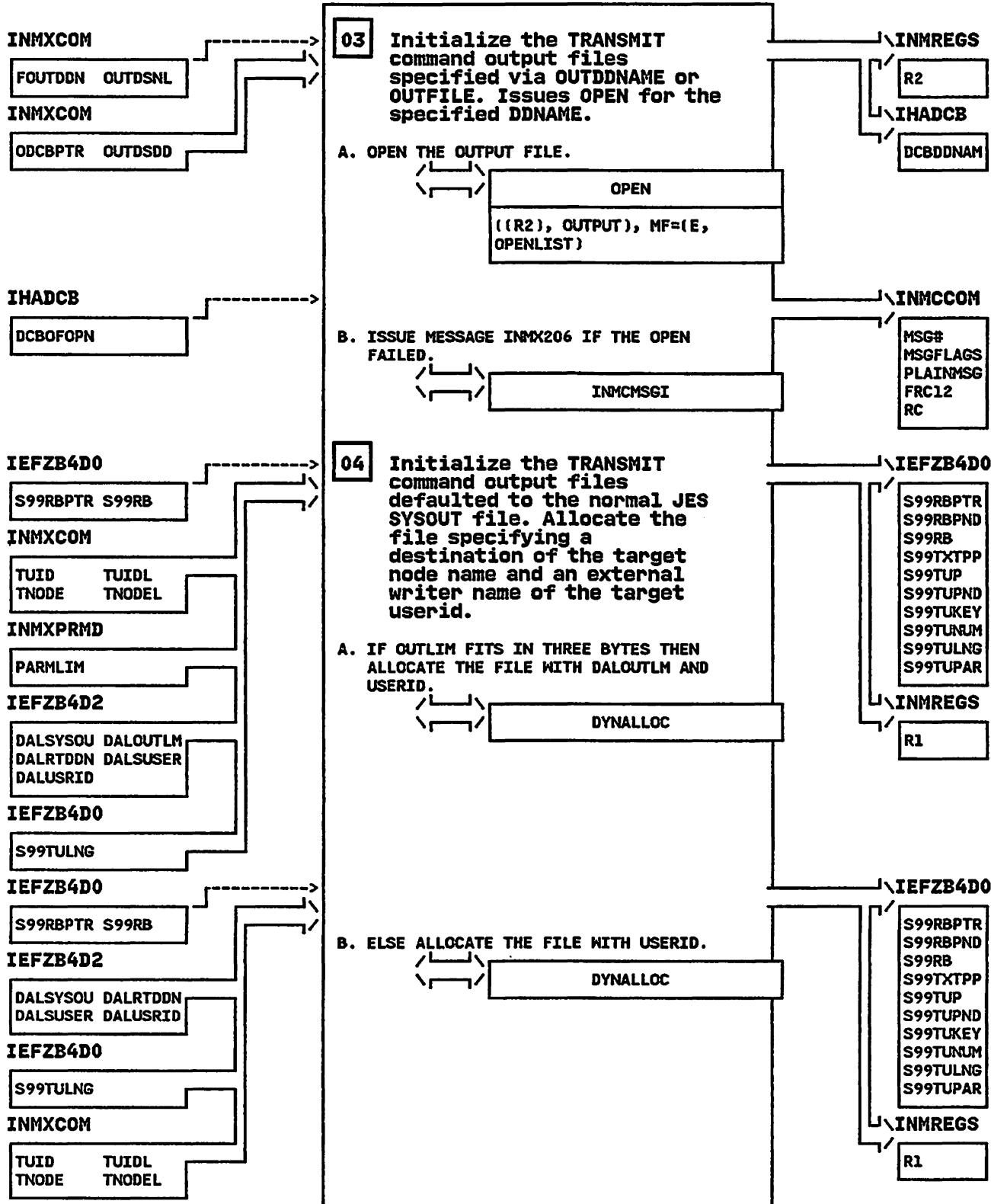
INMXASYS - Output File Allocation Routine

STEP 02C



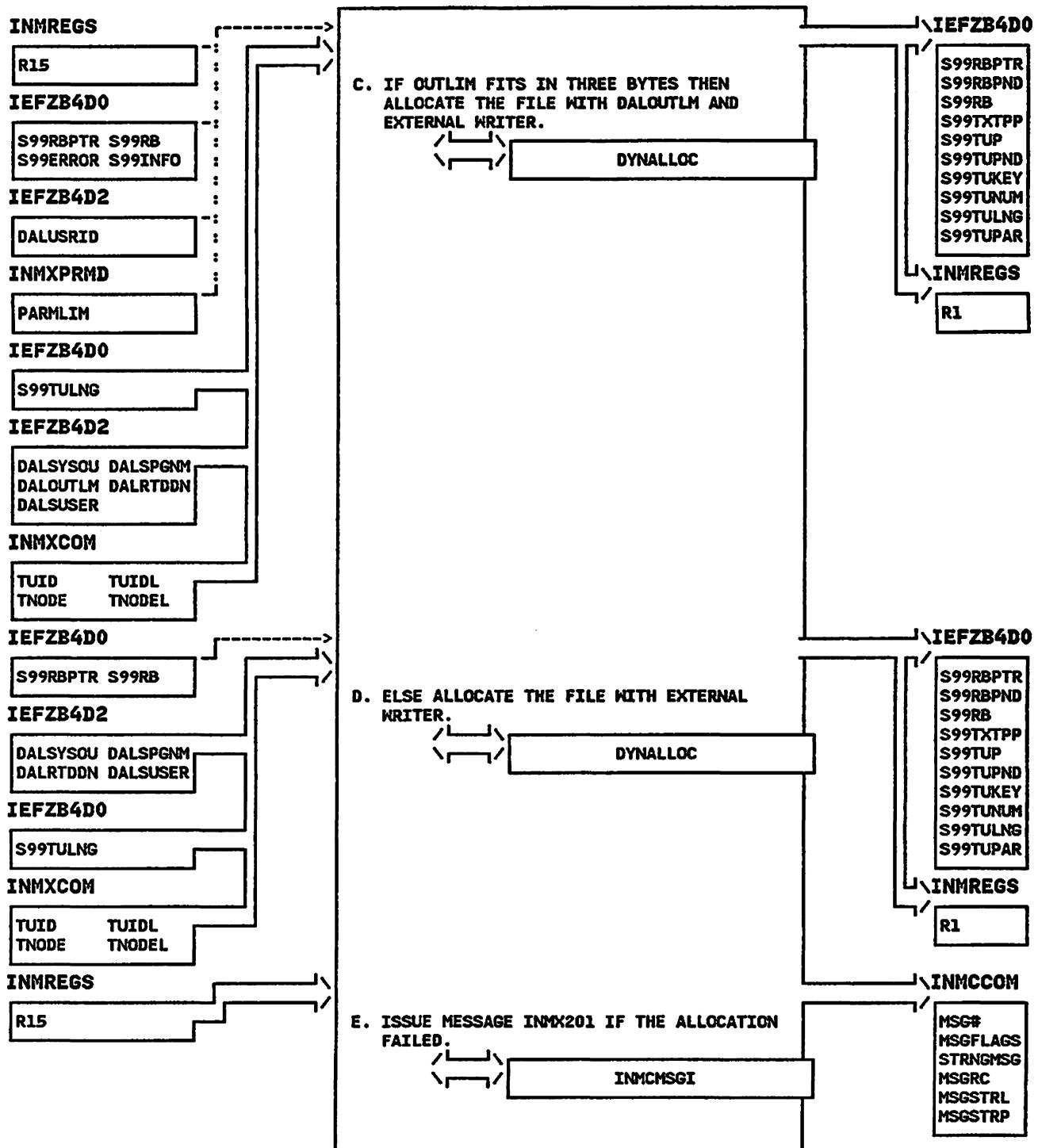
**INMXASYS - Output File Allocation Routine**

**STEP 03**



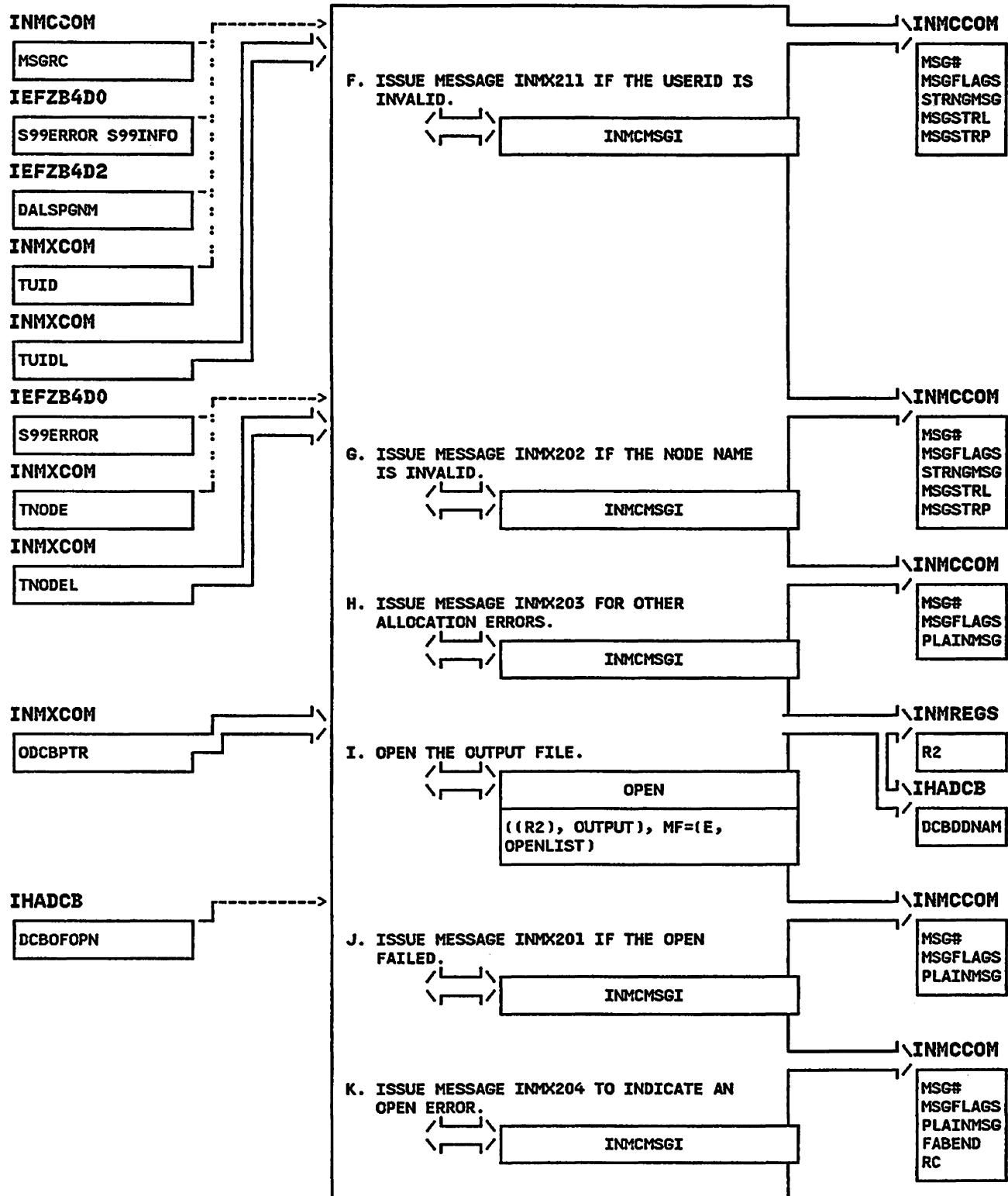
**INMXASYS - Output File Allocation Routine**

**STEP 04C**



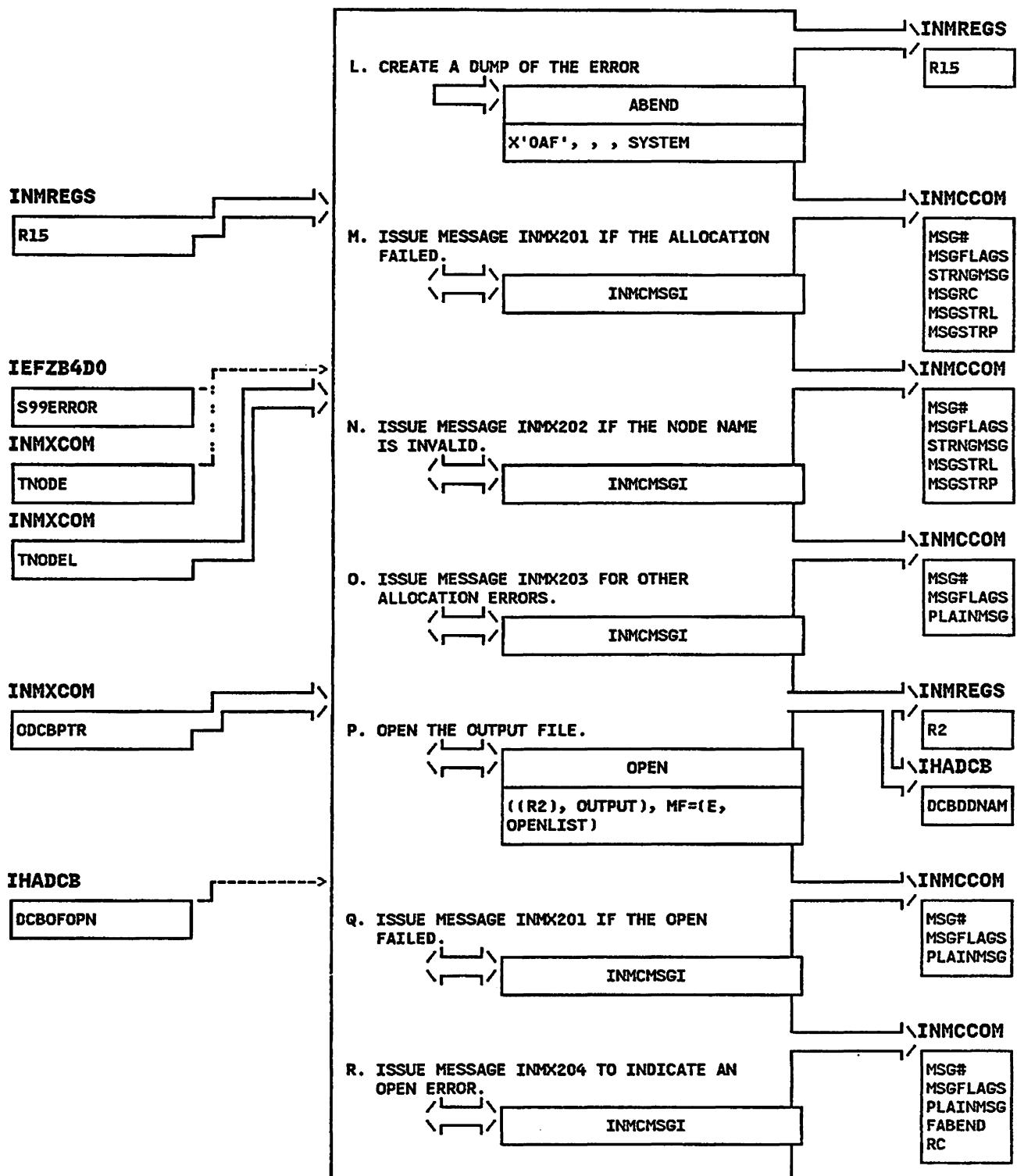
**INMXASYS - Output File Allocation Routine**

**STEP 04F**



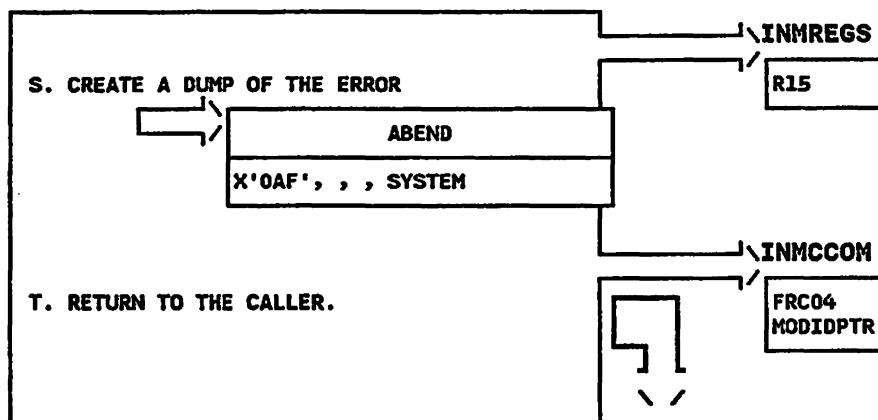
INMXASYS - Output File Allocation Routine

STEP 04L



INMXASYS - Output File Allocation Routine

STEP 04S



## INMXCODE - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Encryption Invocation Routine

#### FUNCTION:

INMXCODE controls the encryption of files that are to be transmitted. INMXCODE builds control cards, allocates required files, and invokes the cryptographic extensions of the Access Method Services REPRO command.

#### ENTRY POINT: INMXCODE

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMMX

#### INPUT:

All input is provided via the TRANSMIT communications area INMXCOM. The following fields are used:

IDCBPTR (DCB containing input DDNAME for AMS),  
SPACE (size estimate for AMS output),

#### OUTPUT:

DDNAME of AMS output file in DCB pointed to by  
IDCBPTR

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINE:::

The following are invoked via PLS CALL:  
INMCMSSI - Message issuing routine  
IDCAMS - Encryption routine  
INMXZ - TRANSMIT exit-invocation routine

#### DATA AREAS:

INMXCOM - TRANSMIT command communications  
area  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block

#### CONTROL BLOCKS:

DCB,  
IEFZB4D0, IEFZB4D2

#### TABLES:

CODESTMT - AMS ENCODE statement  
COPYDDNM - Utility DDNAME substitution table  
COPYPLST - 2-parameter list for AMS

## INMXCODE - MODULE OPERATION

INMXCODE performs the following functions:

- (1) Prompts the user to supply encryption control parameters.
- (2) Allocates files for messages and control statements.
- (3) Invokes the installation encryption exit and alters the control text or specifies that the encryption function be bypassed.
- (4) Builds an Access Method Services REPRO statement from the control text provided by the user or exit.
- (5) Invokes Access Method Services to perform encryption.
- (6) Deletes message and control card files.

**INMXCODE - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMXCODE**

**MESSAGES:**

INMX050I TRANSMIT COMMAND TERMINATED. FAILURE  
DURING ENCIPHER PROCESSING  
INMX051I IDCAMS RETURN CODE nn  
INMX052I ALLOCATION ERROR BUILDING xxx FILE.  
INMX100I ENTER ENCIPHER OPTIONS FOR AMS REPRO  
COMMAND  
INMX101I VALID OPTIONS INCLUDE: EXTERNALKEYNAME,  
INTERNALKEYNAME, PRIVATEKEY, CIPHERUNIT,  
DATAKEYFILE, DATAKEYVALUE, SHIPKEYNAMES,  
STOREDATAKEY, STOREKEYNAME, USERDATA  
INMX105I TRANSMIT COMMAND TERMINATED. UNABLE TO  
PROMPT FOR CONTROL PARAMETERS  
INMX106I PROMPTING WAS INHIBITED.  
INMX107I RETURN CODE nn FROM IKJEFF02.

**ABEND CODES:**

OAF Reason code: 52 Error allocating the  
terminal message file

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable FQUIT of  
the communications area INMCCOM.

0 - Everything is normal.  
12 - An error has occurred.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

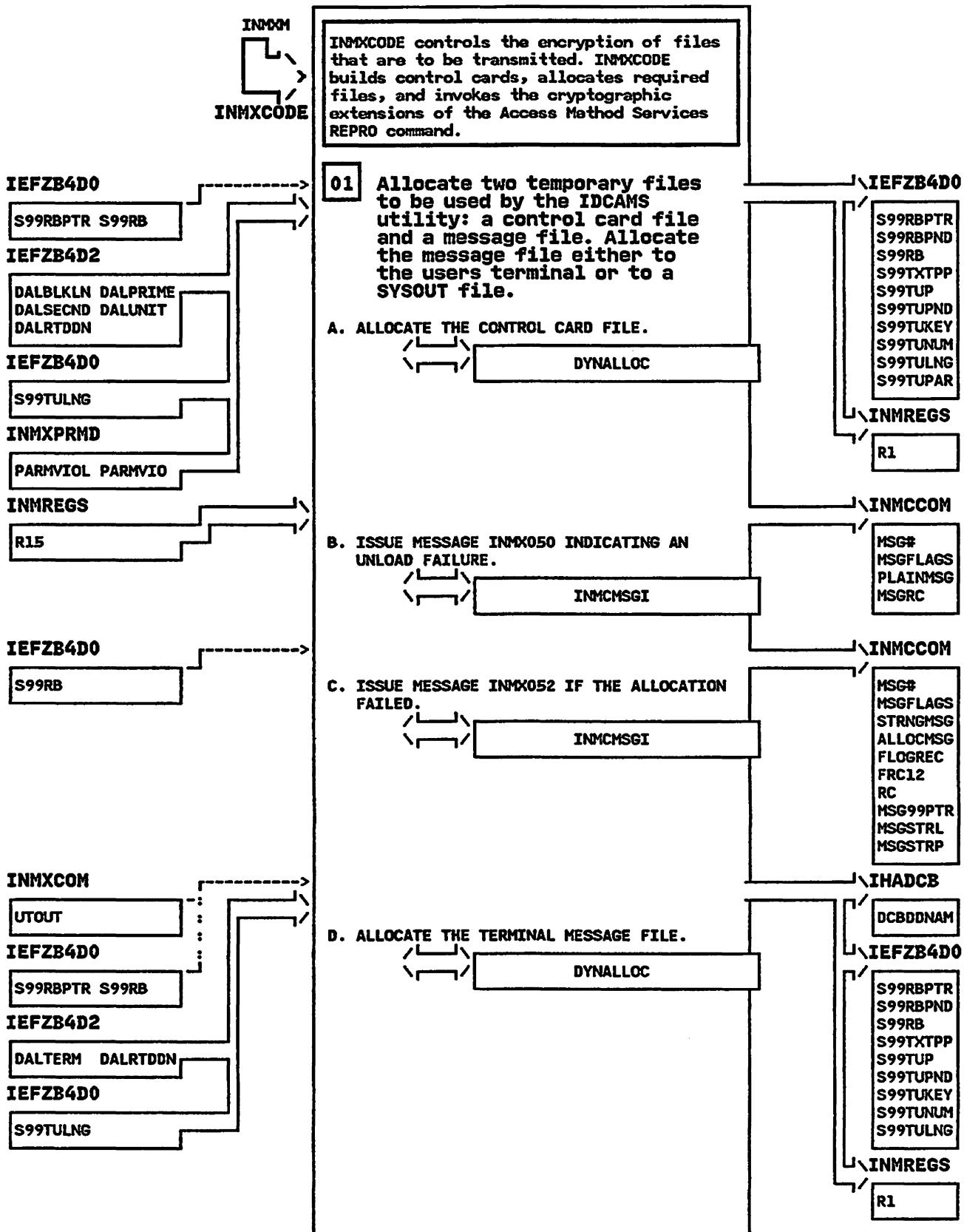
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

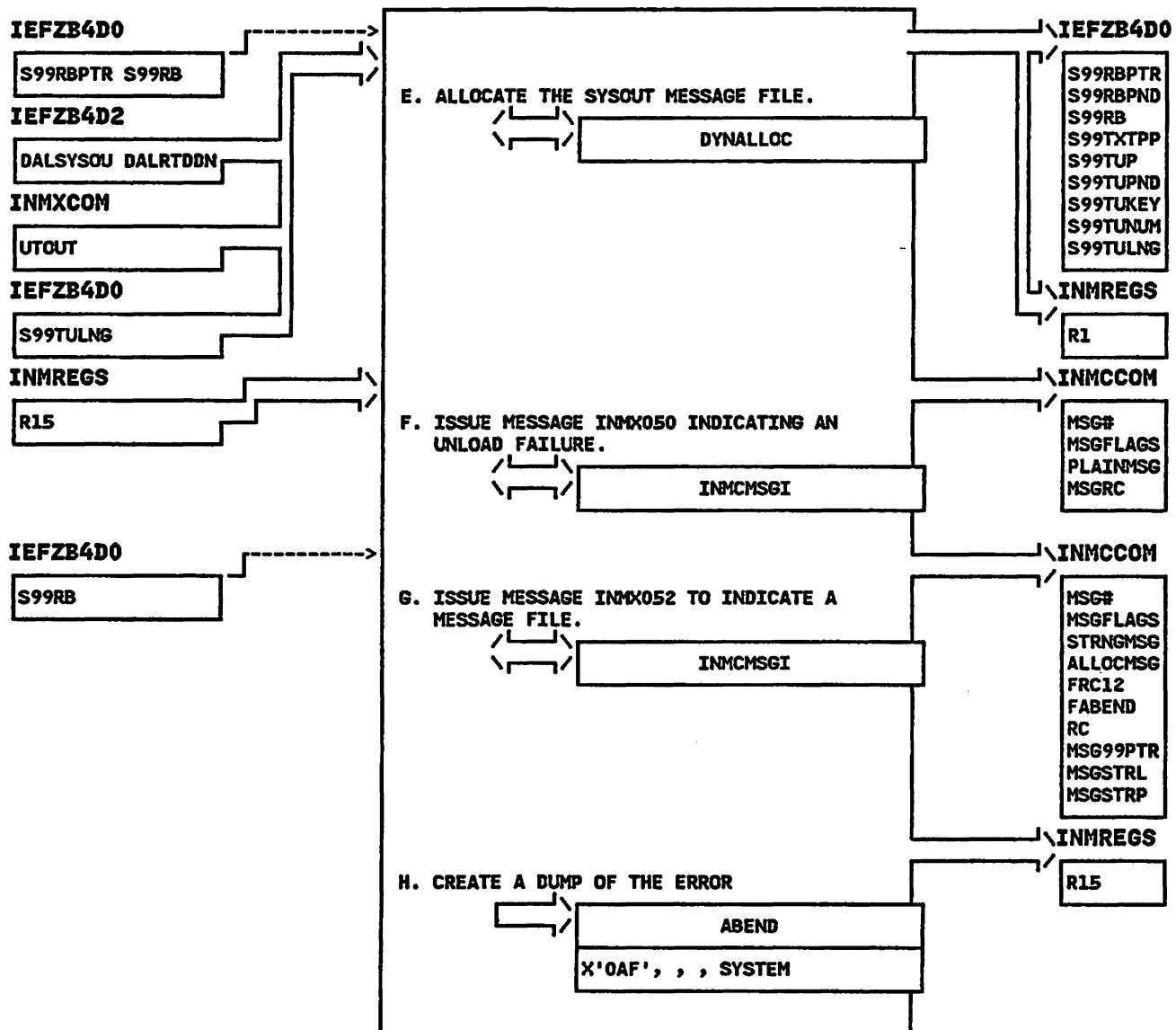
**INMXCODE - Encryption Invocation Routine**

**STEP 01**



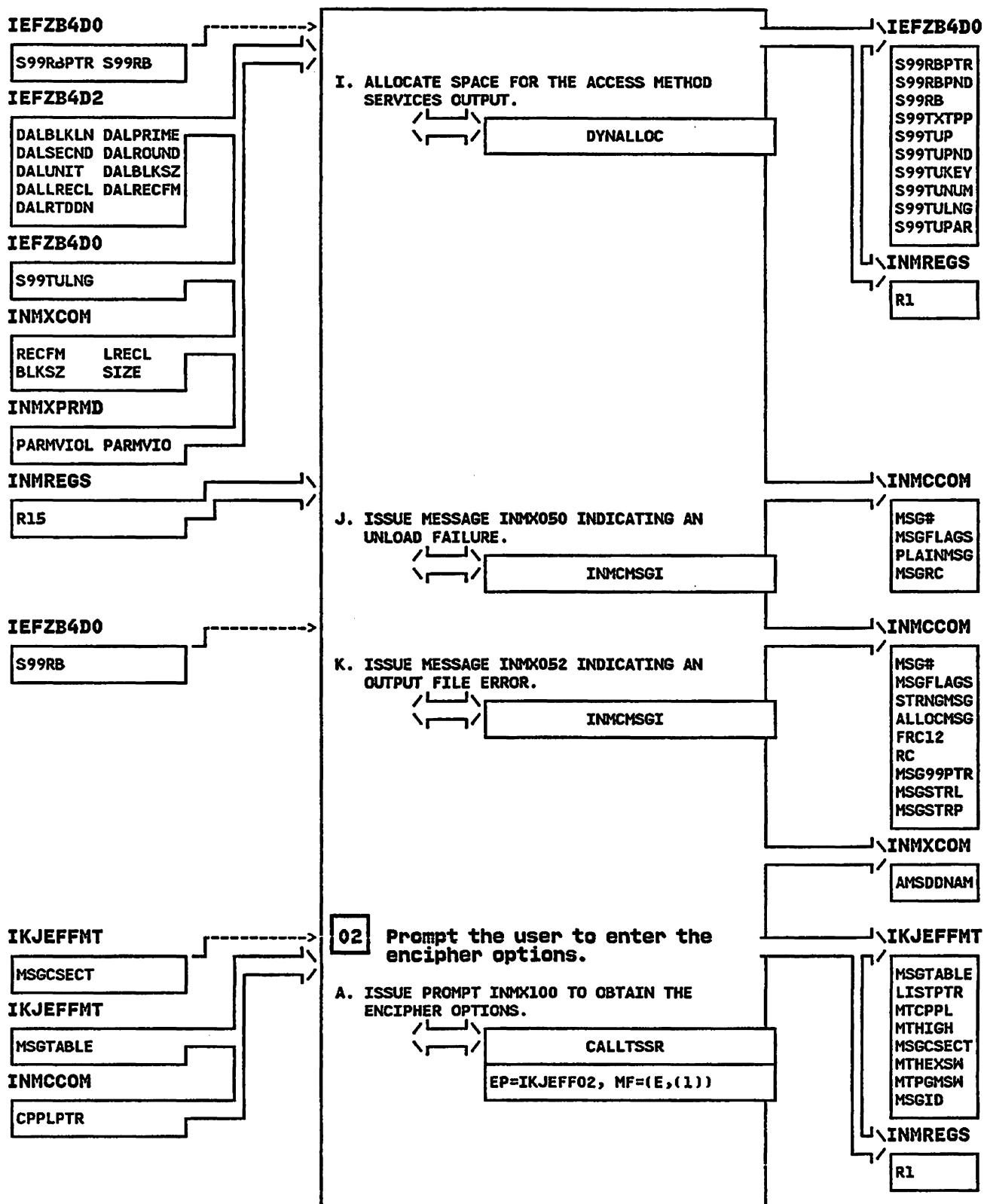
INMXCODE - Encryption Invocation Routine

STEP 01E



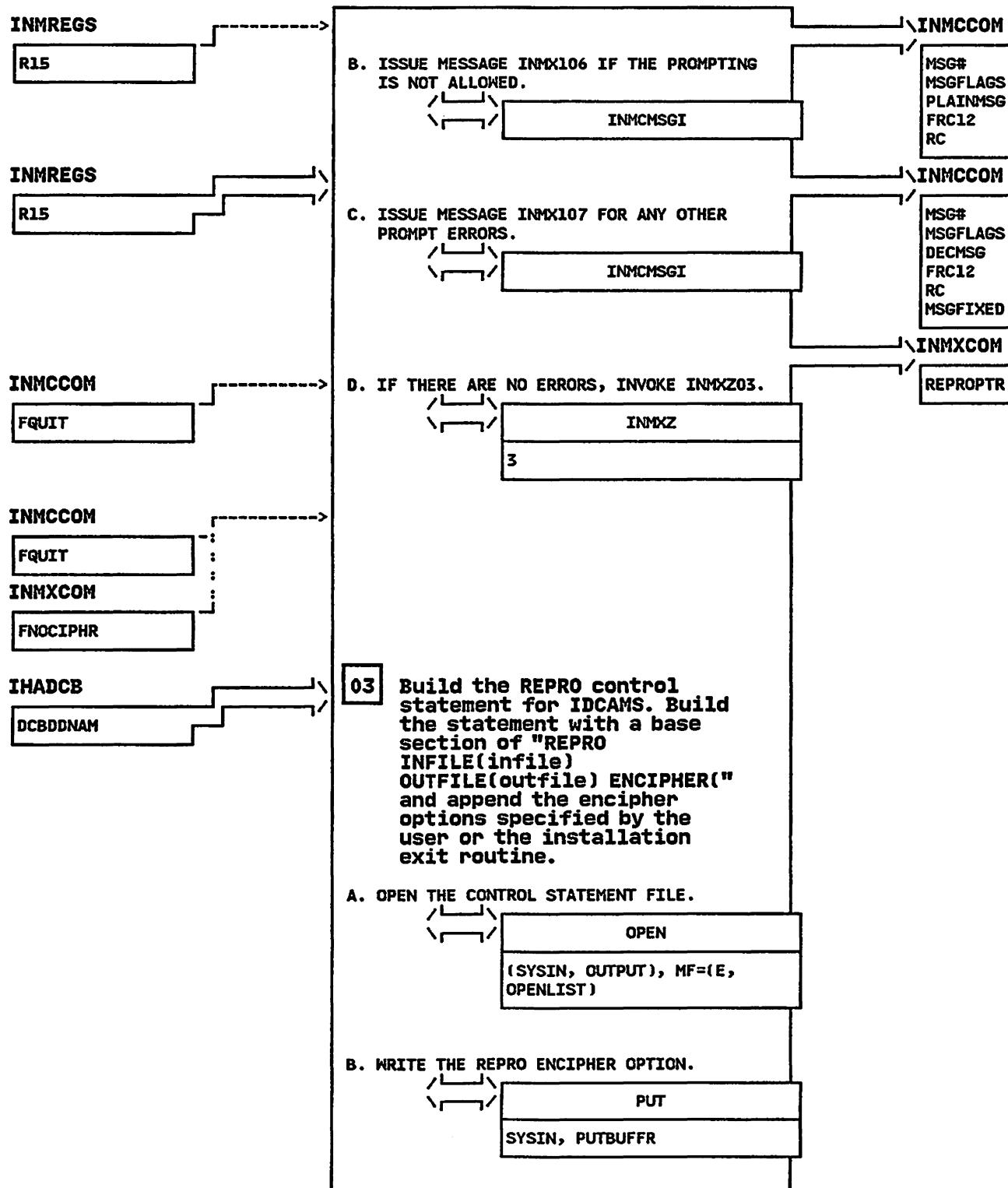
**INMXCODE - Encryption Invocation Routine**

**STEP 01I**



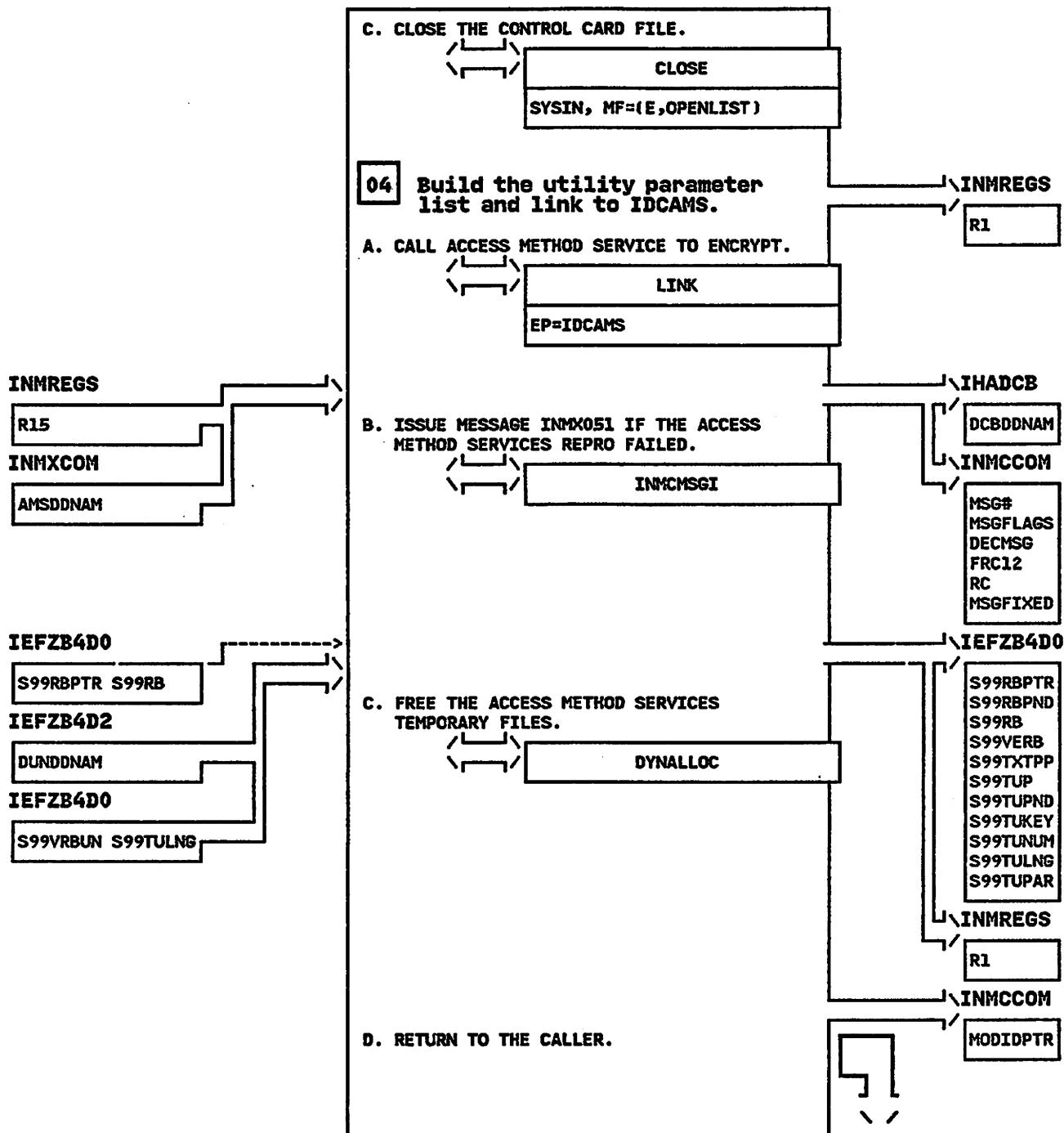
INMXCODE - Encryption Invocation Routine

STEP 02B



INMXCODE - Encryption Invocation Routine

STEP 03C



**INMXI - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** Input Allocate and DSCB read

**FUNCTION:**

INMXI initializes the input data set for the TRANSMIT command. INMXI then determines the DCB attributes of the file and the size of the file.

**ENTRY POINT:** INMXI

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMMX

**INPUT:**

All input is provided via the TRANSMIT command communications area INMXCOM. The following fields are used:

FDSN (an external data set will be used)  
FDASTAR (terminal input will be sent)  
FSEQ (a single member is sent as sequential)  
DSN (name of the data set to allocate)  
MEMLPTR (list of members)

**OUTPUT:** Allocated input data set and DSCB.

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine

**DATA AREAS:**

INMXCOM - TRANSMIT command communications area  
INMMCOM - Common parameter structure

**CONTROL BLOCKS:**

DCB, DSCB1,  
IEFZB4D0, IEFZB4D2

**TABLES:**

CAMLIST - Parameter list for OBTAIN  
DSCBAREA - Work area for OBTAIN response

## INMXI - MODULE OPERATION

INMXI allocates the input data set to be transmitted. This may be either an entire data set or a single member of a partitioned data set. If an external data set is to be transmitted, INMXI reads the DSCB. If no data set is to be transmitted (input is from the terminal), INMXI builds a dummy DSCB. The last 20 bytes of the DSCB is overlayed with device type information.

## INMXI - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMXI

### MESSAGES:

INMX060I TRANSMIT COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMX061I ALLOCATION FAILED FOR DATASET dsname  
INMX062I OPEN FAILED FOR DATASET dsname  
INMX063I OPEN FAILED FOR DDNAME ddname  
INMX064I DATASET dsname NOT ON VOLUME AS INDICATED  
IN THE CATALOG  
INMX065I REQUIRED VOLUME vvvvv NOT MOUNTED  
INMX066I I/O ERROR IN VTOC OF VOLUME vvvvv  
INMX067I OBTAIN RETURN CODE: nn FOR DATASET dsname  
INMX068I DATASETS WITH KEYS ARE NOT SUPPORTED  
INMX069I DATASET ORGANIZATION OF DATASET dsname  
IS NOT SUPPORTED.

ABEND CODES: OAF Reason code: 67 Unusual OBTAIN error

WAIT STATE CODES: None

### RETURN CODES:

#### EXIT NORMAL:

Return code set in the variable FQUIT of  
the communications area INMXCOM

- 0 - Everything is normal.
- 12 - An error has occurred.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

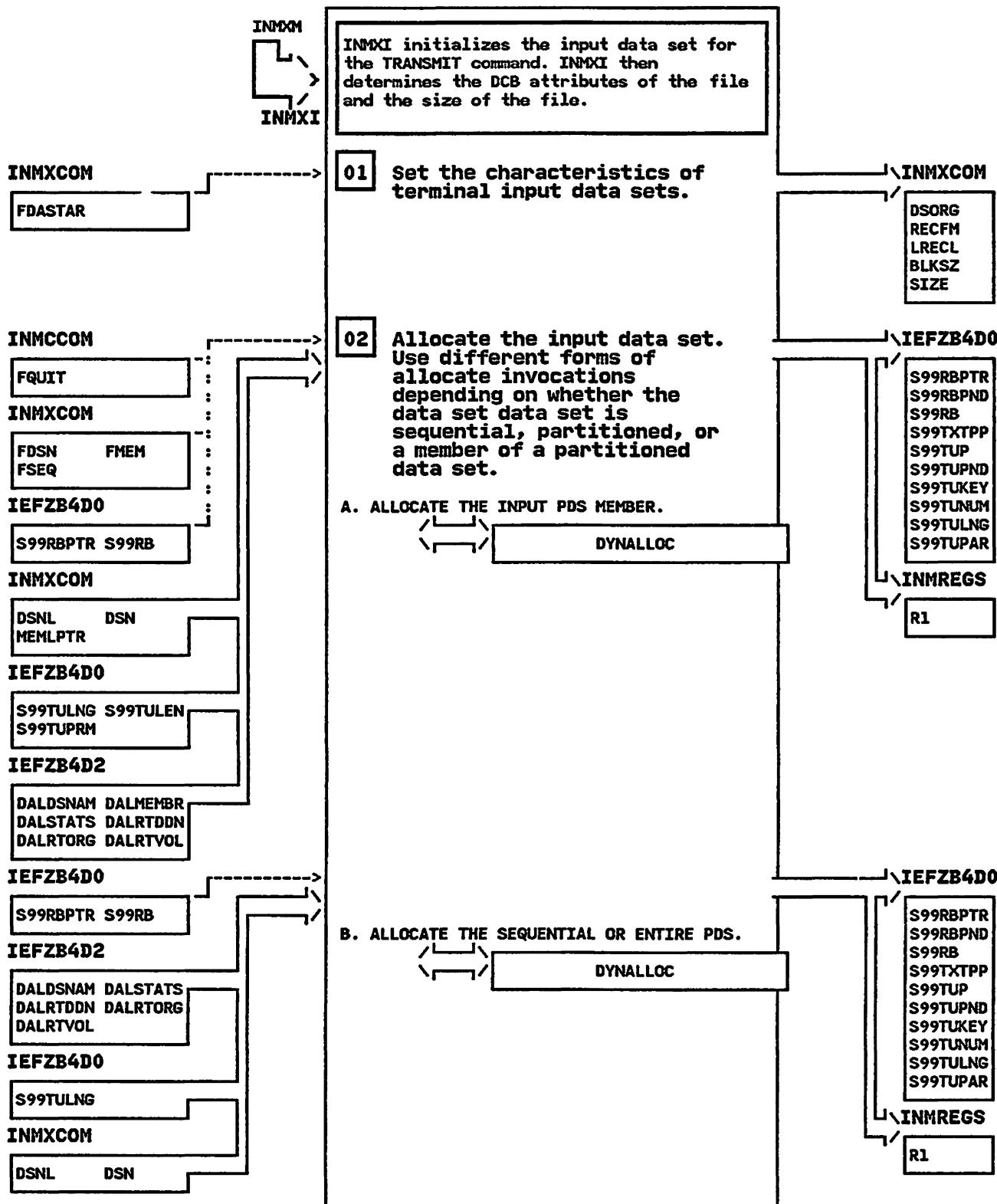
### REGISTER CONTENTS ON EXIT:

#### EXIT NORMAL:

Register 15 - Always zero  
Other - Unchanged

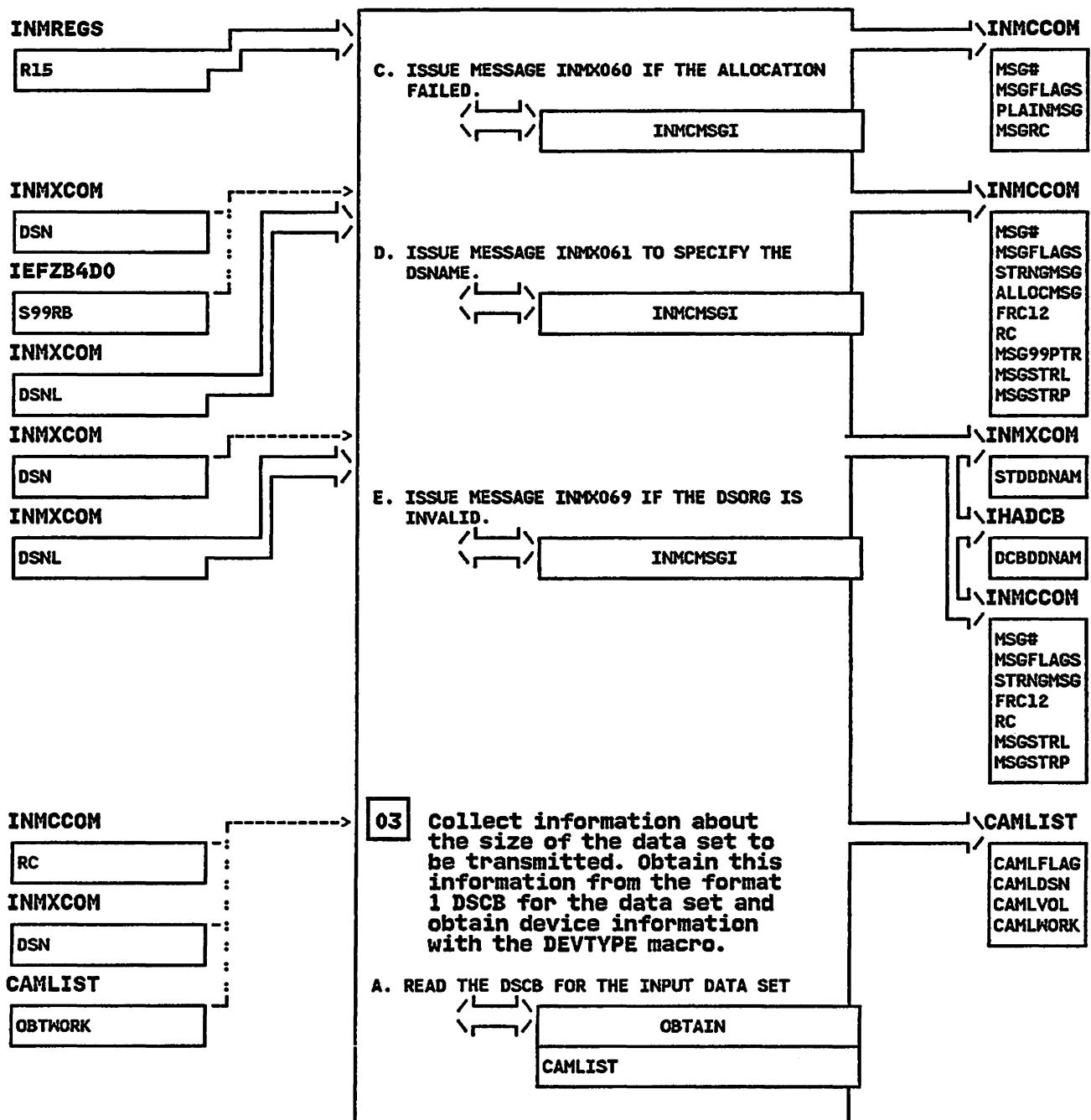
**INMXI - Input Allocate and DSCB read**

**STEP 01**



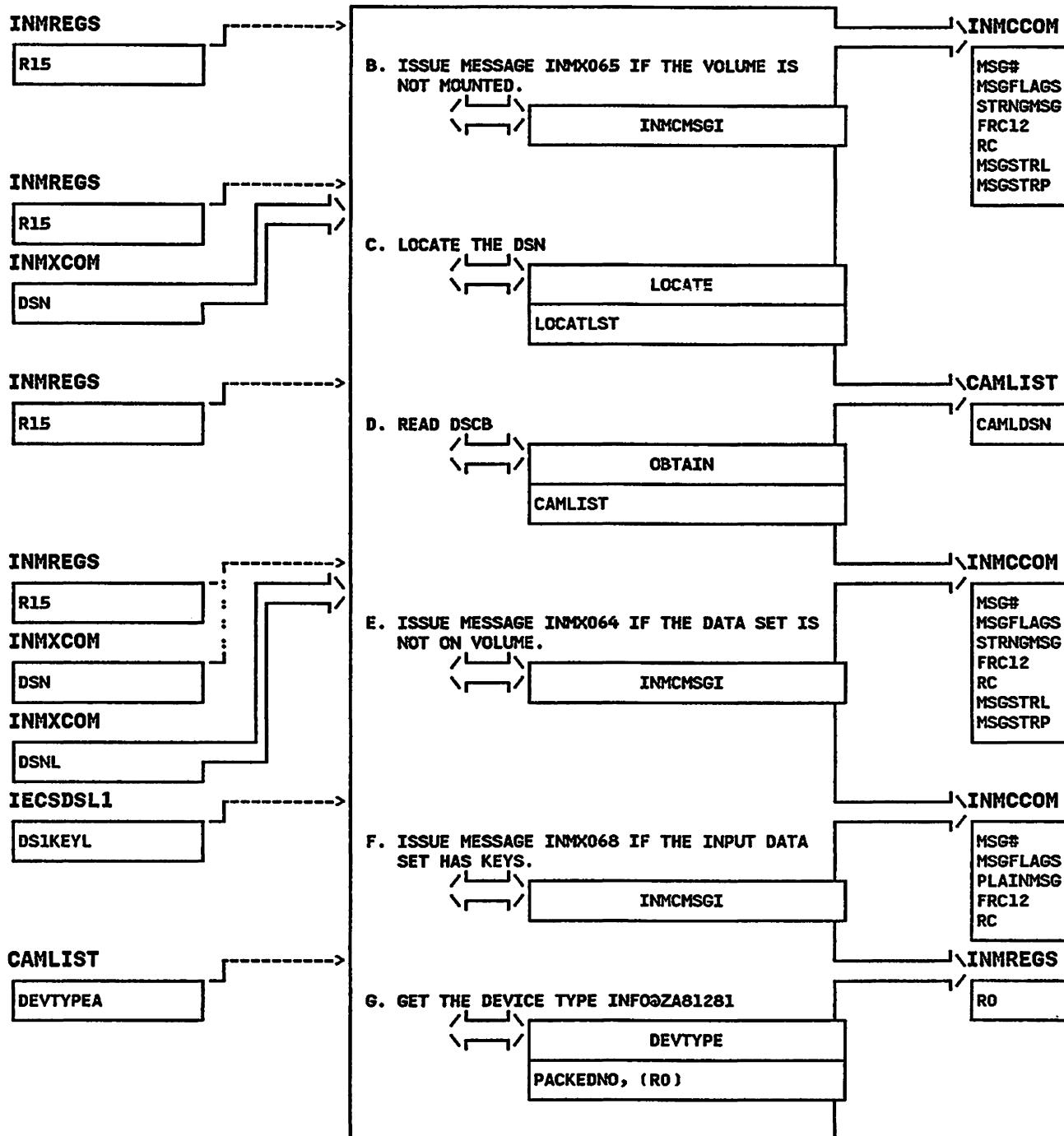
**INMXI - Input Allocate and DSCB read**

**STEP 02C**



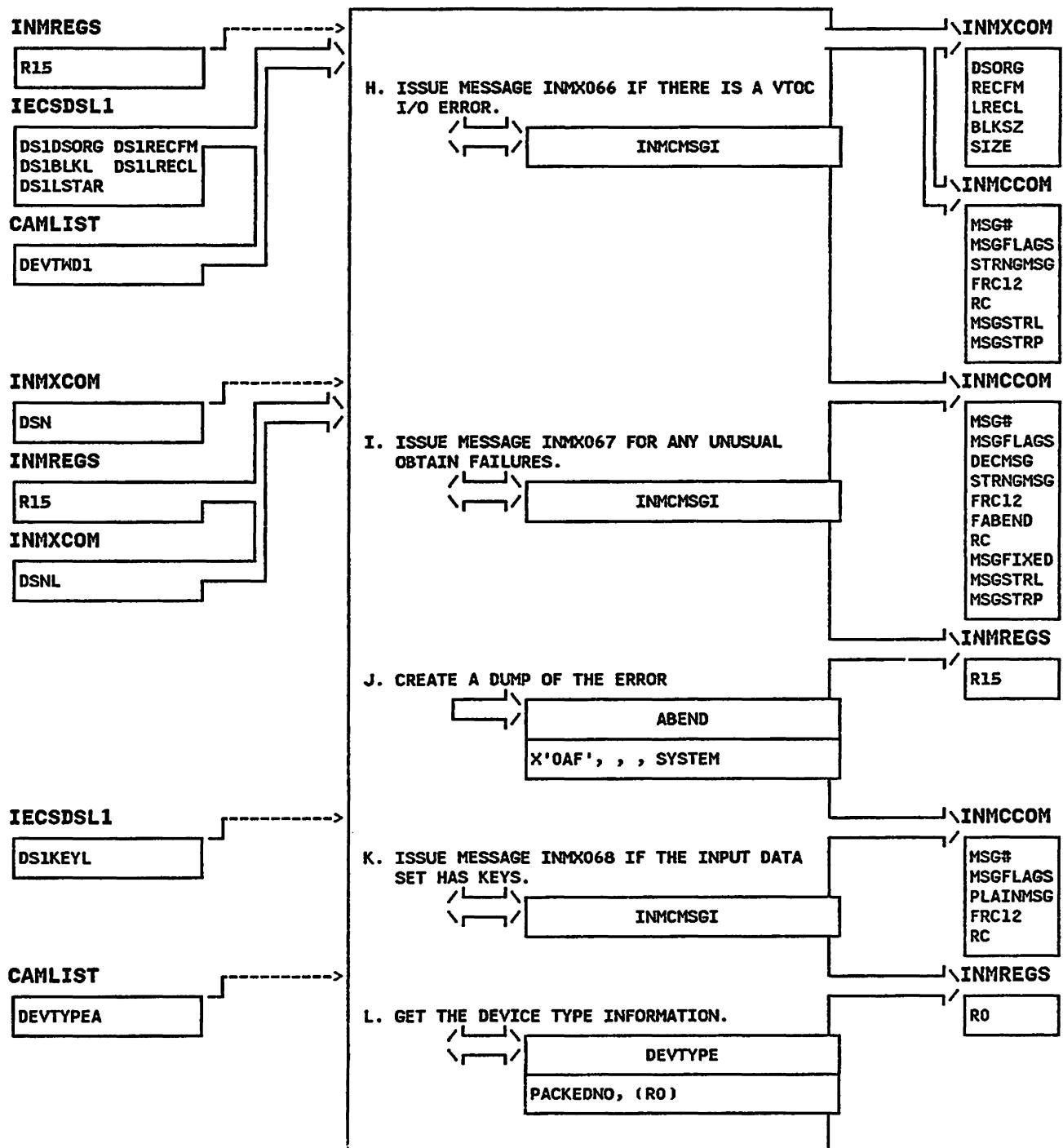
INMXI - Input Allocate and DSCB read

STEP 03B



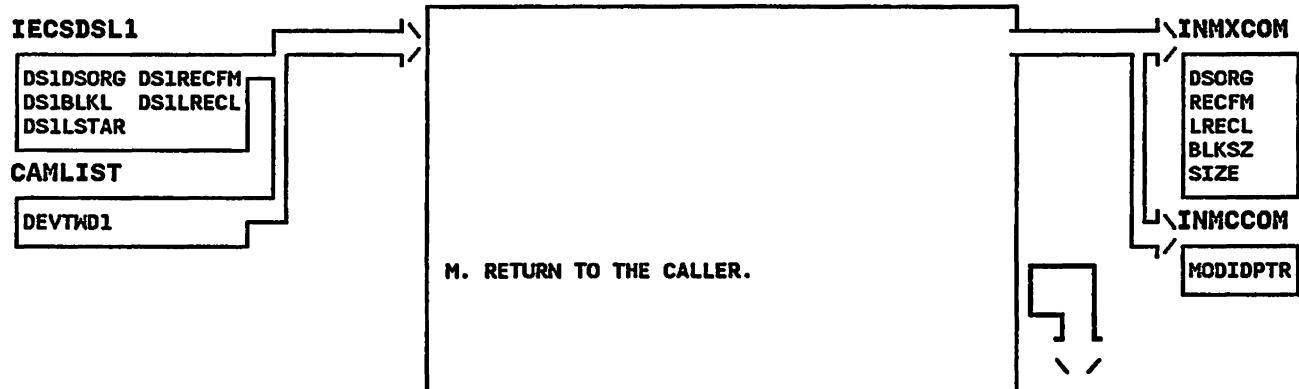
INMXI - Input Allocate and DSCB read

STEP 03H



INMXI - Input Allocate and DSCB read

STEP 03M



## INMXLOG - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Log Allocate and Open routine

#### FUNCTION:

INMXLOG performs all of the logging for the TRANSMIT command. It scans the logging request queue and writes entries into as many log data sets as required. INMXLOG writes only one log entry to each data set.

#### ENTRY POINT: INMXLOG

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMMX - CALL INMXLOG

#### INPUT:

All input is provided via the TRANSMIT communications area INMXCOM. The following fields are used:

NICKNAME, UID, FPRIVATE

OUTPUT: OPENed Log DCB, pointed to by LOGPTR in INMXCOM.

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via PLS CALL:  
INMMSGI - Message issuing routine

##### DATA AREAS:

INMXCOM - TRANSMIT command communication area

INMCOM - Common parameter structure

##### CONTROL BLOCKS:

DCB,  
IEFZB4D0, IEFZB4D2

##### TABLES: LOGMSG - Log header record

**INMXLOG - MODULE OPERATION**

INMXLOG loops through the log request list and writes an entry to each indicated log data set. Each entry contains an addressee line for each addressee that is logged to that data set. The allocation and deallocation of the log files is handled through the dynamic allocation SVC 99.

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## INMXLOG - DIAGNOSTIC AIDS

**ENTRY POINT NAME:** INMXLOG

### MESSAGES:

INMX073I LOG PROCESS FAILED FOR DATASET 'dsname'  
INMX074I OPEN FOR THE DATASET FAILED.

**ABEND CODES:** None

**WAIT STATE CODES:** None

### RETURN CODES:

**EXIT NORMAL:**

Return code in register 15

### REGISTER CONTENTS ON ENTRY:

Register 1 - Address of INMXCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

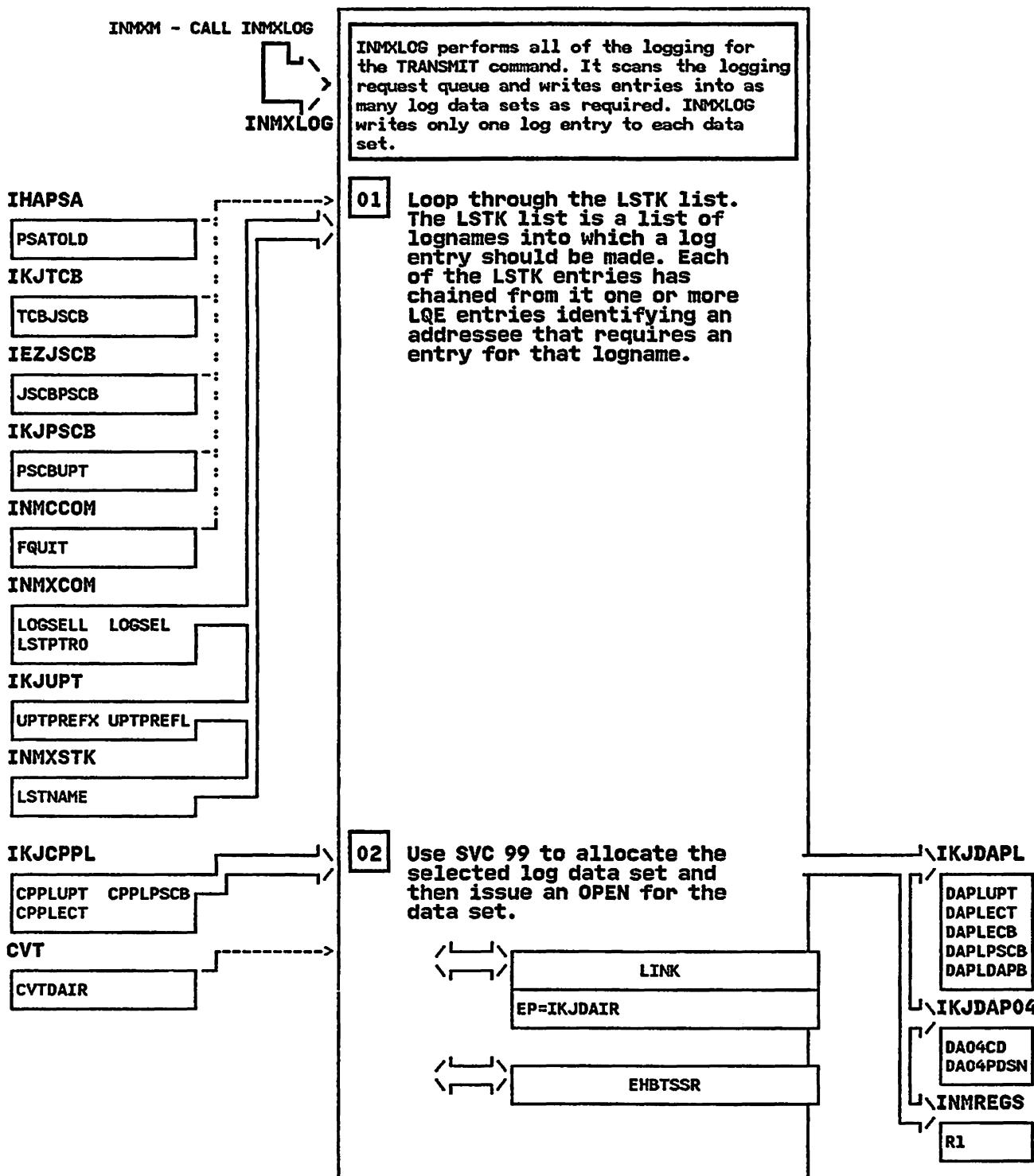
### REGISTER CONTENTS ON EXIT:

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

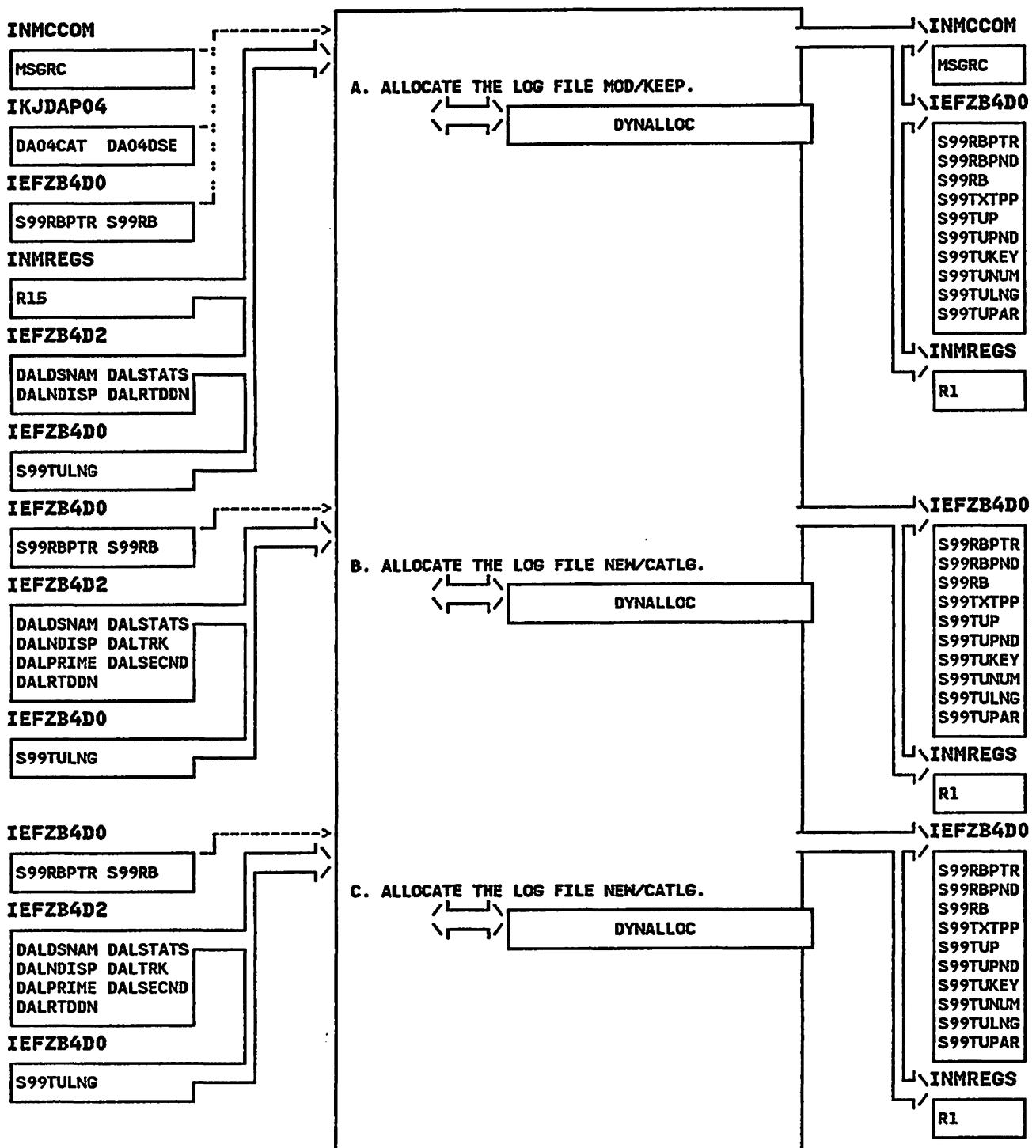
INMXLOG - Log Allocate and Open routine

STEP 01



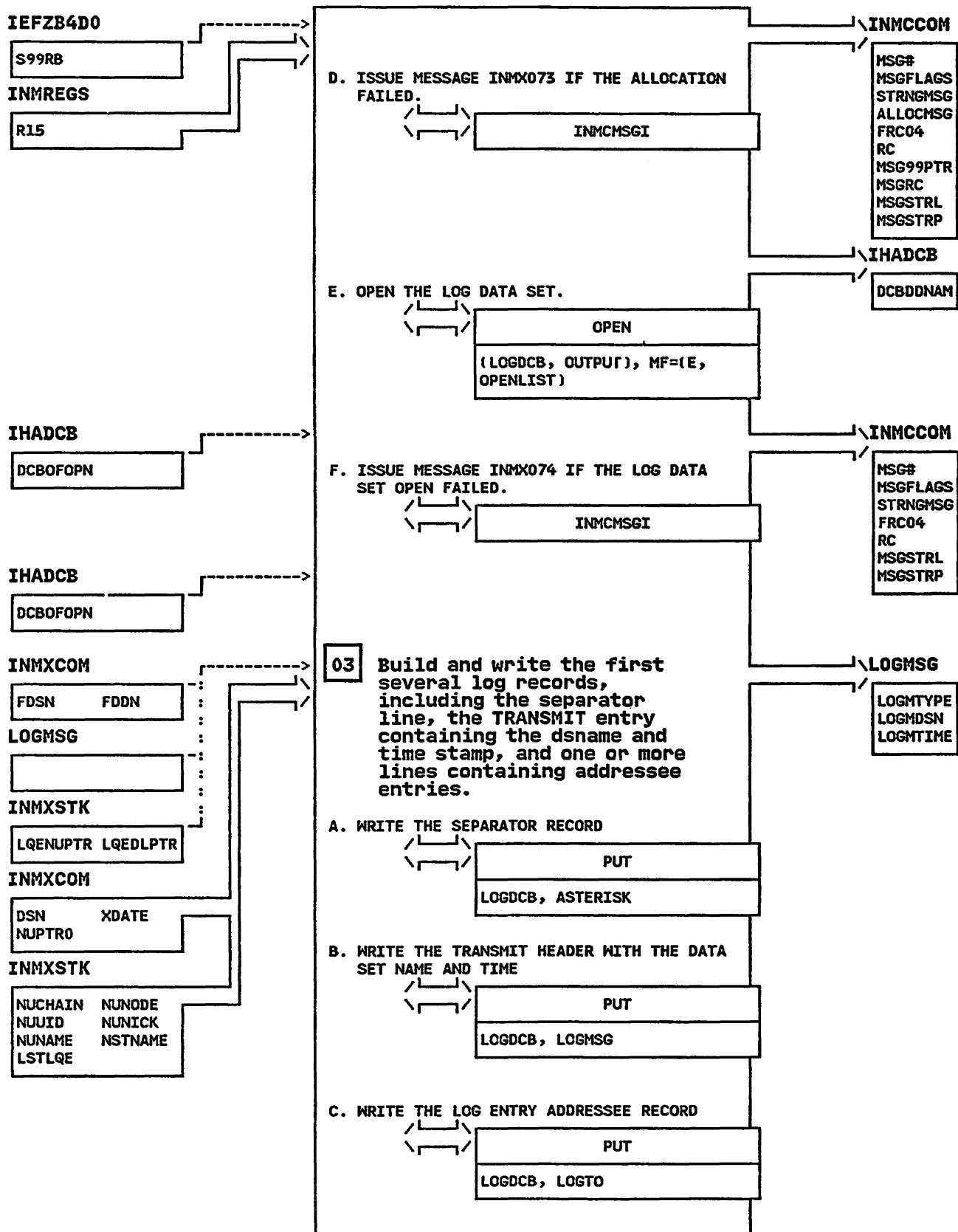
**INMXLOG - Log Allocate and Open routine**

**STEP 02A**



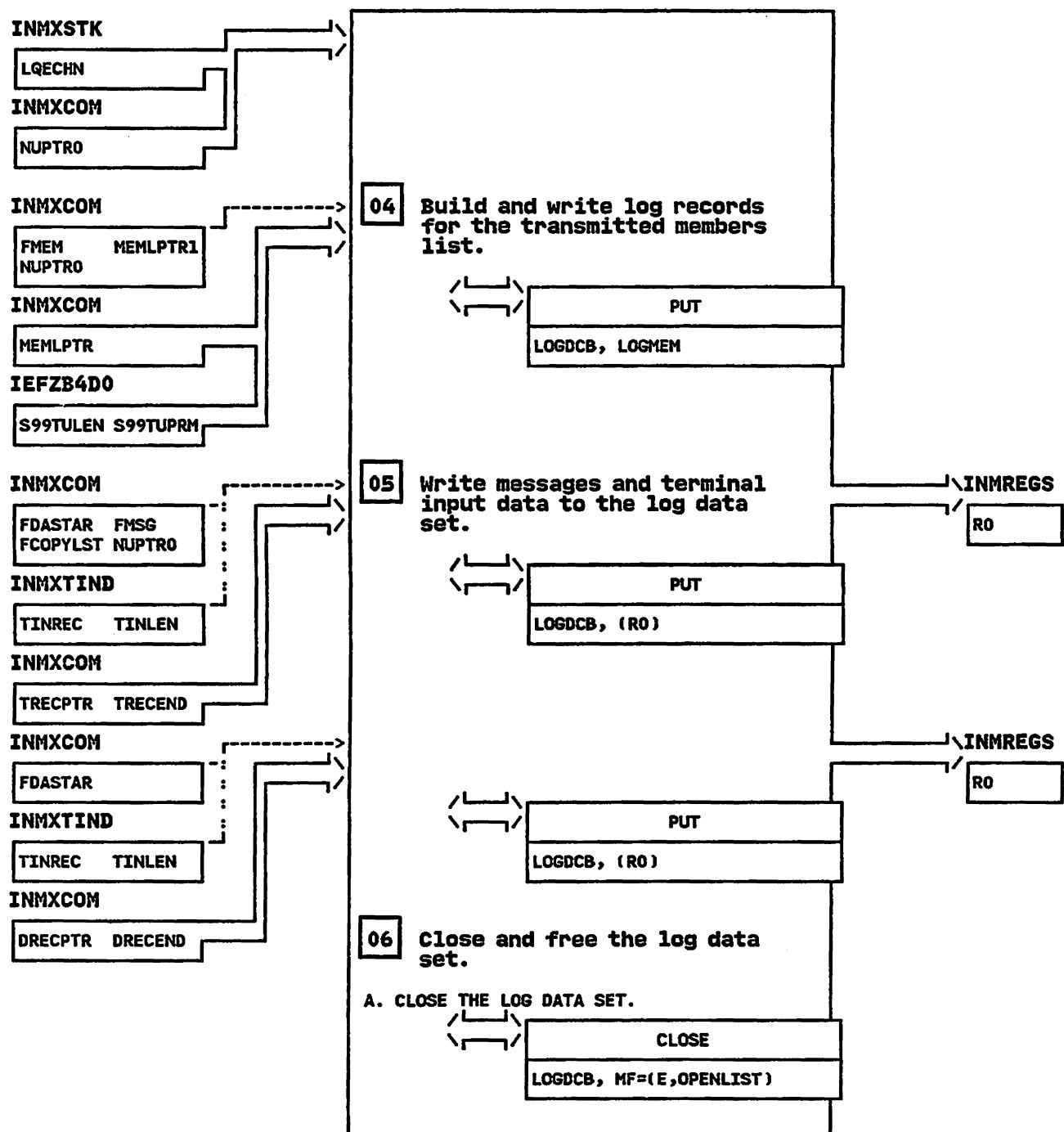
INMXLOG - Log Allocate and Open routine

STEP 02D



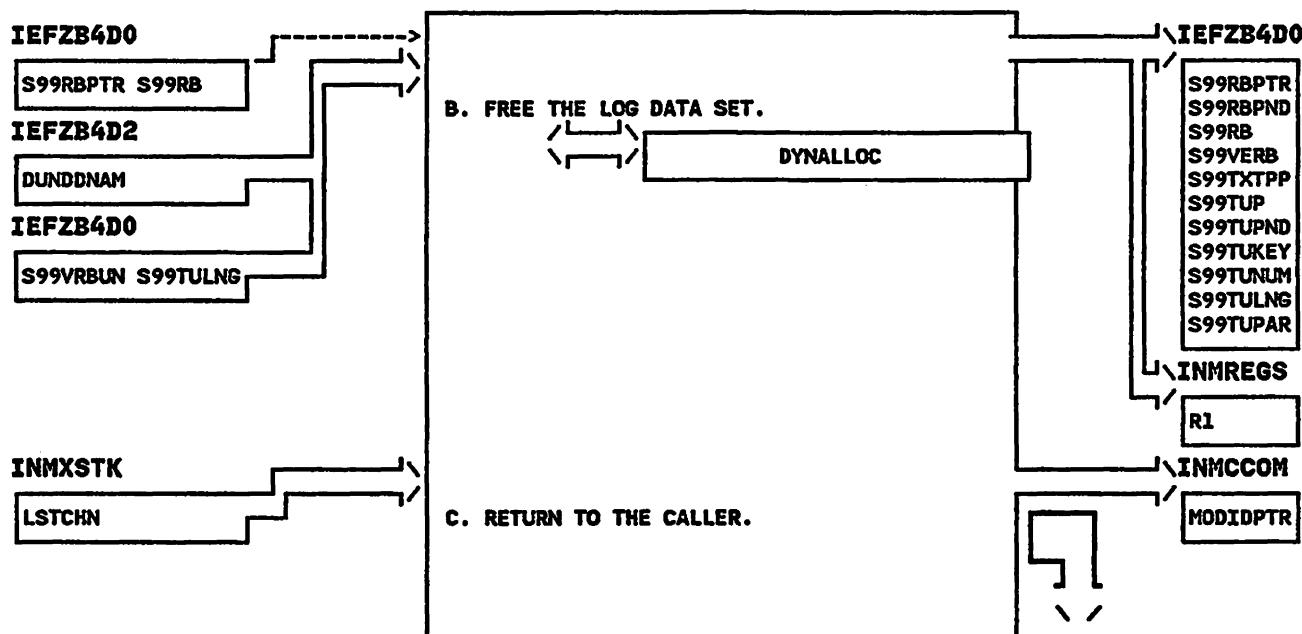
INMXLOG - Log Allocate and Open routine

STEP 04



INMXLOG - Log Allocate and Open routine

STEP 06B



## INMXM - MODULE DESCRIPTION

### DESCRIPTIVE NAME: TRANSMIT Command Main Routine

#### FUNCTION:

INMXM is the main module for the TSO TRANSMIT command. Relatively little work is done in this module other than overall initialization and directing invocations of other modules.

#### ENTRY POINT: INMXM

PURPOSE: See FUNCTION

LINKAGE: ATTACH

CALLERS: TSO terminal monitor program (TMP)

INPUT: Standard TSO entry parameters.

#### OUTPUT:

File written to JES SYSOUT file for transmission.

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:

INMCMMSGI - Message issuing routine  
INMCR - TRANSMIT and RECEIVE ESTAE routine  
INMCTIME - Convert GMT to local time routine  
INMXASYS - Output file allocation routine  
INMXCODE - Encryption invocation routine  
INMXI - Input allocate and DSCB read routine  
INMXLOG - Log allocate and open routine  
INMXPDS - PDS unload routine  
INMXQ - TRANSMIT nickname resolution routine  
INMXTIN - Terminal read routine  
INMXUINP - TRANSMIT command scan routine  
INMXXMIT - Sequential file transmit routine  
INMXZ - TRANSMIT exit-invocation routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

#### DATA AREAS:

INMXCOM - TRANSMIT communications area  
INMMC0M - Common parameter structure  
INMXPRMD - Installation options block

#### CONTROL BLOCKS:

CVT, DCB, SMCA, PSA, ASCB, TCB, JSSIB,  
JSCB, IECSDSL1, IKJEFFMT,  
IEFZB4D0, IEFZB4D2,  
CPPL, UPT, IOPL

TABLES: DSCBAREA - space for reading DSCB with OBTAIN

## INMXM - MODULE OPERATION

INMXM controls transmission of data via the NJE network. This module initializes INMXCOM which will be passed among subroutines. Then it links to a number of subroutines to perform input parsing, allocation of input and output files, log processing, terminal prompting, pds unload, and data transmission. INMXM then performs termination and cleanup.

## INMMX - DIAGNOSTIC AIDS

**ENTRY POINT NAME:** INMMX

### MESSAGES:

INMX050I TRANSMIT COMMAND TERMINATED. FAILURE  
DURING ENCIPHER PROCESSING.  
INMX052I ALLOCATION ERROR BUILDING INPUT FILE  
INMX152I TRANSMIT FAILED. RECIPIENT'S NODE ID  
NOT RECOGNIZED.

**ABEND CODES:** None

**WAIT STATE CODES:** None

### RETURN CODES:

#### EXIT NORMAL:

The command return code is in register 15.

- 0 - Everything is normal.
- 4 - Warning messages were issued.
- 8 - At least one transmission was unsuccessful.
- 12 - An error has occurred.

### REGISTER CONTENTS ON ENTRY:

Register 1 - Address of command parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

### REGISTER CONTENTS ON EXIT:

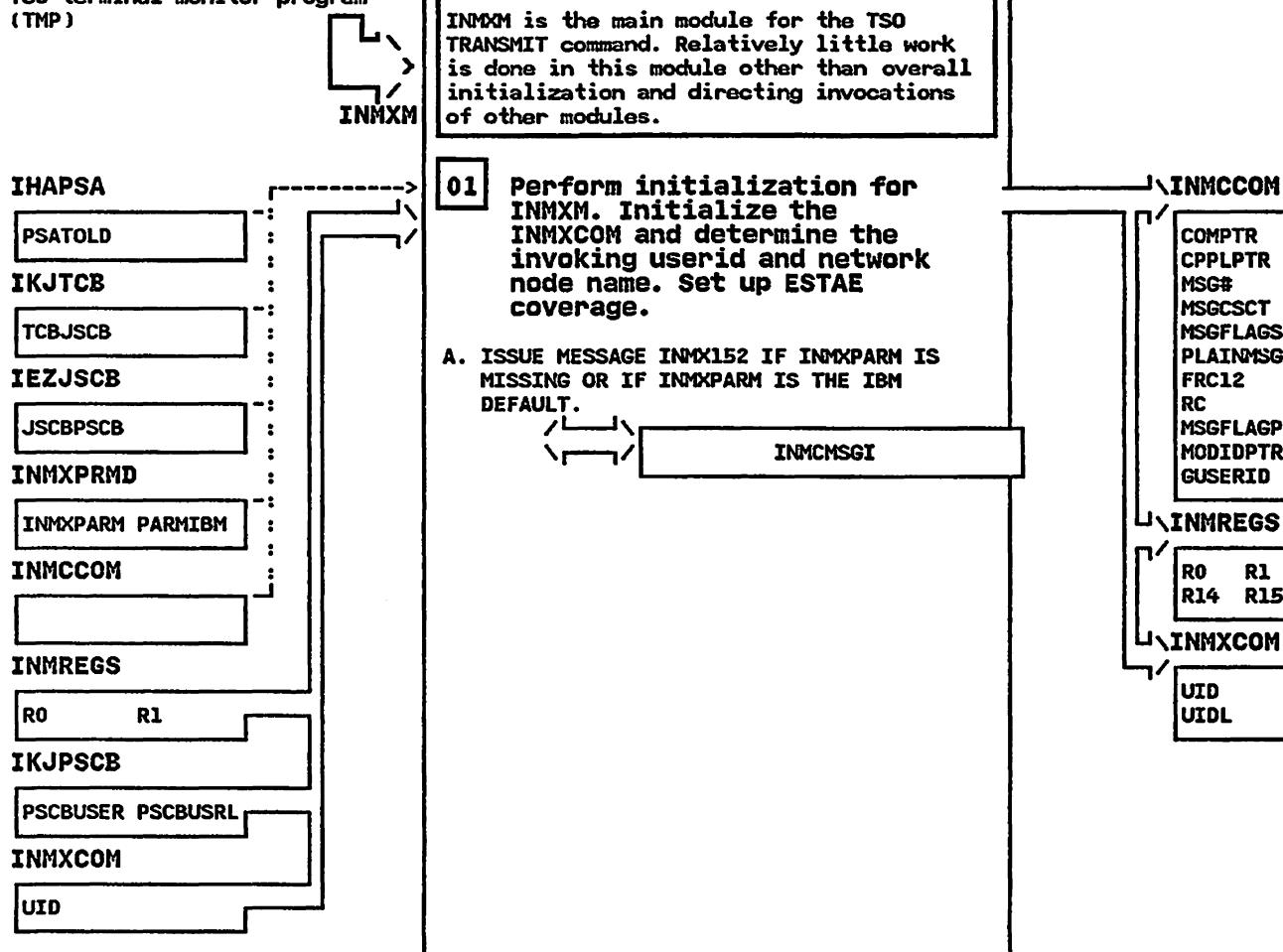
#### EXIT NORMAL:

Register 15 - Return code  
Other - Unchanged

INMXM - TRANSMIT Command Main Routine

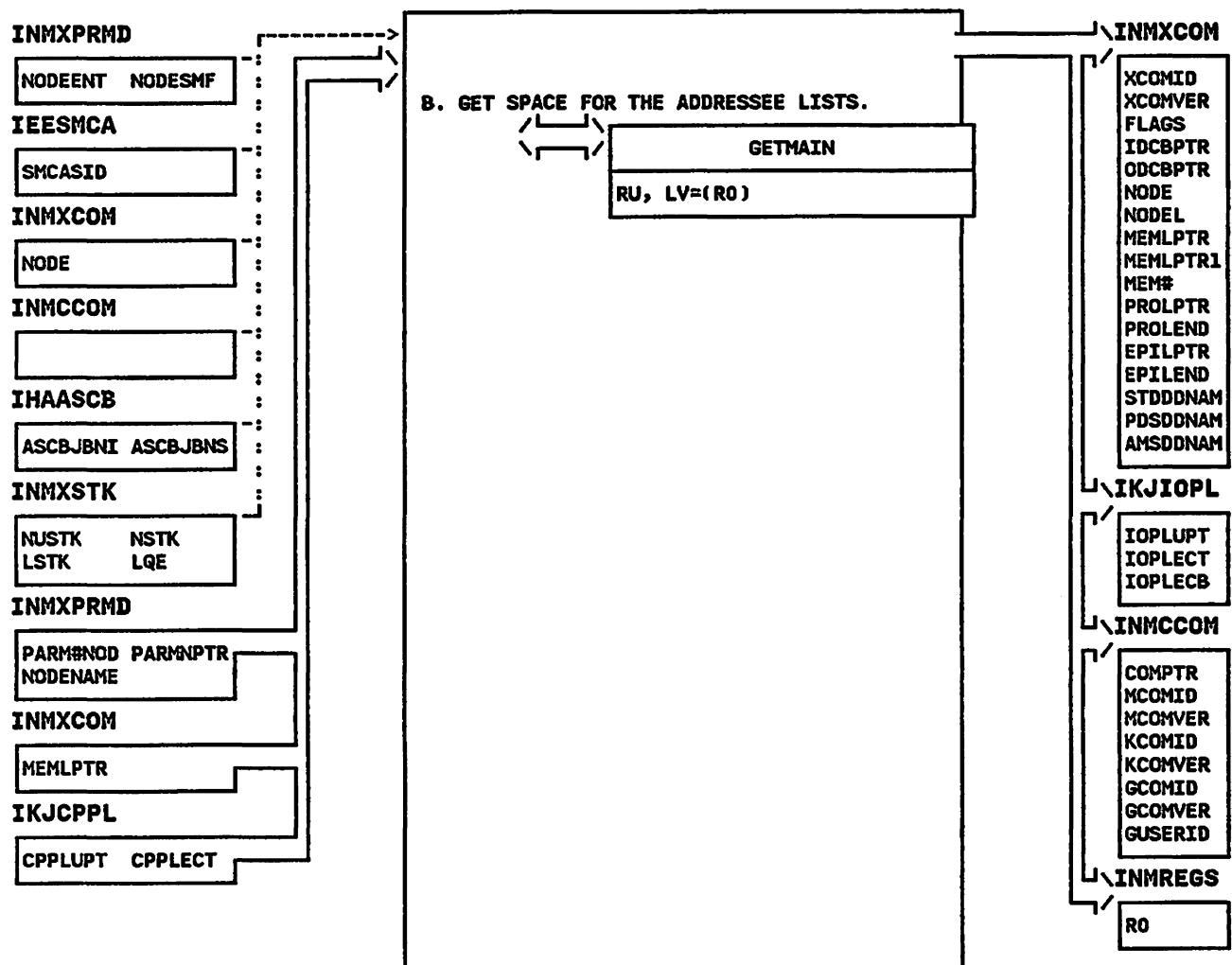
STEP 01

TSO terminal monitor program  
(TMP)



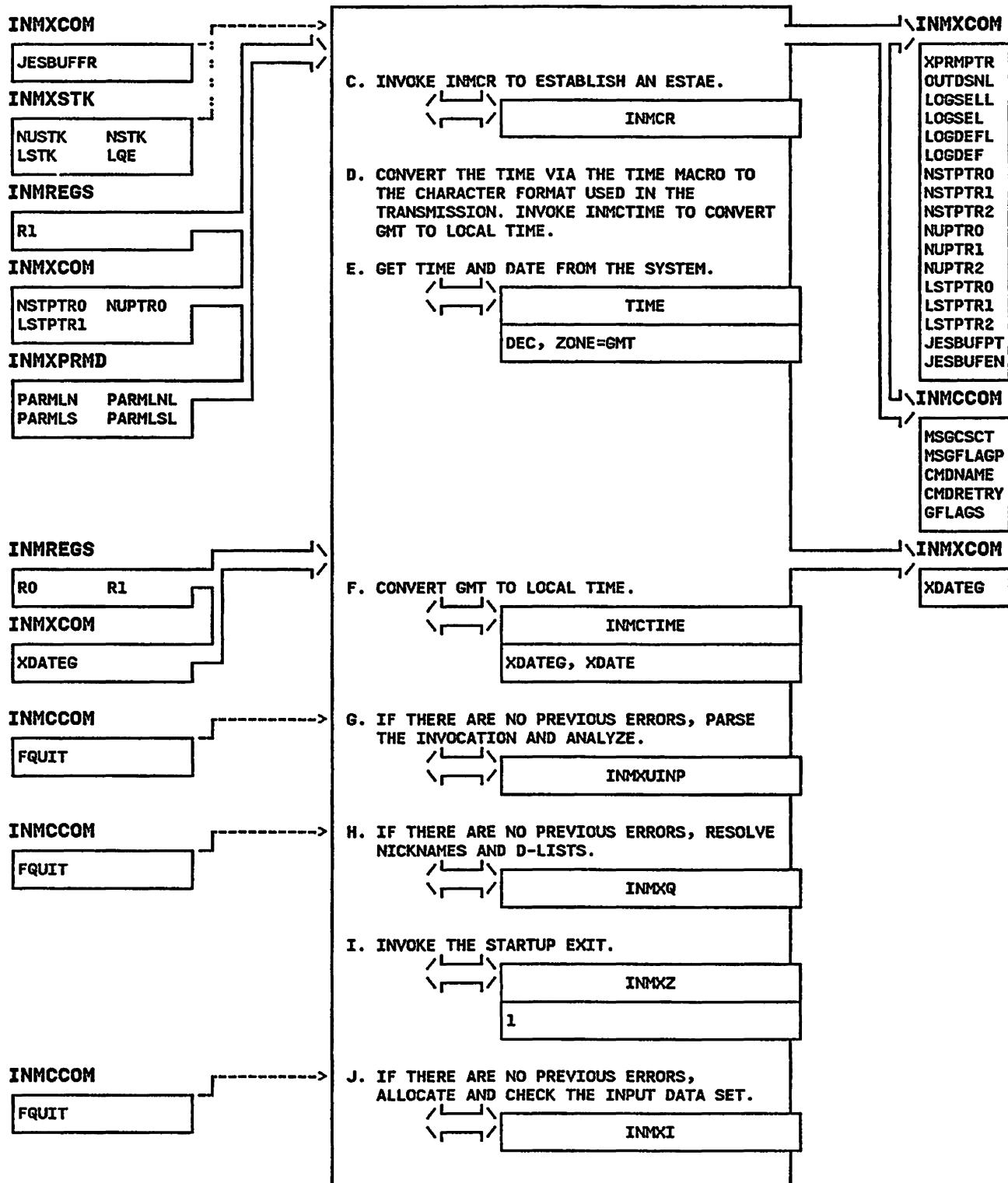
INMXM - TRANSMIT Command Main Routine

STEP 01B



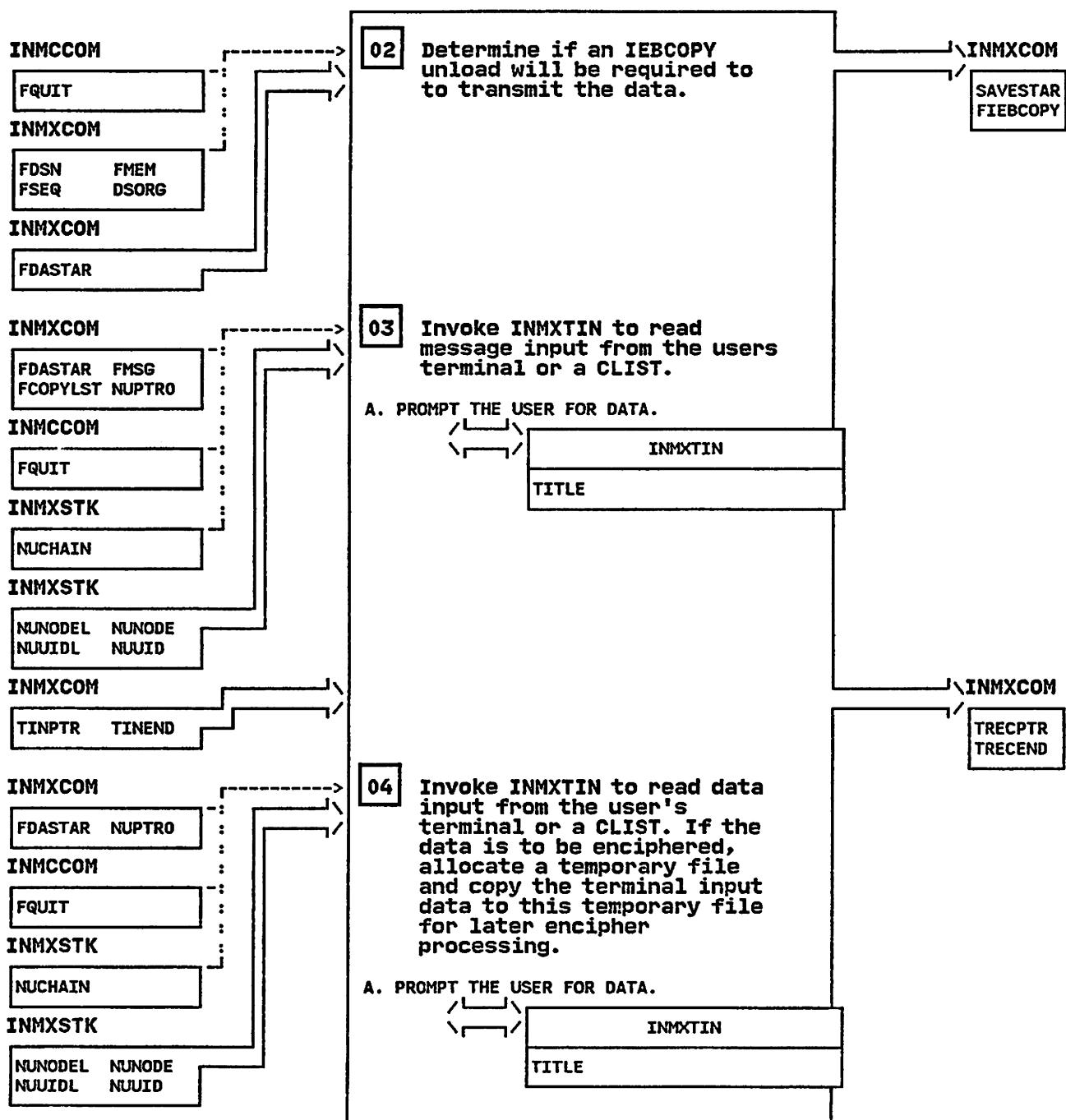
INMXM - TRANSMIT Command Main Routine

STEP 01C



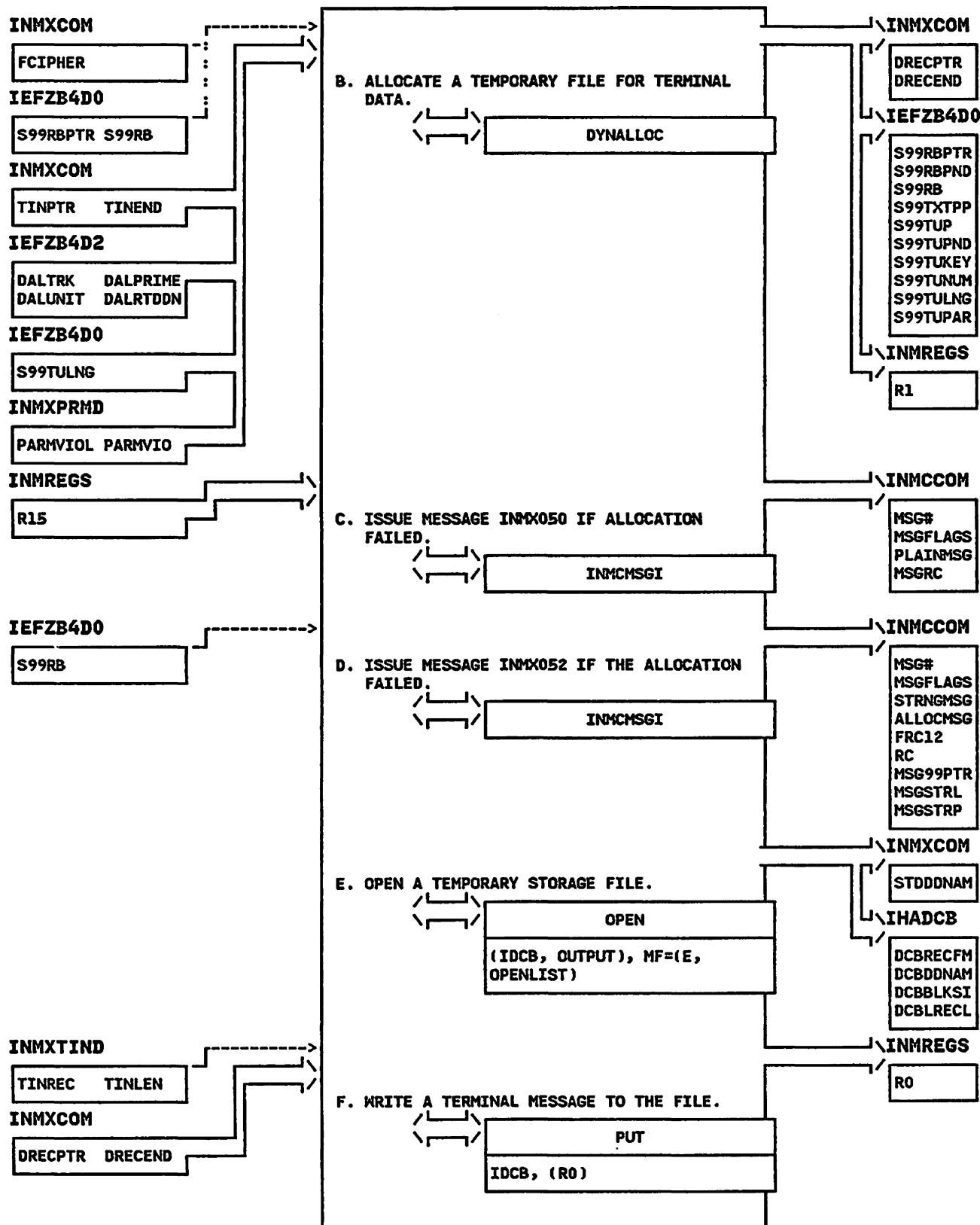
INMXM - TRANSMIT Command Main Routine

STEP 02



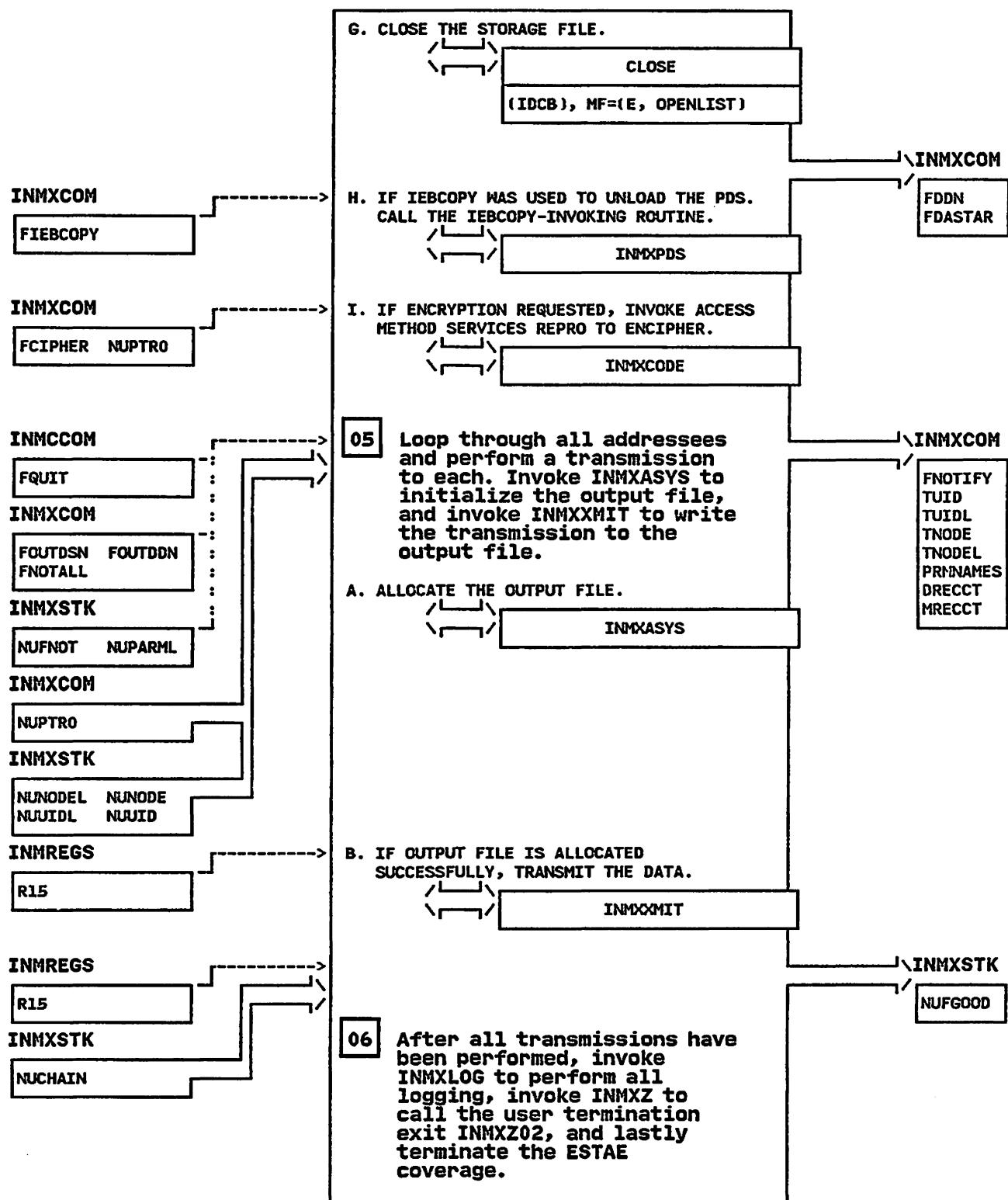
INMXM - TRANSMIT Command Main Routine

STEP 04B



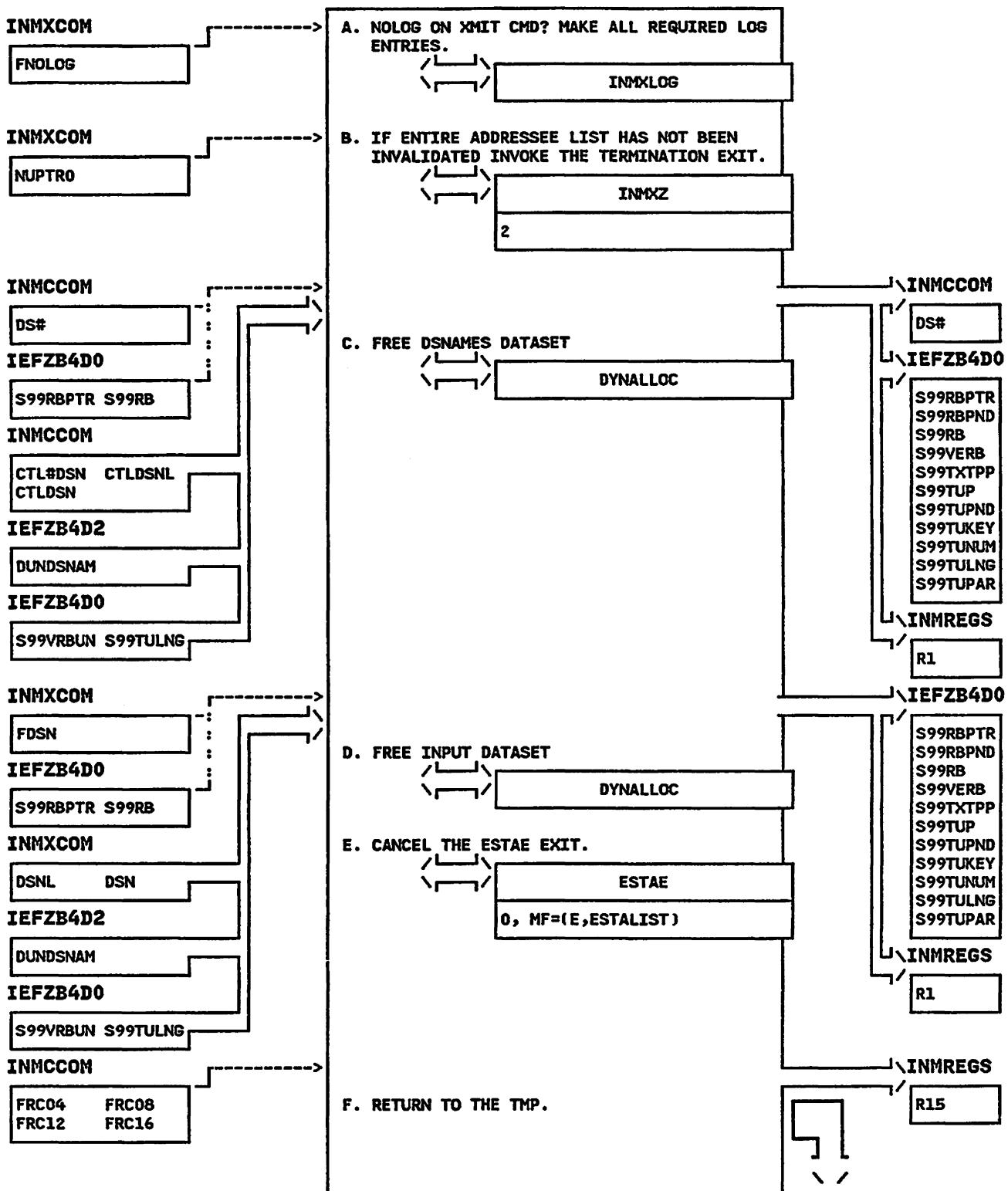
INMXM - TRANSMIT Command Main Routine

STEP 04G



**INMXM - TRANSMIT Command Main Routine**

**STEP 06A**



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**INMXMSG - MODULE DESCRIPTION**

**DESCRIPTIVE NAME: TRANSMIT Command Message Module**

**FUNCTION:**

Contains all the messages issued by the transmit command.

**PURPOSE:** None

**LINKAGE:** None

**CALLERS:** None

**INPUT:** None

**OUTPUT:** None

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** IKJTSMSG

**INMXMSG - DIAGNOSTIC AIDS**

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

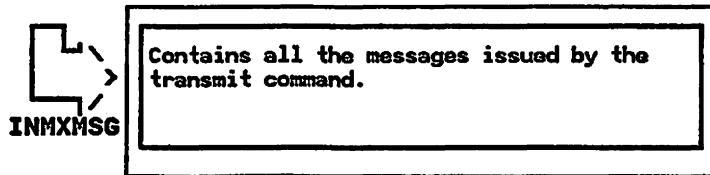
**RETURN CODES:** None

**REGISTER CONTENTS ON ENTRY:** Irrelevant

**REGISTER CONTENTS ON EXIT:** Irrelevant

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**INMXMSG - TRANSMIT Command Message Module**



## INMXO - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Control record build routine.

**FUNCTION:**

INMXXMIT invokes INMXO to build and write the control records for the transmission. If a message is accompanying a data file, INMRO also writes the message records.

**ENTRY POINT:** INMXO

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMXXMIT

**INPUT:**

All input is provided via the common parameter structure INMCCOM.

**OUTPUT:** Control records written to output DCB

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

**DATA AREAS:**

INMCCOM - Common parameter structure  
INMXCOM - TRANSMIT communications area  
INMTEXTU - Transmission text unit keys  
INMXTIND - Terminal input record

**CONTROL BLOCKS:** DCB

**INMXO - MODULE OPERATION**

INMXO builds and transmits each required control record. If multiple INMR02 records are built for a single data file, INMXO includes the DSNAME and associated text units on the first record. Before writing to the output file, INMXO packs the control records into a long character string and then writes 80-character records. INMXO leaves any residual record parts in the JESBUFFR area to be written with the beginning of the data.

**INMXO - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMXO

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable FQUIT of the  
common parameter structure INMCCOM.

0 - Everything is normal.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

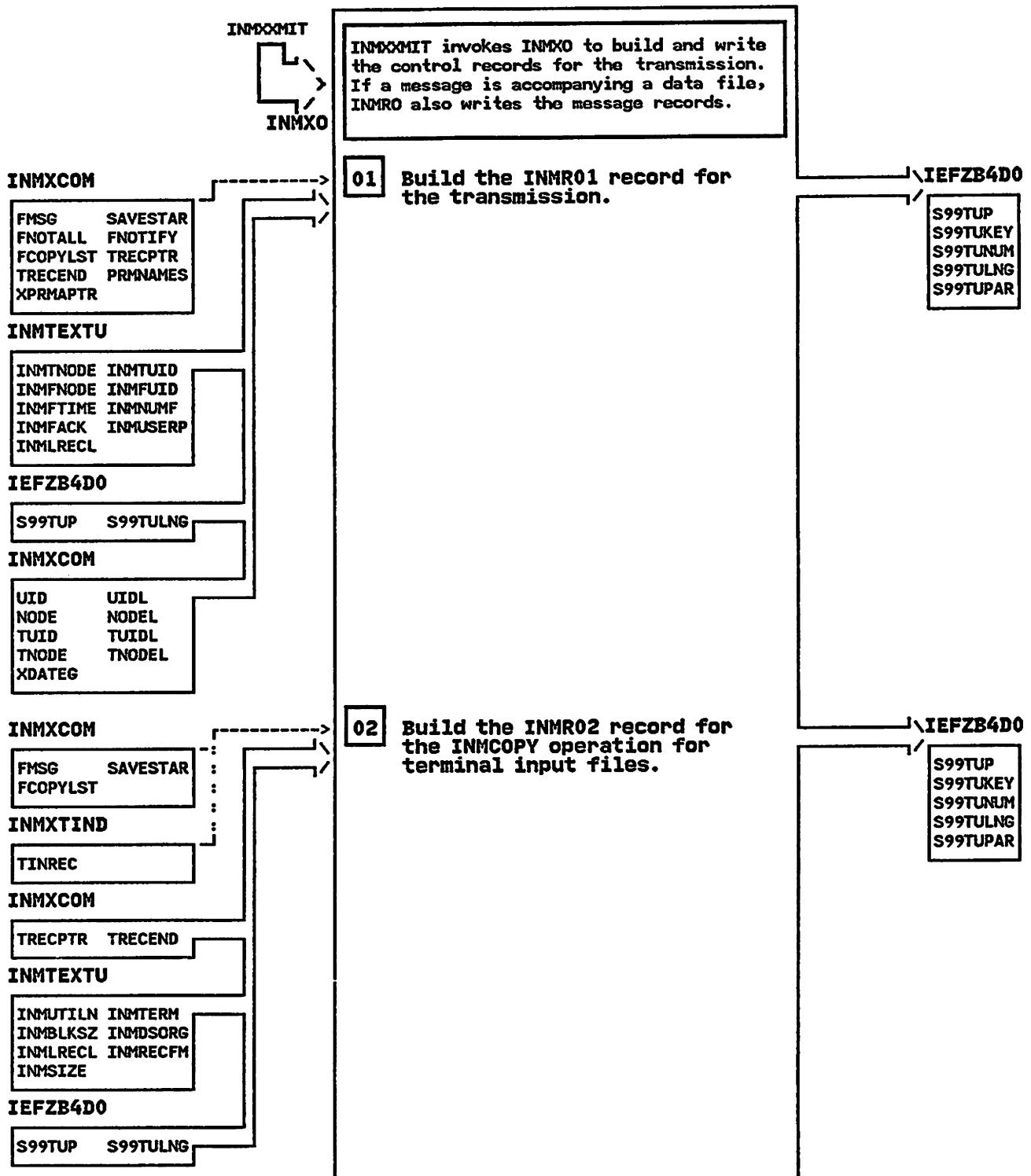
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

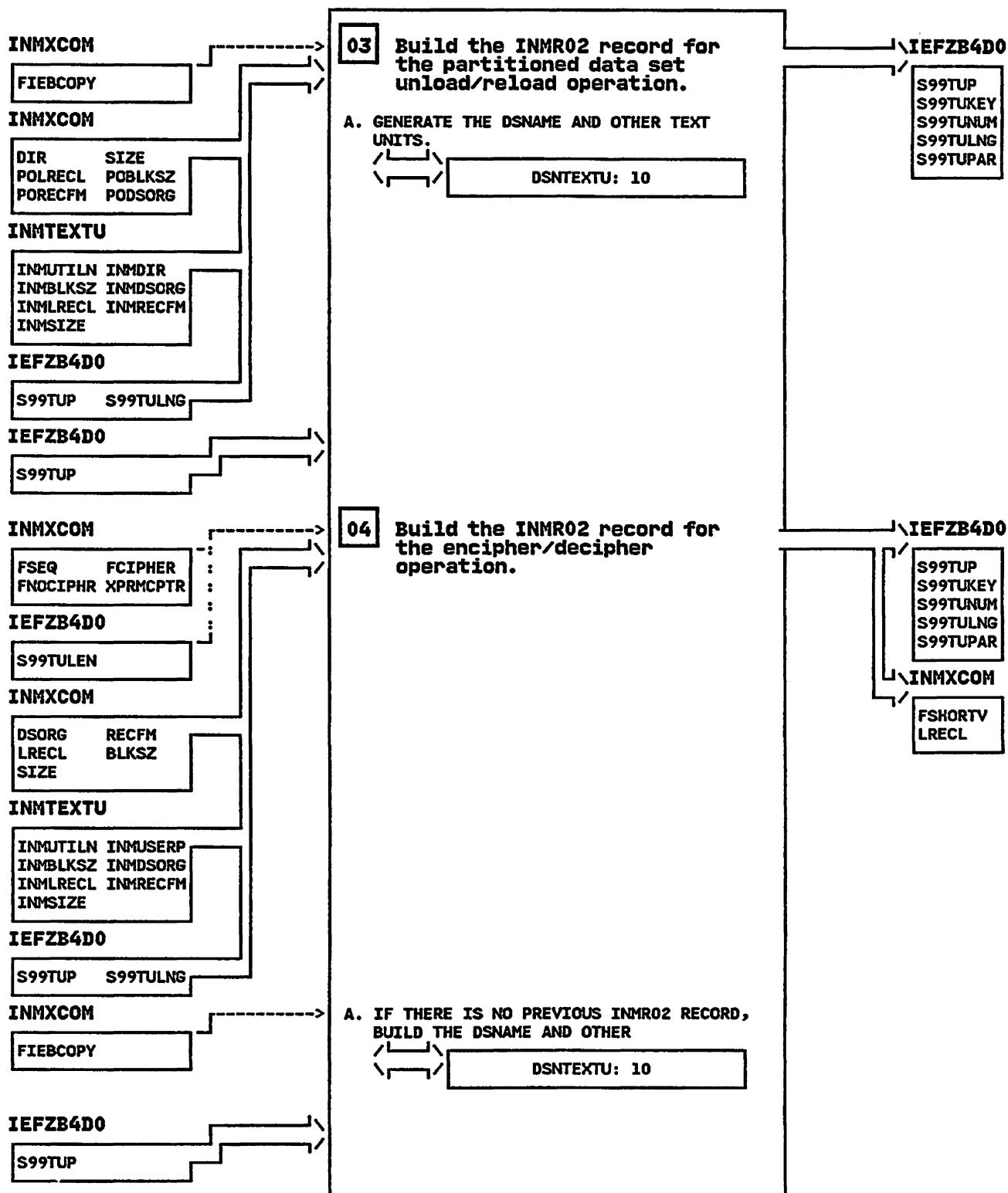
INMXO - Control record build routine.

STEP 01



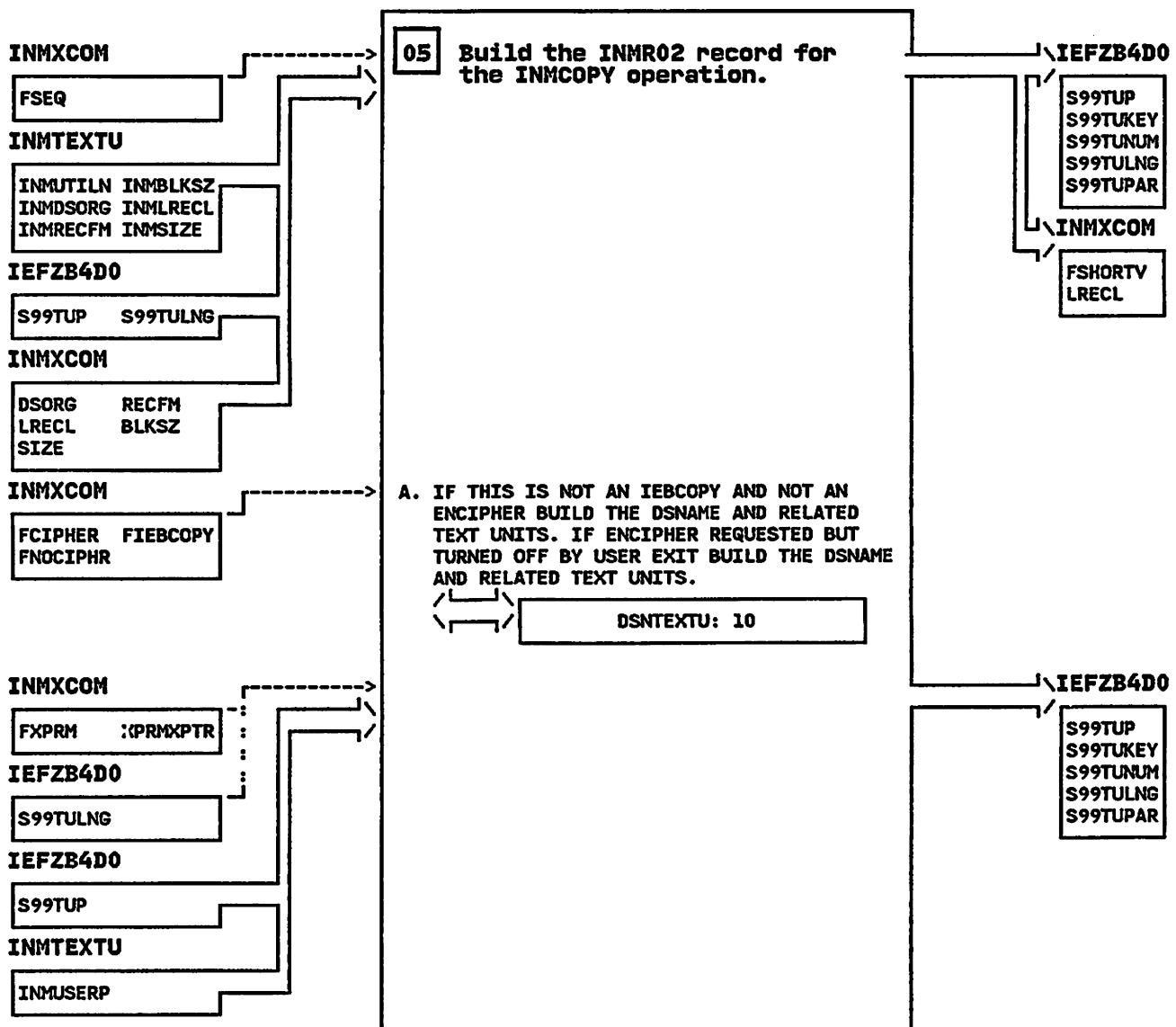
## **INMXO - Control record build routine.**

### **STEP 03**



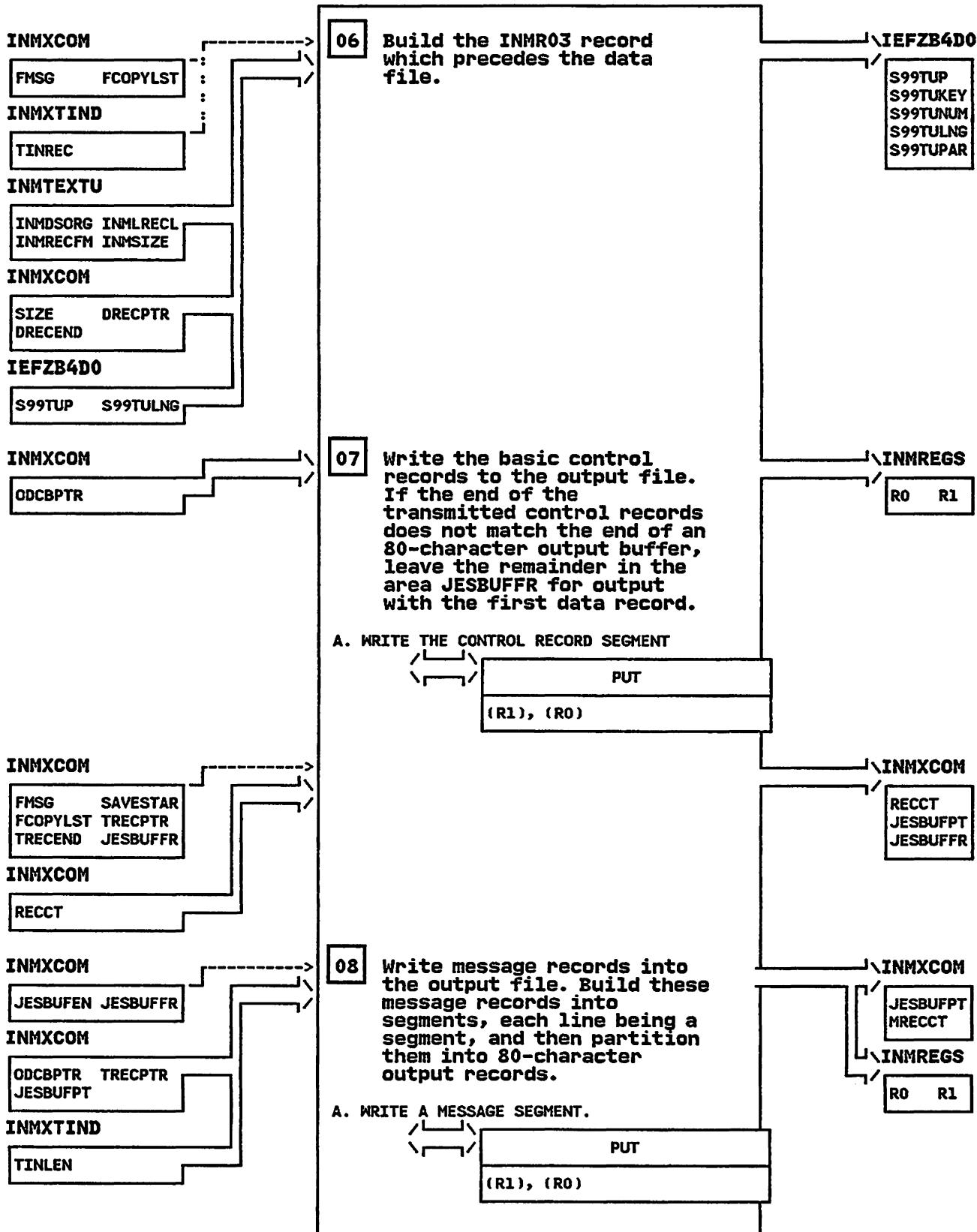
INMXO - Control record build routine.

STEP 05



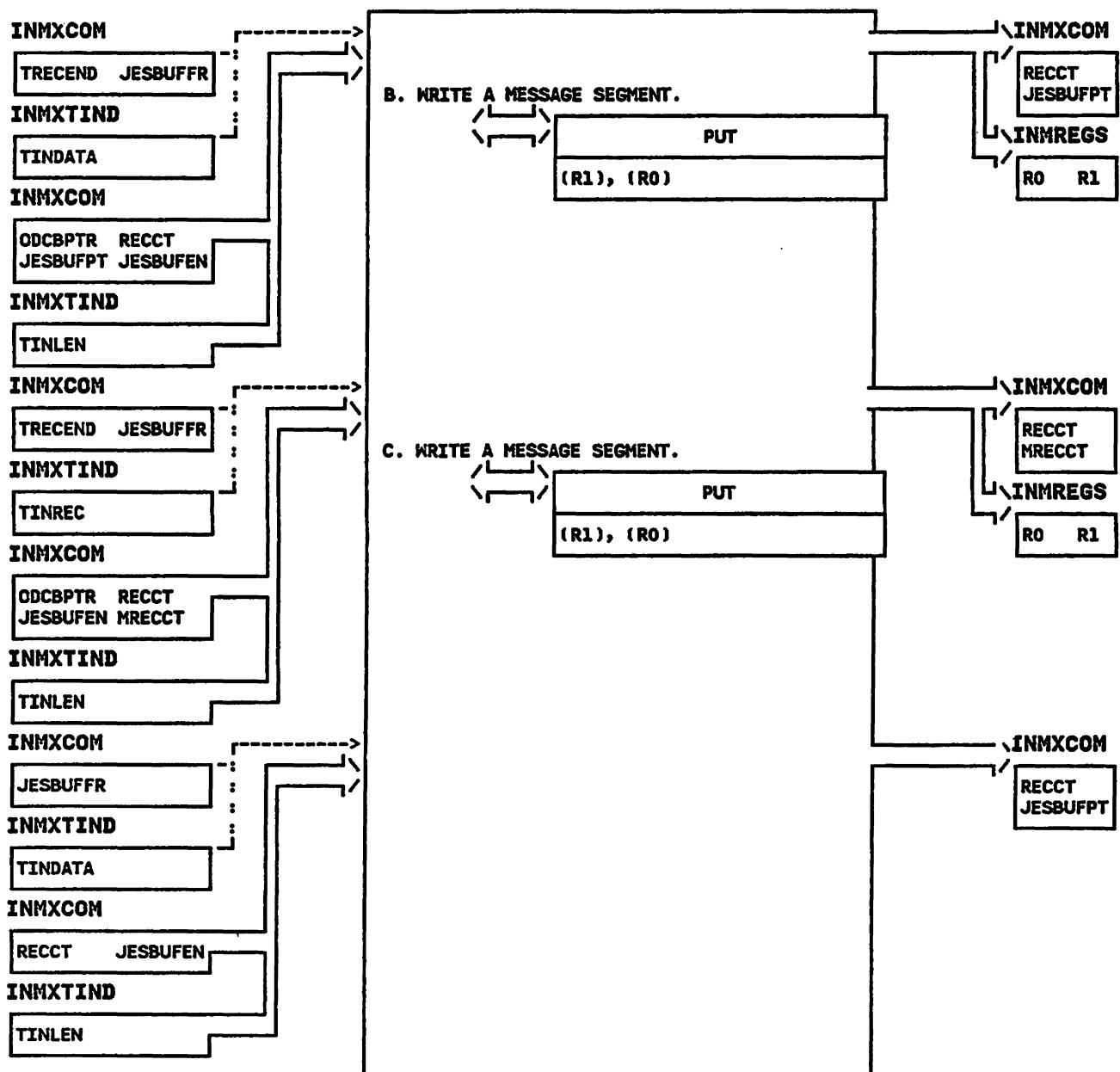
INMXO - Control record build routine.

STEP 06



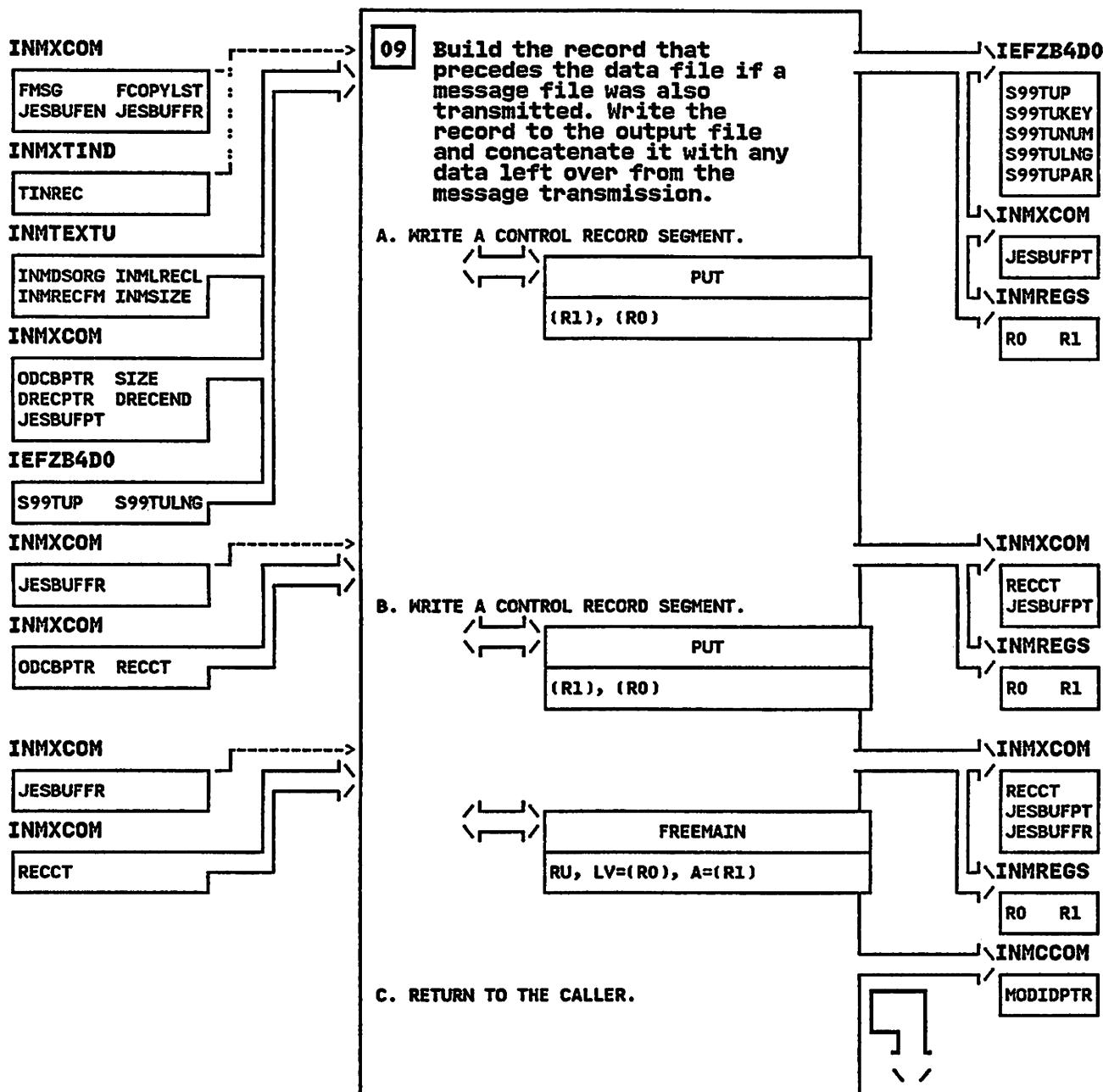
INMXO - Control record build routine.

STEP 08B



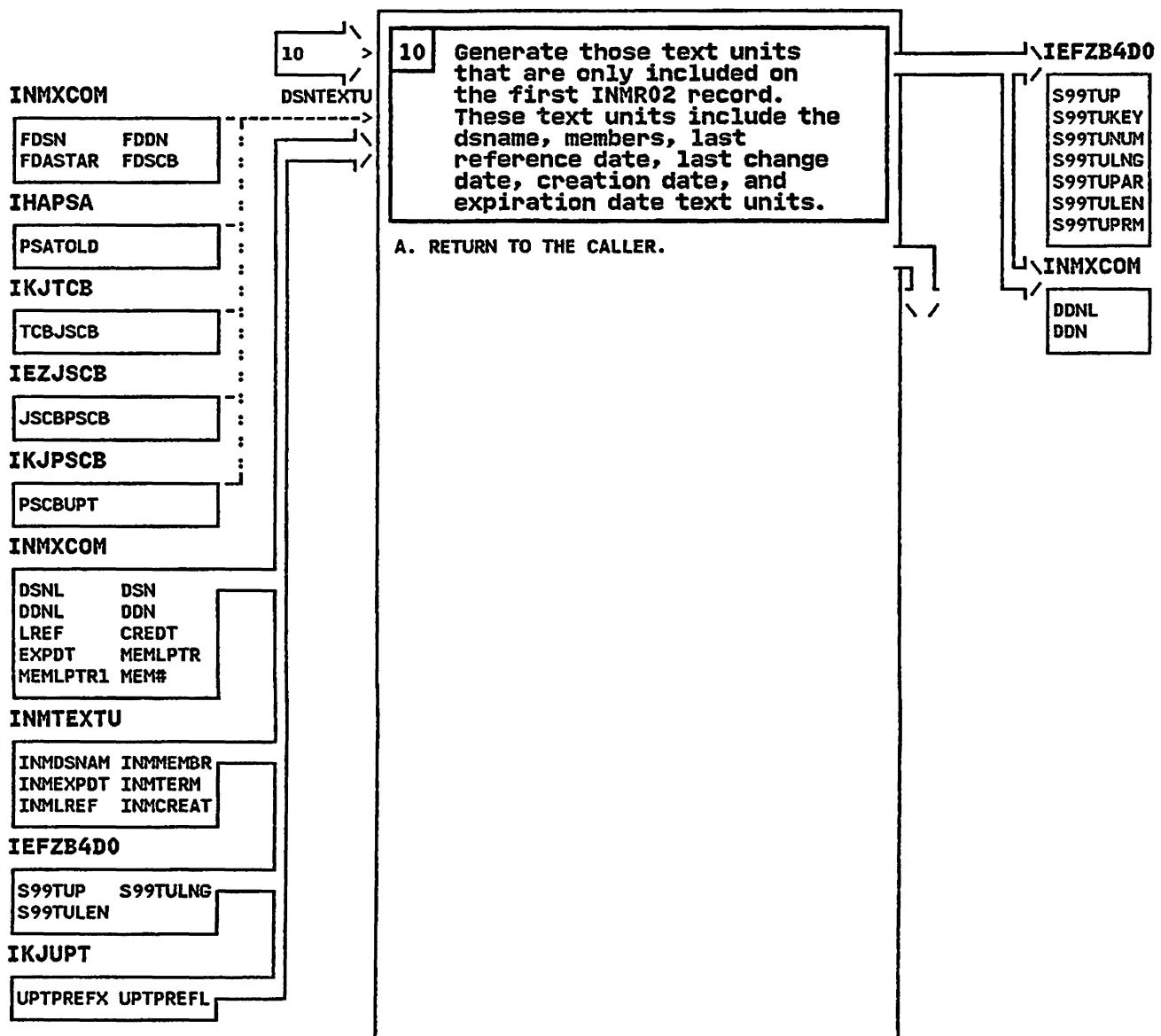
INMX0 - Control record build routine.

STEP 09



INMX0 - Control record build routine.

STEP 10



**MODULE DESCRIPTION:**

**INMXPARM-- TRANSMIT and RECEIVE Installation Options Block**

**FUNCTION:**

The INMXPARM installation options block is required by both the TRANSMIT and RECEIVE commands in order for them to execute successfully. The INMXPARM CSECT defines options which are particular to individual installations.

**ENTRY-POINT: INMXPARM**

**PURPOSE:** See FUNCTION

**LINKAGE:** None

**CALLERS:** Referenced by TRANSMIT and RECEIVE commands

**INPUT:** None

**OUTPUT:** See REGISTERS above

**EXIT-NORMAL:** BR 14 Return to caller

**EXIT-ERROR:**

**EXTERNAL-REFERENCES:**

**ROUTINES:** None

**CONTROL-BLOCKS:** None

**MODULE OPERATION: INMXPARM**

The INMXPARM CSECT is created by invoking the following macros with the required parameters: INMXP, INMNODE and INMEND. The INMXP macro defines options such as: Default NAMES datasets (both system and user), transmission record limits, VIO unit name specification, etc. The INMNODE macro defines network node name and SMFID correlations. The INMEND macro terminates the INMXPARM CSECT definition.

**DIAGNOSTIC AIDS: INMXPARM**

**ENTRY-POINT NAME: INMXPARM**

**MESSAGES: None**

**ABEND CODES: None**

**WAIT-STATE CODES: None**

**RETURN CODES: None**

**REGISTER CONTENTS ON ENTRY: Irrelevant**

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

**See REGISTERS above**

## INMXPDS - MODULE DESCRIPTION

### DESCRIPTIVE NAME: PDS Unload Routine

#### FUNCTION:

INMXPDS controls the invocation of the IEBCOPY utility to unload partitioned data sets. It allocates all required files, builds control statements, and ATTACHES to the IEBCOPY utility.

#### ENTRY POINT: INMXPDS

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMMX

#### INPUT:

All input is provided via the TRANSMIT command communications area INMXCOM. The following fields are used:

IDCBPTR (used to get input DDNAME)  
SPACE (approximate size for unloaded data set)  
MEMLPTR (member record list pointer)

#### OUTPUT:

DDNAME of unloaded data set in the DCB pointed to by IDCBPTR

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### ROUTINES:

The following are invoked via PLS CALL:  
INMMSGI - Message issuing routine

The following are invoked via ATTACH:  
IEBCOPY - Unload partitioned data set

#### DATA AREAS:

INMXCOM - TRANSMIT command communications area  
INMMCOM - Common parameter structure  
INMXPRMD - Installation options block

#### CONTROL BLOCKS:

DCB, JFCB, DSCB1,  
IEFZB4D0, IEFZB4D2

#### TABLES:

BR1 - IEBCOPY unloaded record 1  
BR3 - IEBCOPY Unloaded record 3+ header  
BR4 - IEBCOPY unloaded directory record  
COPYSTMT - IEBCOPY COPY statement  
COPY1 - COPY statement template  
COPYDDNM - utility ddname substitution table  
OBTPARM - OBTAIN parameter list

## INMXPDS - MODULE OPERATION

INMXPDS performs the following function:

- (1) Allocate the control card(SYSIN) file.
- (2) Allocate the message file either to the user's terminal or to a sysout data set.
- (3) Allocate the SYSUT3 utility file.
- (4) Build control cards for the unload operation.  
A COPY card is always built. One or more SELECT cards is built if the user specified a member list.
- (5) Write the control cards to the SYSIN file.
- (6) Build a ddname substitution list for IEBCOPY so that it will use the DDNAMEs obtained rather than the standard SYSPRINT, SYSIN, etc.....
- (7) Invoke IEBCOPY to perform the unload
- (8) Release the temporary files.
- (9) Check the unloaded file to determine its size and the number of directory blocks used.

**INMXPDS - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMXPDS**

**MESSAGES:**

INMX040I TRANSMIT COMMAND TERMINATED. FAILURE IN  
PARTITIONED DATASET UNLOAD USING IEBCOPY  
INMX041I IEBCOPY RETURN CODE nn  
INMX042I ALLOCATION ERROR BUILDING xxx FILE  
INMX043I NULL PARTITIONED DATASETS  
CANNOT BE TRANSMITTED  
INMX081I TRANSMIT COMMAND TERMINATED BECAUSE IT  
WAS NOT INVOKED AUTHORIZED

**ABEND CODES: OAF Reason code: 42 Error allocating message file.**

**WAIT STATE CODES: None**

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable FQUIT of  
INMXCOM.

0 - Everything is normal.  
12 - An error occurred.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

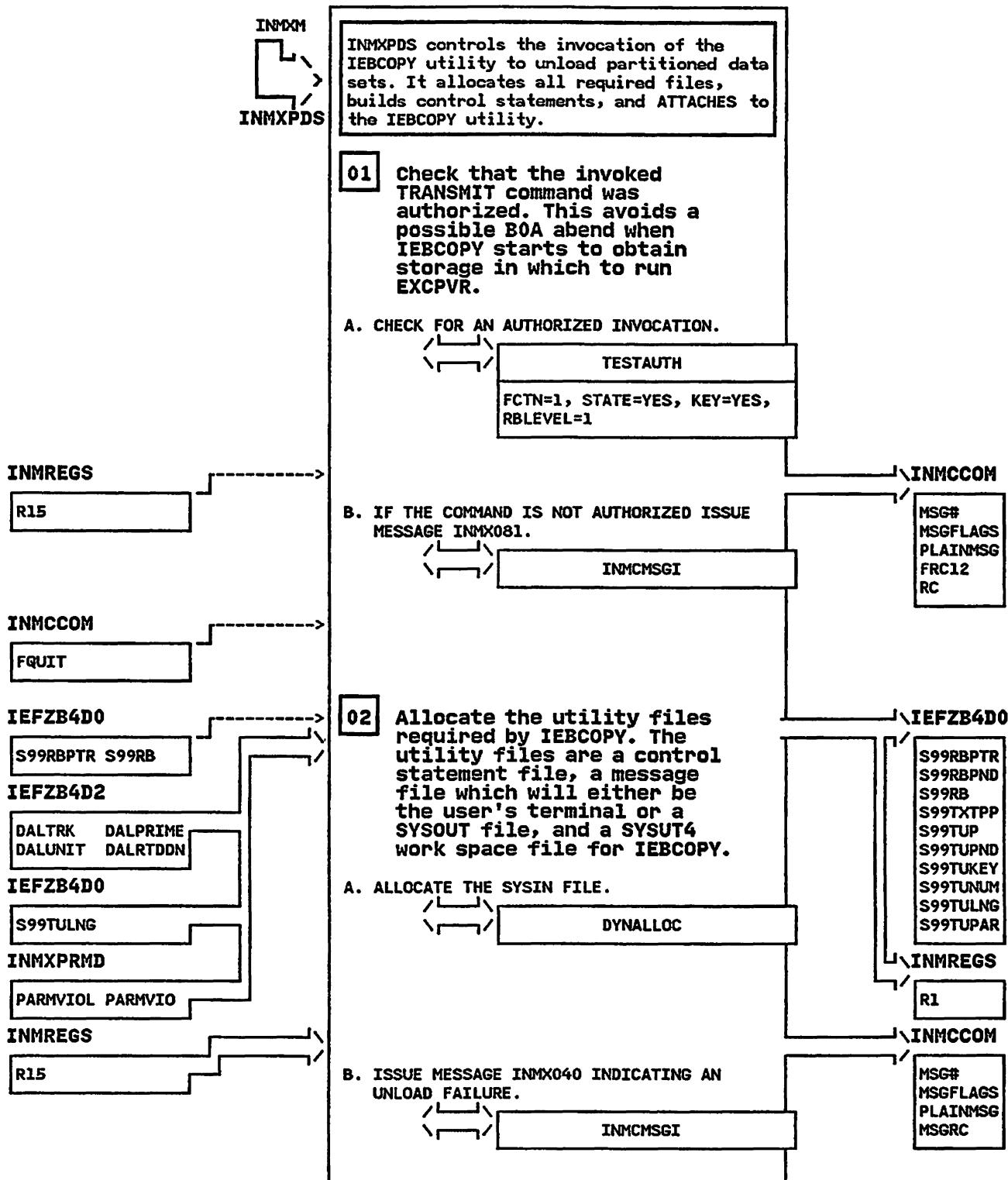
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

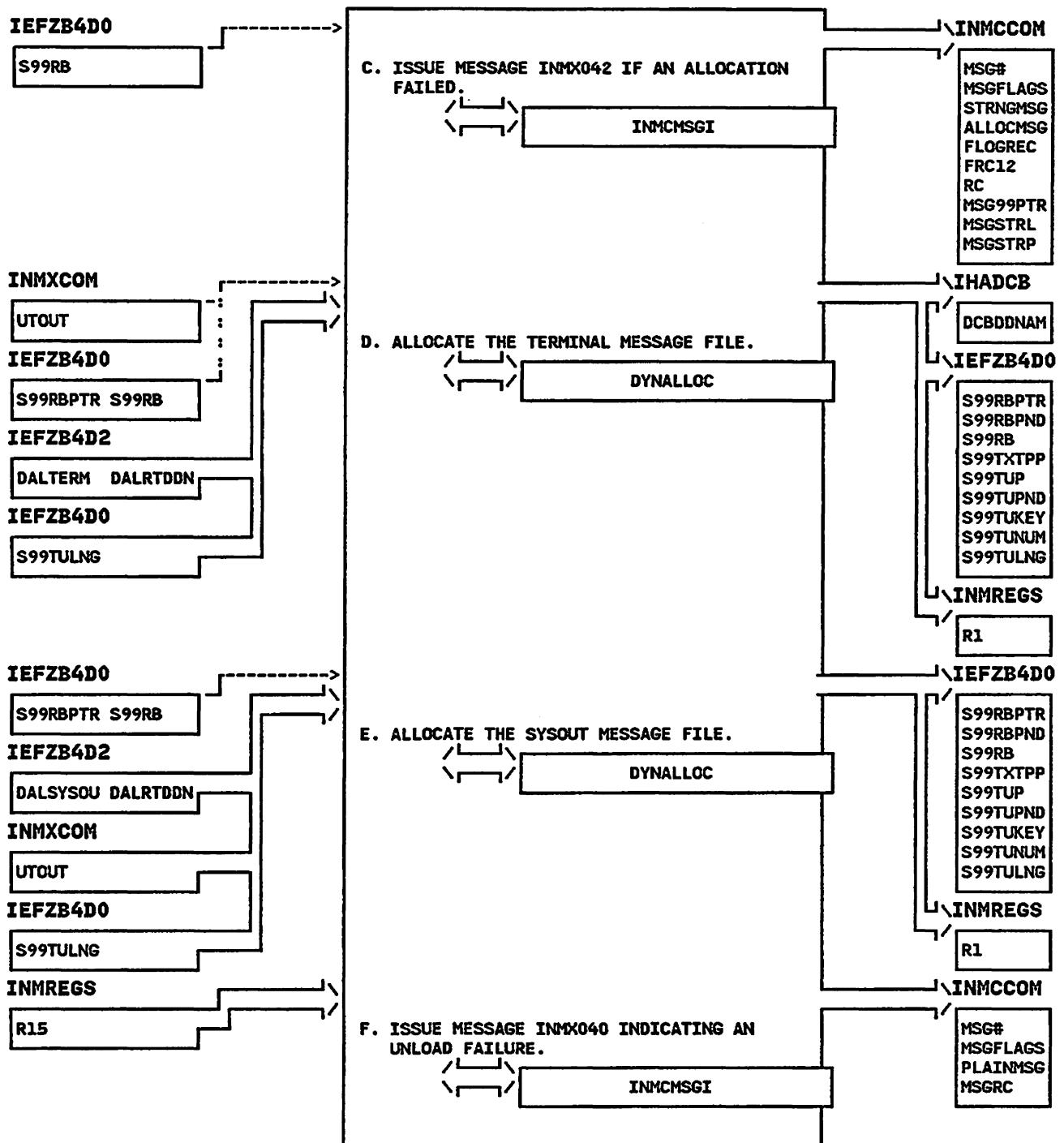
INMXPDS - PDS Unload Routine

STEP 01



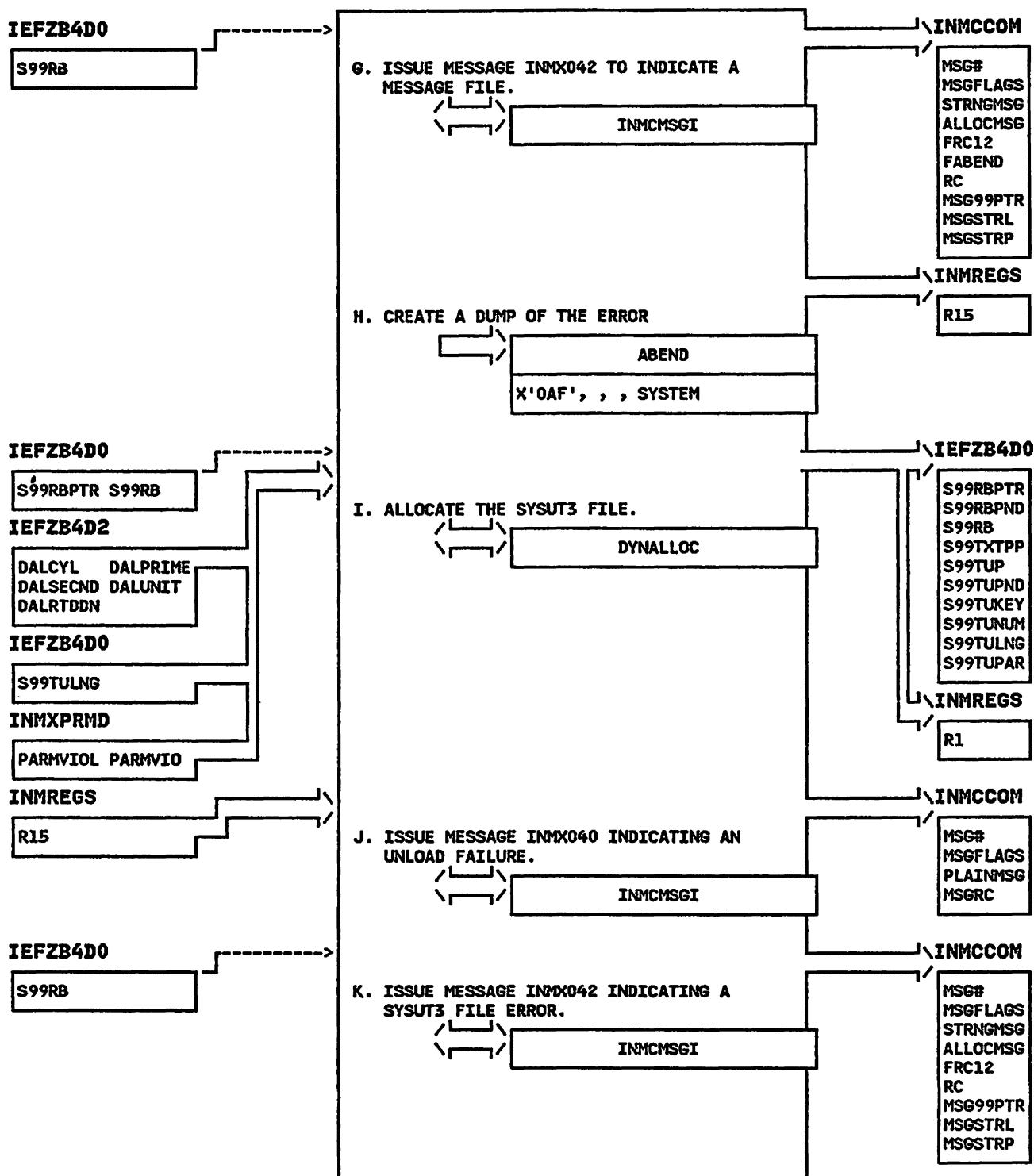
INMXPDS - PDS Unload Routine

STEP 02C



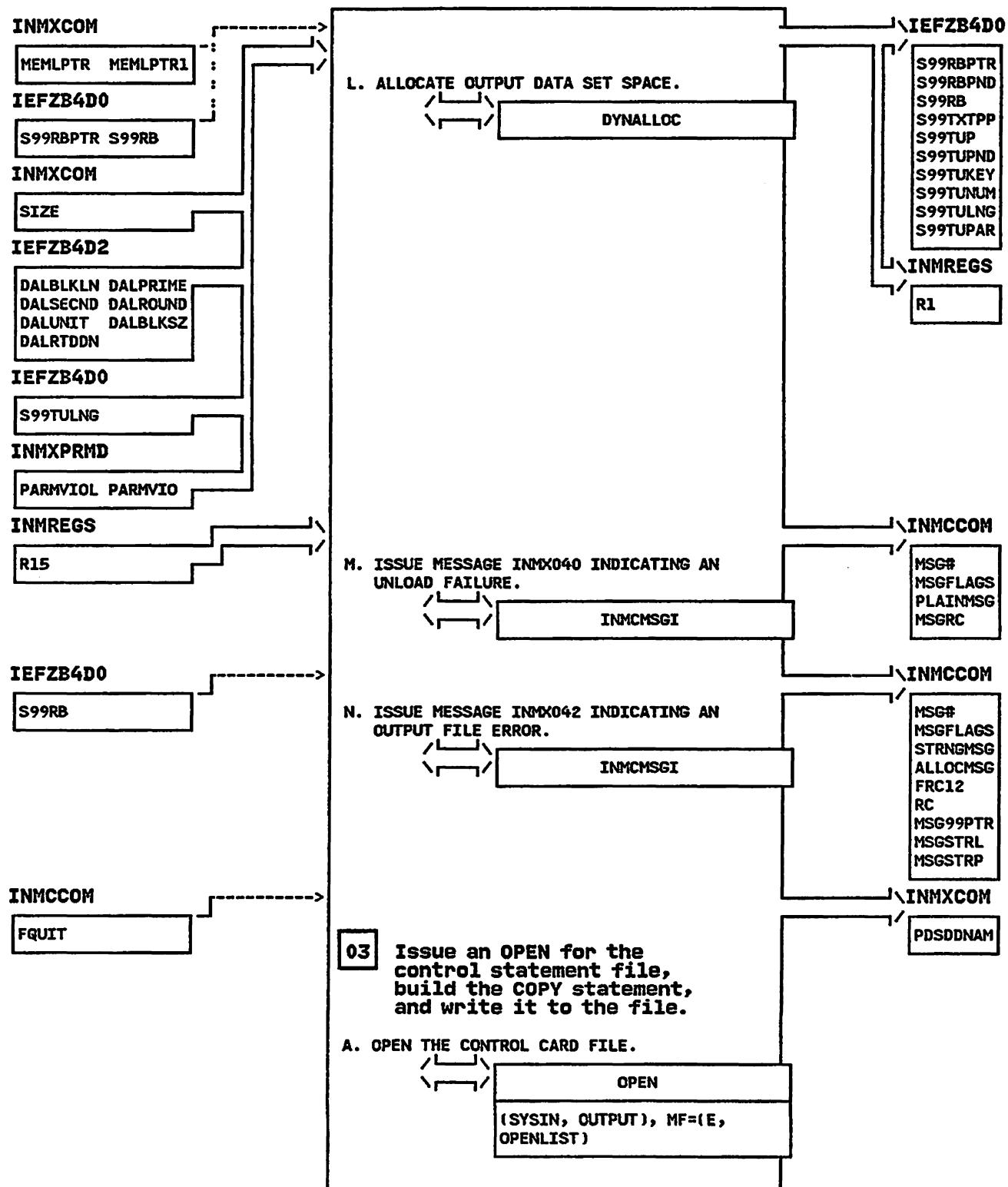
INMXPDS - PDS Unload Routine

STEP 02G



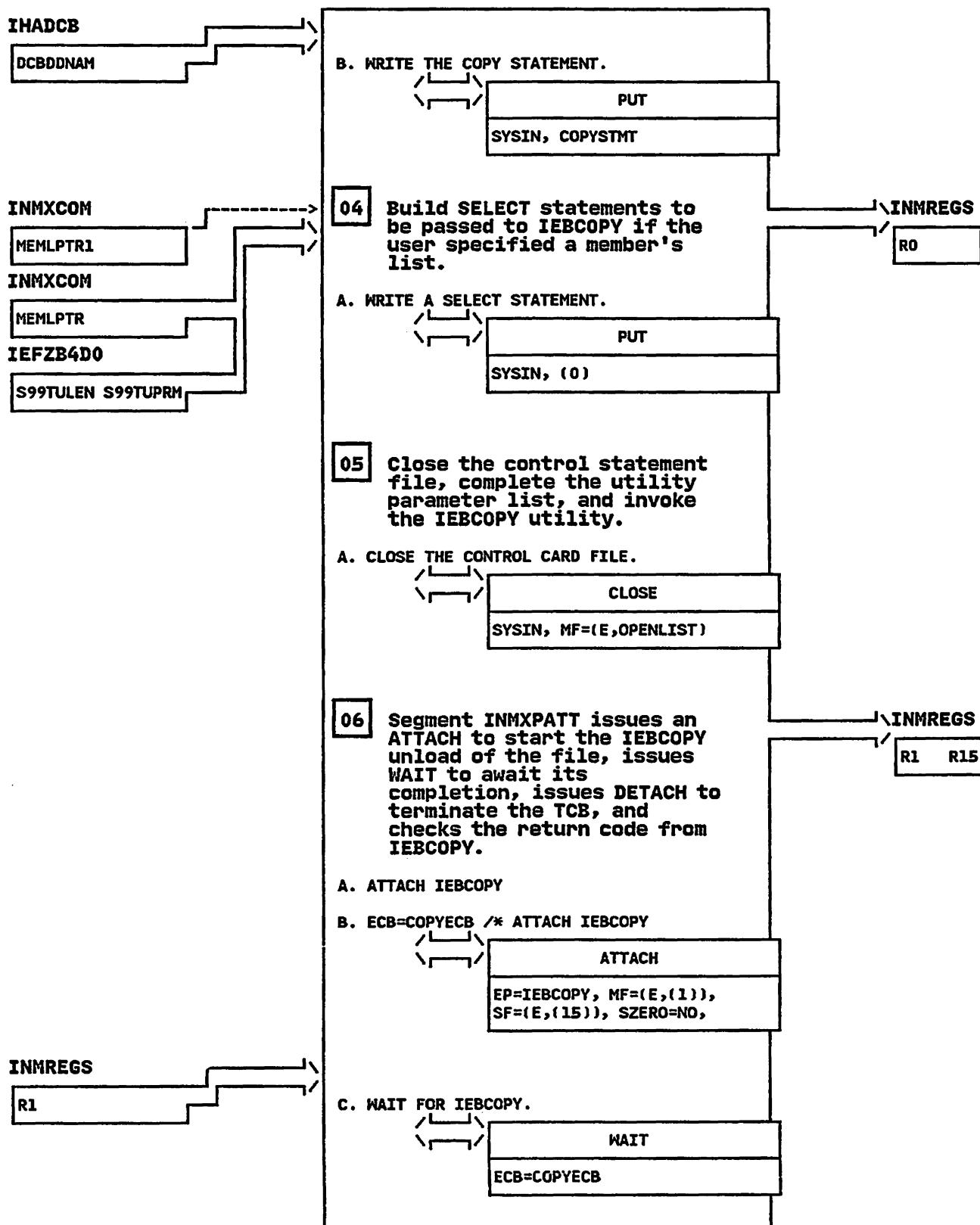
**INMXPDS - PDS Unload Routine**

**STEP 02L**



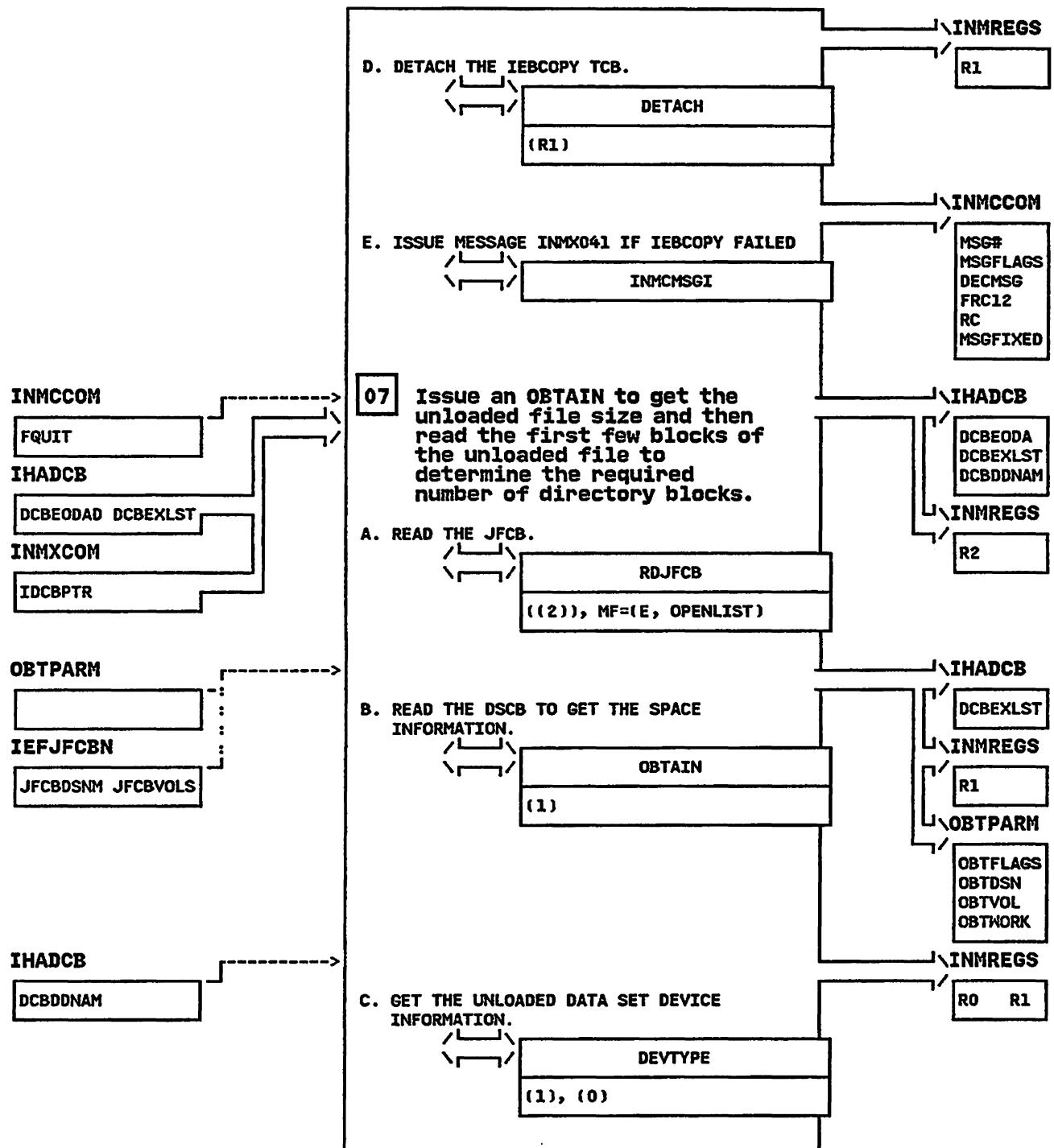
INMXPDS - PDS Unload Routine

STEP 03B



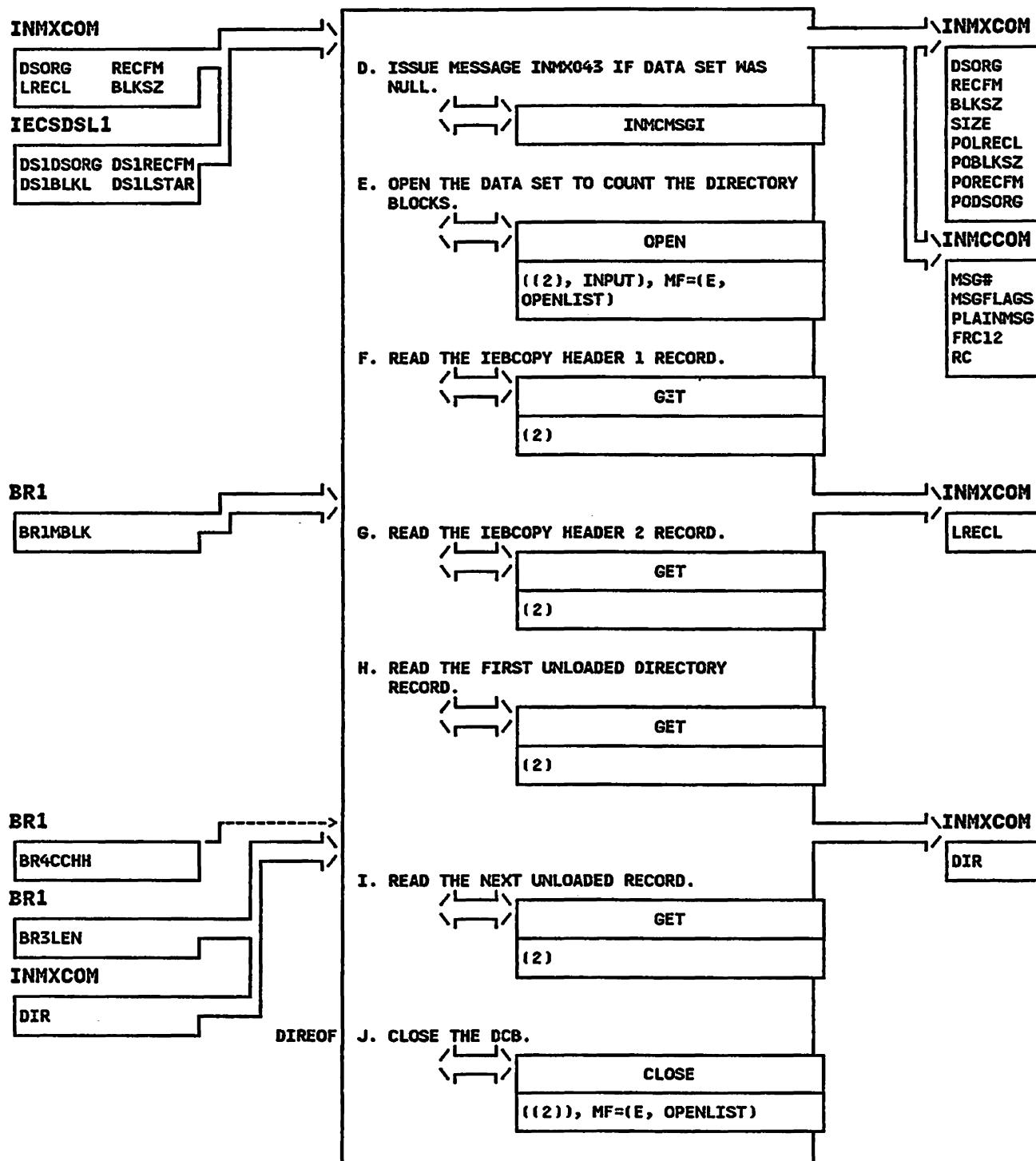
**INMXPDS - PDS Unload Routine**

**STEP 06D**



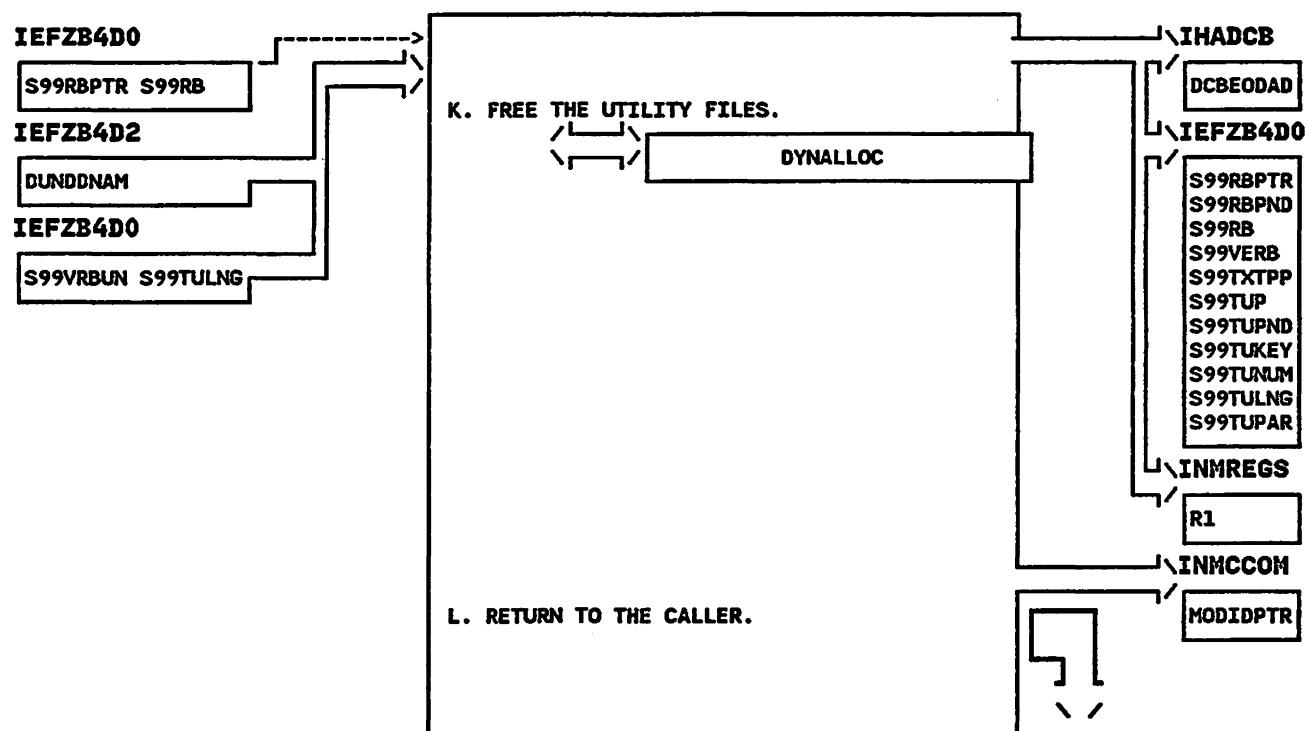
INMXPDS - PDS Unload Routine

STEP 07D



INMXPDS - PDS Unload Routine

STEP 07K



## INMXQ - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Transmit Nickname Resolution Routine.

**FUNCTION:**

This module uses the NAMES data set to generate distribution list names into list of nicknames and nicknames into node.userid. It also reads from the names data set values of certain global variables such as the logselector and logname.

**ENTRY POINT:** INMXQ

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMMX

**INPUT:**

All input is provided via the common parameter structure INMCCOM. Following fields are used:

NSTPTR0 and NSTPTR1 provide pointers to the list of nicknames entered by the user.

NUPTR0 and NUPTR1 provide pointers to the list of nodes and userid's being built.

**OUTPUT:**

All resolved node.userid's are placed in the list pointed by NUPTR0 and NUPTR1.

**EXIT NORMAL:** BR 14 Return to caller

## EXTERNAL REFERENCES:

**ROUTINES:**

The following are invoked via PLS CALL:

INMCMSGI - Message issuing routine

INMCA - Control data set allocate routine

**DATA AREAS:**

INMCCOM - Common parameter structure

INMXCOM - TRANSMIT command communications area

INMXSTK - Addressee table descriptions

INMXTIND - Terminal input record

**CONTROL BLOCKS:** DCB

## INMXQ - MODULE OPERATION

INMXQ attempts to allocate and open the data set "prefix.NAMES.text". If this fails, and the installation has specified a global names data set, INMXQ attempts to use it. If both of the above fail, INMXQ does not use a NAMES data set and all nicknames are invalid. If either of the above is successful, INMXQ reads the first section of the NAMES data set for the value of logselector, logname, prolog lines, epilog lines, and names of alternate NAMES data sets. After this, INMXQ reads the remainder of the data set looking for a resolution of nicknames entered by the user. If not all names are found in this first data set, INMXQ continues by allocating the next NAMES data set (via call to INMCA) and reading that data set. Each time a distribution list is found, INMXQ restarts the search with the first data set so that early nicknames are not missed.

## INMXQ - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMXQ

### MESSAGES:

INMC001I THE NAMES DATASET dsname IS NOT USABLE.  
INMC003I OPEN FAILED FOR THE DATASET.  
INMC010I ONLY TEN :ALTCTL TAGS ARE ALLOWED.  
SUBSEQUENT ONES ARE BEING IGNORED.  
INMC011I THE VALUE 'dsname' IS TOO LONG FOR AN  
ALTCTL TAG. IT WILL BE IGNORED.  
INMX019I NO ADDRESSEES FOUND IN THE DISTRIBUTION  
LIST CHAIN. NICKNAMES FOR ALL ENTRIES IN  
THE DISTRIBUTION LIST CHAIN POINT TO  
DISTRIBUTION LISTS.  
INMX020I NICKNAME name WAS NOT FOUND IN ANY NAMES  
DATASET. IT WILL BE IGNORED.  
INMX021I MORE THAN 10 PROLOG LINES HAVE BEEN  
FOUND, SUBSEQUENT PROLOG LINES ARE  
IGNORED.  
INMX022I MORE THAN 10 EPILOG LINES HAVE BEEN  
FOUND, SUBSEQUENT EPILOG LINES ARE  
IGNORED.  
INMX023I NICKNAMES NOT FOUND IN ANY NAMES DATA SET  
SEARCHED.  
INMX024I NICKNAME 'nickname' FROM DISTRIBUTION  
LIST 'list name' IN DATASET 'dsname'  
WAS NOT RESOLVABLE.  
INMX025I TRANSMIT COMMAND TERMINATED BECAUSE MORE  
THAN 200 NICKNAMES WERE FOUND.  
INMX026I THE LAST NAME PROCESSED WAS name.  
INMX027I TRANSMIT COMMAND TERMINATED BECAUSE MORE  
THAN 200 ADDRESSEES WERE FOUND.  
INMX028I THE LAST NICKNAME PROCESSED WAS name.  
INMX029I A :NICK TAG WAS FOUND FOR NICKNAME name,  
BUT IT DID NOT CONTAIN A :USERID TAG.  
INMX030I THE NICKNAME name IS TOO LONG. IT IS  
IGNORED.  
INMX031I TOO MANY LOG REQUESTS WERE ENCOUNTERED.  
LOGGING TO LOGNAME name WILL NOT BE DONE.  
INMX213I MORE THAN 100 NAMES FOUND IN A  
DISTRIBUTION LIST. NICKNAMES  
AFTER 'nickname' IGNORED.

ABEND CODES: None

WAIT STATE CODES: None

### RETURN CODES:

EXIT NORMAL:

Return code set in the variable FQUIT of  
TRANSMIT command communication area INMXCOM.

- 0 - Everything is normal.
- 4 - A warning message was issued.
- 8 - At least one addressee could not be resolved.
- 12 - An error has occurred.

### REGISTER CONTENTS ON ENTRY:

"Contains Restricted Materials of IBM"  
Licensed Materials - Property of IBM

**INMXQ - DIAGNOSTIC AIDS (Continued)**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

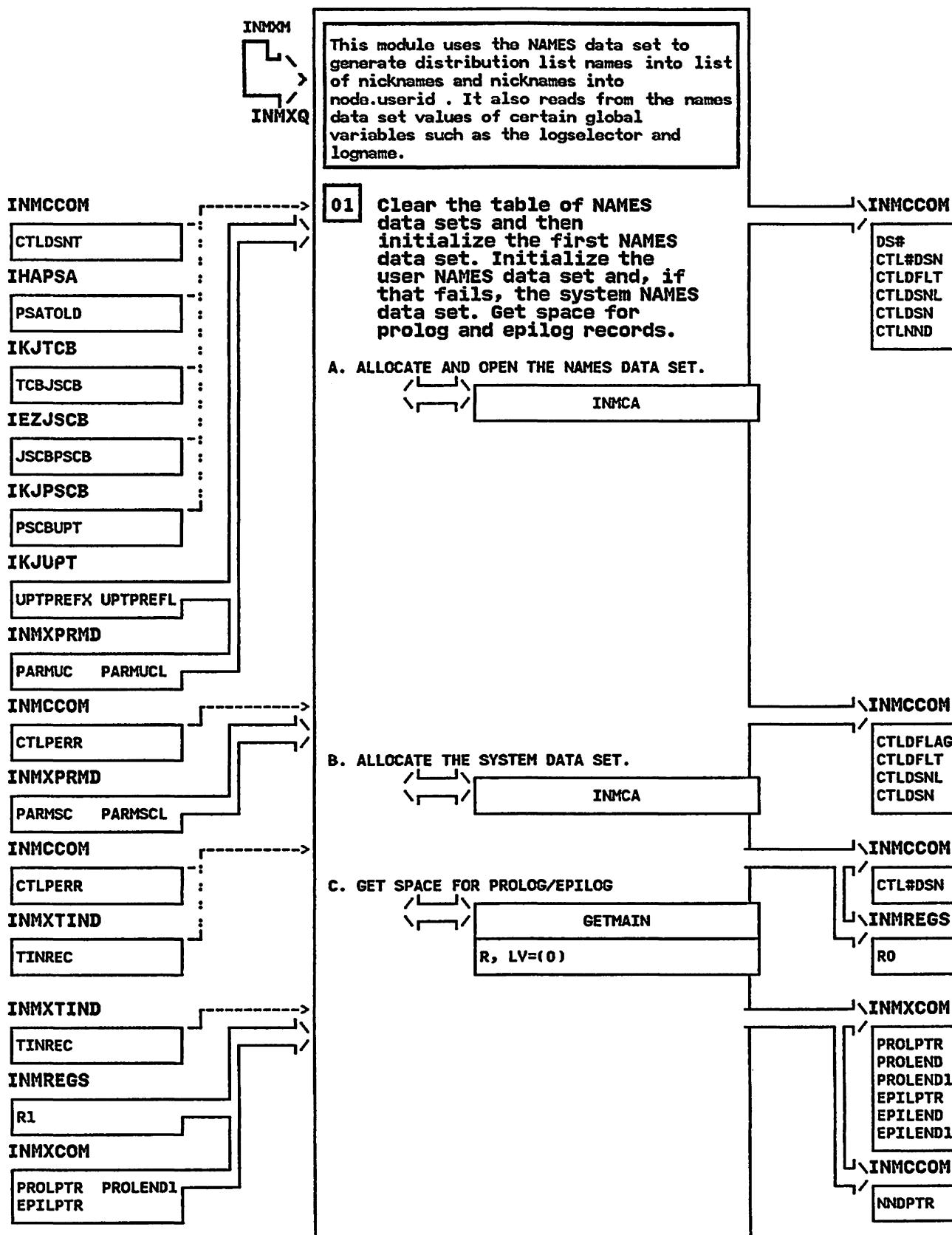
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

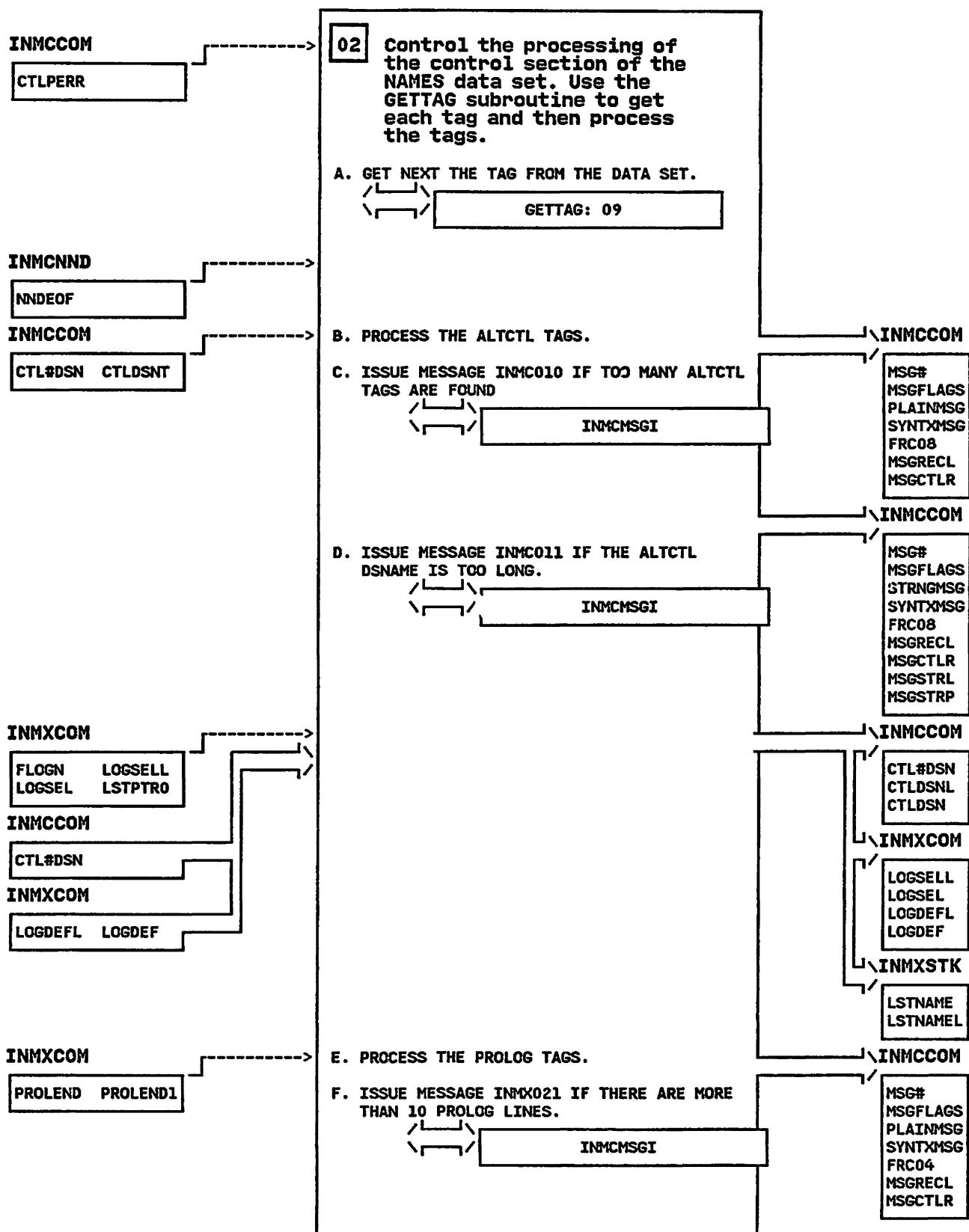
**INMXQ - Transmit Nickname Resolution Routine.**

**STEP 01**



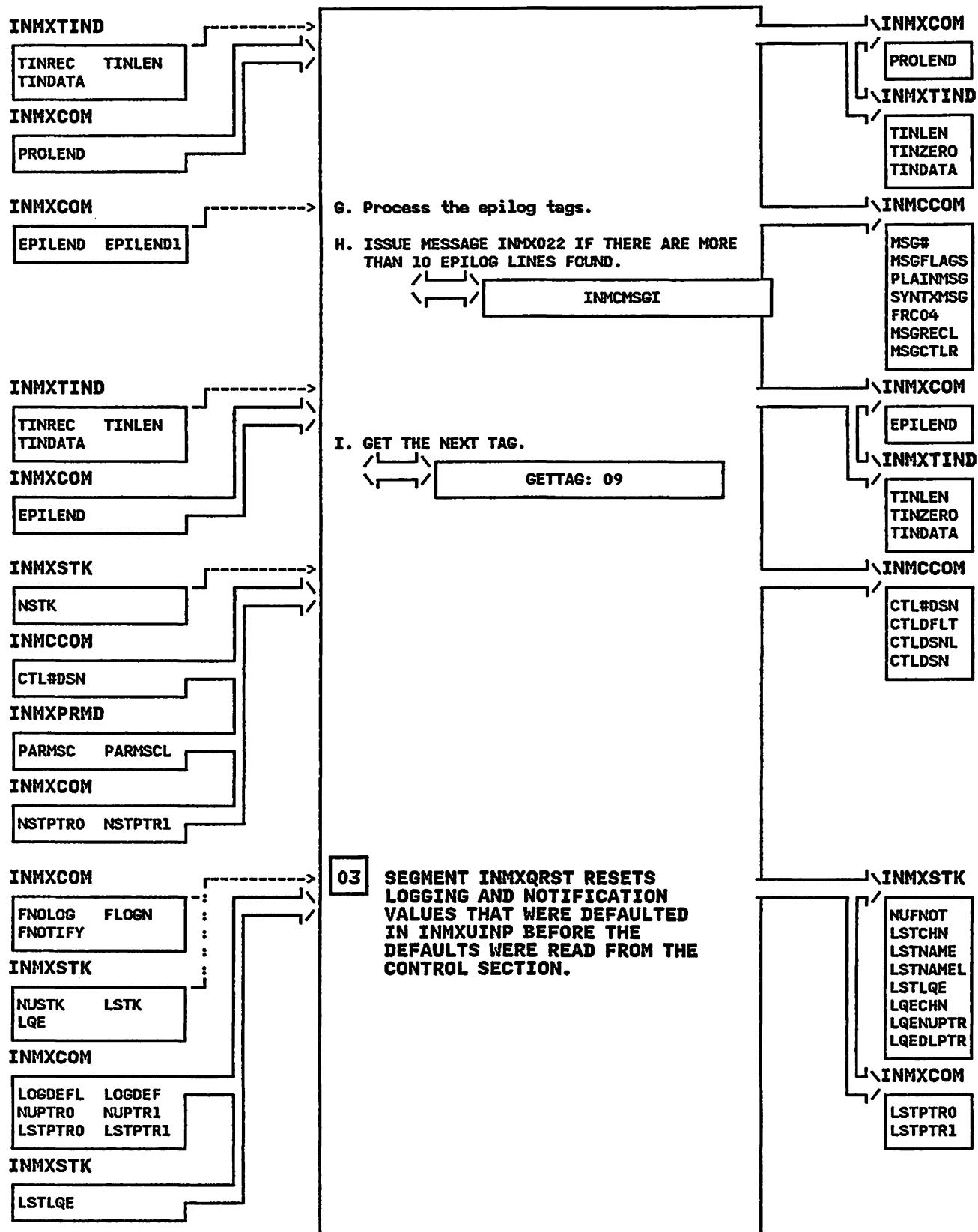
INMXQ - Transmit Nickname Resolution Routine.

STEP 02



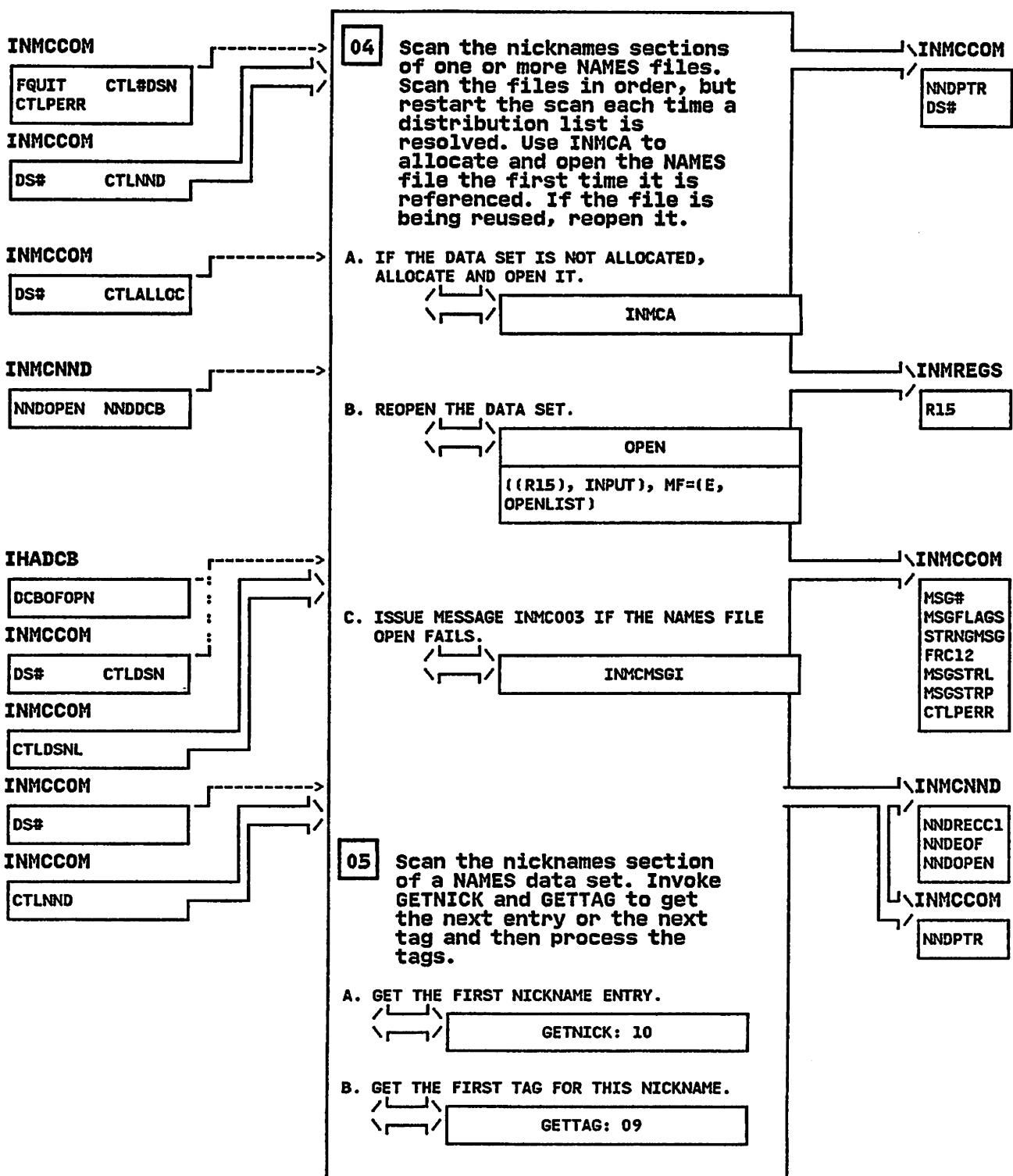
INMXQ - Transmit Nickname Resolution Routine.

STEP 02G



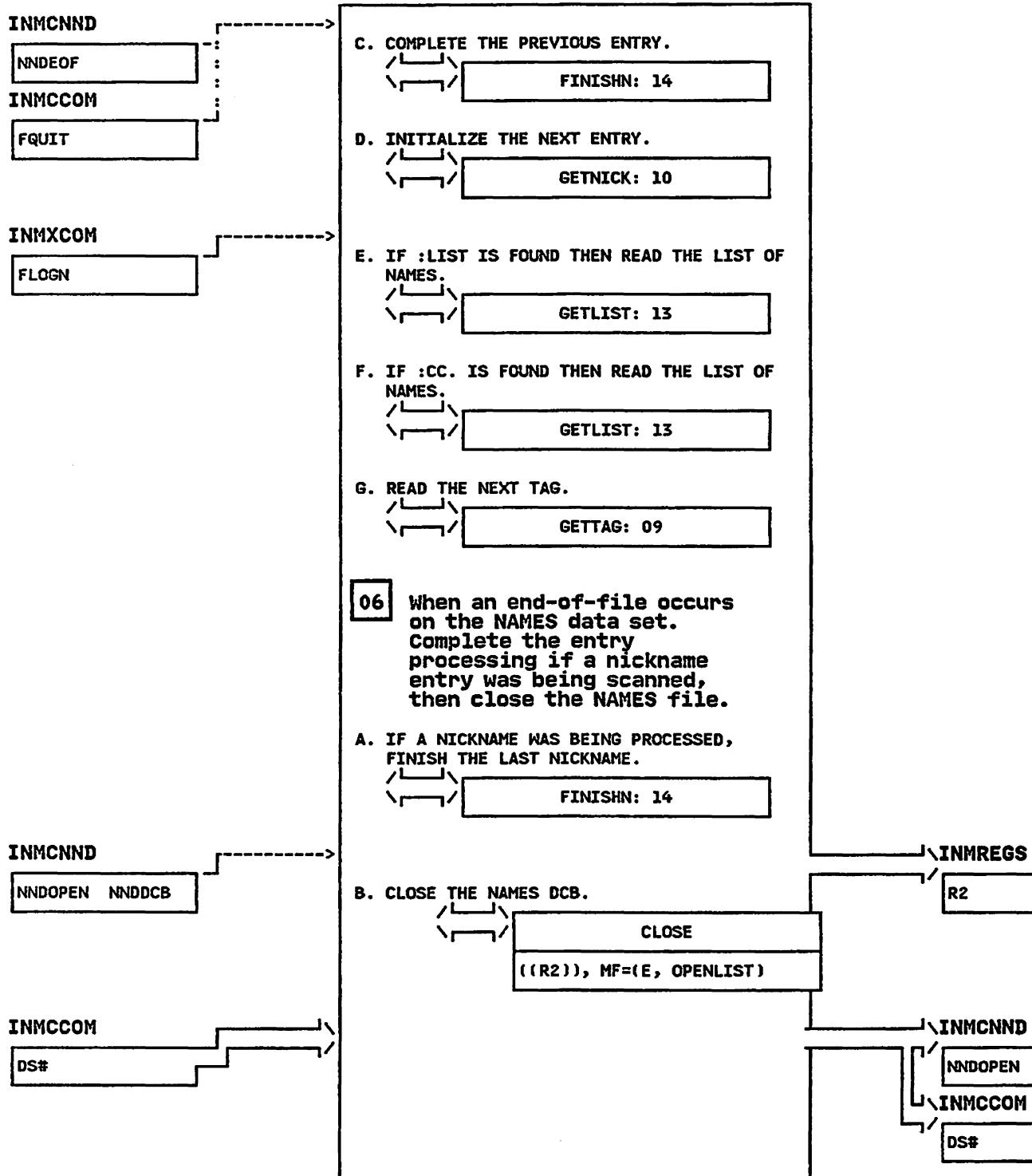
INMXQ - Transmit Nickname Resolution Routine.

STEP 04



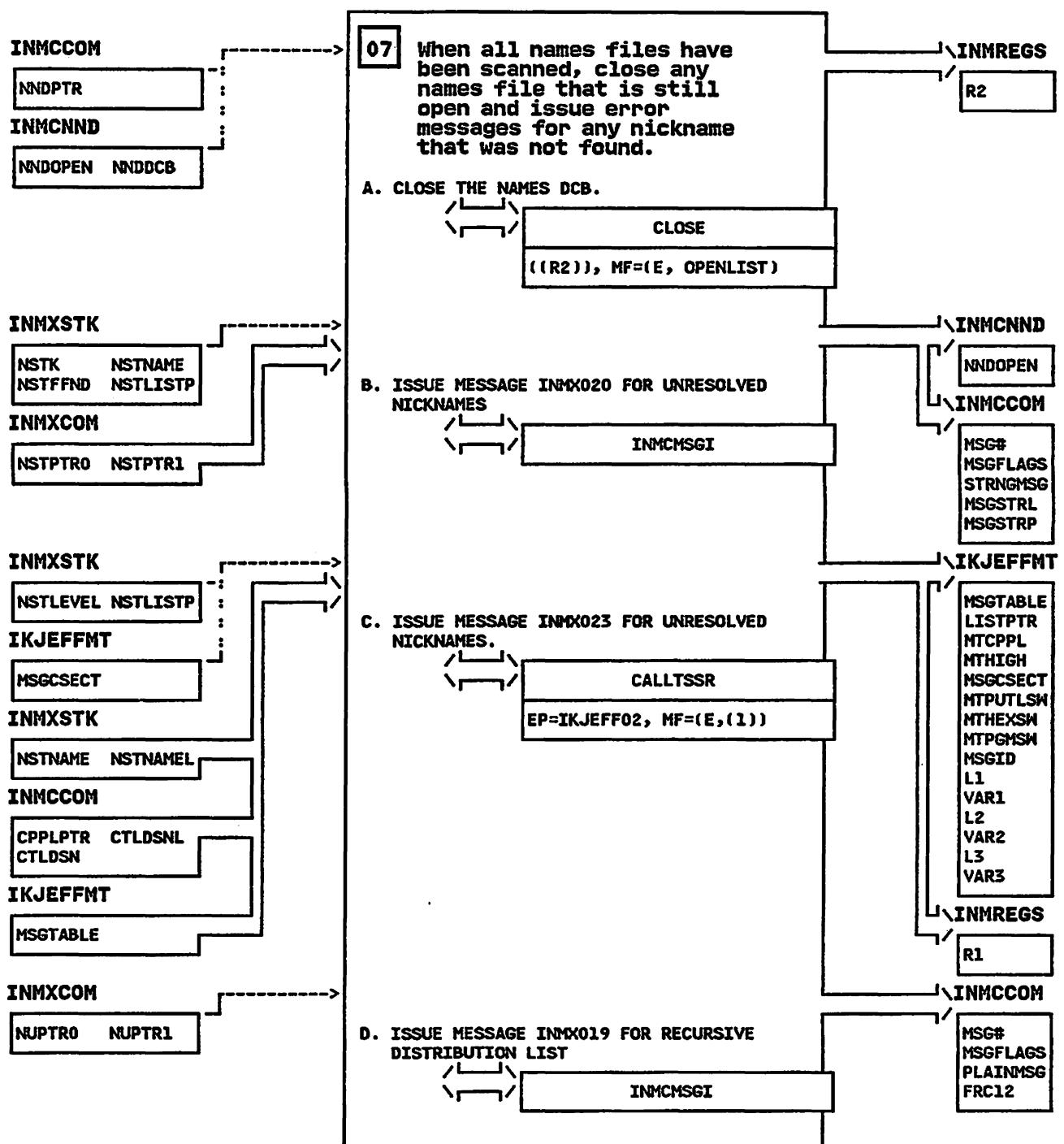
INMXQ - Transmit Nickname Resolution Routine.

STEP 05C



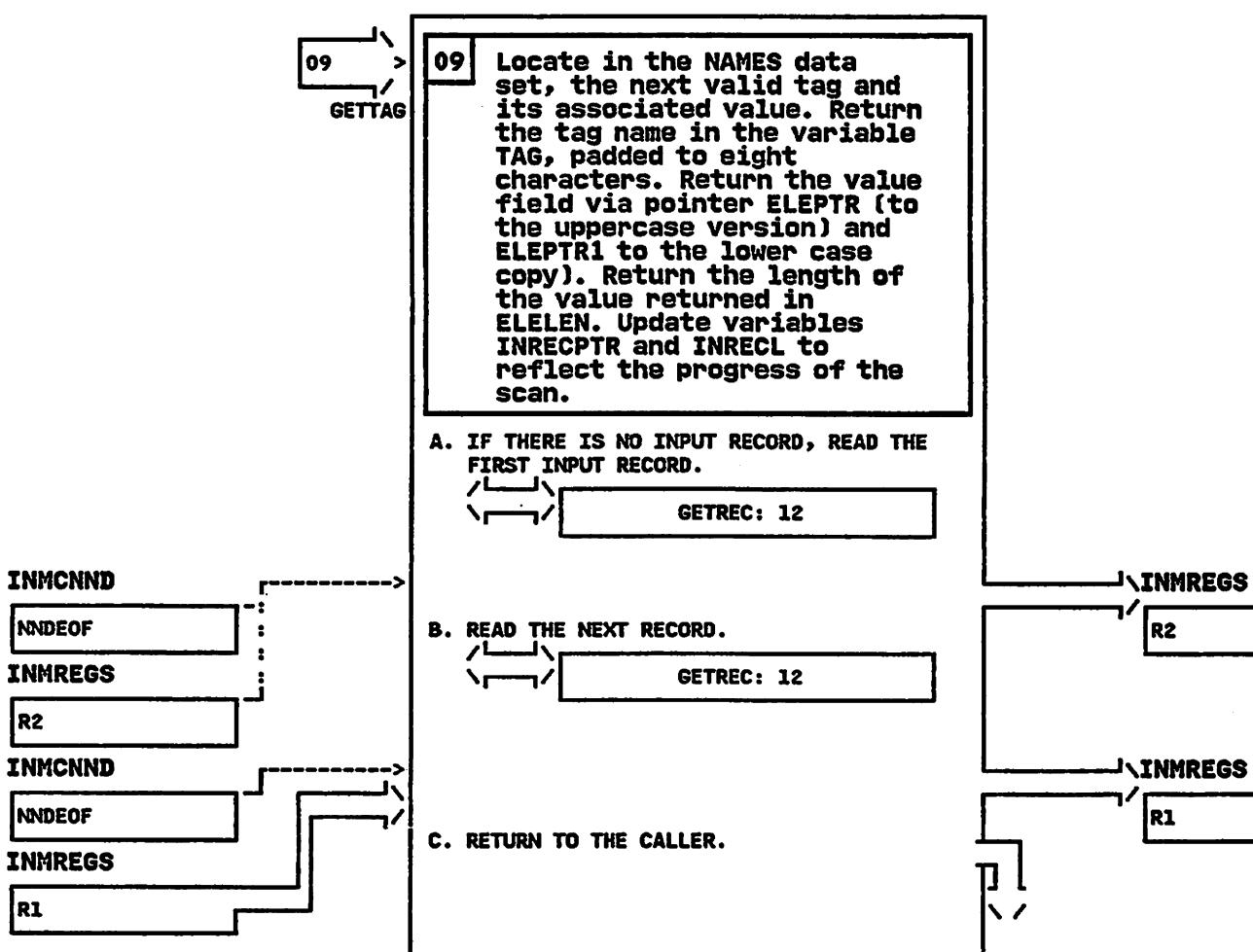
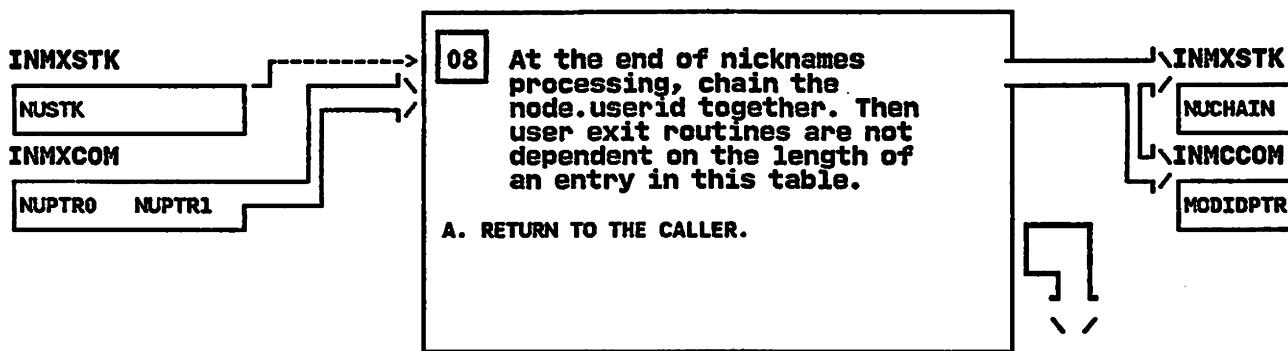
INMXQ - Transmit Nickname Resolution Routine.

STEP 07



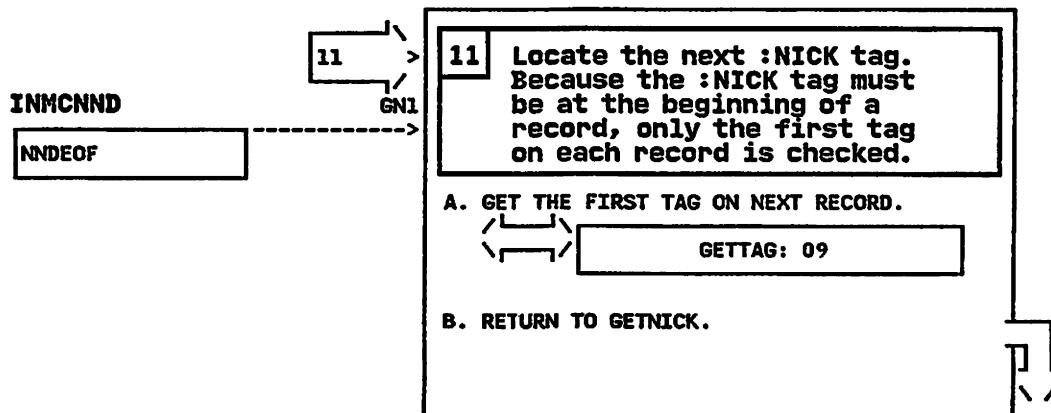
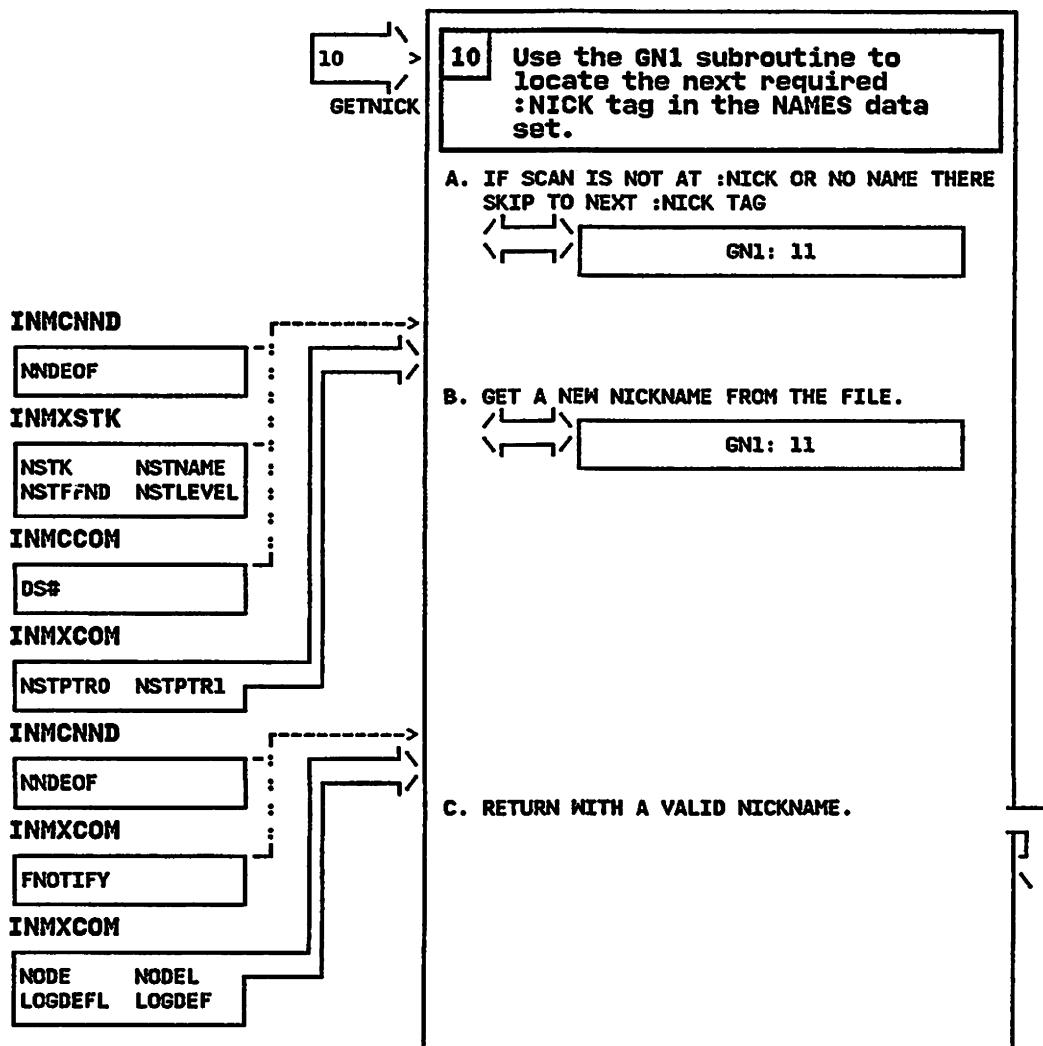
INMXQ - Transmit Nickname Resolution Routine.

STEP 08



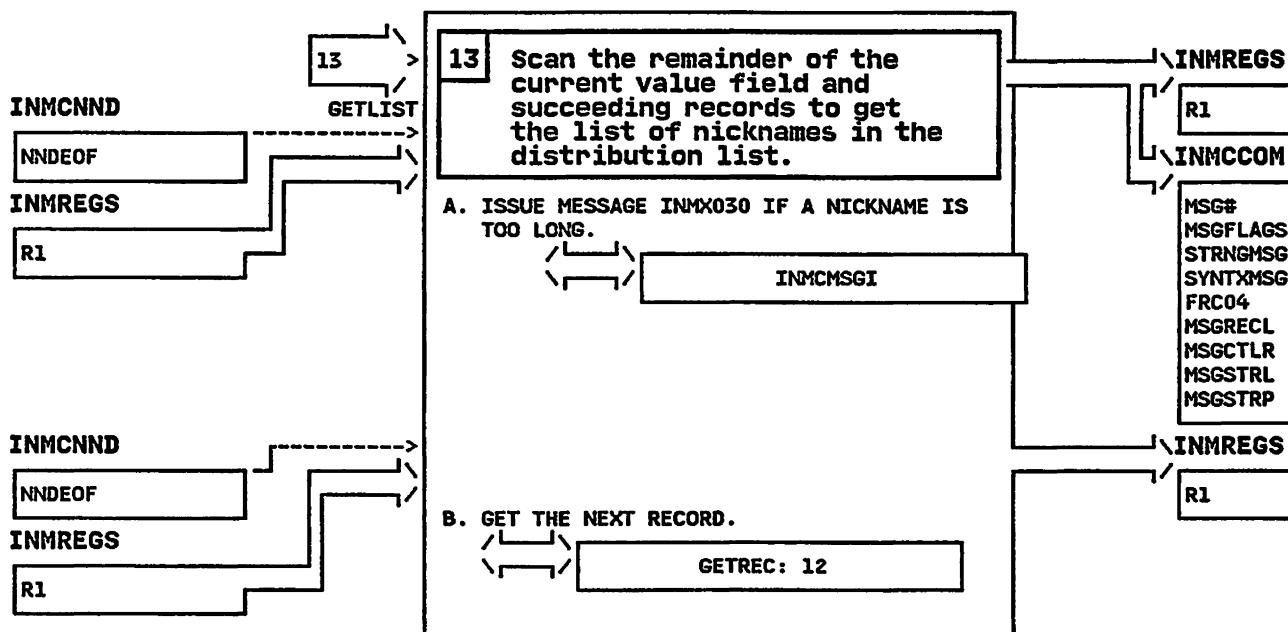
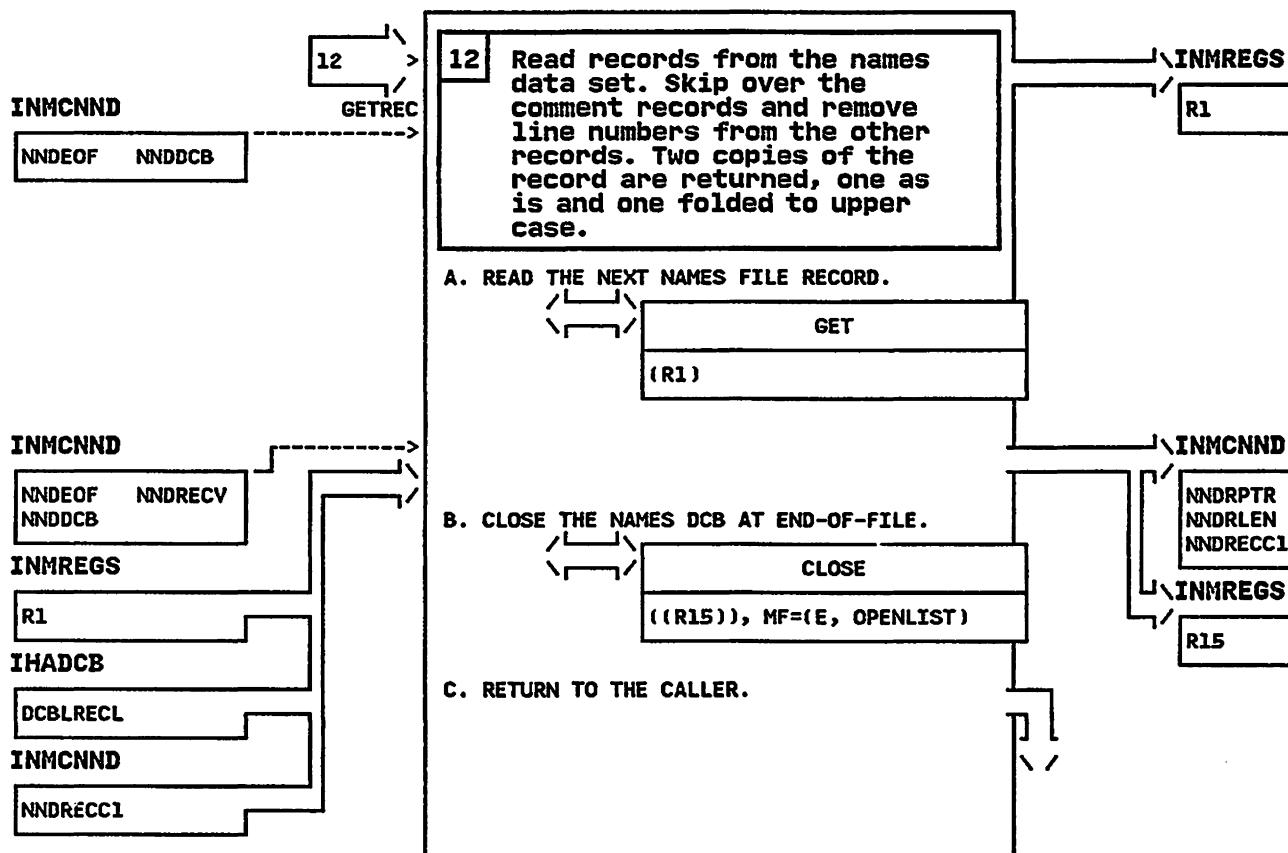
INMXQ - Transmit Nickname Resolution Routine.

STEP 10



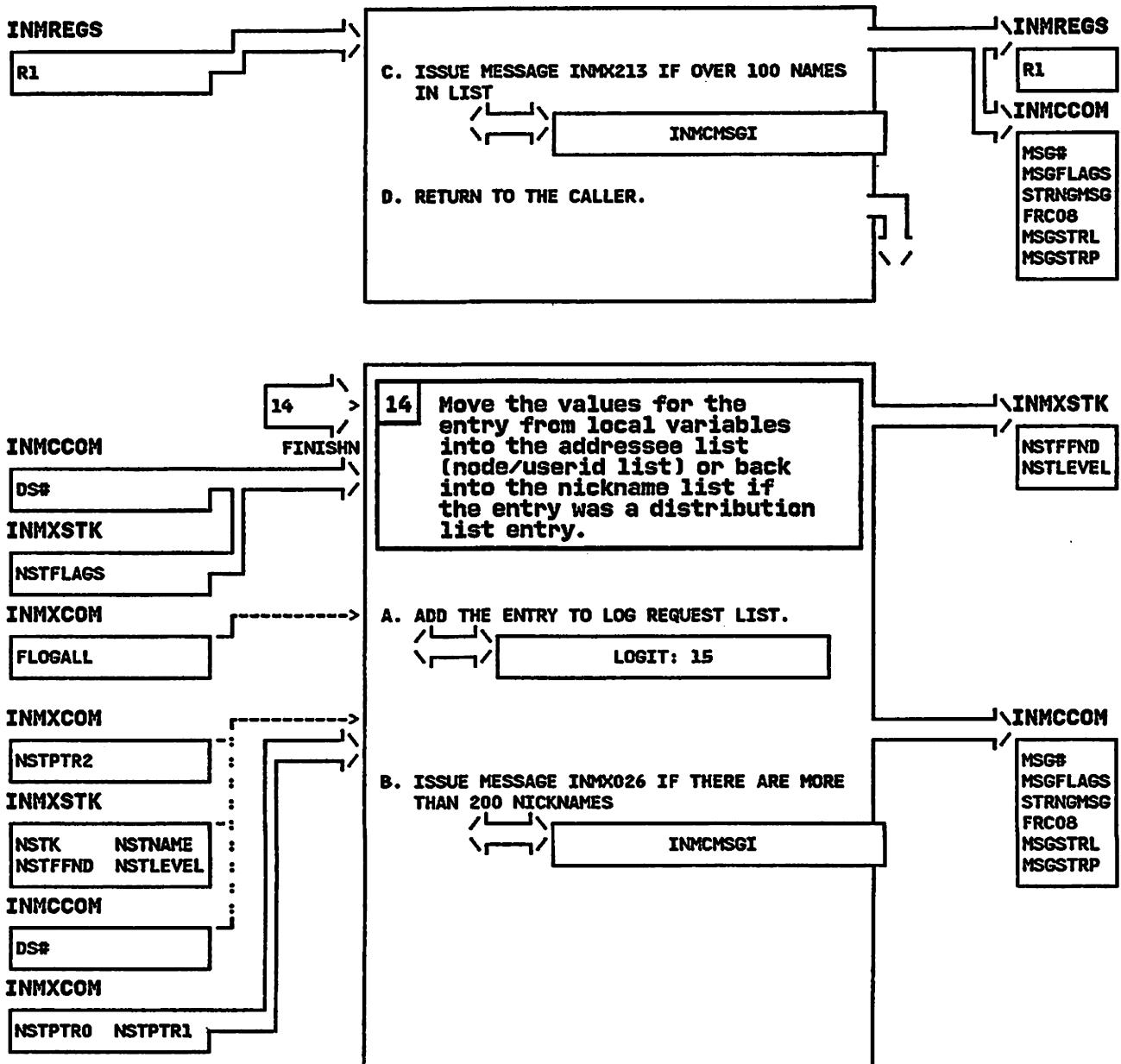
**INMXQ - Transmit Nickname Resolution Routine.**

**STEP 12**



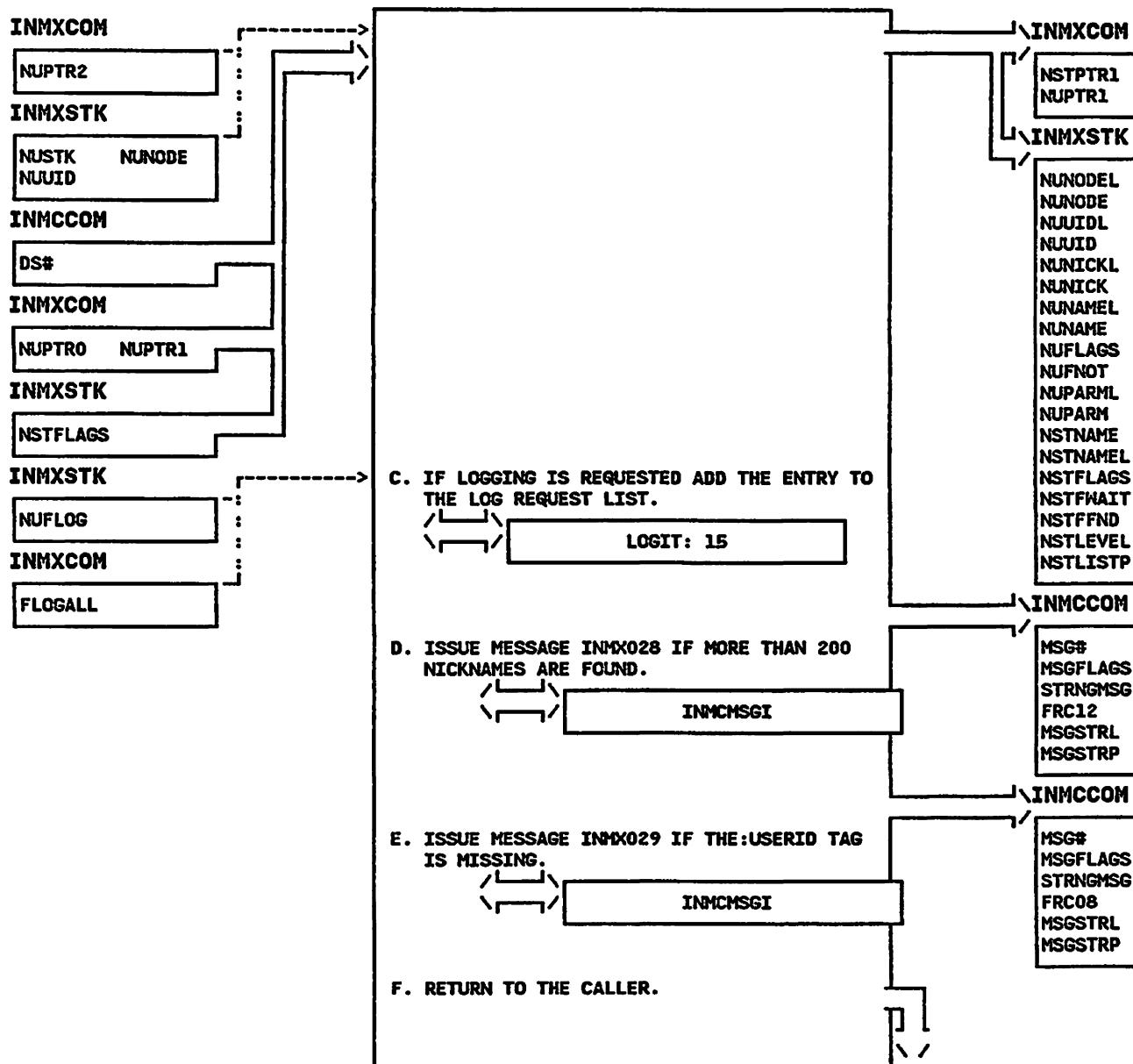
**INMXQ - Transmit Nickname Resolution Routine.**

**STEP 13C**



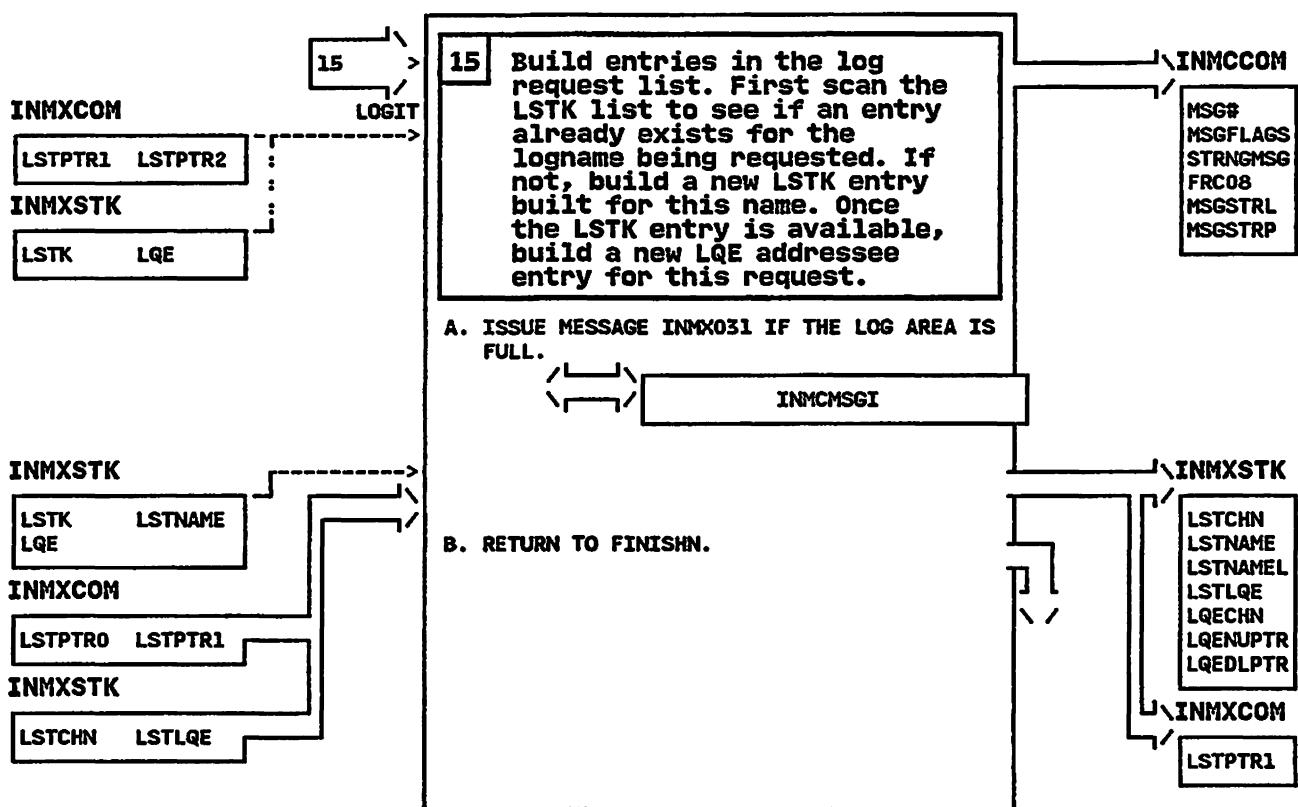
INMXQ - Transmit Nickname Resolution Routine.

STEP 14C



INMXQ - Transmit Nickname Resolution Routine.

STEP 15



**INMXR - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** TRANSMIT ABEND Cleanup Routine

**FUNCTION:**

INMXR issues ABEND apology messages to the user.

**ENTRY POINT:** INMXR

**PURPOSE:** See FUNCTION

**LINKAGE:** BALR FROM INMCR

**CALLERS:** INMCR

**INPUT:** CMDABEND field in INMCCOM has the ABEND code

**OUTPUT:** Message to the user giving the ABEND code

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**DATA AREAS:** INMCCOM - Common parameter structure

**CONTROL BLOCKS:** None

**"Contains Restricted Materials of IBM"  
Licensed Materials - Property of IBM**

**INMXR - MODULE OPERATION**

**INMXR receives control after an ABEND.  
It converts the abend code to printable  
format and issues messages to the user.**

**INMXR - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMXR**

**MESSAGES:**

INMX037I TRANSMIT COMMAND TERMINATED. ABEND **xxx**  
INMX038I REGISTER 15 VALUE AT ABEND WAS **xxxxxxxx**

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

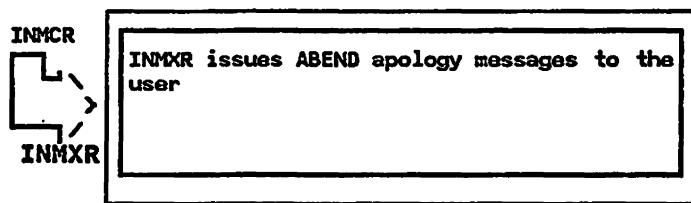
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unpredictable

"Contains Restricted Materials of IBM"  
Licensed Materials - Property of IBM

**INMXR - TRANSMIT ABEND Cleanup Routine**



## INMXTIN - MODULE DESCRIPTION

### DESCRIPTIVE NAME: Terminal Read Routine

#### FUNCTION:

INMXTIN reads terminal messages and data records of the TRANSMIT command. Depending on the terminal type and the specification of the LINE or FULLSCR keywords on the TRANSMIT command, INMXTIN uses either PUTGET or an internal full-screen process to read the data.

#### ENTRY POINT: INMXTIN

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMX

#### INPUT:

Control input is provided via the TRANSMIT command communications area INMXCOM. The following fields are used:

INPDCB (already OPEN), FMSG, Fxxxx

#### OUTPUT:

Records read from the terminal (or CLIST) are stored in buffers pointed to by TINPTR. The last entry is pointed to by TINEND.

EXIT NORMAL: BR 14 Return to caller

### EXTERNAL REFERENCES:

#### Routines:

The following are invoked via PLS CALL:  
INMCMSGI - Message issuing routine

The following are invoked via PUTGET:  
PUTGET - Read terminal input in line mode

The following are invoked via ATTENTION:  
INMCX - Attention handling routine for the TRANSMIT command

#### DATA AREAS:

INMXCOM - TRANSMIT Command communications area  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block

#### CONTROL BLOCKS: CPPL, ECT

#### TABLES: TINREC - In-memory buffer record

## INMXTIN - MODULE OPERATION

INMXTIN reads message data from the terminal and stores it in a structure that is used by other TRANSMIT subroutines. INMXTIN checks to see if the user's terminal is a multi-line terminal, and if so uses full-screen input code. Each full-screen pass consists of displaying any previously read data from the user and waiting for the user's response. INMXTIN modifies changed lines in the storage buffers, modifies the user's logical position, and makes the next display. If the user's terminal is a single-line terminal or if "LINE" was requested, INMXTIN uses PUTGET to read single lines from the terminal.

**INMXTIN - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMXTIN

**MESSAGES:**

.INMX090A ENTER 'xxxxxxxx'. ENTER NULL LINE OR '~~'  
TO STOP.  
.INMX091I END OF INPUT BUFFER HAS BEEN REACHED.  
A PARTIAL TRANSMISSION HAS BEEN SENT.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in the variable RC of  
the common parameter structure INMCCOM.

0 - Everything is normal.

**REGISTER CONTENTS ON ENTRY:**

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

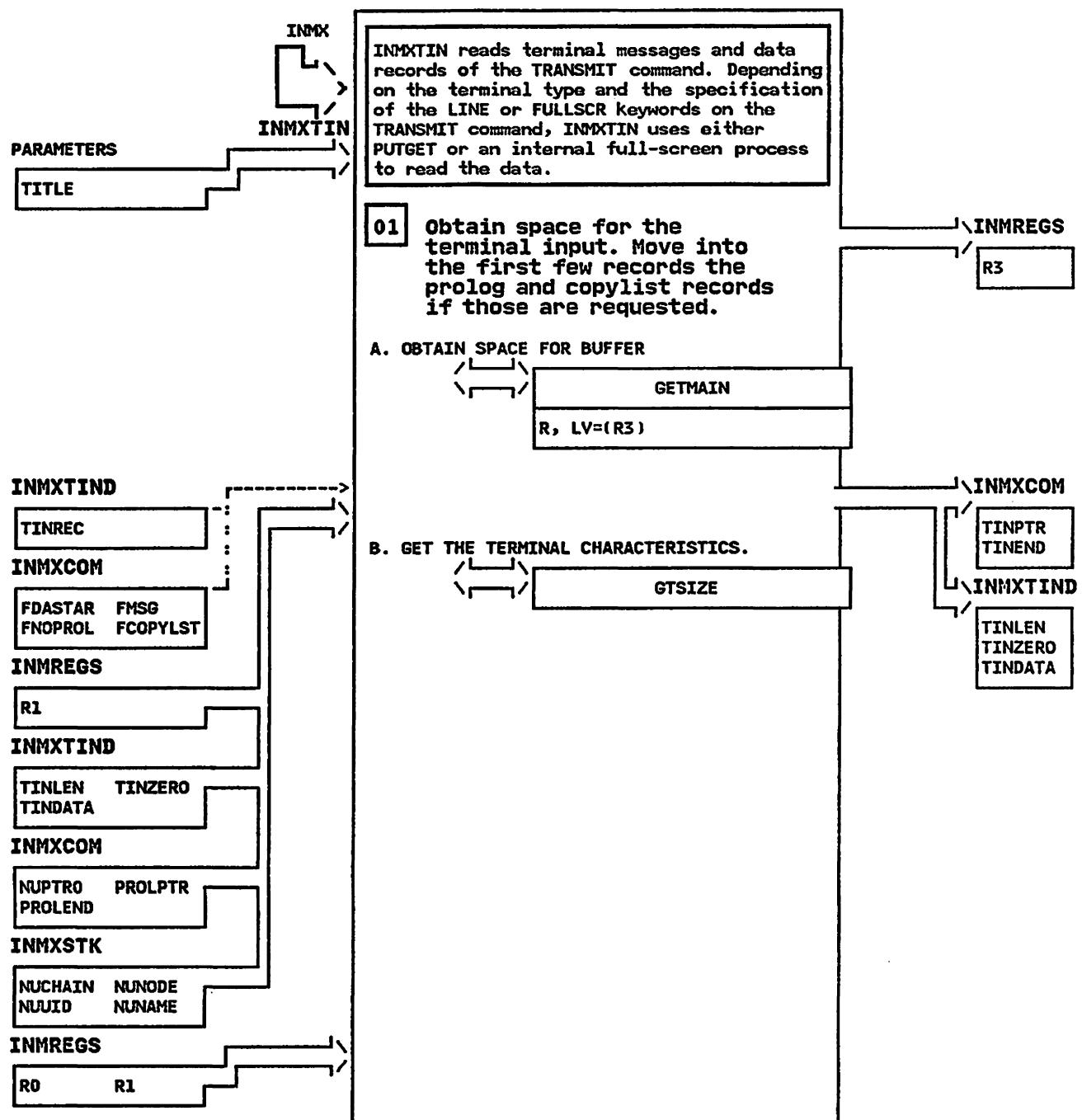
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

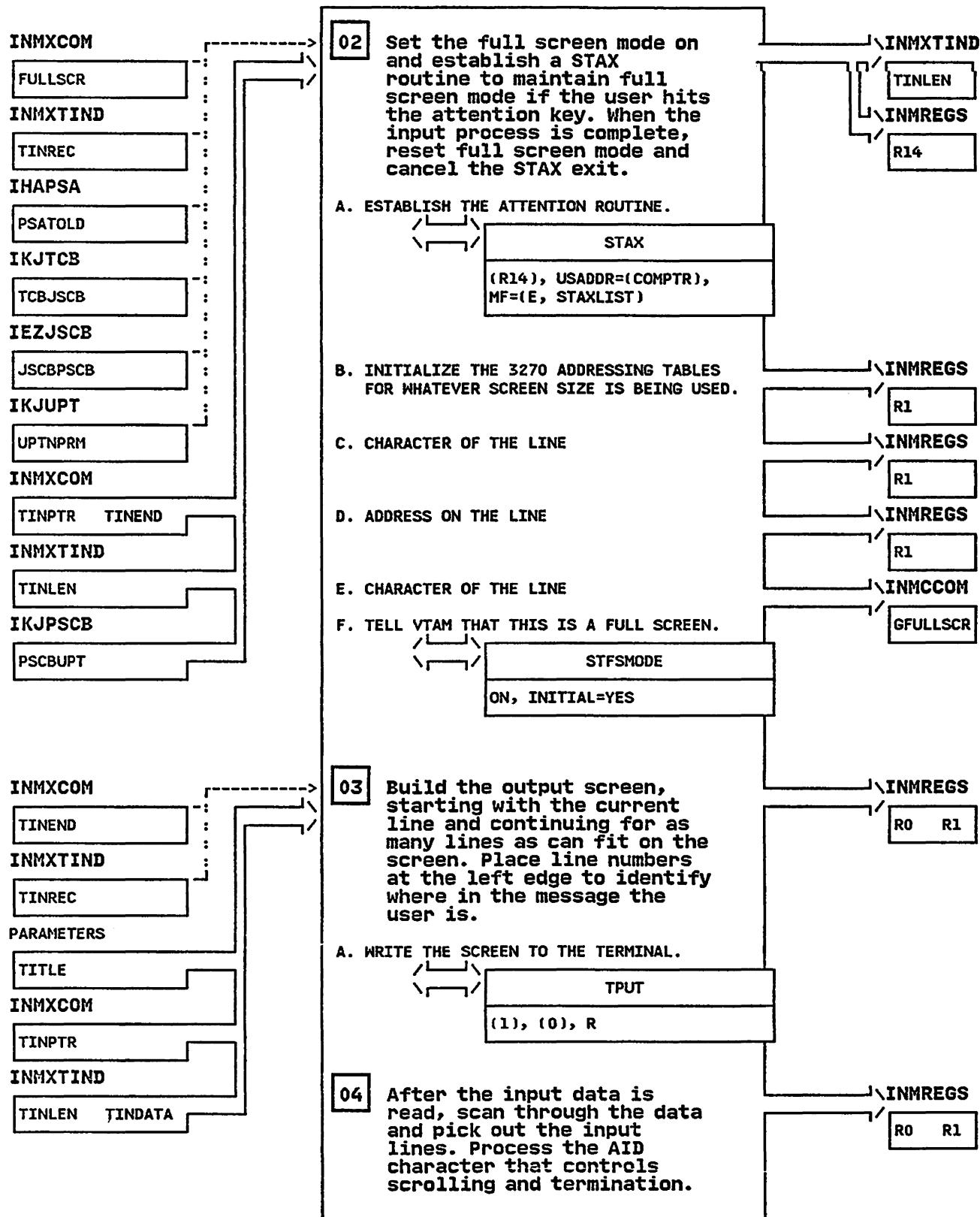
INMXTIN - Terminal Read Routine

STEP 01



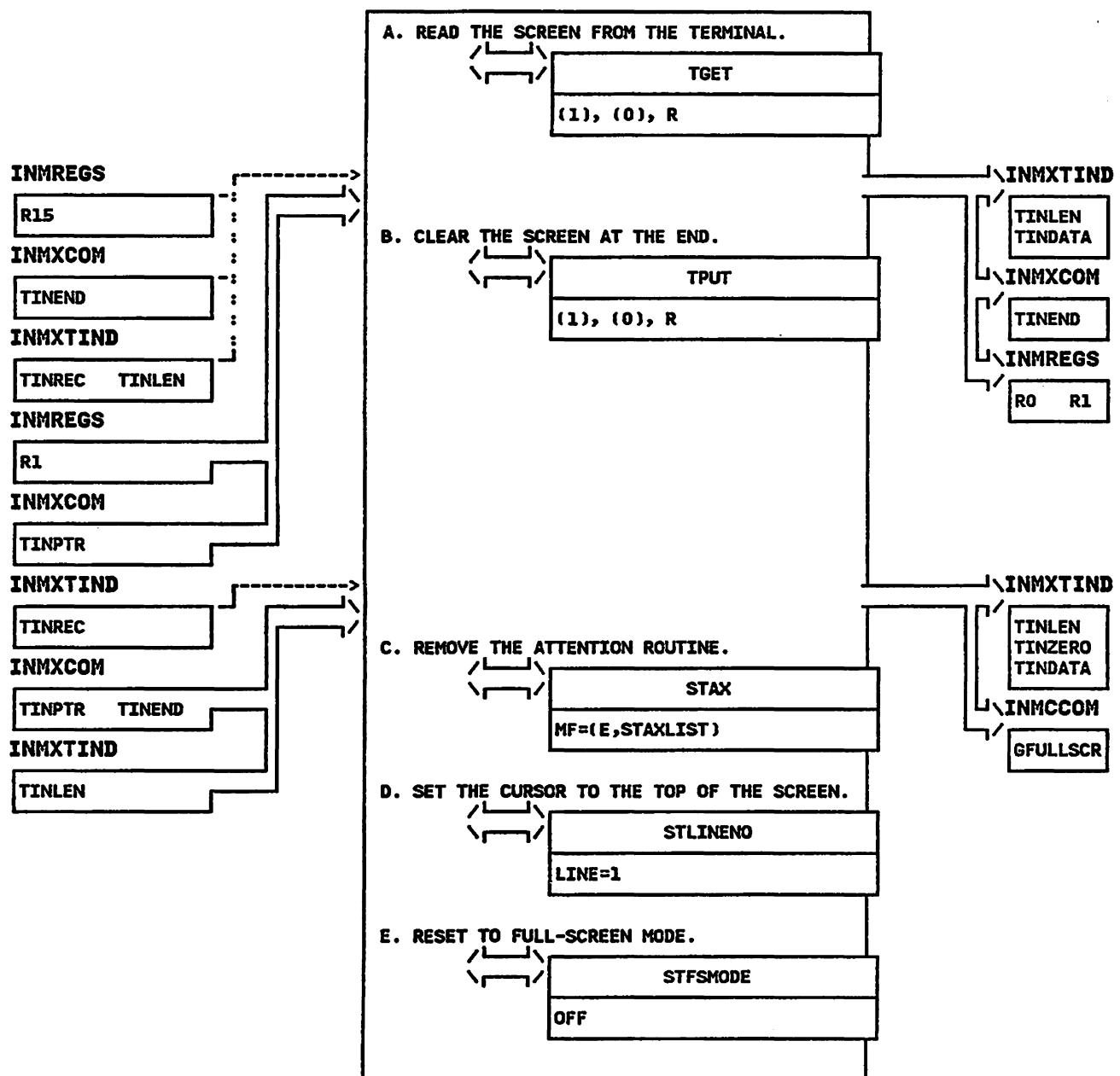
INMXTIN - Terminal Read Routine

STEP 02



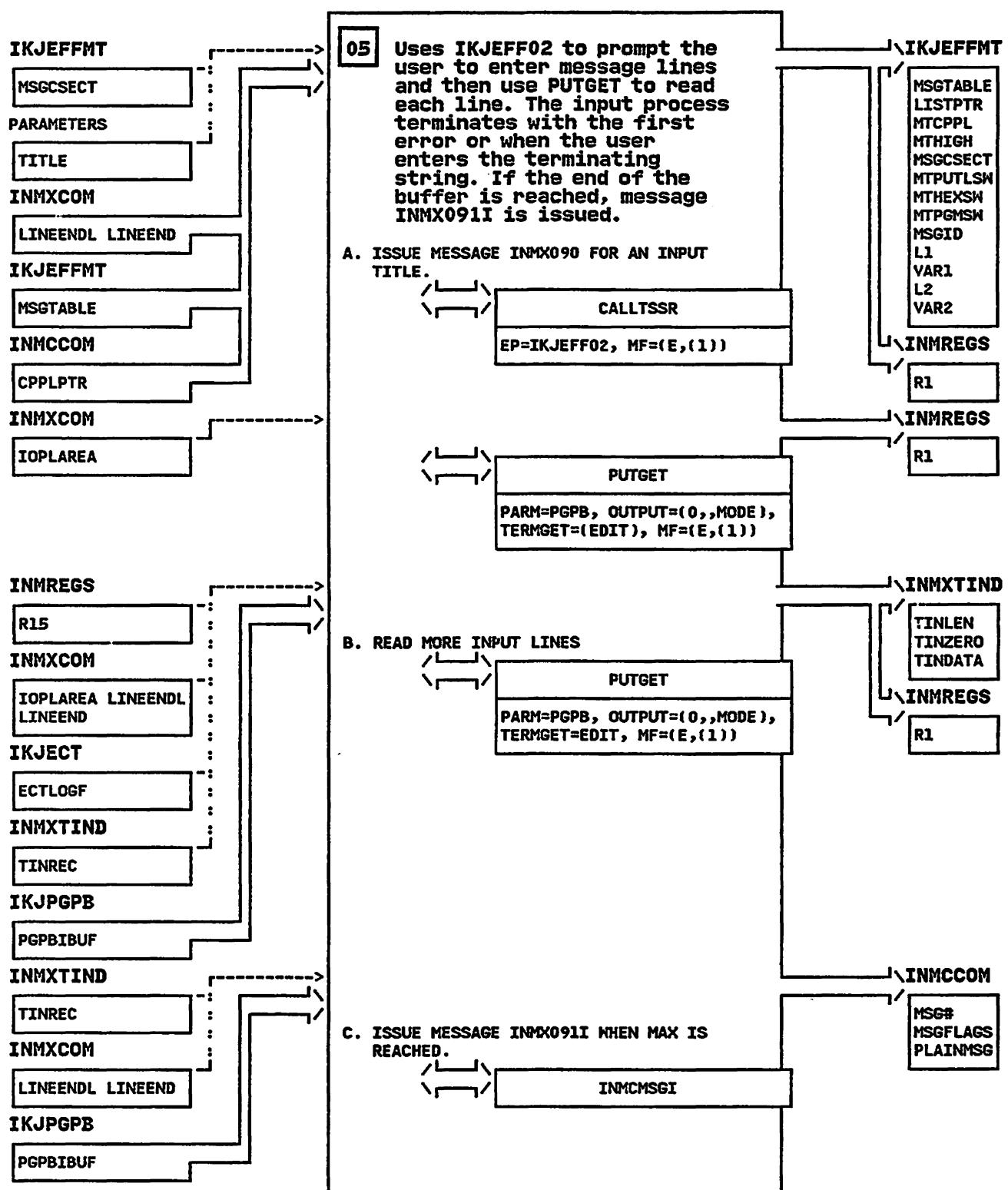
INMXTIN - Terminal Read Routine

STEP 04A



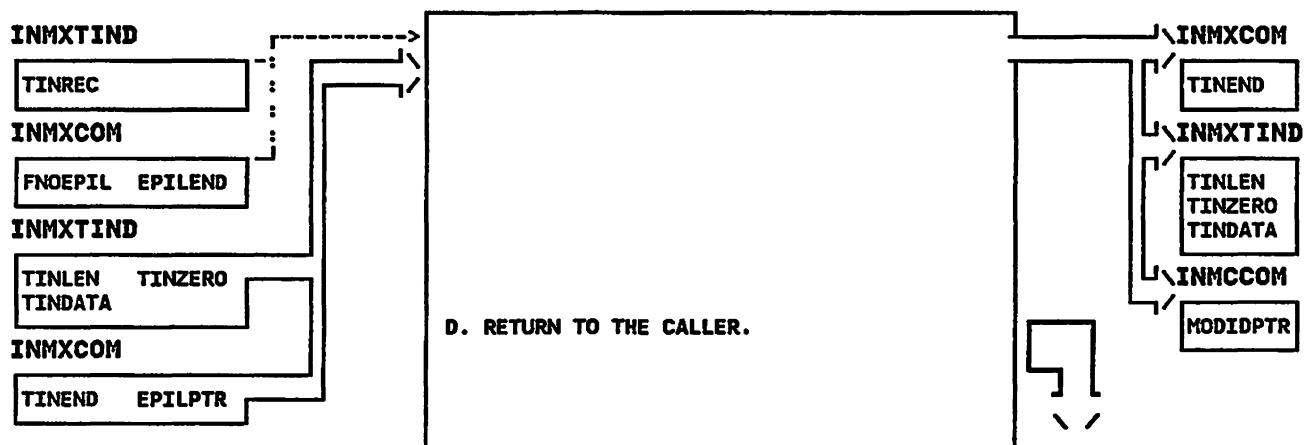
INMXTIN - Terminal Read Routine

STEP 05



INMXTIN - Terminal Read Routine

STEP 05D



## INMXUINP - MODULE DESCRIPTION

### DESCRIPTIVE NAME: TRANSMIT Command Scan Routine

#### FUNCTION:

INMXUINP performs the syntax scan of the TRANSMIT command operands. INMXUINP uses the IKJPARS command parse routine to perform syntax scanning and then moves the values into the TRANSMIT command communications area.

#### ENTRY POINT: INMXUINP

PURPOSE: See FUNCTION

LINKAGE: PLS CALL

CALLERS: INMXM

#### INPUT:

All input is provided via the TRANSMIT command communications area INMXCOM. The following fields are used:

CPPLPTR (for IKJPARS parameters and the command buffer)

OUTPUT: Values set in INMXCOM

EXIT NORMAL: BR 14 Return to caller

#### EXTERNAL REFERENCES:

##### ROUTINES:

The following are invoked via PLS CALL:  
INMMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJPARS - Command parse routine

##### DATA AREAS:

INMXCOM - TRANSMIT communications area  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block  
INMPDL - Parameter description list

##### CONTROL BLOCKS:

CVT, PSA, ASCB,  
IEFBZB4D0, IEFZB4D2,  
CPPL, PPL, ECT, UPT

TABLES: TRTBLL - Translate table for userid verification

## INMXUINP - MODULE OPERATION

INMXUINP performs the following functions:

- (1) Build the IKJPARS parameter list and pass the user's command to IKJAPRS.
- (2) Move values extracted by IKJPARS into local variables (in INMXCOM).
- (3) Release IKJPARS space.

## INMXUINP - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMXUINP

### MESSAGES:

INMX092I TRANSMIT COMMAND TERMINATED. FAILURE IN  
COMMAND SYNTAX CHECKING.  
INMX094I THE COMMAND WAS INCOMPLETE BUT PROMPTING  
WAS NOT ALLOWED.  
INMX035I ENCIPHER WAS SPECIFIED BUT HAS BEEN  
DISABLED BY YOUR INSTALLATION.  
INMX036I KEYWORDS 'SEQUENTIAL' AND 'MEMBERS'  
CONFLICT. 'SEQUENTIAL' IS IGNORED.

ABEND CODES: None

WAIT STATE CODES: None

### RETURN CODES:

EXIT NORMAL:

Return code is set in the variable FQUIT of  
the common parameter structure INMCCOM.

0 - Everything is normal.  
12 - Bad return code from IKJPARS.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

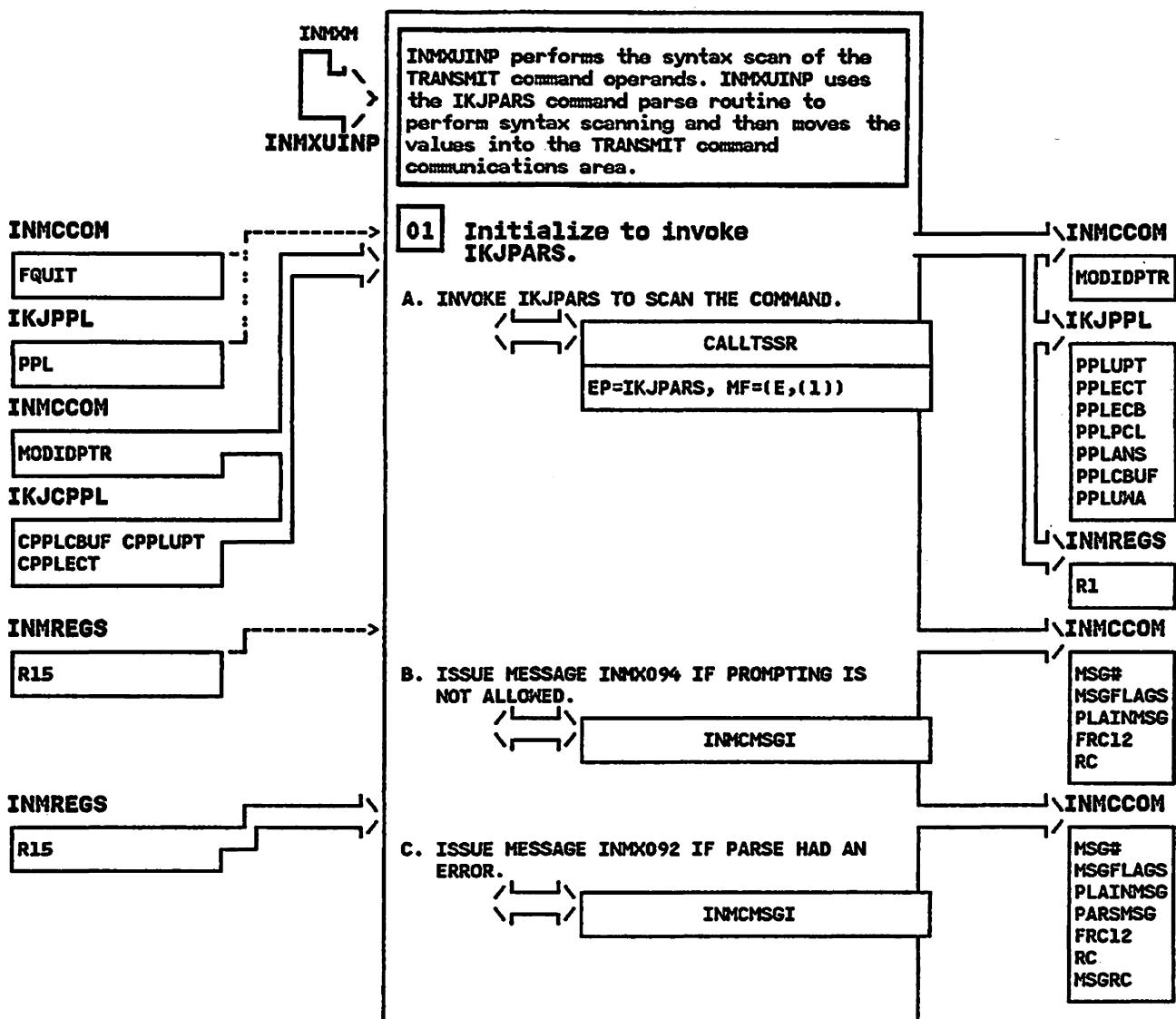
### REGISTER CONTENTS ON EXIT:

EXIT NORMAL:

Register 15 - Always zero  
Other - Unchanged

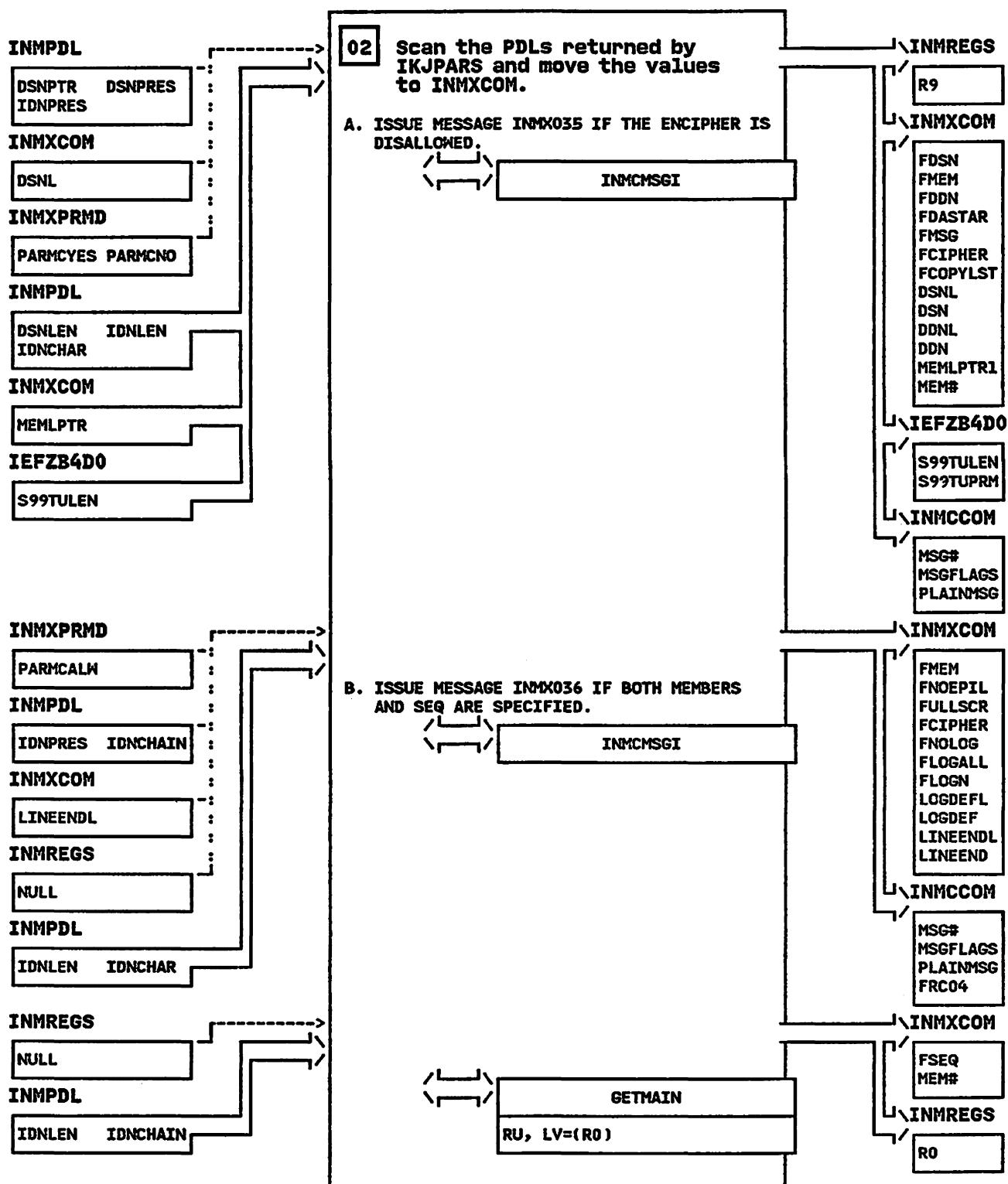
INMXUINP - TRANSMIT Command Scan Routine

STEP 01



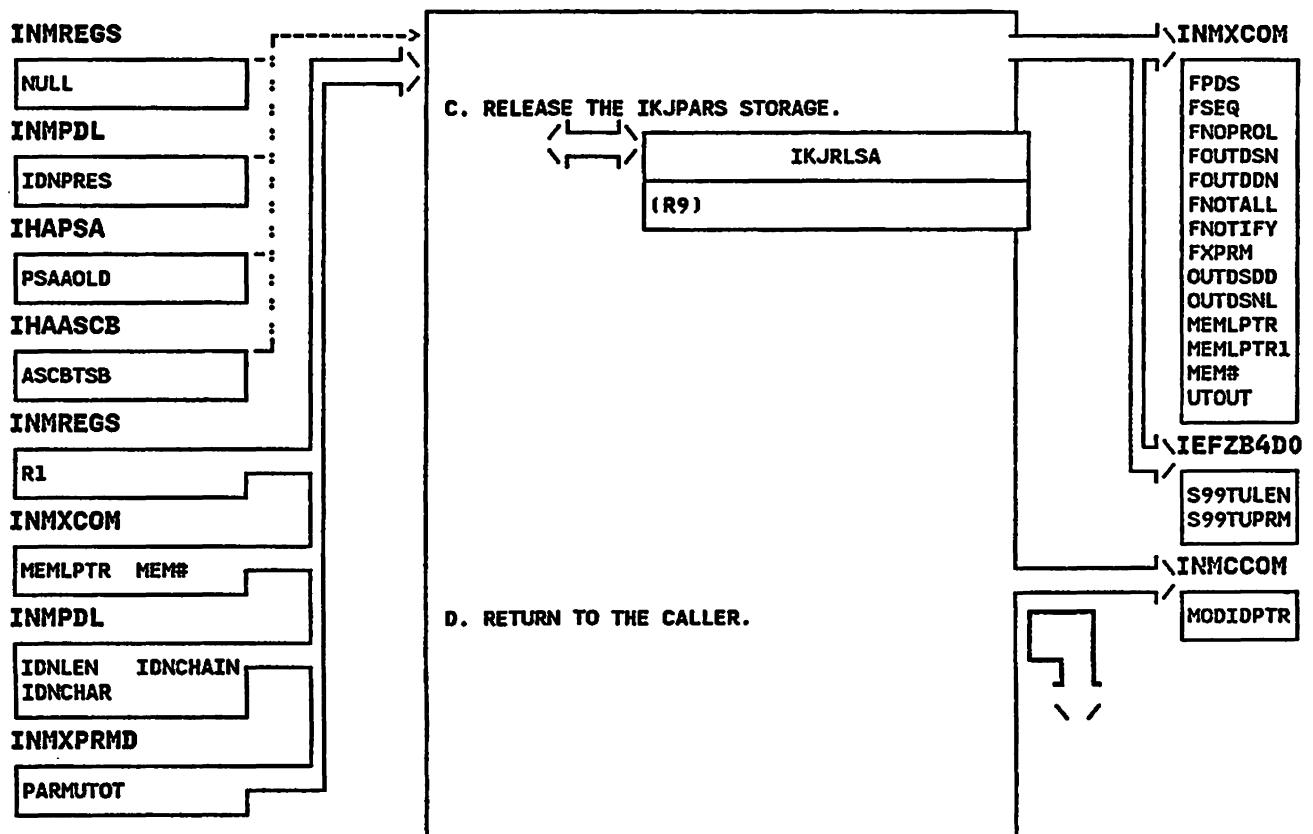
INMXUINP - TRANSMIT Command Scan Routine

STEP 02



INMXUINP - TRANSMIT Command Scan Routine

STEP 02C



**INMXV - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** Address Validity Check Routine

**FUNCTION:**

INMXV is the IKJPARS validity check routine for the addressee list. INMXV looks at each addressee list element, decides if it is a nickname or a node and userid, then adds it to the proper internal list.

**ENTRY POINT:** INMXV

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** IKJPARS

**INPUT:**

The PDE built by IKJPARS for the TO (DESTINATION) keyword and a pointer to the common parameter structure INMCCOM.

**OUTPUT:**

A return code indicating whether IKJPARS should re-prompt or not. If a nickname was entered, the NICKNAME and FPRIVATE fields in the TRANSMIT communications area (INMXCOM) will have been set.

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**DATA AREAS:**

INMXSTK - Addressee table descriptions  
INMCCOM - Common parameter structure  
INMXCOM - The TRANSMIT communications area

**CONTROL BLOCKS:** CPPL, PSCB

**INMXV - MODULE OPERATION**

Scan the value specified by the user.  
If it contains a slash or period, assume it  
to be of the format node/userid.  
Otherwise, assume it to be a nickname (or  
possibly a distribution list). Add addressee  
elements to the corresponding internal after  
checking the syntax.

**INMXV - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMXV

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code set in register 15.

0 - The parameter is accepted.

4 - IKJPARS should re-prompt for the parameter.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Address of the PDE to be checked

Register 13 - Save area address

Register 14 - Return address

Register 15 - Entry point address

Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

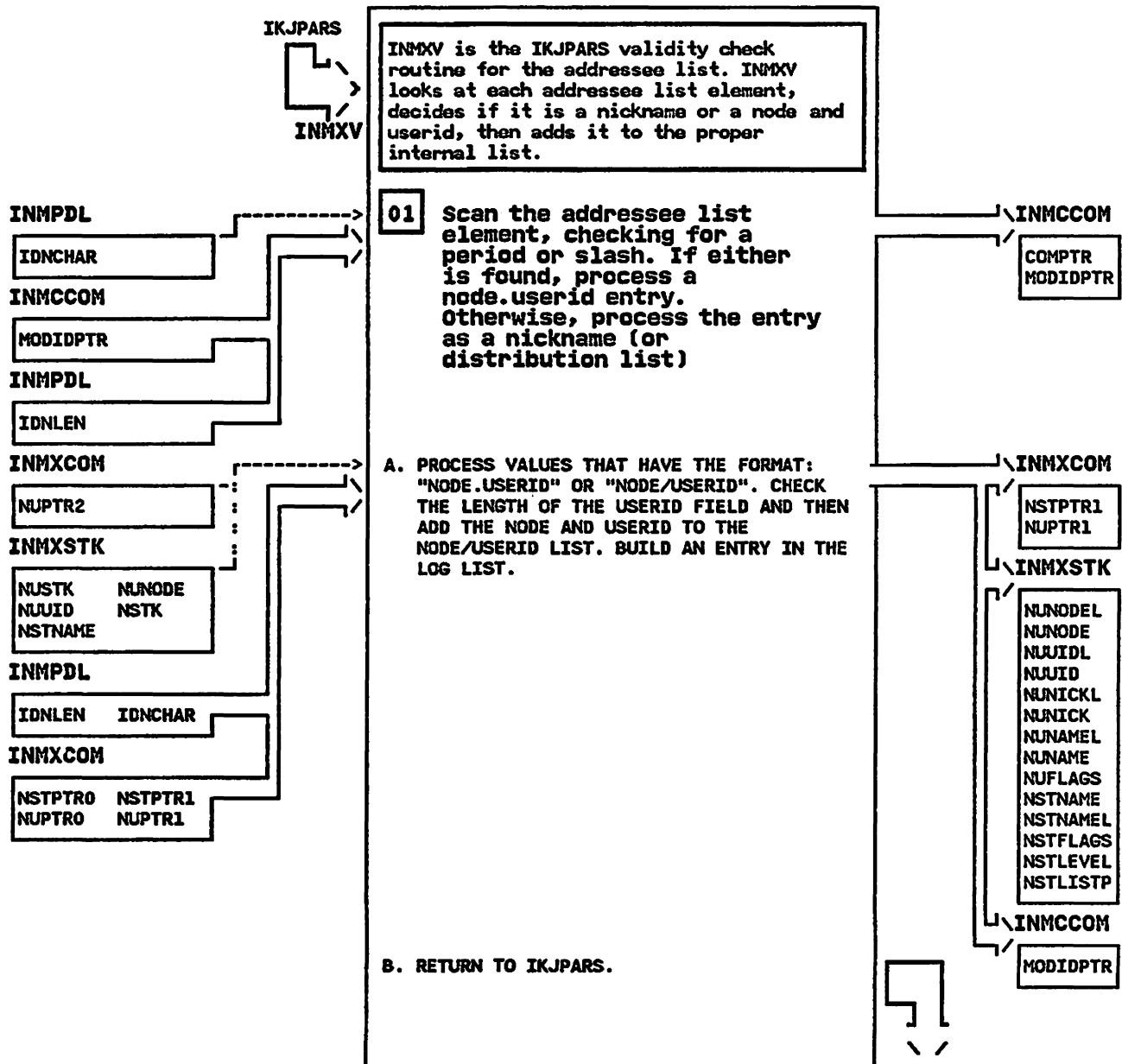
**EXIT NORMAL:**

Register 15 - Return code

Other - Unchanged

INMXV - Address Validity Check Routine

STEP 01



## INMXXMIT - MODULE DESCRIPTION

**DESCRIPTIVE NAME:** Sequential File Transmit Routine

**FUNCTION:**

INMXXMIT gets control from INMXM once for each addressee. INMXXMIT invokes INMXO to build the header records (and possibly accompanying message records). INMXXMIT then transmits the data records.

**ENTRY POINT:** INMXXMIT

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMXM

**INPUT:**

All input is provided via the TRANSMIT command communications area INMXCOM. Primary inputs are the input DCB and the information for building control records.

**OUTPUT:**

Data file and control records written to the output file.

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCISGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

**DATA AREAS:**

INMXCOM - TRANSMIT command communications area  
INMCCOM - Common parameter structure  
INMXPRMD - Installation options block

**CONTROL BLOCKS:** CVT, DCB, IKJEFFMT

**TABLES:**

OBUF - Output buffer format  
OUTREC - Output record format  
LOGBUFR - Log record buffer  
IBUF - Input record buffer  
SPANBUFR - Spanned record input buffer

## INMXXMIT - MODULE OPERATION

INMXXMIT performs the following functions:

- 1) Invoke INMXO to build and transmit the control records.
- 2) Issue OPEN for the input data set if that has not already been done.
- 3) Segment and transmit the data records.
- 4) Build and transmit the INMR06 trailer record.
- 5) Close and deallocate the output file.

## INMXXMIT - DIAGNOSTIC AIDS

ENTRY POINT NAME: INMXXMIT

### MESSAGES:

INMX000I nn MESSAGE AND nn DATA RECORDS SENT AS  
nn RECORDS TO node.userid  
INMX032I TRANSMIT COMMAND TERMINATED. TRANSMISSION  
LIMIT OF nn RECORES EXCEEDED  
INMX033I YOU HAVE EXCEEDED THE MAXIMUM  
TRANSMISSION SIZE SET BY YOUR  
INSTALLATION.  
INMX034I WARNING: nn RECORES TRANSMITTED. YOUR  
INSTALLATION LIMIT IS nn.  
INMX060I TRANSMIT COMMAND TERMINATED. INPUT  
DATASET UNUSABLE.  
INMX062I OPEN FAILED FOR DATASET dsname.  
INMX083I TRANSMIT COMMAND TERMINATED. THE OPEN  
FAILED ON FILE PASSED FROM IEBCOPY OR  
AMS REPRO.

### ABEND CODES:

OAF Reason Code: 83 OPEN failed for the  
utility file.

### WAIT STATE CODES: None

### RETURN CODES:

#### EXIT NORMAL:

Return code set in the variable FQUIT of  
the TRANSMIT command communications area  
INMXCOM.

- 0 - Everything is normal.
- 8 - An error occurred in this transmission.
- 12 - A terminating error occurred.

### REGISTER CONTENTS ON ENTRY:

Register 8 - Address of INMCCOM  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

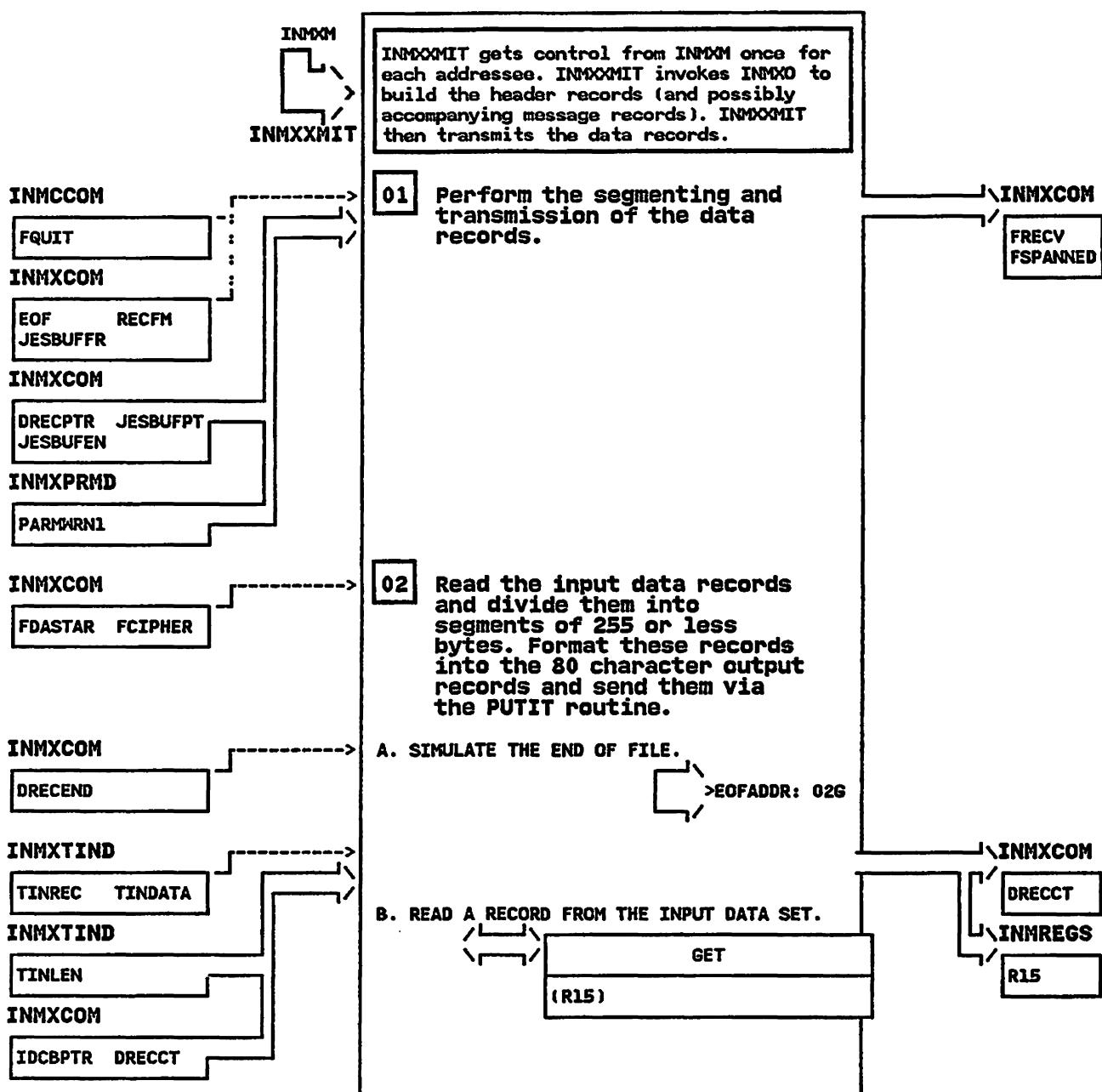
### REGISTER CONTENTS ON EXIT:

#### EXIT NORMAL:

Register 15 - Always zero  
Other - Unchanged

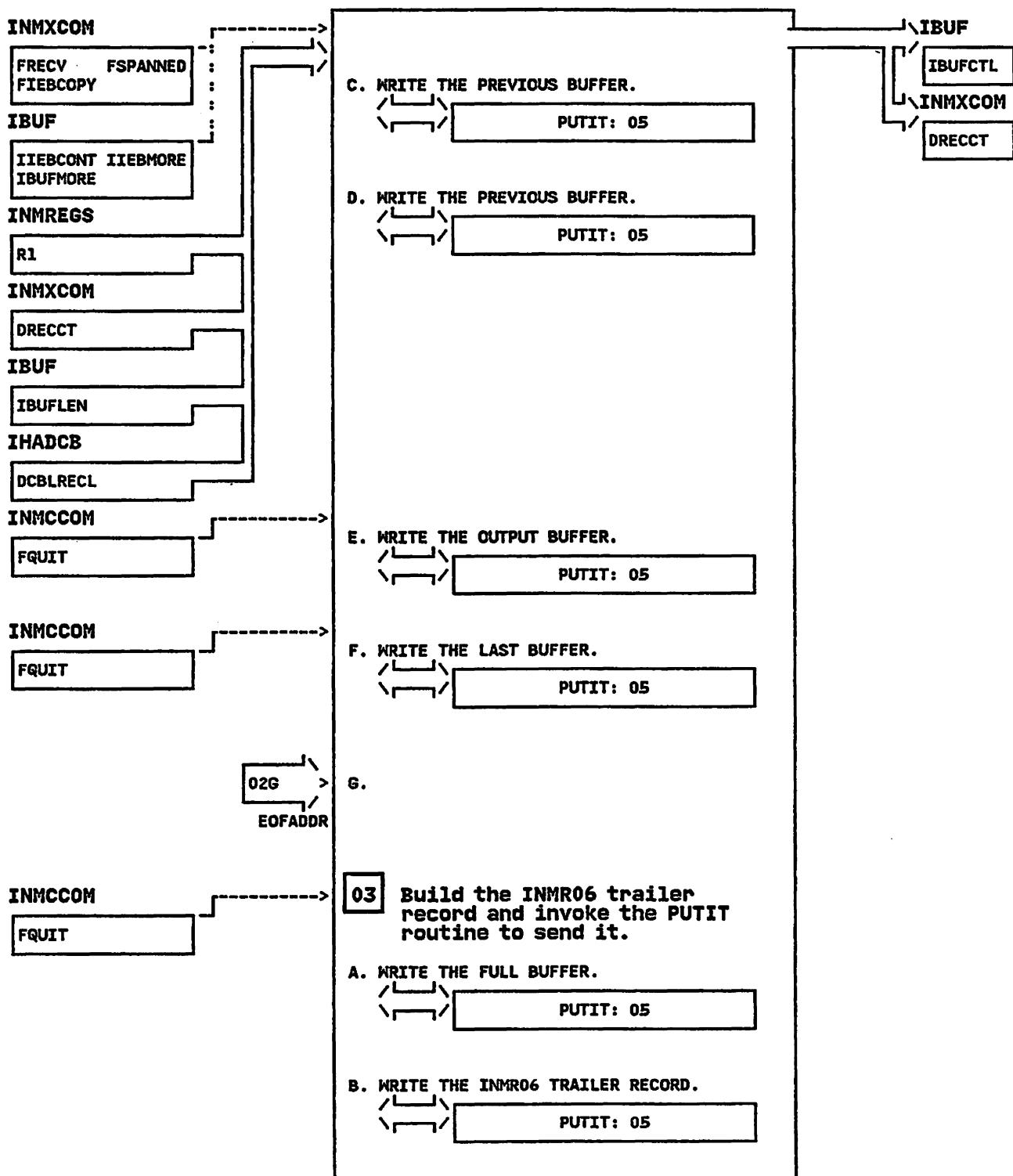
INMXXMIT - Sequential File Transmit Routine

STEP 01



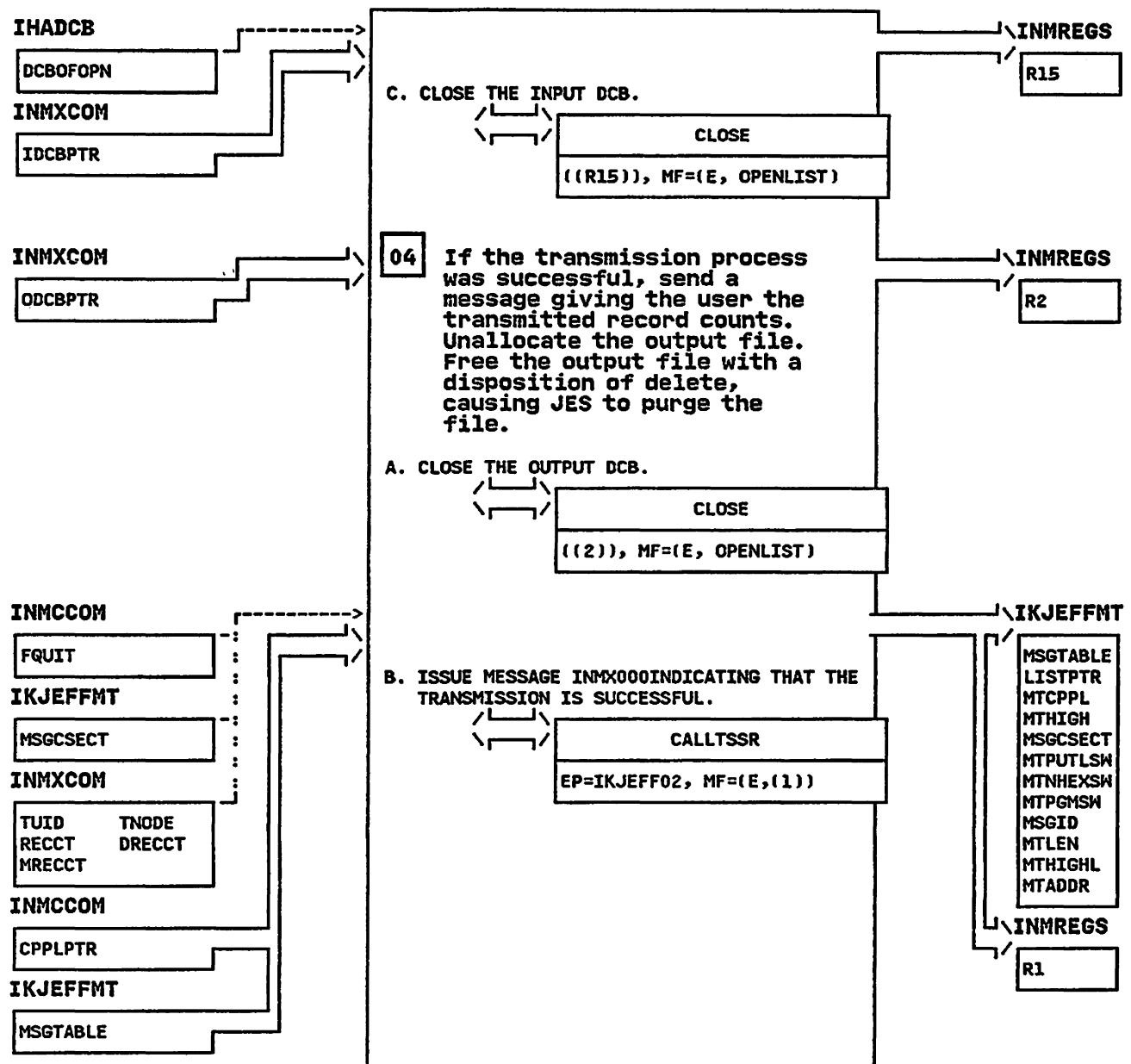
INMXXXMIT - Sequential File Transmit Routine

STEP 02C



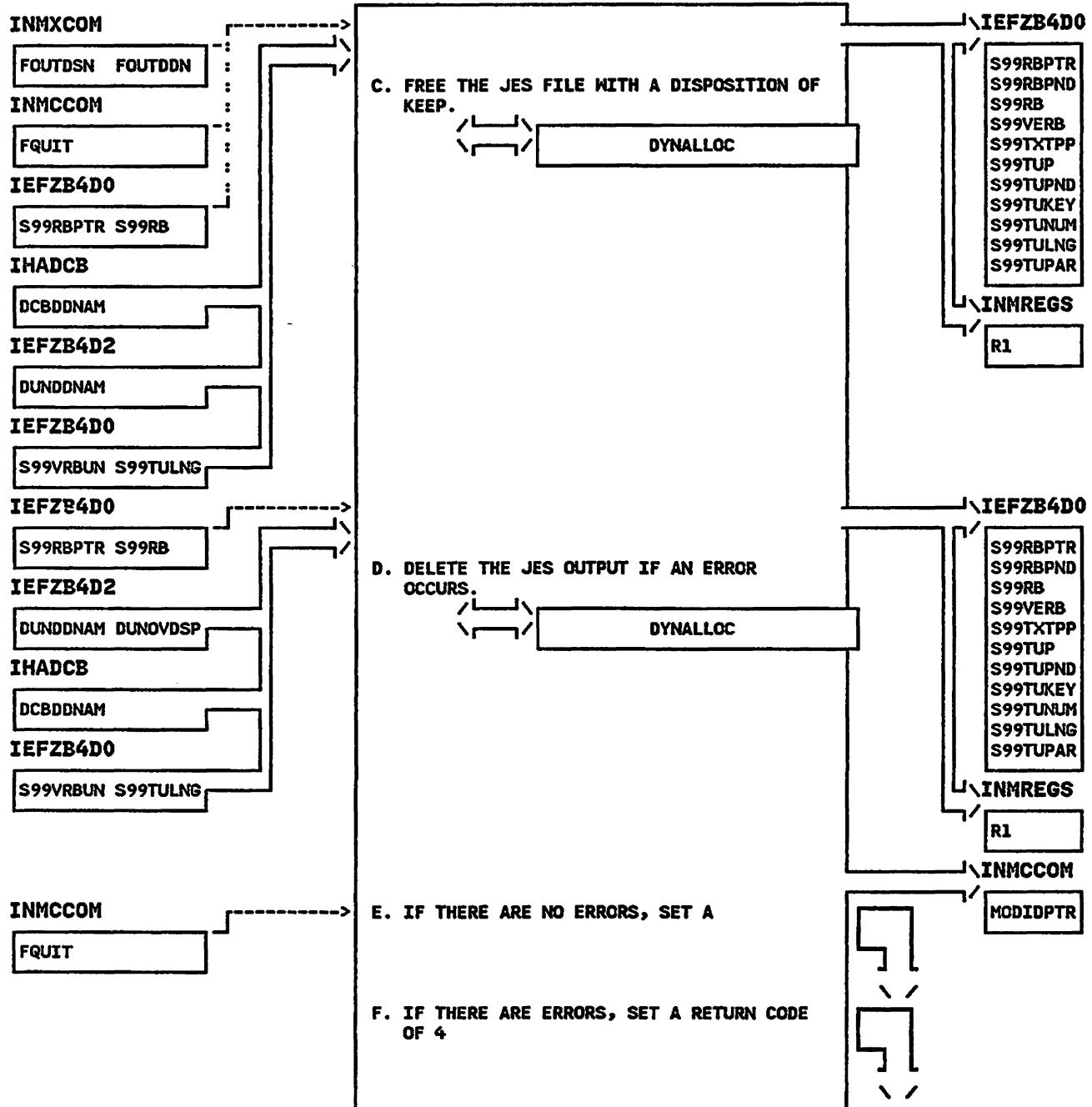
INMXXMIT - Sequential File Transmit Routine

STEP 03C



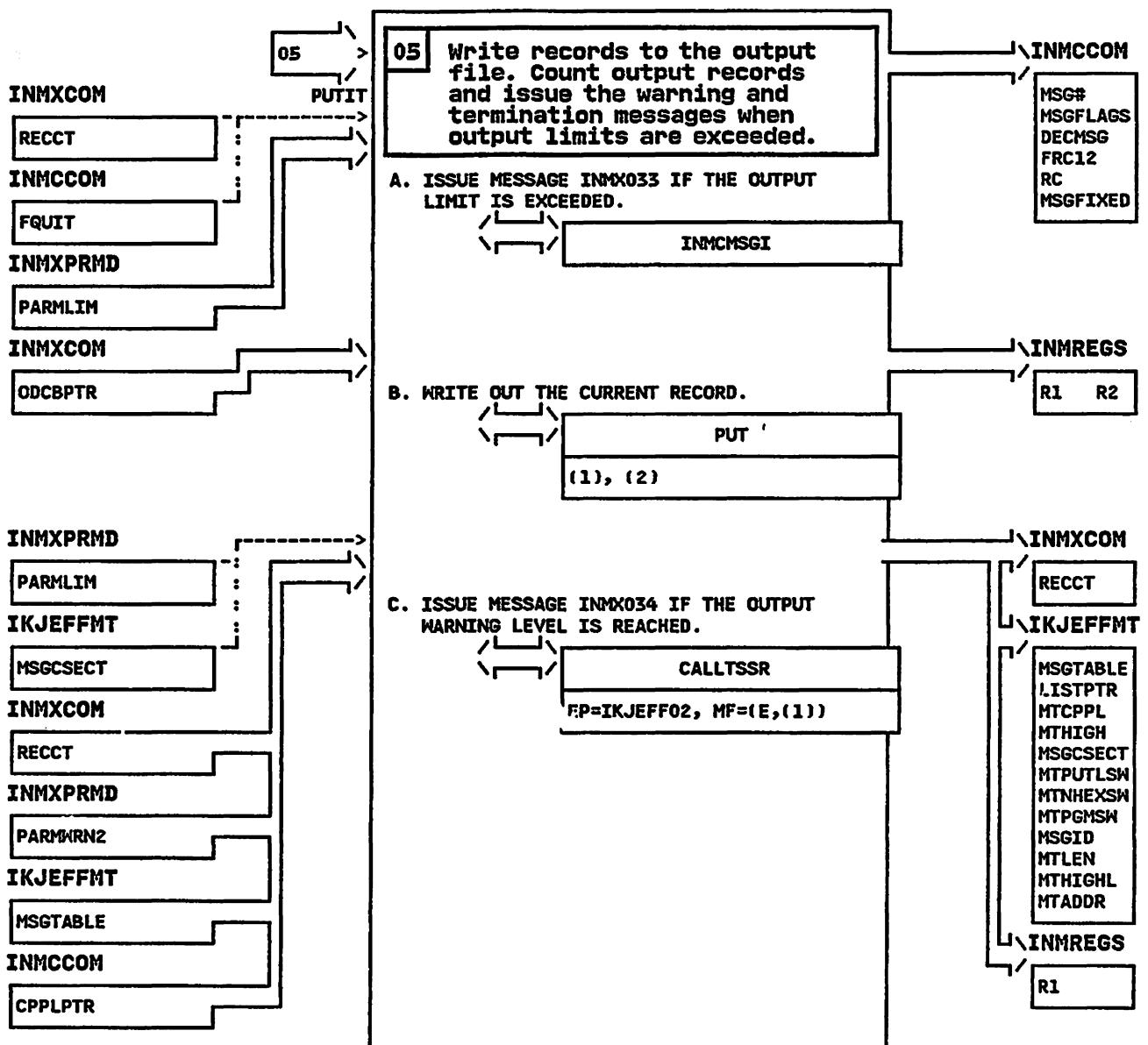
INMXXMIT - Sequential File Transmit Routine

STEP 04C



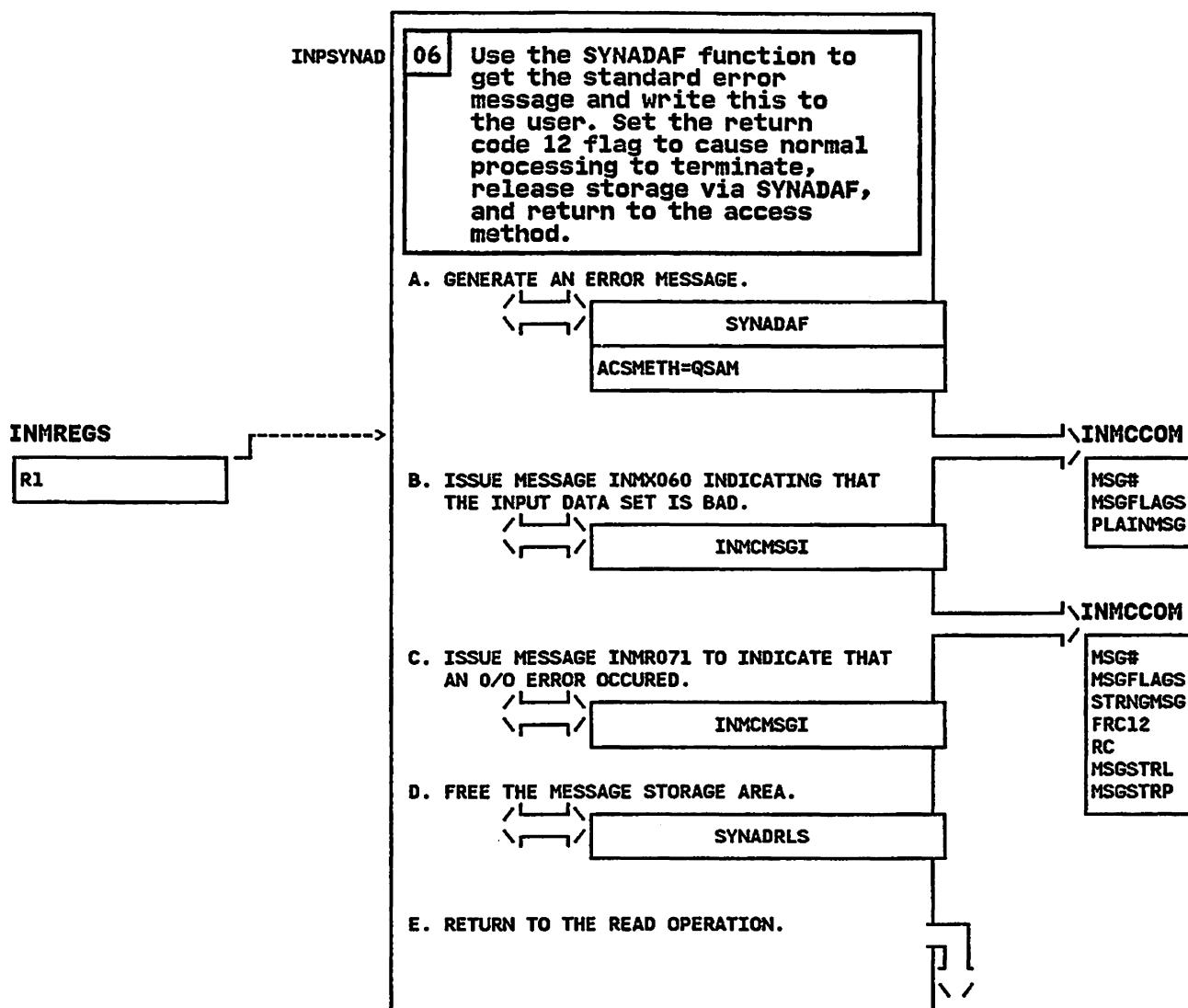
INMXXMIT - Sequential File Transmit Routine

STEP 05



INMXXMIT - Sequential File Transmit Routine

STEP 06



**INMXZ - MODULE DESCRIPTION**

**DESCRIPTIVE NAME: TRANSMIT Installation Exit-Invocation  
Routine**

**FUNCTION:**

INMXZ controls the calling of user exits from the TRANSMIT command. INMXZ is invoked by any TRANSMIT command module wishing to invoke a user exit. INMXZ builds the exit parameter list, invokes the exit, checks the exit return code, and passes back any exit-specified values to the caller.

**ENTRY POINT: INMXZ**

**PURPOSE:** See FUNCTION

**LINKAGE:** ATTACH

**CALLERS:** INMXM,INMRCODE

**INPUT:** None

**OUTPUT:** None

**EXIT NORMAL: BR 14 Return to caller**

**EXTERNAL REFERENCES:**

**ROUTINES:**

The following are invoked via PLS CALL:  
INMCMMSGI - Message issuing routine

The following are invoked via CALLTSSR:  
IKJEFF02 - TSO message issuing routine

There are weak external references for:  
INMXZ01 - TRANSMIT startup exit routine  
INMXZ02 - TRANSMIT termination exit routine  
INMXZ03 - TRANSMIT encryption exit routine

**DATA AREAS:**

INMXCOM - TRANSMIT command communications  
area  
INMCCOM - Common parameter structure

**CONTROL BLOCKS:** CVT, IKJEFFMT

**TABLES:** PLIST - Parameter list structures

## INMXZ - MODULE OPERATION

INMXZ is called by all TRANSMIT command modules wishing to invoke a user exit. The module is divided into common code for those functions that are common to all exits and unique code that builds and processes exit-unique parameter list sections.

The common code functions include determining if the exit routine exists, passing of the user word in the parameter list, passing the TSO CPPL, and passing and processing a message area that the exit can use to have messages sent to the user.

**INMXZ - DIAGNOSTIC AIDS**

**ENTRY POINT NAME: INMXZ**

**MESSAGES:**

INMX150I TRANSMIT COMMAND TERMINATED BY  
INSTALLATION EXIT exitname.  
INMX151I message from exit routine  
INMX153I ADDRESSEE LIST HAS BEEN  
INVALIDATED BY INSTALLATION  
EXIT exitname.  
INMX214I INVALID MESSAGE LENGTH PROVIDED  
BY INSTALLATION EXIT FOR MESSAGE  
INMX151I.

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

Register 1 - Parameters: exit routine number  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

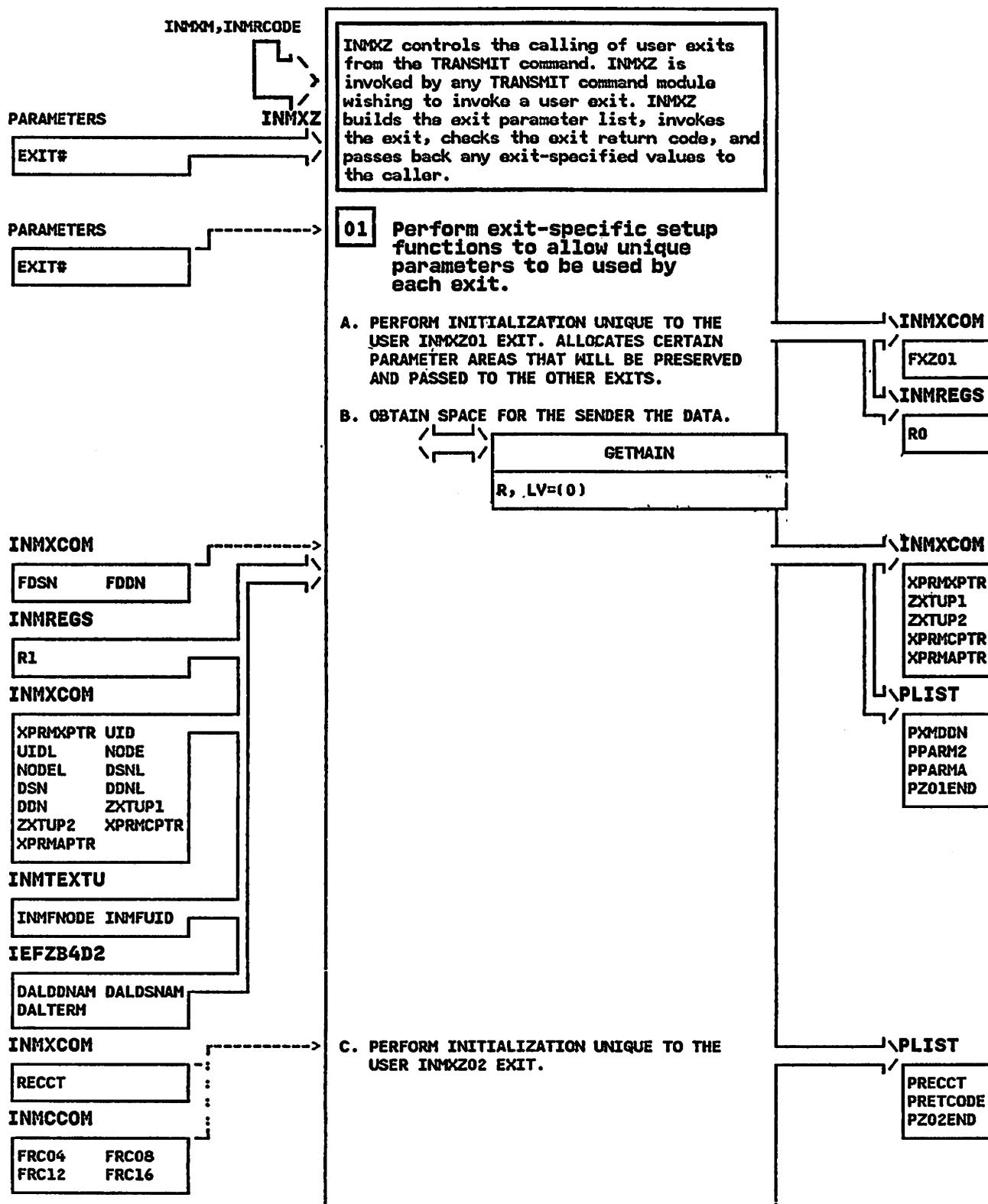
**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Zero  
Other - Unchanged

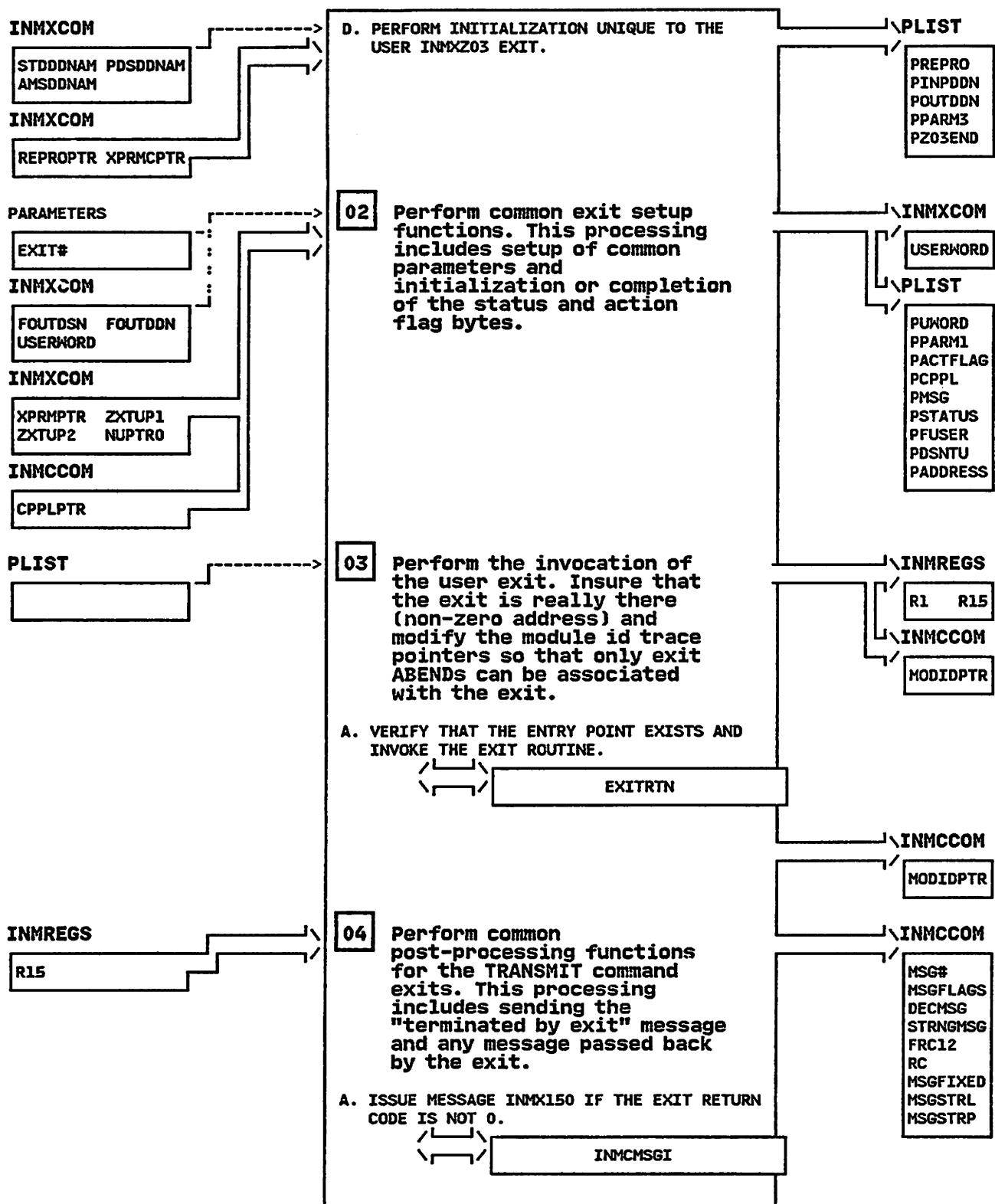
**INMXZ - TRANSMIT Installation Exit-Invocation Routine**

**STEP 01**



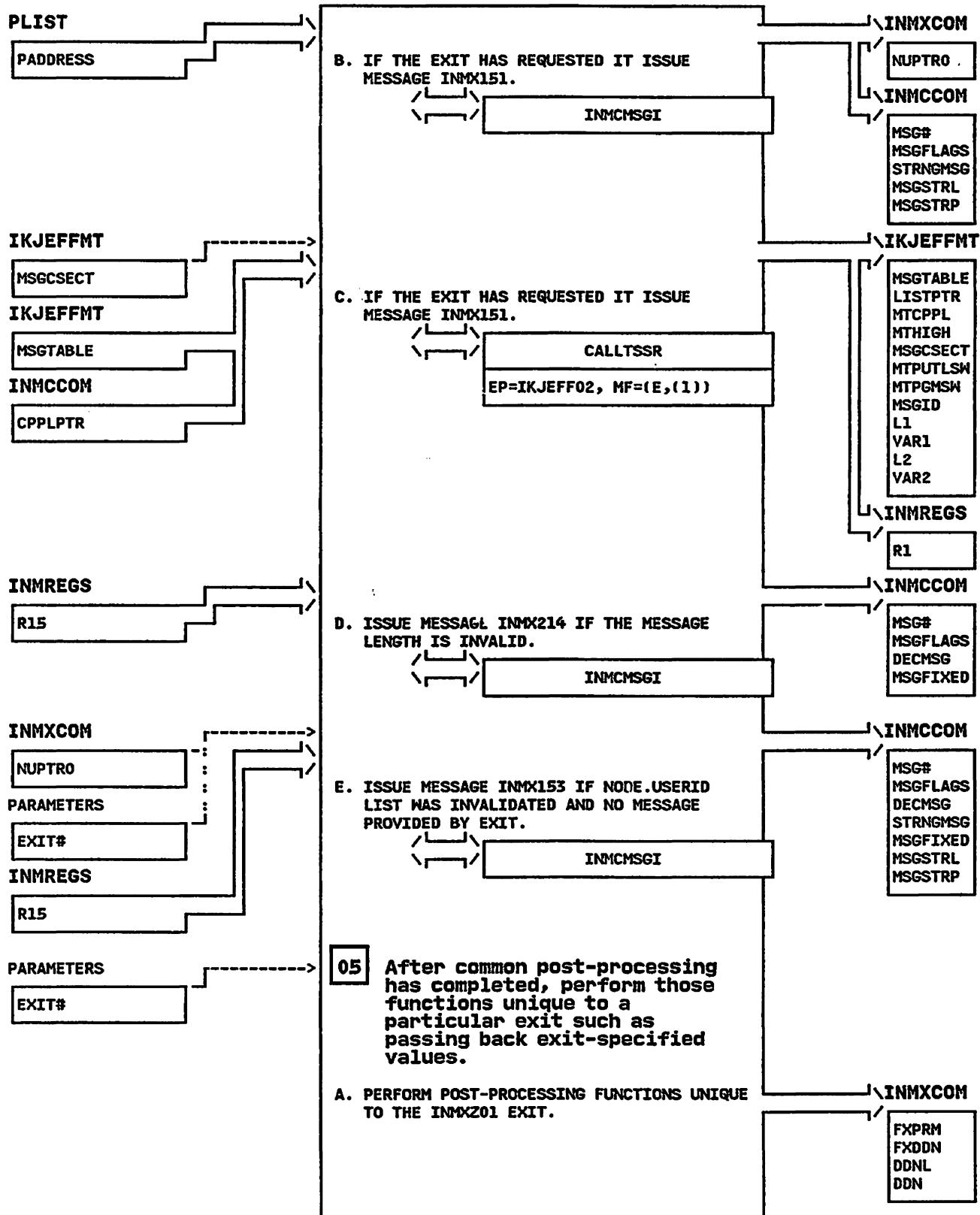
INMXZ - TRANSMIT Installation Exit-Invocation Routine

STEP 01D



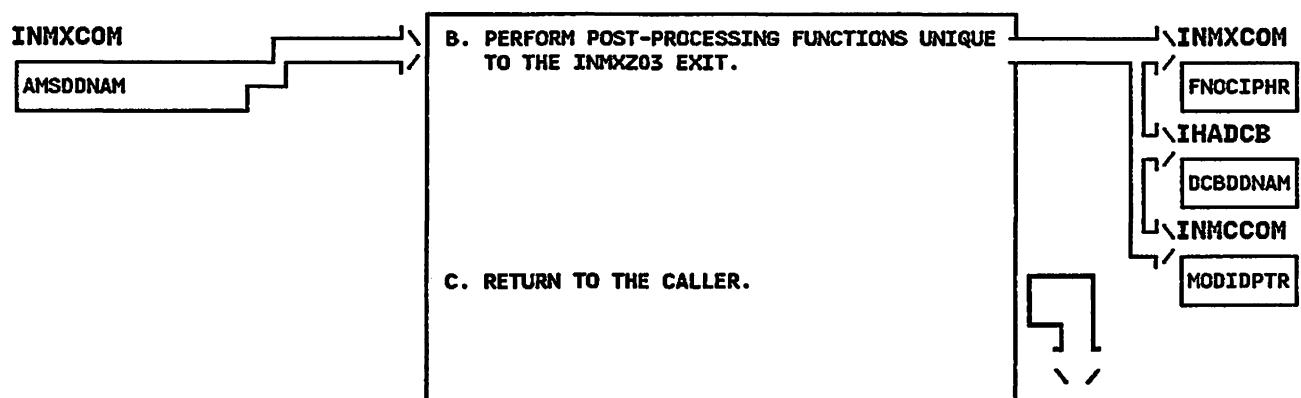
**INMXZ - TRANSMIT Installation Exit-Invocation Routine**

**STEP 04B**



INMXZ - TRANSMIT Installation Exit-Invocation Routine

STEP 05B



**INMXZ01 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** TRANSMIT Startup Exit Routine.

**FUNCTION:**

INMXZ01 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT:** INMXZ01

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMXZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

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**INMXZ01 - MODULE OPERATION**

**INMXZ01 is an exit routine that can be  
replaced by the installation. It does nothing  
except set return code zero and return to the  
caller.**

**INMXZ01 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMXZ01

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

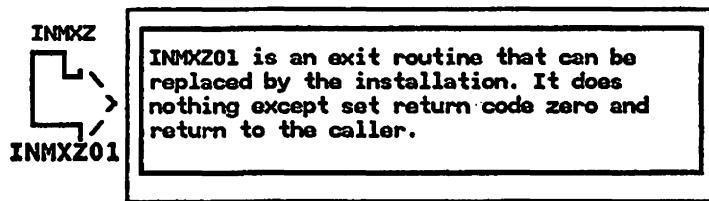
Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMXZ01 - TRANSMIT Startup Exit Routine.**



**INMXZ02 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** TRANSMIT Termination Exit Routine.

**FUNCTION:**

INMXZ02 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT:** INMXZ02

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMXZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

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**INMXZ02 - MODULE OPERATION**

**INMXZ02 is an exit routine that can  
be replaced by the installation. It does  
nothing except set return code zero and return  
to the caller.**

**INMXZ02 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMXZ02

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

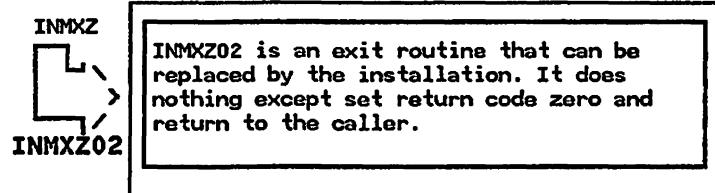
Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMXZ02 - TRANSMIT Termination Exit Routine.**



**INMXZ03 - MODULE DESCRIPTION**

**DESCRIPTIVE NAME:** TRANSMIT Encryption Exit Routine.

**FUNCTION:**

INMXZ03 is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**ENTRY POINT:** INMXZ03

**PURPOSE:** See FUNCTION

**LINKAGE:** PLS CALL

**CALLERS:** INMXZ

**INPUT:** All input is provided via the parameter list.

**OUTPUT:** None

**EXIT NORMAL:** BR 14 Return to caller

**EXTERNAL REFERENCES:**

**ROUTINES:** None

**CONTROL BLOCKS:** None

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#### **INMXZ03 - MODULE OPERATION**

**INMXZ03** is an exit routine that can be replaced by the installation. It does nothing except set return code zero and return to the caller.

**INMXZ03 - DIAGNOSTIC AIDS**

**ENTRY POINT NAME:** INMXZ03

**MESSAGES:** None

**ABEND CODES:** None

**WAIT STATE CODES:** None

**RETURN CODES:**

**EXIT NORMAL:**

Return code in register 15 is always zero.

**REGISTER CONTENTS ON ENTRY:**

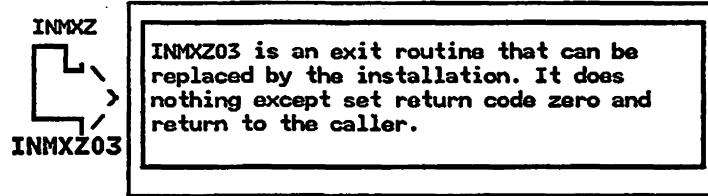
Register 1 - Address of a parameter list  
Register 13 - Save area address  
Register 14 - Return address  
Register 15 - Entry point address  
Other - Unpredictable

**REGISTER CONTENTS ON EXIT:**

**EXIT NORMAL:**

Register 15 - Always zero  
Other - Unchanged

**INMXZ03 - TRANSMIT Encryption Exit Routine.**



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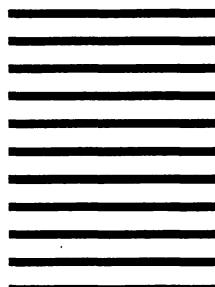
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