CONTENTS

89-010 INTRODUCTION

If your customer is using the MRJE (MULTI-LEAVING remote job entry) program, it will add one to the data communications I/O counter each time MRJE uses an I/O operation. If an MRJE error occurs, a value of one is added to the suitable data communications error counter. However, MRJE errors do not add to the data communications error history table.

89-050 I/O COUNTER TABLE FOR BSC

```
I/O COUNTER TABLE FOR BSC LINE   1 (2, 3, OR 4)

DATE LAST RESET                                  78/02/12

                                      CURRENT     HISTORY
TEXT BLOCKS TRANSMITTED ......          0             0
TEXT BLOCKS RECEIVED .........          0             0
```

89-100 ERROR HISTORY TABLE FOR BSC

```
ERROR HISTORY TABLE FOR BSC LINE 1 (2, 3, OR 4)
COMMAND   COMMAND   SENSE     RETRY   COMPLETION TERMINAL
 CODE      MDR      BYTE      COUNT      CODE    ADDRESS     DATE      TIME
 ..................... HEX ..........................      YY/MM/DD  HH MM SS
  84        00        00        0E        56       0000     77/08/22  13:41:18
  ⌣         ⌣         ⌣         ⌣         ⌣         ⌣
89-110    89-120    89-130    89-140    89-150    89-160
```

89-110 Command Code

Bits	Meaning
0-3	Attachment address (8)
4 5 6 7	
0 0 0 0	Control command (see 89-120)
0 0 1 0	Receive initial delayed command
0 0 1 1	Receive initial command
0 1 0 0	Transmit-receive overlay command (1)
0 1 0 1	Transmit-receive initial command (see 89-120)
0 1 1 0	Transmit-receive command (2) or transmit only command (see 89-120 if MLCA installed)
1 0 0 0	Enable auto monitor (MLCA only)

Notes:

1. The received record will write over the transmit buffer.
2. The receive part in the buffer must follow (be next to) the transmit part of the buffer.

89-120 Command Modifier

If the command code is hex 80 (control command), the command modifier is:

Hex 04 = start 2-second time-out
Hex 80 = disable command
Hex C0 = enable command

If the command code is hex 85 (transmit-receive initial), the command modifier is:

Hex 00 = monitor mode
Hex 01 = control mode

If the command code is hex 86 (MLCA only), the command modifier is:

Hex 00 = transmit-receive command
Hex 02 = transmit only command

89-130 Sense Byte

Bit	Meaning
0	Receive time-out
1	Block check
2	Transmit adapter check
3	Receive adapter check
4	Invalid ASCII character
5	Abortive disconnect
6	Data set not ready
7	Receive time-out data mode

89-140 Retry Count

This number is the number of times that this error was attempted before it was written in the log as a permanent error.

89-150 Completion Codes

Code	Meaning	Code	Meaning
21	Operation unsuccessful	36	Data set not ready/ connection lost
22	Invalid switched line ID received	4B	Invalid ASCII
23	Data lost-buffer exceeded	4D	Invalid request
24	Abort received	4E	Delay count exceeded
25	Abort disconnect received	4F	Permanent error
26	Delay count exceeded	50	No response
27	Command rejected due to abort request	51	Data check
28	Operation canceled	52	Lost data
31	Unexpected response from remote system	53	Lost connection
32	Data check	54	Invalid response
33	Invalid response received	55	Adapter check
34	Adapter check	56	Forward abort
35	Receive time-out error	57	EOT check

89-160 Terminal Address

This 2-byte field contains the Poll/Address character in hexadecimal.

89-162 ERROR COUNTER TABLE FOR BSC

ERROR COUNTER TABLE FOR BSC LINE 1 (2,3,OR 4) DATE LAST RESET 31/01/77

	CURRENT	HISTORY	DESCRIPTION
NEGATIVE ACKNOWLEDGMENTS RECEIVED	0	0	89-164
DATA CHECKS	0	0	89-166
FORWARD ABORTS	0	0	89-168
ABORTS RECEIVED	0	0	89-170
ADAPTER CHECKS DURING TRANSMISSION	0	0	89-172
ADAPTER CHECKS WHILE RECEIVING	0	0	89-174
INVALID RESPONSES RECEIVED	0	0	89-176
*ENQUIRIES RECEIVED AS AFFIRMATIVE ACK ..	0	0	89-178
LOST DATA ERRORS	0	0	89-180
DISCONNECT TIME-OUTS	0	0	89-182
RECEIVE TIME-OUTS	0	0	89-184
*TRANSMISSION TIME-OUTS	0	0	89-186

*MRJE does not update these counters

89-164 Negative Acknowledgments (NAK) Received

NAK (negative acknowledgment) received is a control character that indicates the remote station sensed a transmission control block error.

89-166 Data Checks

The block check character that the local station generated for a message did not match the block check character that was generated and sent by the remote station.

89-168 Forward Aborts

Your station sent an EOT (end of transmission) in response to an NAK (negative acknowledgment) from the remote station.

89-170 Aborts Received

End of transmission (EOT) was sent by the remote station in response to receiving a message test.

89-172 Adapter Checks During Transmission

The adapter did not move a character from main storage to the adapter quick enough for the line speed.

89-174 Adapter Checks While Receiving

The adapter did not move a character from the adapter to main storage quick enough for the line speed.

89-176 Invalid Responses Received

A response from the remote station was not the type of response expected by the local station.

89-178 Enquires Received as Affirmative Acknowledgment (ACK)

This is the number of enquires except those received because of WACKS (wait before transmitting positive acknowledgment).

89-180 Lost Data Errors

The length of a received message is larger than the length of the receive data buffer.

89-182 Disconnect Time-outs

The switched network line was disconnected because no valid transmissions were received in 3.25 seconds or less.

89-184 Receive Time-outs

Another block of data was expected from the remote station. The data was not received in 3.25 seconds or less.

89-186 Transmission Time-outs

No acknowledgment was received from the remote station after a message was sent to it.

89-190 I/O COUNTER TABLE FOR SDLC

```
          I/O COUNTER TABLE FOR SDLC LINE  1 (2,3,OR 4)
          DATE LAST RESET              00/00/00
                                     CURRENT      HISTORY
I-FRAMES TRANSMITTED ..........          0            0
I-FRAMES RETRANSMITTED ........          0            0
I-FRAMES RECEIVED .............          0            0
TOTAL FRAMES TRANSMITTED ......          0            0
TOTAL FRAMES RECEIVED .........          0            0
```

89-200 ERROR HISTORY TABLE FOR SDLC

```
ERROR HISTORY TABLE FOR SDLC LINE 1 (2,3,OR 4)
 COMMAND  SENSE INFORMATION  CONTROL  STATION   LINE Q
  CODE     BYTE 0   BYTE 1    FIELD   ADDRESS   HEADER     DATE       TIME
 ..................... HEX ..........................    YY/MM/DD  HH:MM:SS
   82        08       00       04       11        5C     77/06/30  23:11:57
   85        20       00       08       14        5C     77/06/15  12:05:00
    ⌣         ⌣        ⌣        ⌣        ⌣         ⌣
  89-210    89-220   89-230   89-240   89-250    89-260
```

89-210 Command Code

Bits	Meaning
0-3	Attachment address (8)
4 5 6 7	
0 0 0 0	Control command
	Command modifier
	Hex 80 = disable
	Hex C0 = enable
0 0 1 0	Transmit command (poll/final bit on)
0 0 1 1	Receive initial command only
0 1 0 0	Transmit final command
0 1 0 1	Transmit only command
0 1 1 0	Transmit initial command only
0 1 1 1	Receive delayed command
	MLCA only
1 0 0 0	Start poll receive ready (primary)
1 0 0 1	Start poll receive not ready (primary)
1 1 1 1	Stop poll (primary)
1 1 1 1	Stop auto response (secondary)

89-220 Sense Byte 0

Bit	Meaning
0	Time-out a. If primary station, 16-second nonproductive time-out b. If secondary station, 32-second inactivity time-out
1	Frame check (see 89-310)
2	Adapter check (overrun/underrun) (see 89-350)
3	Buffer overrun (receive) (see 89-380)
4	Invalid frame (see 89-320)
5	Lost data set ready (see 89-330)
6	Data set not ready (see 89-390)
7	Primary station idle time-out (see 89-360)

89-230 Sense Byte 1

Sense byte 1 is not used.

89-240 Control Field

Format	Control Field Bit Configuration 0 1 2	3	4 5 6 7	Command/Response Description
I	Nr	P/F	Ns 0	Sequenced Information Frame
S	Nr	P/F	0 0 0 1	Receive Ready
	Nr	P/F	0 1 0 1	Receive Not Ready
	0 1 0	P	0 0 1 1	Disconnect
	0 1 0	F	0 0 1 1	Request Disconnect
	0 1 1	F	0 0 1 1	Unnumbered Acknowledge
	1 0 0	P	0 0 1 1	Set Normal Response Mode
NS	1 1 1	P/F	0 0 1 1	Test
	1 0 0	F	0 1 1 1	Frame Reject
	1 0 1	P/F	1 1 1 1	Exchange Identification
	0 0 0	F	1 1 1 1	Disconnected Mode

Notes:
1. I = information, S = supervisory, and NS = nonsequenced.
2. Nr is the sequence number of the next expected frame.
   Ns is the sequence number of the last frame that was sent.
3. P/F is either the poll bit from the primary station or the final bit from the secondary station.
4. If errors occur on receive operations, the control field byte may not be valid.

89-250 Station Address

If your System/34 is the primary station, the address in this field is the address of the secondary station.

If your System/34 is the secondary station, the address in this field is the address of your station.

89-260 Line Q Header

5C = High priority line using device address 80
5E = Low priority line using device address 20
60 = Low priority line using device address 10
62 = Low priority line using device address 40

89-300 ERROR COUNTER TABLE FOR SDLC

```
ERROR COUNTER TABLE FOR SDLC LINE  1 (2,3,OR 4)      DATE LAST RESET  00/00/00
                                                 CURRENT    HISTORY      DESCRIPTION
        CRC ERRORS ..............................    0          0          89-310
        INVALID FRAMES RECEIVED .................    0          0          89-320
        LOST DATA SET READY .....................    0          0          89-330
        NONPRODUCTIVE RECEIVE TIME-OUTS..........    0          0          89-340
        ADAPTER CHECKS ..........................    0          0          89-350
        IDLE DETECT TIME-OUTS....................    0          0          89-360
        FRAME SEQUENCE ERRORS ...................    0          0          89-370
```

89-310 CRC Errors

The frame check character that the local station calculated did not match the frame check character that was generated and sent by the remote station.

89-320 Invalid Frames Received

After a start flag is sensed, an invalid frame error is written in the log if:

- A second flag is received in less than 32 bits.
- A flag is received that is not on a byte boundary.
- An abort sequence (11111111) is received.
- An idle sequence (11111111 11111111) is received between starting and ending flags.
- A frame was received that was longer than the length specified in the bind.

89-330 Lost Data Set Ready

On a switched network, the modem was ready and went not ready. Because of this, the 'data set ready' line goes not active and communication is terminated.

89-340 Nonproductive Receive Time-outs

Another frame was expected from the remote station. The frame was not received.

89-350 Adapter Checks (Overrun)

Transmit = no character was loaded into the buffer before it was time to send that character. Receive = A character was received before the preceding character was moved from the buffer.

89-360 Idle Detect Time-outs

The inactivity timer is used by the adapter to prevent long periods (32 seconds) of no activity on switched lines. The timer runs for both switched and nonswitched lines, but the operation terminates on a switched line only at the end of the inactivity time-out period.

89-370 Frame Sequence Errors

The Nr-Ns count received was not as expected.

89-380 Receive Buffer Overrun

A message is longer than the receive buffer length.

89-390 Data Set Not Ready

The modem or adapter is not ready to transmit or receive.

The data set not ready condition is also set on if specific timers have timed out. For example: A modem or cable failure (the transmit clock failed to function when in transmit mode).

The data set not ready condition can also be set on as a result of the last data set ready condition being set.

89-405 How to Use MLCA Controller Error Information

The controller error information aids in determining the cause of failures of the control processor. These failures may be intermittent failures or solid failures that the MAPs do not find.

Run the error recording analysis procedure for the MLCA controller and look at the error information that has been recorded. If a specific controller check byte and a specific channel check byte have been recorded frequently in the latest entries of the table, suspect an intermittent failure. Go to MAP 8901 to determine the failing field-replaceable unit (FRU).

If there is no frequent pattern associated with the error history information, go to paragraph 89-410 of this maintenance manual for a general description of what the recorded information means. If more detail is desired, a section number is given.

89-410 Error History Table Sample

An example of the controller error history information that is recorded is shown in the following sample printout.

```
    PRESS ENTER TO VIEW NEXT DISPLAY.     ENTER C TO RETURN TO MAIN MENU
ERROR HISTORY TABLE FOR MLCA CONTROLLER
          BYT BYT
PCR IL    0   1    WR0  WR1  WR2  WR3  WR4  WR5  WR6  WR7  MAR  MAB    DATE   TIME
                                    HEX                              YYMMDD HHMMSS
22  07    08  00   0000 0000 FFFF 0000 1004 C122 3E51 0000 013C 34BC   800516 123420
22  07    08  00   7FF0 0000 FFFF 3922 1004 0000 3E61 0000 013C 3922   800516 132514
22  07    08  00   62F0 0000 FFFF 0008 1004 A318 3E6D 0000 013C 35B2   800516 132618
22  07    08  00   14F0 0000 FFFF 39F2 1004 336A 3E65 0000 013C 336A   800516 124114
22  07    08  00   7AF0 0000 FFFF 0082 1004 30EF 3E71 0000 013C 350E   800516 123721
22  07    08  00   79F0 0000 FFFF 0082 1004 30ED 3E79 0000 013C 350E   800516 123416
22  07    08  00   0000 0000 FFFF 0000 1004 C122 3E69 0000 013C 34BC   800516 123935
22  07    08  00   62F0 0000 FFFF 0008 1004 A318 3E5D 0000 013C 35B2   800516 133914
22  07    08  00   79F0 0000 FFFF 0082 1004 30ED 3E79 0000 013C 350E   800516 102114
22  07    08  00   FF10 0000 FFFF 0000 1004 0005 3E59 0000 013C 2723   800516 100424
22  07    08  00   62F0 0000 FFFF 7AF4 1004 30E5 3E79 0000 013C 3697   800515 123514
22  07    08  00   0000 0000 FFFF 0000 1004 C122 3E69 0000 013C 34BC   800515 132508
22  07    08  00   8000 0000 FFFF 0000 1004 C122 3E71 0000 013C 34BC   800515 123512
22  07    08  00   62F0 0000 FFFF 78F4 1004 30E1 3E49 0000 013C 3697   800515 000130
22  07    08  00   62F0 0000 FFFF 7BF4 1004 30E7 3E7D 0000 013C 3697   800515 132526
22  07    08  00   7FF0 0000 FFFF 3922 1004 0000 3E61 0000 013C 3922   800515 123957
********************************** END OF TABLE **********************************
```

89-430 Processor Condition Register

89-440 Interrupt Level Backup Encoded

89-450 MLCA Controller Check Information

89-460 Channel Check Information

89-470 Contents of work registers 0 through 7 of the interrupt level indicated by the interrupt level backup byte

89-480 Microinstruction Address Register

89-490 Microinstruction Address Backup Register

89-420 Sense Bytes–General Information

The information recorded is that which was present when the error occurred.

89-430 Processor Condition Register (PCR)

The processor condition register contains information about the status of the last operation (of the type that affect the PCR) performed in the controller. The bits in the register mean the following:

Bit	Condition
0	Flag
1	Positive
2	Negative
3	Zero
4	Carry
5	High
6	Low
7	Equal

89-440 ILBB (Interrupt Level Backup Byte)

The interrupt level backup byte indicates on which hardware interrupt level the controller was executing when the error occurred that caused the log out. The bits of the backup byte have the following meanings:

Byte	Hardware Interrupt Level
00	5
01	4
02	Cycle steal (level 1 registers are written in the log)
03	3
04	2
05	1
07	Main program level

Note: If channel error byte bits 1 and 6 (invalid device address and cycle steal check) are on, the information contained in the ILBB is not valid. If channel error byte bits 0 and 6 (DBO parity check and cycle steal check) are on, the information contained in the ILBB is not valid. An invalid ILBB causes the values of the registers to be not valid.

89-450 Controller Check Byte (Byte 0)

The controller check byte contains information about the controller checks that were present when the error occurred that caused the log out. The bits of the controller check byte are specified as follows:

Bit	Condition
0	Storage data register parity check
1	Micro-operation register parity check
2	Register parity check–checks parity on the storage gates during move operations and ALU-associated operations.
3	Register parity check–checks parity on the storage gates during some data move operations and ALU-associated operations.
4, 5	MLCA controller storage address status as follows:
	0, 0 No problems have occurred with the storage address.
	0, 1 A time-out check has occurred.
	1, 0 The control storage address is not valid.
	1, 1 An MLCA control store SAR parity check has occurred.
6, 7	Not used.

89-460 Channel Check Byte (Byte 1)

The channel check byte contains information about any channel checks that were present when the error occurred that caused the log out. The bits of the channel check byte are described as follows:

Bit	Condition
0	Data bus out parity check
1	Device address not valid
2	Data bus in parity check
3	Input/output time-out check
4	Not used
5	System bus out parity check
6	Cycle steal operation
7	Not used

89-470 Work Registers 0 through 7

These values represent the contents of work registers 0 through 7 of the interrupt level indicated by the interrupt level backup byte.

89-480 Microinstruction Address Register (MAR)

The MAR of the interrupt level indicated by the interrupt level backup byte is recorded. The value in the MAR represents the address +1 of the microinstruction that was being executed when the error occurred that caused the log out.

89-490 Microinstruction Address Backup Register (MAB)

This is the address that the MAB (of the interrupt level indicated by the interrupt level backup byte) contained at the time of the check. The address is of the next microinstruction to be executed after the next return microinstruction executed on the interrupt level. Usually, the MAP contains the address of the next microinstruction after the last branch and link microinstruction executed on the interrupt level.

89-495 Date and Time

The date and time recorded in the error history table are the date and time that the check information was recorded. This time is the data and time that the check occurred.

89-500 AUTOCALL UNIT

89-505 How to Use the Autocall Error Information

Autocall error information aids in determining the cause of failures of the autocall unit. These failures may be intermittent failures or solid failures that the MAPs do not find.

Run the error recording analysis procedure for the autocall unit and look at the error information that has been recorded. If there is no frequent pattern associated with the error history information, go to paragraph 89-510 of this maintenance manual for a general description of what the recorded information means. If more detail is desired, a section number is given.

89-510 Error History Table Sample

An example of the controller error history table that is recorded for autocall is shown in the following sample printout.

```
 ERROR HISTORY TABLE FOR AUTOCALL UNIT PORT  3
STATUS  RETRY  LINE/ACU                          PHONE
 BYTE   COUNT   NUMBER   PROTOCOL               NUMBER          DATE       TIME
************ HEX ************                                YY/MM/DD  HH:MM:SS
  42      01       13        80       60828                  80/05/13  11:19:24
  42      01       13        80       60828                  80/05/13  11:17:40
  42      01       13        80       60825                  80/05/13  09:52:16
******************************** END OF TABLE ***************************************
```

89-520 Status Byte

The status byte indicates the status of the autocall unit at the time the error occurred. The following hexadecimal codes may appear in the status byte to indicate autocall status:

Code	Status Condition
Cx	The autocall unit has received a command that is not valid. The variable x indicates the 4 low-order bits of the command.
EB	The autocall unit has received a telephone number with a length of zero.
EC	Data Terminal Ready (DTR) is off for the communications line.
xy	The general format for the autocall status byte. The variable x can have the following meanings: '1' DLO error '2' ACR error '3' PND error '4' DSC error '5' PWI error The variable y can have the following meanings: '0' Indicated signal was off before the first digit was received. '1' Indicated signal was off between digits. '2' Indicated signal was off after last digit. 'C' Indicated signal was on before first digit. 'D' Indicated signal was on between digits. 'E' Indicated signal was on after last digit.

89-530 Protocol Byte

The protocol byte specifies the transmission protocol being used at the time the error occurred. Six hexadecimal codes are valid. These codes and their meanings are:

Code	Protocol
'80'	Batch BSC
'81'	SNA33/SDLC Tributary
'82'	MRJE
'83'	Primary SDLC
'84'	SNA44/SDLC Tributary
'85'	Interactive BSC

89-540 I/O Counter Table Sample

```
                I/O COUNTER TABLE FOR AUTOCALL UNIT PORT  3
                     DATE LAST RESET          80/05/13
                     PHONE CALL ATTEMPTS             9
********************************** END OF TABLE ************************************
```

89-550 Error Counter Table Sample

The autocall error counter table keeps track of the number of errors that occur in each of several groups during operation of the autocall unit. The format of this table is shown by the following example:

```
 ERROR COUNTER TABLE FOR AUTOCALL UNIT PORT  3        DATE LAST RESET  80/05/13

                     DATA LINE OCCUPIED ERRORS ......     0
                     ABANDON LINE AND RETRY ERRORS ..     0
                     PRESENT NEXT DIGIT ERRORS ......     0
                     DISTANT STATION CONNECTED ERRORS     3
                     POWER INDICATE ERRORS ..........     0
********************************** END OF TABLE ************************************
```

89-605 How to Use the X.21 Error Information

The X.21 error information aids in determining the cause of failures of the X.21 line adapter and the X.21 network. These failures may be intermittent failures or solid failures that the MAPs do not find.

Run the error recording analysis procedure for the X.21 line adapter and look at the error information that has been recorded.

89-610 Error History Table Sample

An example of the X.21 error history table is shown in the following sample printout.

For solid failures that are attempted more than once, only the first and last failures are recorded in the error history table.

```
ERROR HISTORY TABLE FOR X.21 LINE  1 (2,3,OR 4)
STATUS   CALL PROGRESS   LINE   DEVICE    PHONE
BYTE 0       SIGNAL      NUMBER  CODE     NUMBER              DATE        TIME
.................HEX.................                      YY/MM/DD    HH:MM:SS
 XX            XX           XX      XX    XXXXXXXXXXXXXX     XX/XX/XX    XX:XX:XX
 ⌣             ⌣            ⌣       ⌣     ⌣
89-620        89-630       89-640  89-650  89-660
```

89-620 Status Byte 0

Status byte 0 indicates the status of the X.21 line adapter at the time the error occurred. The following hexadecimal codes may appear in status byte 0:

Code	Status Condition
01	An adapter check (overrun) occurred during call establishment.
02	The DCE was not ready or did not become ready after a clear.
04	A DCE clear was done during call establishment.
08	The DCE responded to the selection sequence with a 2x through 7x call progress signal. (See paragraph 89-630.)
10	A parity error was sensed during call establishment.
20	T3A time-out–The DCE did not respond after responding with a call progress signal.
28	T3B time-out–The DCE did not respond after responding with a 01, 02, or 03 call progress signal. (See paragraph 89-630.)
40	T2 time-out–The DCE did not respond to the selection sequence.
80	T1 time-out–The DCE did not respond to a call request.

89-630 Call Progress Signal

The call progress signal byte contains the call progress signal received from the DCE when status byte 0 is hexadecimal 08 or 28. (See paragraph 89-620.)

Code	Call Progress Signal
08	2x through 7x
28	01, 02, or 03

See paragraph 99-074 or 99-075 for a description of the call progress signal.

89-640 Line Number

The line number byte indicates the line being used when the error occurred. Valid codes are 01, 02, 03, and 04.

89-650 Device Code

The device code byte specifies the transmission protocc being using at the time the error occurred. The following codes are valid:

Code	Protocol
80	Batch BSC
81	SNA33/SDLC secondary
82	MRJE
83	SDLC primary
84	SNA44/SDLC secondary
85	Interactive BSC
86	3270 BSC emulation

89-660 Phone Number

The phone number field contains the number (up to 14 characters) used in the selection sequence.

89-670 I/O Counter Table Sample

```
I/O COUNTER TABLE FOR X.21 LINE  1 (2,3,OR 4)

  DATE LAST RESET          XX/XX/XX

  SUCCESSFUL CALLS                0
```

89-680 Error Counter Table Sample

```
ERROR COUNTER TABLE FOR X.21 LINE  1 (2,3,OR 4)      DATE LAST RESET  XX/XX/XX

                    DCE CLEAR ..........................     0
                    DCE NOT READY ......................     0
                    PARITY ERRORS ......................     0
                    ADAPTER CHECKS .....................     0
                    T1 TIME OUTS .......................     0
                    T2 TIME OUTS .......................     0
                    T3A TIME OUTS ......................     0
                    T3B TIME OUTS ......................     0
                    CPS 01-TERMINAL CALLED .............     0
                    CPS 02-REDIRECTED CALLS ............     0
                    CPS 03-CONNECT WHEN FREE ...........     0
                    CPS 20-NO CONNECTION ...............     0
                    CPS 21-NUMBER BUSY..................     0
                    CPS 22-SELECTION SIGNAL PROC ERRORS.     0
                    CPS 23-SELECTION SIGNAL TRANS ERRORS     0
                    CPS 41-ACCESS BARRED ...............     0
                    CPS 42-CHANGED NUMBER ..............     0
                    CPS 43-NOT ABTAINABLE ..............     0
                    CPS 44-OUT OF ORDER ................     0
                    CPS 45-CONTROLLED NOT READY ........     0
                    CPS 46-UNCONTROLLED NOT READY ......     0
                    CPS 47-DCE POWER OFF ...............     0
                    CPS 48-NOT VALID FACILITY REQUESTS .     0
                    CPS 49-NETWORK FAULT IN LOCAL LOOP .     0
                    CPS 51-CALL INFORMATION SERVICE ....     0
                    CPS 52-INCOMPATIBLE USER CLASS .....     0
                    CPS 61-NETWORK CONGESTION ..........     0
                    CPS 71-LONG TERM NETWORK CONGESTION.     0
                    CPS 72-RPOA OUT OF ORDER ...........     0
```