

International Business Machines Corporation
Customer Service Division



Displaywriter System

Incident Reporting Guide IBM 6580 Display Station

Install Date _____
Model _____
Serial No. _____

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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

Major	Major Code	Page
<i>Base/Covers</i>	<i>.000</i>	<i>1</i>
<i>Customer Responsibility</i>	<i>.870</i>	<i>10</i>
<i>Display, 25-Line</i>	<i>.200</i>	<i>4</i>
<i>DWS 1st Call Checklist</i>		<i>15</i>
<i>Keyboard</i>	<i>.040</i>	<i>2</i>
<i>Keyboard B</i>	<i>.041</i>	<i>3</i>
<i>Large Display</i>	<i>.210</i>	<i>5</i>
<i>Logic</i>	<i>.300</i>	<i>6</i>
<i>Microcode</i>	<i>.900</i>	<i>11</i>
<i>No Trouble Found</i>	<i>.960</i>	<i>13</i>
<i>No Trouble Found/Telecommunications</i>	<i>.965</i>	<i>14</i>
<i>Power Supply</i>	<i>.600</i>	<i>8</i>
<i>RPQs</i>	<i>.400</i>	<i>7</i>
<i>Software</i>	<i>.910</i>	<i>12</i>
<i>Telecommunications</i>	<i>.700</i>	<i>9</i>

INSTRUCTIONS FOR USING THIS GUIDE

FOR PROBLEMS THAT REQUIRED A REPAIR ACTION

FOR ALL NO-TROUBLE-FOUND CALLS

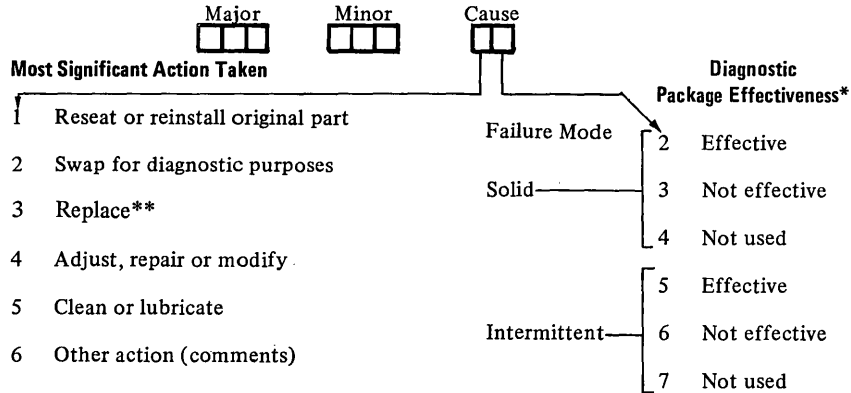
- Record the three-digit major and two-digit minor codes in the appropriate block.
- Record the two-digit cause code that best identifies the action, in the appropriate block.

- 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:



*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.

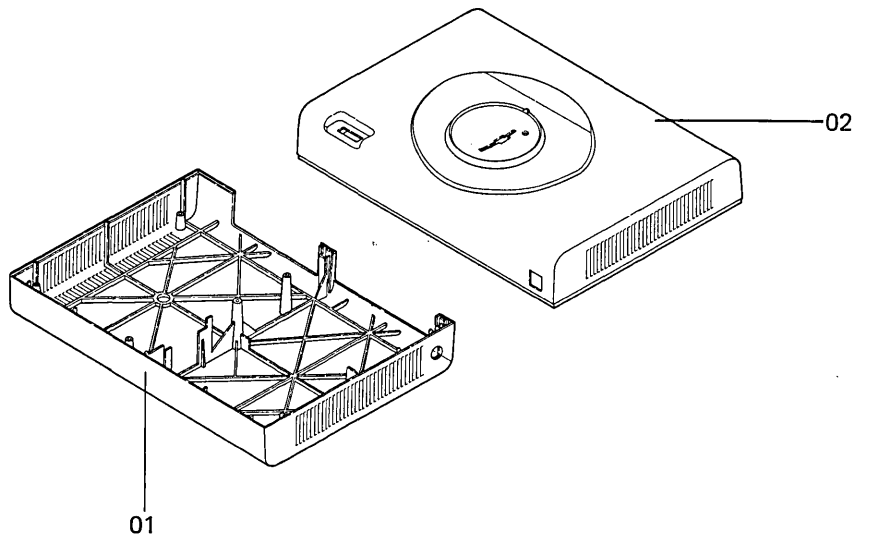
Note: Consider the MAPs and diagnostics effective if they identify the failing part or direct you to the appropriate repair action.

000 BASE/COVERS

Major Minor Cause

0|0|0 0| | | |

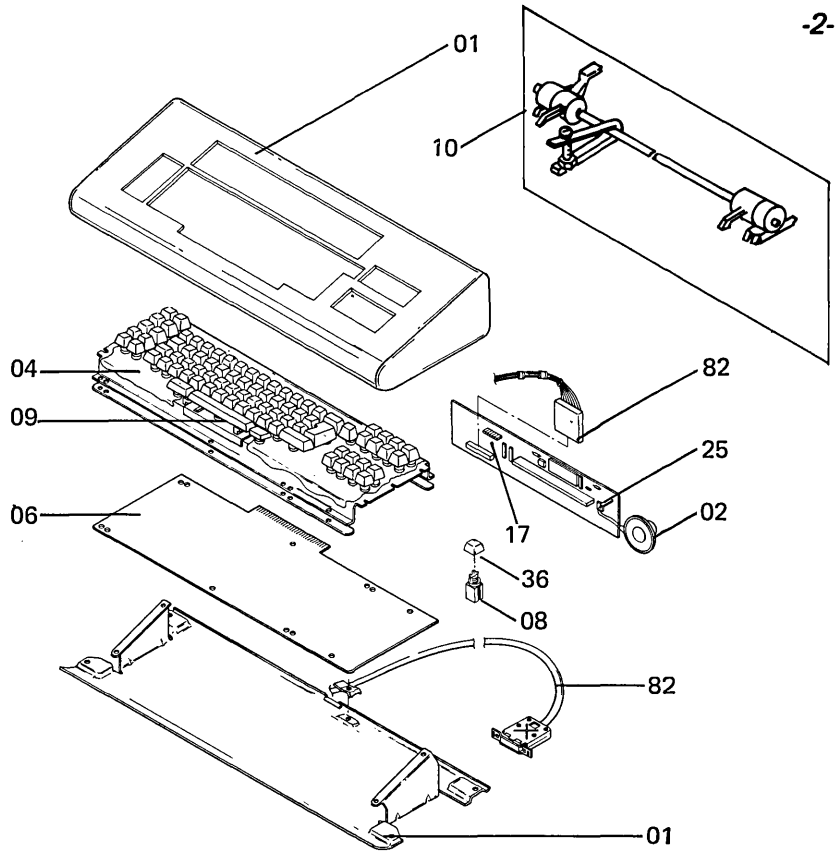
- 01 Bottom Cover
- 02 Top Cover
- 00 Other (Explain)



040 KEYBOARD

Major	Minor	Cause
040	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

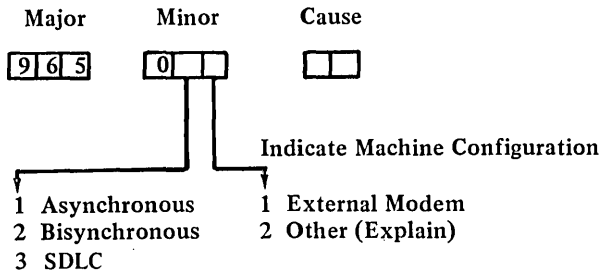
2. Record the following information on the History Card:
 - Serial Number, Type, Class Code, and Installation Date of all machines
 - Keyboard Serial Number
 - Display Serial Number
 - Memory ID
 - Communication portion of History Card, if applicable

3. Perform the following diagnostic exercises:
 - MDI Verification
 - System Function Exercise
 - Communication Installation Setup Procedures

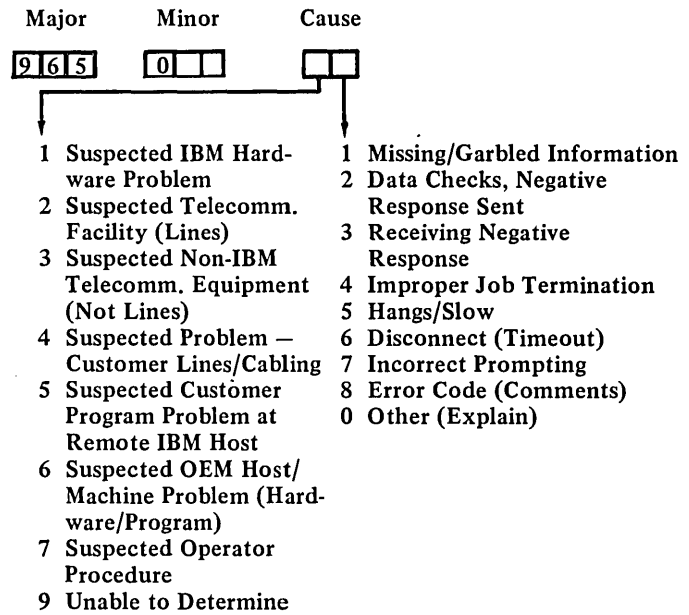
4. Check for the following conditions:
 - Insure adequate serviceability of all devices*
 - Proper ventilation

* Report to CE Management immediately if not adequate.

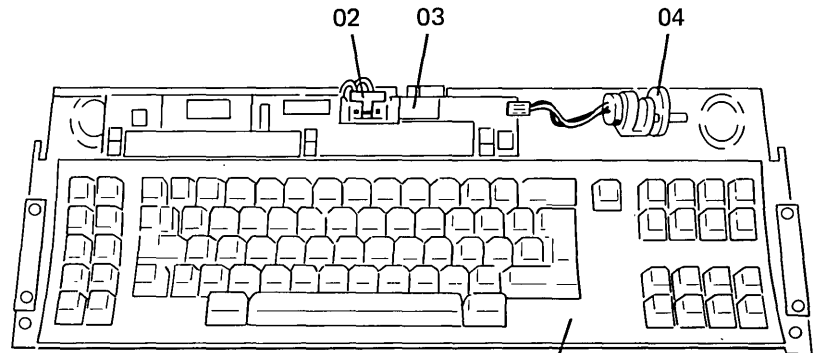
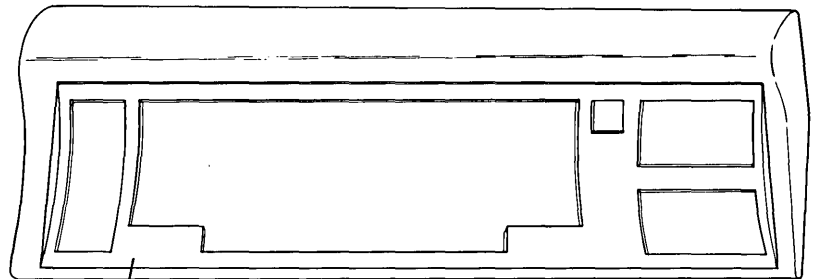
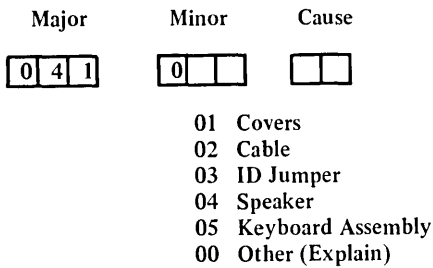
965 NTF/TELECOMMUNICATIONS



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



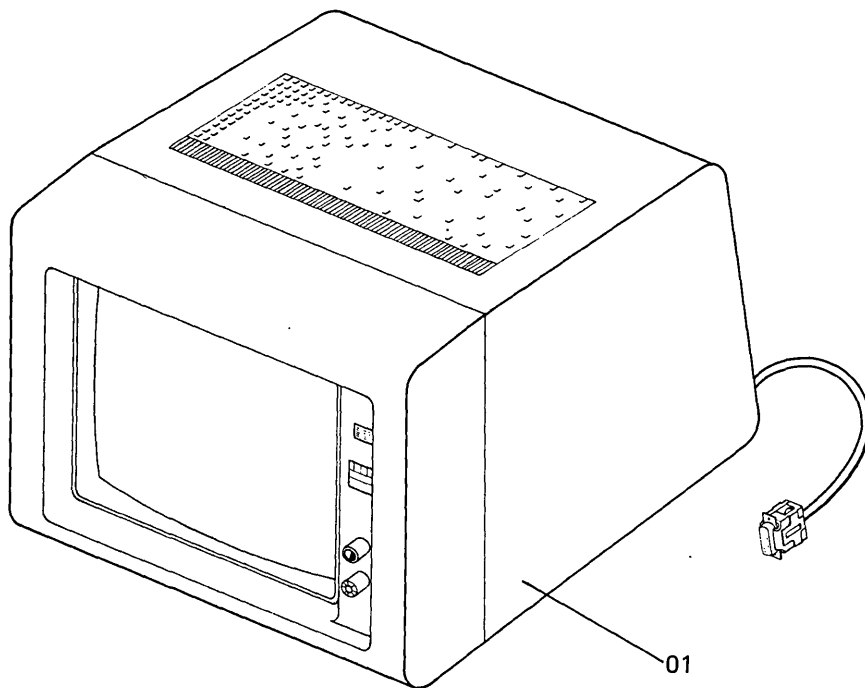
041 KEYBOARD B



200 25-LINE DISPLAY

Major	Minor	Cause
200	0	

- 01 Display Assembly
- 00 Other (Explain)



960 NO TROUBLE FOUND

Major	Minor	Cause
960	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
960	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
910	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

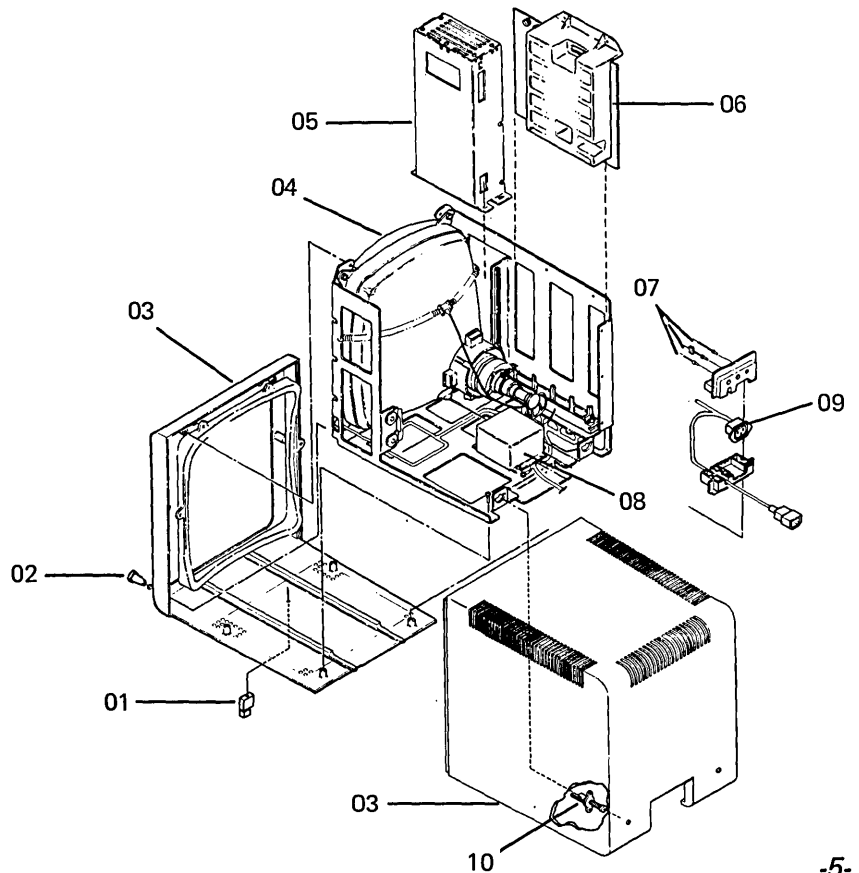
Major	Minor	Cause
910	0	

- 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
210	0	

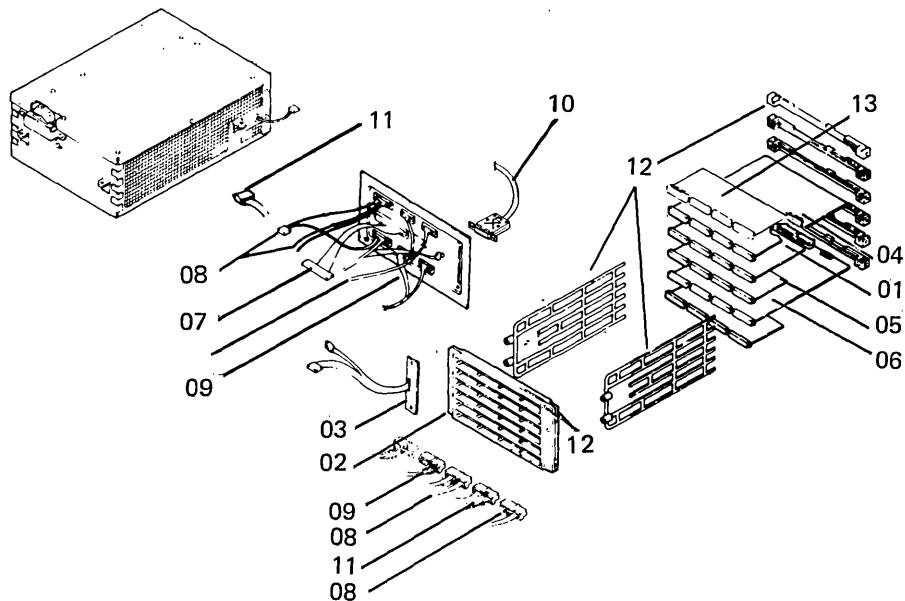
- 01 Post - Center
- 02 Knob - Brightness
- 03 Covers
- 04 Mainframe ASM.
- 05 Low Voltage Power Supply
- 06 Analog Card
- 07 Indicators
- 08 High Voltage Power Supply
- 09 AC Cable
- 10 Cover Latch ASM
- 00 Other (Explain)



300 LOGIC

Major Minor Cause
300 **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
900 **0** **00**

- 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
870	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
870	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

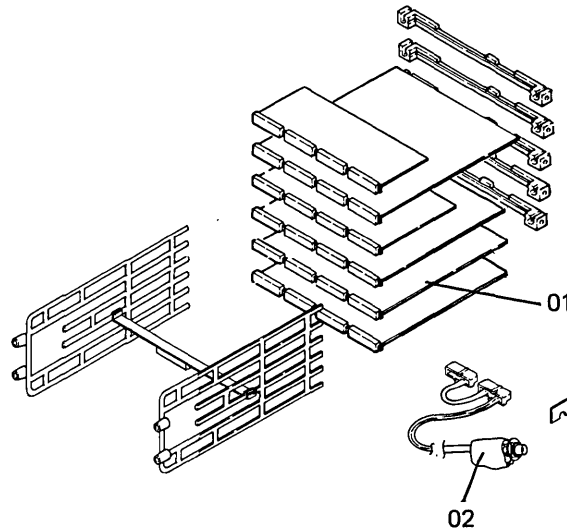
400 RPQs

Major	Minor	Cause
400	0	

Minor Codes

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

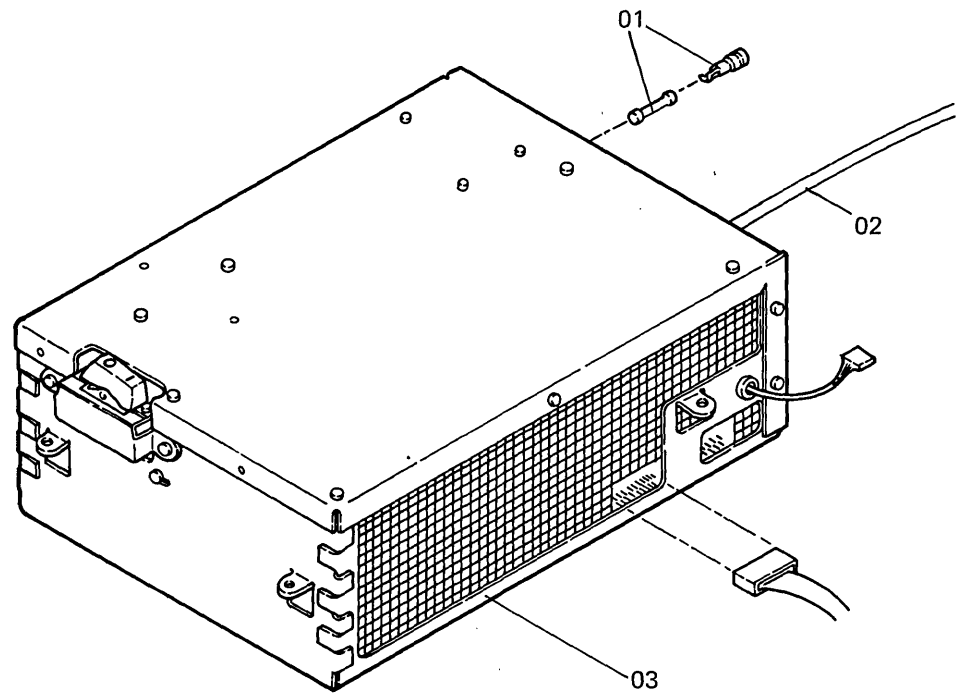
NOTE: Use Major 870 for Customer Responsibility Enter 3277 ANR in narrative. (i.e. External Coaxial Cables Host Related Problems, Controller)



600 POWER SUPPLY

Major	Minor	Cause
600	0	

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



700 TELECOMMUNICATIONS

Major	Minor	Cause
700	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)

