

IBM

Distributed and
Office Systems Support

Technical
Bulletin

Displaywriter/5520
Communications
Error Analysis
Guide

By: Brenda Terry

G320-0164-0
August 1984



**Distributed and Office
Systems Support**

**Technical
Bulletin**

**Displaywriter/5520
Communications
Error Analysis
Guide**

By: Brenda Terry

**G320-0164-0
August 1984**

DISPLAYWRITER/5520 COMMUNICATIONS ERROR ANALYSIS GUIDE

August 1984 Edition

References in this material to IBM products, programs, and services do not imply that IBM intends to make these available in all countries in which IBM operates.

The information contained in this document has not been submitted to any formal IBM test and is distributed on an 'As Is' basis without any warranty either expressed or implied. The use of this information or the implementation of any of these techniques is a customer responsibility and depends on the customer's ability to evaluate and integrate them into the customer's operational environment. While each item may have been reviewed by IBM for accuracy in a specific situation, there is no guarantee that the same or similar results will be obtained elsewhere. Customers attempting to adapt these techniques to their own environments do so at their own risk.

In this document, any references made to an IBM licensed program are not intended to state or imply that only IBM's licensed program may be used. Any functionally equivalent program may be used instead.

Requests for copies of IBM publications should be made to your IBM representative or to the IBM branch office serving your locality. A form for reader's comments has been included at the back of this publication. If the form has been removed, address comments to:

Brenda Terry, Dept. 6H9
Distributed and Office Systems
IBM Corporation
5205 No. O'Connor, Suite 200
Irving, TX 75039-5050

(C) Copyright International Business Machines Corporation 1984

CONTENTS

Displaywriter Error Conditions	1
Error Condition 1	1
Error Condition 3	2
Error Condition 3 (Continued)	3
Error Condition 31	4
Error Condition 32	5
Error Condition 51	6
Error Condition 51 (Continued)	7
Error Condition 52	8
Error Condition 52 (Continued)	9
Error Condition 69	10
Error Condition 81	11
Error Condition 82	12
Error Condition READY	13
Error Condition NONE	14
Communications Menu Sequence	15
Binary Synchronous Communications Program Diskette Task Menus Sequence	15
OCL Hints	19
Communication OCL Considerations	19
Abbreviations	21

PREFACE

This publication is designed to guide the audience to resolutions of Displaywriter/5520 Communications Error Conditions. All communications menus appear with correct menu selections and are repeated throughout the guide where applicable. The sections included are:

- Displaywriter Error Conditions
- Communications Menu Sequence
- Operator Control Language

HOW TO USE THIS GUIDE

Example: Error Condition 51 = Operator Control Language (OCL)

- STEP 1** Check the Communications Status Menu and make a notation of the error message. Start your Analysis with the first document which **did not** receive a "Successful Completion" message.
- STEP 2** - Locate the page in this guide that lists the error condition which is posted at the Displaywriter.
- STEP 3** Follow the steps listed to resolve the error condition.
- STEP 4** Contact the 5520 Systems Operator to start your Remote Device, Communication Line and any Communication sessions at the 5520 if necessary before retrying communications.
- STEP 5** Refer to the "Menu Sequence" sections of the guide if it is necessary to revise the communications setup.
- STEP 6** Refer to the "OCL Hints" sections for information on OCL document procedures.

BENEFITS OF THIS GUIDE

- Enhanced Problem Management
- Enhanced Error Resolution
- Increased User Satisfaction
- Increased Productivity

RELATED PUBLICATIONS

"IBM Displaywriter System Binary Synchronous Communications Feature Operating Guide," S544-2027

"System/Displaywriter System Communications and Compatibility Guide," ZZ20-4162

"5520 Remote Device Operator's Guide," SC23-0746

DISPLAYWRITER ERROR CONDITIONS

ERROR CONDITION 1

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION												
STEP 1.	0048	Start Remote Device (SRM) at 5520												
STEP 2. PORT MODEM & LINE DESCRIPTION MENU	0138	<table border="1"> <tbody> <tr> <td>a. Terminal ID</td> <td>(Optional)</td> </tr> <tr> <td>b. Network Facility</td> <td>=1</td> </tr> <tr> <td>c. Continuous Carrier</td> <td>=2</td> </tr> <tr> <td>d. Bit Clocking</td> <td>=2</td> </tr> <tr> <td>e. Half Speed Capability</td> <td>=2</td> </tr> <tr> <td>f. Answer Tone Generation</td> <td>=2</td> </tr> </tbody> </table>	a. Terminal ID	(Optional)	b. Network Facility	=1	c. Continuous Carrier	=2	d. Bit Clocking	=2	e. Half Speed Capability	=2	f. Answer Tone Generation	=2
a. Terminal ID	(Optional)													
b. Network Facility	=1													
c. Continuous Carrier	=2													
d. Bit Clocking	=2													
e. Half Speed Capability	=2													
f. Answer Tone Generation	=2													

* EC = Error Condition

ERROR CONDITION 3

 ERROR ORIGINATION

EC/5520

ERROR RESOLUTION

 STEP 1. Document Sequence
 in SEND QUEUE

signon

distribute

DOCUMENT 1

distribute

DOCUMENT 2

obtain

off

 STEP 2. PORT MODEM & LINE
 DESCRIPTION MENU

0138

- | | | |
|---------------------------|------------|----|
| a. Terminal ID | (Optional) | |
| b. Network Facility | | =1 |
| c. Continuous Carrier | | =2 |
| d. Bit Clocking | | =2 |
| e. Half Speed Capability | | =2 |
| f. Answer Tone Generation | | =2 |

ERROR CONDITION 3 (CONTINUED)

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION
STEP 3. DEFINE SETUP MENU		*b. Protocol =1 a. Setup Name =5520 b. Protocol =1 c. Send Format =7
STEP 4. COMMUNICATION SETUP MENU		*b. Primary =1 *g. Code Set =1 a. Modem Port =4,4a,4b b. Primary =1 c. Block Size =2 d. CPU Mode =2 e. Insert New Line Codes =2 f. Transparency =2 g. Code Set =1
STEP 5. Damaged or loose cable connection		Check all cable connections on Displaywriter and 5520

* = Option which caused Error Condition

ERROR CONDITION 31

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION
STEP 1. Communication Link Failure Message		1. Check all cable connections 2. Run Link Analysis problem determination procedures

ERROR CONDITION 32

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION														
STEP 1.	0567	Start Communication Line (SCL) and start Remote Device (SRM) at 5520														
STEP 2. Communications Line Failure Message		Do not disconnect cable from Modem during communication session														
STEP 3. DEFINE SETUP MENU	0035/ 1335	*b. Protocol =1 <table border="1"> <tr> <td>a. Setup Name</td> <td>=5520</td> </tr> <tr> <td>b. Protocol</td> <td>=1</td> </tr> <tr> <td>c. Send Format</td> <td>=7</td> </tr> </table>	a. Setup Name	=5520	b. Protocol	=1	c. Send Format	=7								
a. Setup Name	=5520															
b. Protocol	=1															
c. Send Format	=7															
STEP 4. COMMUNICATION SETUP MENU	0138/ 1337	*c. Block Size =2 <table border="1"> <tr> <td>a. Modem Port</td> <td>=4,4a,4b</td> </tr> <tr> <td>b. Primary</td> <td>=1</td> </tr> <tr> <td>c. Block Size</td> <td>=2</td> </tr> <tr> <td>d. CPU Mode</td> <td>=2</td> </tr> <tr> <td>e. Insert New Line Codes</td> <td>=2</td> </tr> <tr> <td>f. Transparency</td> <td>=2</td> </tr> <tr> <td>g. Code Set</td> <td>=1</td> </tr> </table>	a. Modem Port	=4,4a,4b	b. Primary	=1	c. Block Size	=2	d. CPU Mode	=2	e. Insert New Line Codes	=2	f. Transparency	=2	g. Code Set	=1
a. Modem Port	=4,4a,4b															
b. Primary	=1															
c. Block Size	=2															
d. CPU Mode	=2															
e. Insert New Line Codes	=2															
f. Transparency	=2															
g. Code Set	=1															
STEP 5. PORT MODEM & LINE DESCRIPTION MENU	0138	<table border="1"> <tr> <td>a. Terminal ID</td> <td>(Optional)</td> </tr> <tr> <td>b. Network Facility</td> <td>=1</td> </tr> <tr> <td>c. Continuous Carrier</td> <td>=2</td> </tr> <tr> <td>d. Bit Clocking</td> <td>=2</td> </tr> <tr> <td>e. Half Speed Capability</td> <td>=2</td> </tr> <tr> <td>f. Answer Tone Generation</td> <td>=2</td> </tr> </table>	a. Terminal ID	(Optional)	b. Network Facility	=1	c. Continuous Carrier	=2	d. Bit Clocking	=2	e. Half Speed Capability	=2	f. Answer Tone Generation	=2		
a. Terminal ID	(Optional)															
b. Network Facility	=1															
c. Continuous Carrier	=2															
d. Bit Clocking	=2															
e. Half Speed Capability	=2															
f. Answer Tone Generation	=2															

ERROR CONDITION 51

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION
STEP 1. Document Sequence in SEND QUEUE		<pre> signon distribute DOCUMENT 1 distribute DOCUMENT 2 obtain = wait for response off </pre>
STEP 2. OCL Documents	1335-1339/ 133A	<ol style="list-style-type: none"> 1. Change FL to 3 or less (Change Document Format) 2. Delete extra spaces & CR's 3. signon = ,sig locadd,password 4. distribute = ,dis node name,locadd 5. obtain = ,obt all OR ,obt locadd 6. off = ,off 7. Send "Card Image" (Option 1) or "Page Image with OCL" (Option 3)

ERROR CONDITION 51 (CONTINUED)

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION														
STEP 3. COMMUNICATION SETUP MENU	0035/1335	*f. Transparency =2														
		<table border="1"> <tbody> <tr> <td>a. Modem Port</td> <td>=4,4a,4b</td> </tr> <tr> <td>b. Primary</td> <td>=1</td> </tr> <tr> <td>c. Block Size</td> <td>=2</td> </tr> <tr> <td>d. CPU Mode</td> <td>=2</td> </tr> <tr> <td>e. Insert New Line Codes</td> <td>=2</td> </tr> <tr> <td>f. Transparency</td> <td>=2</td> </tr> <tr> <td>g. Code Set</td> <td>=1</td> </tr> </tbody> </table>	a. Modem Port	=4,4a,4b	b. Primary	=1	c. Block Size	=2	d. CPU Mode	=2	e. Insert New Line Codes	=2	f. Transparency	=2	g. Code Set	=1
a. Modem Port	=4,4a,4b															
b. Primary	=1															
c. Block Size	=2															
d. CPU Mode	=2															
e. Insert New Line Codes	=2															
f. Transparency	=2															
g. Code Set	=1															
STEP 4.		Start Remote Device (SRM) at 5520														

ERROR CONDITION 52

ERROR ORIGINATION

EC/5520

ERROR RESOLUTION

STEP 1. Document Sequence
in SEND QUEUE

signon

distribute

DOCUMENT 1

distribute

DOCUMENT 2

obtain =
wait for response

off

STEP 2. COMMUNICATION
SETUP MENU

0138/1337
0035/1335

*c. Block Size =2
*f. Transparency =2

a. Modem Port	=4,4a,4b
b. Primary	=1
c. Block Size	=2
d. CPU Mode	=2
e. Insert New Line Codes	=2
f. Transparency	=2
g. Code Set	=1

ERROR CONDITION 52 (CONTINUED)

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION														
STEP 3. SEND QUEUE		Select "Wait for Response" on the ,obtain command document only !!!!														
STEP 4. PORT MODEM & LINE DESCRIPTION MENU	0567	*d. Bit Clocking =2														
		<table border="1"> <tr><td>a. Terminal ID (Optional)</td><td></td></tr> <tr><td>b. Network Facility</td><td>=1</td></tr> <tr><td>c. Continuous Carrier</td><td>=2</td></tr> <tr><td>d. Bit Clocking</td><td>=2</td></tr> <tr><td>e. Half Speed Capability</td><td>=2</td></tr> <tr><td>f. Answer Tone Generation</td><td>=2</td></tr> </table>	a. Terminal ID (Optional)		b. Network Facility	=1	c. Continuous Carrier	=2	d. Bit Clocking	=2	e. Half Speed Capability	=2	f. Answer Tone Generation	=2		
a. Terminal ID (Optional)																
b. Network Facility	=1															
c. Continuous Carrier	=2															
d. Bit Clocking	=2															
e. Half Speed Capability	=2															
f. Answer Tone Generation	=2															
		*Note: Displaywriter clocks at 1200 bps, the 5520 CSR must set the communication line for compatible speed!														
STEP 5. USUALLY MORE THAN ONE PAGE DOCUMENT		*c. Block Size =2														
		<table border="1"> <tr><td>a. Modem Port</td><td>=4,4a,4b</td></tr> <tr><td>b. Primary</td><td>=1</td></tr> <tr><td>c. Block Size</td><td>=2</td></tr> <tr><td>d. CPU Mode</td><td>=2</td></tr> <tr><td>e. Insert New Line Codes</td><td>=2</td></tr> <tr><td>f. Transparency</td><td>=2</td></tr> <tr><td>g. Code Set</td><td>=1</td></tr> </table>	a. Modem Port	=4,4a,4b	b. Primary	=1	c. Block Size	=2	d. CPU Mode	=2	e. Insert New Line Codes	=2	f. Transparency	=2	g. Code Set	=1
a. Modem Port	=4,4a,4b															
b. Primary	=1															
c. Block Size	=2															
d. CPU Mode	=2															
e. Insert New Line Codes	=2															
f. Transparency	=2															
g. Code Set	=1															

ERROR CONDITION 69

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION
STEP 1. Diskette Error Message		<ol style="list-style-type: none">1. Type the correct document name2. Check diskette for possible error

ERROR CONDITION 81

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION
STEP 1. COMMUNICATION SETUP MENU		*b. Primary =1 a. Modem Port =4,4a,4b b. Primary =1 c. Block Size =2 d. CPU Mode =2 e. Insert New Line Codes =2 f. Transparency =2 g. Code Set =1
STEP 2. PORT MODEM & LINE DESCRIPTION MENU	0138	a. Terminal ID (Optional) b. Network Facility =1 c. Continuous Carrier =2 d. Bit Clocking =2 e. Half Speed Capability =2 f. Answer Tone Generation =2

ERROR CONDITION 82

ERROR ORIGINATION	EC/5520	ERROR RESOLUTION
STEP 1. SEND QUEUE		Do not cancel from SEND QUEUE while ON-LINE
STEP 2. File Document		Send Text documents only.

ERROR CONDITION READY

ERROR ORIGINATION

EC/5520

ERROR RESOLUTION

STEP 1. Switch in TEST
Position

Change Switch to the Operate
Position

STEP 2. Modem Connection

1. Check Cables
2. Link Analysis Testing

STEP 3. COMMUNICATION
SETUP MENU

*a. Modem 4,4a or 4b?

a. Modem Port	=4,4a,4b
b. Primary	=1
c. Block Size	=2
d. CPU Mode	=2
e. Insert New Line Codes	=2
f. Transparency	=2
g. Code Set	=1

STEP 4. Modem Failure

1. Compare Strapping Options on
both modems for modem
compatibility
2. Problem determination on modem

ERROR CONDITION NONE

ERROR ORIGINATION

EC/5520

ERROR RESOLUTION

STEP 1. CHANGE SETUP
SESSION OPTIONS
Menu

a. Keyboard ID	=1
b. Use this Keyboard ID for All Send Documents	=2
c. Receive Default Format	=1
d. Delete Send Queue Entry	=2
e. Send Document Messages	=2
f. 6670 Print Options	=2
g. Append Next Document	=2
h. Wait for Response	=1

NOTE:

1. Failure to select "Wait for Response" here will cause the option not to appear in the Send Document menu.
2. Must use "Wait for Response" with obtain document when using ,off document so that Displaywriter will automatically disconnect at the end of the session.
3. Failure to use it with the obtain document when using ,off document will cause an error code 52 to be posted after the off document.

COMMUNICATIONS MENU SEQUENCE

BINARY SYNCHRONOUS COMMUNICATIONS PROGRAM DISKETTE TASK MENUS SEQUENCE

DEFINE SETUP MENU

V

a. Setup Name	=5520
b. Protocol	=1
c. Send Format	=7

V

COMMUNICATION SETUP MENU

V

a. Modem Port	=4,4a,4b
b. Primary	=1
c. Block Size	=2
d. CPU Mode	=2
e. Insert New Line Codes	=2
f. Transparency	=2
g. Code Set	=1

V

CHANGE SESSION OPTION MENU

V

a. Keyboard ID	=1
b. Use this Keyboard ID for All Send Documents	=2
c. Receive Default Format	=1
d. Delete Send Queue Entry	=2
e. Send Document Messages	=2
f. 6670 Print Options	=2
g. Append Next Document	=2
h. Wait for Response	=1

**BINARY SYNCHRONOUS COMMUNICATIONS PROGRAM DISKETTE TASK MENUS
SEQUENCE****SWITCHED PORT MODEM AND LINE DESCRIPTION MENU**

↓

- | | | | |
|----|------------------------|------------|----|
| a. | Terminal ID | (Optional) | |
| b. | Network Facility | | =1 |
| c. | Continuous Carrier | | =2 |
| d. | Bit Clocking | | =2 |
| e. | Half Speed Capability | | =2 |
| f. | Answer Tone Generation | | =2 |

OR**DEDICATED PORT MODEM AND LINE DESCRIPTION MENU**

↓

- | | | | |
|----|------------------------|------------|-------|
| a. | Terminal ID | (Optional) | |
| b. | Network Facility | | =2 |
| c. | Continuous Carrier | | =1or2 |
| d. | Bit Clocking | | =2 |
| e. | Half Speed Capability | | =2 |
| f. | Answer Tone Generation | | =2 |

*Continuous Carrier Option
is Modem Dependent

BINARY SYNCHRONOUS COMMUNICATIONS PROGRAM DISKETTE TASK MENUS
SEQUENCE

SEND DOCUMENT MENU



- | | |
|----------------------|--|
| a. Send Format | 1 = Card Image (use for OCL) |
| | 2 = Page Image Text Only |
| | 3 = Page Image with OCL (use for OCL) |
| | 4 = Page Image with Format Line
(Text Document) |
| | 5 = Revisable Form Text |
| b. Wait for Response | 1 = Yes 2 = No |
| | ("YES" used with obtain document only) |

COMMUNICATION OCL CONSIDERATIONS

1. Each OCL document can be sent page image text only. First line must be changed to 1. Card image can also be used as the send format for OCL. This does not require changing first line. It does assume CPU no.
2. Each text document should be sent page image with format line for optimal formatting support which will generate format feature lines.
3. All communications OCL commands must be keyed and sent as separate documents. The instructions must follow a command.
4. The signon document is always the first document added to the send queue.
5. Use "Wait for Response" on obtain document only.
6. There must be an OCL distribute command document prior to each text document to be distributed. Twenty documents including EDD OCL can be queued at one time.
7. It is not necessary to signoff if the Displaywriter is obtaining from the 5520. The 5520 will drop the line if there is a switched line connection. But once a signon command has been sent, another signon may not be sent until a signoff is sent first.
8. To signoff if only distributing documents to the IBM 5520 a ,off command document must be communicated.
9. To name the document distributed:
 - ,distribute DAL5520,DW001
document
10. For acknowledgement that the document was delivered:
 - ,distribute DAL5520,DW001
acknowledge

the acknowledge delivery will be sent at the next session.
11. To send a format note and a comment to the receiving 5520:
 - ,distribute DAL5520,DW001
note STAT
12. Leased Line Considerations:
 - After the Transmission Complete Document - the 5520 does not drop the line; therefore, another "signon" is not required to obtain documents from the same local address.

13. The ,list command is used to query the 5520 on documents distributed to a specific local address. If no documents exists for the local address, the 5520 will generate a document stating such message.
14. To send a comment to the receiving 5520 (in same document):
 - ,distribute DAL5520,DW001
,comment insert header margin text "IBM Confidential"

ABBREVIATIONS

ACK	Acknowledge
CPU	Central Processing Unit
CR	Carrier Return
DIS	Distribute
EC	Error Condition
EDD	Electronic Document Distribution
FL	First Line
locadd	Local Address
OBT	Obtain
OCL	Operator Control Language
SCL	Start Communications Line
SIG	Signon
SRM	Start Remote Device

READER'S COMMENT FORM

Displaywriter/5520 Error Analysis

G320-0164-0

Brenda Terry, Dept. 6H9

You may use this form to communicate your comments about this publication, its organization, or subject matter, with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you. Your comments will be sent to the author's department for whatever review and action, if any, are appropriate.

Possible topics for comment are:

Clarity Accuracy Completeness Organization Coding Retrieval Legibility

If you wish a reply, give your name, company, mailing address, and date:

Name: _____ Company: _____

Date: _____ Address: _____

NOTE: Copies of IBM publications are not stocked at the location to which this form is addressed. Please direct any requests for copies of publications, or for assistance in using your IBM system, to your IBM representative or to the IBM branch office serving your locality.

Thank you for your cooperation. No postage stamp necessary if mailed in the USA. Elsewhere, an IBM office or representative will be happy to forward your comments or you may mail directly to the address on the back of the title page.

Fold and tape

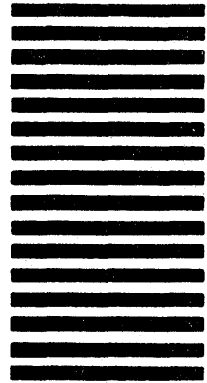
Please Do Not Staple

Fold and tape



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 40 ARMONK, N.Y.



POSTAGE WILL BE PAID BY ADDRESSEE:

INTERNATIONAL BUSINESS MACHINES CORPORATION
PUBLICATIONS DEPARTMENT 6E7
5205 NORTH O'CONNOR ROAD, SUITE 200
IRVING, TEXAS 75039

Fold and tape

Please Do Not Staple

Fold and tape



INTERNATIONAL BUSINESS MACHINES CORPORATION
PUBLICATIONS DEPARTMENT 6E7
5205 NORTH O'CONNOR ROAD, SUITE 200
IRVING, TEXAS 75039

G320-0164-0

G320-0164-0 Printed in U.S.A.

