

CONTENTS

87-010	How to Use Display Station Error Information
87-050	I/O Counter Table Sample
87-100	Error Counter Table Sample
87-200	Error History Table Sample
87-210	Controller/Host Status Byte
87-220	Controller/Cable Status Byte
87-230	Device/Cable Status Byte
87-240	Device Status 0
87-250	Device Status 1
87-310	Data Stream Reject
87-320	Work Station Control Field Error Information
87-330	Resources Temporarily Not Available
87-350	Screen Format Error Information
87-360	No Response Time-out (Not Recorded)
87-370	Transmit Activity Check
87-375	Activate Command Failure
87-380	Receive Parity Check
87-390	Receive Length Check
87-400	Even/Odd Time-out
87-410	Work Station Busy
87-420	Work Station Response Conditions
87-440	Device Status 0
87-450	Device Status 1
87-460	Master Modified Data Tag

87-010 HOW TO USE DISPLAY STATION ERROR INFORMATION

Use the display station error information to determine the cause of failure in the display station or work station controller. Use these tables for correcting intermittent or solid problems with the device or controller or both. Run the error recording analysis procedure for the work station controller and look at the error information that has been recorded. If you observe a pattern from the information displayed, go to MAP 8700 for aid in correcting the problem. If you see no pattern, go to paragraph 87-200 for a general description of what the recorded information means.

87-050 I/O COUNTER TABLE SAMPLE

I/O COUNTER TABLE FOR DISPLAY STATION W1/ C000

DATE LAST RESET 78/02/12

NUMBER OF SVCS 63597

I/O COUNTER TABLE FOR DISPLAY STATION W2/ C010

DATE LAST RESET 00/00/00

NUMBER OF SVCS 715

87-100 ERROR COUNTER TABLE SAMPLE

ERROR COUNTER TABLE FOR DISPLAY STATION		W1/	C000	DATE LAST RESET	00/00/00
				DESCRIPTION	MAP
RECEIVE PARITY CHECKS			0	87-380	
LINE PARITY CHECKS			0	87-420	

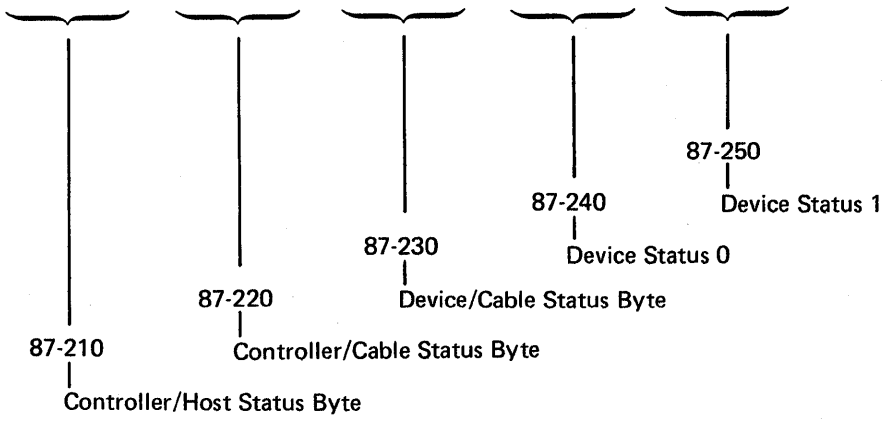
ERROR COUNTER TABLE FOR DISPLAY STATION		W2/	C010	DATE LAST RESET	00/00/00
				DESCRIPTION	MAP
RECEIVE PARITY CHECKS			0	87-380	
LINE PARITY CHECKS			0	87-420	

87-200 ERROR HISTORY TABLE SAMPLE

Errors that do not cause complete failure of the work station controller and can be associated with a specific work station appear in this log. There are some errors that are not recorded but are only displayed on the system console. If these bits are on, they will be described.

For a description of the error code field, see the *IBM 5251 MAPs and MIM, SY31-0461*.

ERROR HISTORY TABLE FOR DISPLAY STATION										W1/	C000
ERROR CODE	CONT/STATUS	HOST STATUS	CABLE CONT	STATUS DEVICE	DEVICE 0	STATUS 1	DATE	TIME BINARY		
							YY/MM/DD	HH:MM:SS			
0101	0000	0000	0010	0000	0000	0000	77/06/05	13:44:04	0000	0000	
0191	0000	0000	0000	0000	1000	0000	77/06/04	20:37:19	0000	0000	
0101	0000	0000	0010	0000	0000	0000	77/06/04	19:51:22	0000	0000	



ERROR HISTORY TABLE FOR DISPLAY STATION										W2/	C010
ERROR CODE	CONT/STATUS	HOST STATUS	CABLE CONT	STATUS DEVICE	DEVICE 0	STATUS 1	DATE	TIME BINARY		
							YY/MM/DD	HH:MM:SS			

87-210 Controller/Host Status Byte

Bit	Description	
0	Data stream reject (not recorded)	(87-310)
1	Work station control field error (not recorded)	(87-320)
2	Resources temporarily not available (not recorded)	(87-330)
3	Work station controller data bus out or data bus in parity check	(87-340)
4	Operation check	(87-340)
5	Work station controller storage parity check	(87-340)
6	Ignore	
7	Long time-out	(87-340)

87-220 Controller/Cable Status Byte

Bit	Description	
0	Screen format error (not recorded)	(87-350)
1	No response time-out	(87-360)
2	Transmit activity check	(87-370)
3	Activate command failure	(87-375)
4	Receive parity check	(87-380)
5	Receive length check	(87-390)
6	Ignore	
7	Even/odd time-out	(87-400)

87-230 Device/Cable Status Byte

Bit	Description	
0	Work station busy	(87-410)
1	Device line parity check	(87-420)
2	Ignore	
3	Outstanding status (not an error)	(87-420)
4,5,6	Exception conditions	(87-420)
7	Even/odd response indicator (not an error)	(87-420)

87-240 Device Status 0

More than one purpose (87-440)

87-250 Device Status 1

Bit	Description	
0,1,2,3	Scan code	(87-450)
4	Master modified data tag	(87-460)
5,6,7	Not assigned	

87-310 Data Stream Reject

This error is not recorded so the cause of this input into the logs is some other bit that may be on.

If this bit is on it may give more information about the problem. Device status byte 0 contains more information on this error.

Data Stream Reject**Device Status Byte 0**

Code	Description
01	Premature end of data stream.
02	Row or column address not valid for set buffer address, insert cursor, or repeat to address end. Orders: -Row = 0 or > 24 (12) -Column = 0 or > 80
03	Repeat-to-address end address is less than present address counter.
04	Escape character missing or invalid command code.
05	Field length specified was zero.
06	Input field specified out of sequence.
07	Invalid Restore command data (Restore data sent to wrong device.)
08	Input field was past end of screen.
09	Format table overflow
0A	Data written past end of screen.
0B	Start of Header Byte count is not equal to 3.
0C	Roll command parameter error: -Roll size = 0 -Top line = 0 -Bottom line > 24 (12) -Roll size > bottom line minus top line -Top line > = bottom line
0D	Too many field control words specified for input field.
0E, 0F	Not assigned.

87-320 Work Station Control Field Error Information

This error is not recorded so the cause of this input into the logs is some other bit that may be on.

If this bit is on it may give more information about the problem. Device status byte 0 contains more information on this error.

Work Station Control Field Error

Device Status Byte 0

Code	Description
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01	Command modifier not valid in work station control field.
02	Byte count not valid in work station control field.
03	Device address not found in system parameter list.
04	-Byte count decreased past zero on Data Transmit. -Byte count is not zero after read input field command executed. -Read Input Field sent to work station with no format table.
05-0F	Not assigned.

87-330 Resources Temporarily Not Available

Device Status Byte 0

Code	Description
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01	Not used.
02	Work station specified as not operational by work station controller (hung busy, response not valid to poll).
03	Device offline (not in session).
04	Not used.
05	Display in operator error mode.
06	Keyboard not locked on Read Command.
07	Terminal not powered on.
08	Not used.
09	-Save or Restore Screen command is not preceded by Save or Restore Table command. -Commands other than Clear Unit, Save/Restore Table, Save or Restore Screen are sent after Save or Restore Table is executed.
0A-0F	Not assigned.

87-350 Screen Format Error Information

Screen Format Error

Device Status Byte 0

Code	Description
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01	Read Input Fields command sensed one of the following: -Field was 0 bytes in length -Field has no ending attribute -Signed numeric field was 1 byte in length -Field was > 80 characters when specified, but < 80 characters when read -Field was = < 80 characters when specified, but > 80 characters when read
02	Resequencing error in format table -Resequencing number = 0 -Resequencing number specified a field larger than number of fields on screen
03	Check digit processing sensed errors -Field > 32 characters long
04-0F	Not assigned

87-360 No Response Time-Out (Not Recorded)

A work station that was powered on and Mode Set stopped responding to poll commands. The attempts to try again were completed before the error was reported.

87-370 Transmit Activity Check

The poll of this work station failed in one of the following ways:

1. Failed to go out the line driver or,
2. The checking circuit failed.

Communication with the work station is not possible until this condition is fixed.

87-375 Activate Command Failure

Activate commands are used to move large amounts of data to and from terminals. Activate command failures are caused by a noisy line or a terminal failure.

87-380 Receive Parity Check

The work station response to the poll command was found to have a parity check after all attempts to try again were completed.

87-390 Receive Length Check

The work station responded to a poll or a read activate command with data of a wrong length.

87-400 Even/Odd Time-Out

The work station has not switched response levels in 450 milliseconds.

87-410 Work Station Busy

The work station has taken too long to process a command sent by the work station controller.

87-420 Work Station Response Conditions

See the definition of these bits in the *Data Areas and Diagnostic Aids Manual*, LY21-0049, or in the publication for the terminal.

87-440 Device Status 0

Device status 0 has more than one purpose; if data stream reject, work station control field error, resources temporarily not available, or screen format error is on, it will give more information for each of these. See each error for these specifications.

Other meanings for this byte are specified by values in the device code of device status byte 1 (see 87-450).

87-450 Device Status 1

Used to specify meaning of device status 0.

- X '2X' Scan code not valid (device status 0 contains the invalid code)
- X 'X8' Master modify data tag bit on

87-460 Master Modified Data Tag

This is not necessarily an error. Indicates that one or more of the fields on the display station was changed from the keyboard.