IBM

Displaywriter System

Incident Reporting Guide
IBM 6580 Display Station

Install Date _____
Model _____
Serial No._____

SAFETY PRECAUTIONS

All IBM Customer Service Representatives are expected to take every safety precaution possible and observe the following safety practices when servicing IBM equipment.

Mechanical Safety:

1. Safety glasses must be worn.
2. All safety devices, such as guards, shields, signs, ground wires, etc., must be restored after maintenance. When a guard or shield is removed to observe or make an adjustment, that shield must be replaced when work in the area is completed.
3. Watches, rings, necklaces, ID bracelets, etc., must be removed when servicing the machine.
4. Care must be used when working near moving parts. Keep hair away from moving parts. Avoid wearing loose clothing that might be caught in the machine. Shirt sleeves must be kept buttoned or rolled above the elbows. Ties must be tucked in the shirt or have a tie clasp approximately three inches from the end. Tie chains are not recommended.

Electrical Safety:

1. The equipment referenced in this manual may use high voltages. Check voltage labels!
2. Safety glasses must be worn when checking energized circuits.
3. If a circuit is disconnected for servicing or parts replacement, it must be reconnected and tested before allowing the use of the machine.
4. Power should be removed from the machine for servicing whenever possible. Remember, when checking voltages, avoid contacting ground potential, such as metal floor strips, machine frame, etc.
5. Meter continuity checks should be used instead of voltage checks whenever possible.
6. Do not apply power to any part, component, or subassembly when it is not physically mounted in the machine, or its approved service position.

General Safety

1. Each Customer Service Representative is responsible to be certain no action on his/her part makes the product unsafe or exposes customer personnel to hazards.
2. Store the removed machine covers in a safe, out of the way place where no one can trip over them.
3. If you must leave the machine in a down condition, always install the covers and disconnect the power before leaving the customer's office.
4. Always place CSR tool kit away from walk areas where no one can trip over it.
5. Maintain safe conditions in the area of the machine while performing and after completing maintenance.
6. Before starting the equipment, make sure fellow CSRs and customer personnel are not in a hazardous position.
7. All the machine covers must be in place before the machine is returned to the customer.

Note: Refer to the Safety CEMs relating to this product(s) for further safety precautions.

TABLE OF CONTENTS

INSTRUCTIONS FOR USING THIS GUIDE

FOR PROBLEMS THAT REQUIRED A REPAIR ACTION

- Record the three-digit major and two-digit minor codes in the appropriate block.
- Record the two-digit cause code that best identifies the action, in the appropriate block.

FOR ALL NO-TROUBLE-FOUND CALLS

- Record either major code 960 or 965.
- Record the two-digit symptom codes in place of cause code in the appropriate block.

CAUSE CODES

Use with Major Codes 000, 040, 041, 200, 210, 300, 400, 600, and 700.

Choose one digit from each column:

Major	Minor	Cause
☐☐☐	☐☐☐	☐☐

Most Significant Action Taken

1 Reseat or reinstall original part

2 Swap for diagnostic purposes

3 Replace**

4 Adjust, repair or modify

5 Clean or lubricate

6 Other action (comments)

Diagnostic Package Effectiveness*

Failure Mode

Solid
- 2 Effective
- 3 Not effective
- 4 Not used

Intermittent
- 5 Effective
- 6 Not effective
- 7 Not used
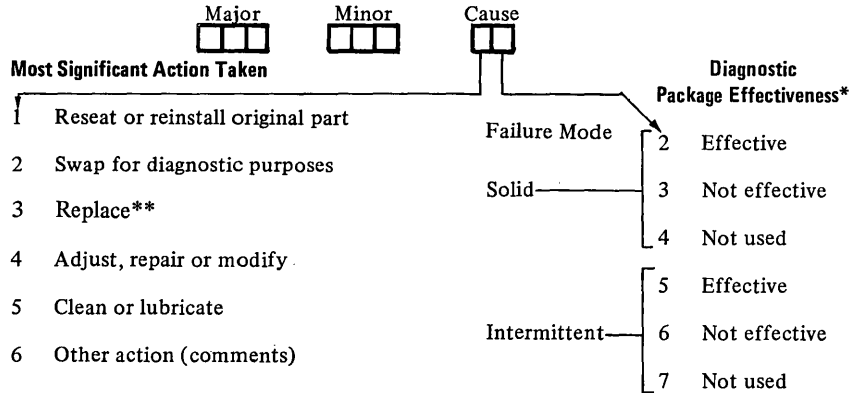
*The Diagnostic Package includes the MAPs, MDIs, LEDs, Product Support Manual, etc.
**New defective part which failed at the time it was installed, or within 90 days thereafter, use Cause Code 30.

Note: Consider the MAPs and diagnostics effective if they identify the failing part or direct you to the appropriate repair action.

000 BASE/COVERS

Major	Minor	Cause
0 0 0	0 ☐ ☐	☐ ☐

01 Bottom Cover
02 Top Cover
00 Other (Explain)

02

01

040 KEYBOARD

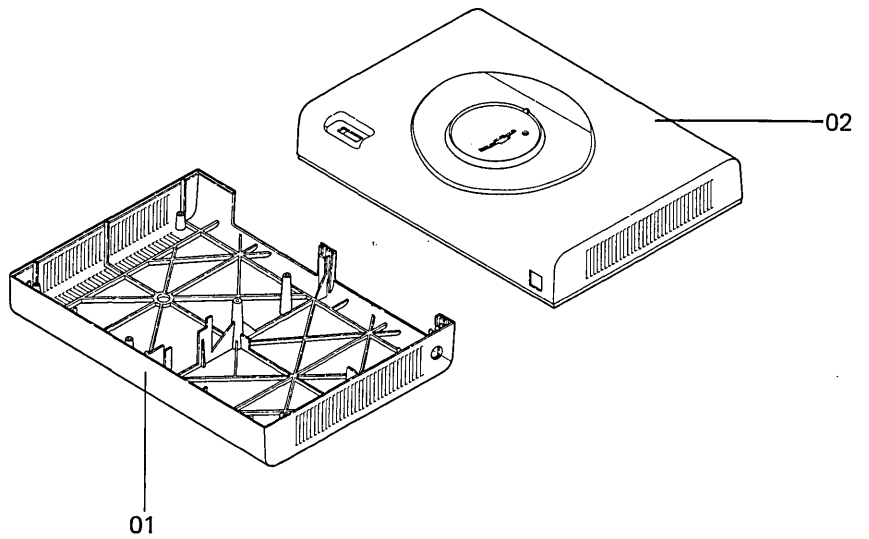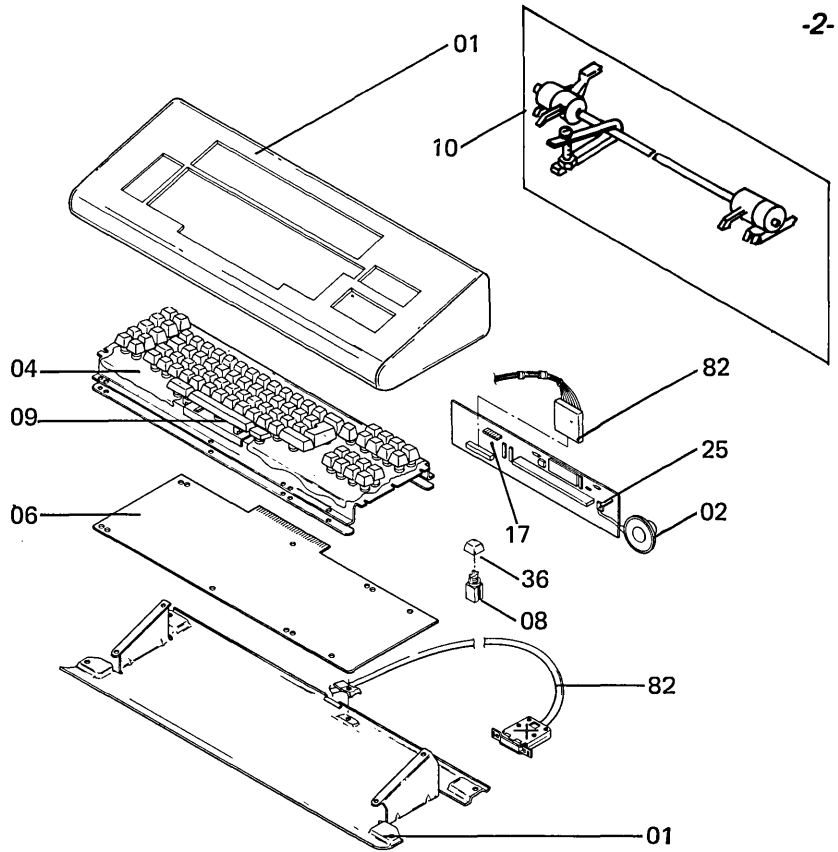| Major	Minor	Cause
0 4 0	0 □ □	□ □

01 Covers/Base
02 Speaker
04 Dust Shield
06 Pad Card
08 Key Module
09 Spacebar Mechanism
10 Shift Mechanism
17 ID Jumpers
25 Logic Board
36 Key Button
82 Cable/Connectors
99 Keyboard Assembly
00 Other (Explain)

DISPLAYWRITER FIRST CALL CHECKLIST

1. The following items must be stored with each machine:

     ____ Product Support Manual
     ____ CE Diagnostic Diskette
     ____ Code Guide
     ____ MAPs
     ____ History Card

2. Record the following information on the History Card:

     ____ Serial Number, Type, Class Code, and Installation Date of all machines
     ____ Keyboard Serial Number
     ____ Display Serial Number
     ____ Memory ID
     ____ Communication portion of History Card, if applicable

3. Perform the following diagnostic exercises:

     ____ MDI Verification
     ____ System Function Exercise
     ____ Communication Installation Setup Procedures

4. Check for the following conditions:

     ____ Insure adequate serviceability of all devices*
     ____ Proper ventilation

     * Report to CE Management immediately if not adequate.

965 NTF/TELECOMMUNICATIONS

Major   Minor   Cause

| 9 | 6 | 5 | | 0 | | | | | |

Indicate Machine Configuration

1 Asynchronous   1 External Modem
2 Bisynchronous   2 Other (Explain)
3 SDLC

SYMPTOM CODES: Use as Cause Code
with Major 965 only.

Major   Minor   Cause

| 9 | 6 | 5 | | 0 | | | | | |

1 Suspected IBM Hard-   1 Missing/Garbled Information
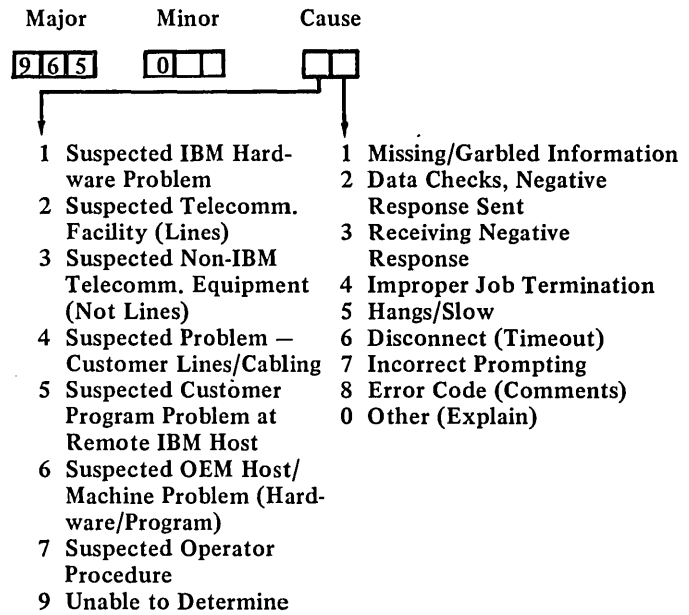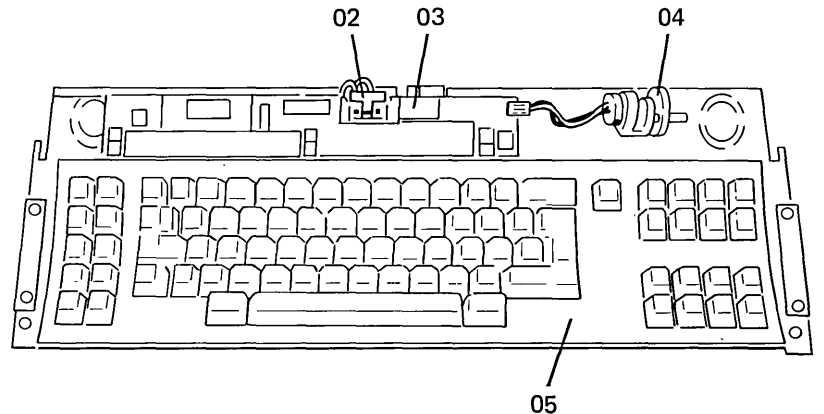 ware Problem   2 Data Checks, Negative
2 Suspected Telecomm.   Response Sent
  Facility (Lines)   3 Receiving Negative
3 Suspected Non-IBM   Response
  Telecomm. Equipment   4 Improper Job Termination
  (Not Lines)   5 Hangs/Slow
4 Suspected Problem —   6 Disconnect (Timeout)
  Customer Lines/Cabling 7 Incorrect Prompting
5 Suspected Customer   8 Error Code (Comments)
  Program Problem at   0 Other (Explain)
  Remote IBM Host
6 Suspected OEM Host/
  Machine Problem (Hard-
  ware/Program)
7 Suspected Operator
  Procedure
9 Unable to Determine

041 KEYBOARD B

Major   Minor   Cause

| 0 | 4 | 1 | | 0 | | | | | |

01 Covers
02 Cable
03 ID Jumper
04 Speaker
05 Keyboard Assembly
00 Other (Explain)

01

02   03   04

05

200 25-LINE DISPLAY

Major   Minor   Cause

| 2 | 0 | 0 | | 0 | | | | | |

01 Display Assembly
00 Other (Explain)

01
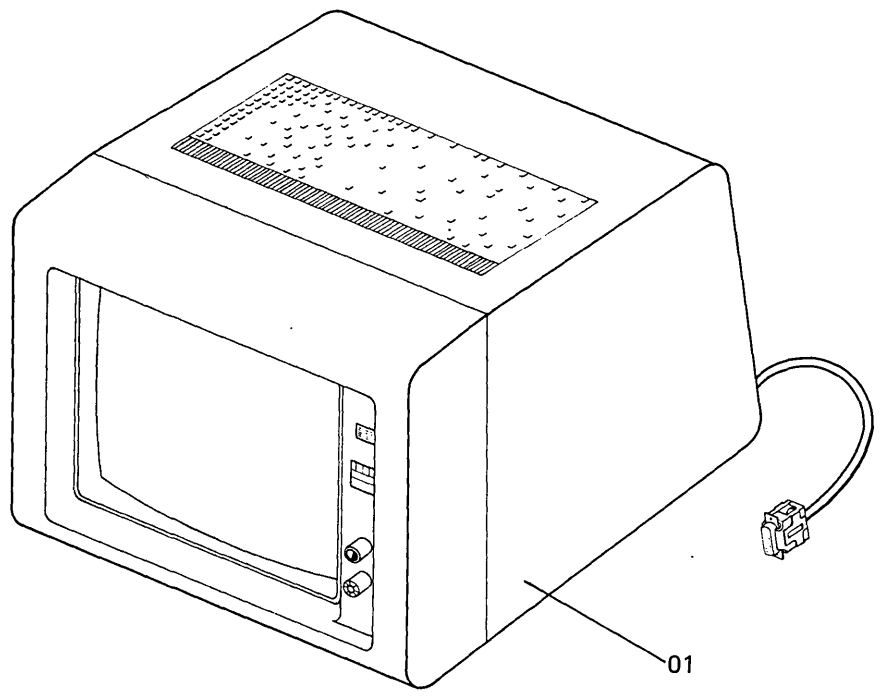
960 NO TROUBLE FOUND

Major   Minor   Cause

| 9 | 6 | 0 | | 0 | | | | | |

01 Customer Procedure
02 Display
03 Keyboard
04 Logic
05 Power Supply
06 POR Failure (BAT)
09 Unit Not Determined
00 Other (Explain)

SYMPTOM CODES: Use as Cause Code
with Major 960 only.

Major   Minor   Cause

| 9 | 6 | 0 | | 0 | | | | | |

71 Display Jumps/Blank
72 Wrong Data Displayed
73 Wrong Output
74 Incorrect Prompting
75 Inoperative
76 Keys Stick
77 Error Code (Comments)
00 Other (Explain)

910 SOFTWARE

Major	Minor	Cause
9 1 0	0	

91 Suspected software problem, escalated, resolution pending
92 Suspected software problem, emergency fix available
93 Suspected software problem, circumvention available
94 Suspected software problem, fix included in next service update
95 Suspected software problem, no fix provided

CAUSE CODES FOR SOFTWARE 910 ONLY

Major	Minor	Cause
9 1 0	0	

01 Current IBM software
02 Back level IBM software
03 Altered IBM software
04 Documentation
05 Permanent restriction
06 Non-IBM software/ customer programming

210 LARGE DISPLAY
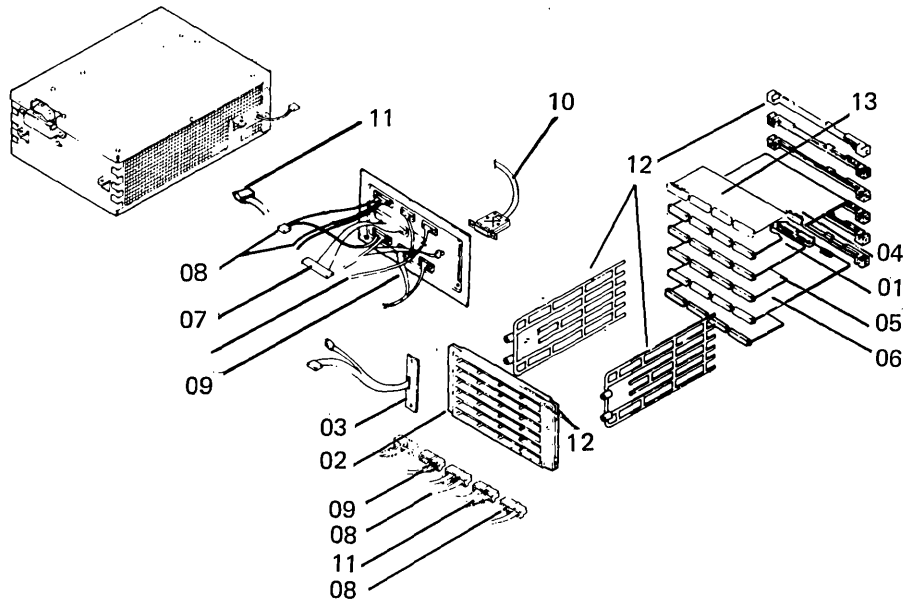
Major	Minor	Cause
2 1 0	0	

01 Post - Center
02 Knob - Brightness
03 Covers
04 Mainframe ASM.
05 Low Voltage Power Supply
06 Analog Card
07 Indicators
08 High Voltage Power Supply
09 AC Cable
10 Cover Latch ASM
00 Other (Explain)
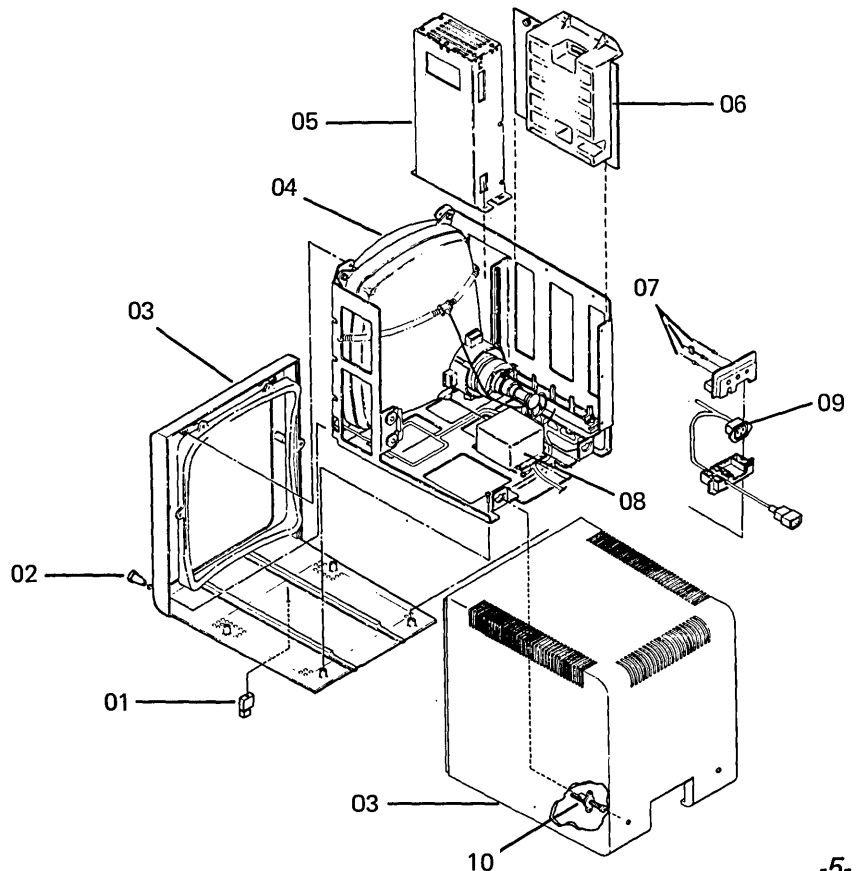
300 LOGIC

Major	Minor	Cause
3 0 0	0 ☐ ☐	☐ ☐

01 Display Adapter Card
02 Distribution Board
03 LED Board
04 Memory Card
05 Printer Sharing Card
06 System Card
07 Diskette Signal Cable/Connectors (Internal)
08 Distribution Cable/Multiple Connectors (Internal)
09 Printer Sharing Cable/Connectors (Internal)
10 Printer Sharing Cable/Connectors (External)
11 System Power Cable/Connectors (Internal)
12 Mounting Hardware
13 Memory Extender Card
00 Other (Explain)

900 MICROCODE (Does Not Require Cause Code)

Major	Minor	Cause
9 0 0	0 ☐ ☐	0 0

80 Suspected Microcode Problem — Not Escalated
81 Suspected Microcode Problem — Escalated
82 Suspected Microcode Problem — Engineering Determining Fix
83 Known Microcode Problem TMC* On Hand — TMC Locally Available, No Escalation Required**
84 Known Microcode Problem TMC Received From Region or Plant**
85 Known Microcode Problem EC Required — No TMC
86 New Microcode Problem — TMC Required**
87 New Microcode Problem — Fixed in Subsequent EC
88 Installation of a TMC**
00 Other (Explain)

Time spent installing an EC will be reported using Service Code 32 and CEM Number.

*TMC (Temporary Microcode Change) — Initially developed and provided to the field by Plant Engineering.
**Time spent installing a TMC will be reported using Service Code 32 and Minor Code 88.

870 CUSTOMER RESPONSIBILITY

Major	Minor	Cause
8 7 0	0	

01 Operator Procedure (Also See Cause/
  Activity Code 58)
02 Environment
03 Power Failure
04 Hardware Compatibility
05 Communications*
00 Other (Explain)

NOTE: Use this Major with
      Service Code 14.

CAUSE/ACTIVITY CODES FOR CUSTOMER RESPONSIBILITY 870 ONLY

Major	Minor	Cause
8 7 0	0	

31 Problem Determination Procedures Were
   Incorrect Or Misleading
32 Problem Determination Procedures Were
   Not used

*CAUSE/ACTIVITY CODES TO BE USED WITH MINOR CODE 05 ONLY

47 Teleprocessing communication lines
48 Non-IBM data communications equipment
   (Not Lines)
51 Non-IBM machine or host CPU hardware/
   software
58 Telecommunications-related operator error
   procedural problem. Includes operator
   instruction.
59 Telecommunications installation, setup or
   personalization on customer setup (CSU)
   products where such activities have been
   defined as customer responsibility
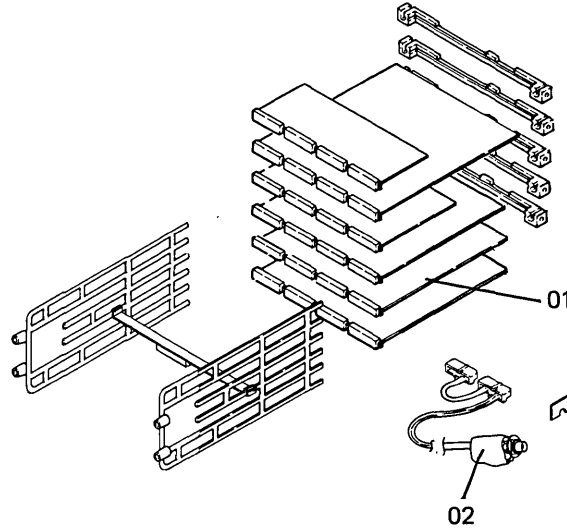60 Customer program problem at remote IBM
   host CPU

400 RPQs

Major	Minor	Cause
4 0 0	0	

Minor Codes

01 3277 ANR Card
02 3277 ANR Cable
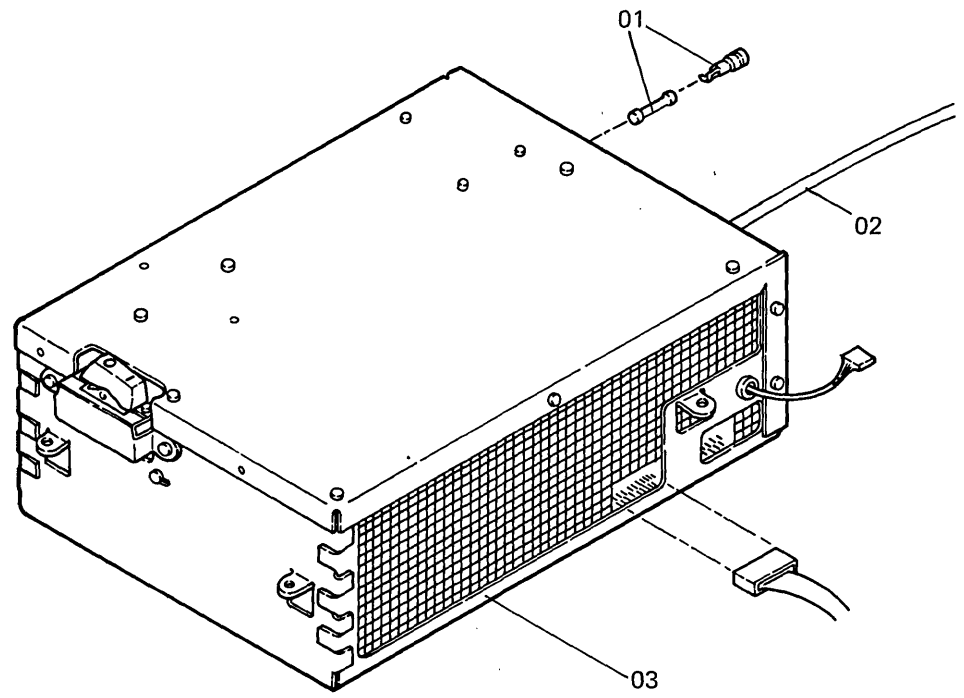00 Other (Explain in Narrative)

NOTE: Use Major 870 for Customer
      Responsibility Enter 3277
      ANR in narrative. (i.e.
      External Coaxial Cables Host
      Related Problems, Controller)

01

02

600 POWER SUPPLY

Major	Minor	Cause
6 0 0	0	

01 Fuse/Fuse Holder
02 Line Cord
03 Power Supply Assembly
00 Other (Explain)

700 TELECOMMUNICATIONS

Major	Minor	Cause
7 0 0	0	

1 Asynchronous
2 Bisynchronous
3 SDLC

1 Communication Adapter Card
2 External Modem
3 Cables/Connectors
4 Keylock
5 EIA Cable
0 Other (Explain)