



# Fiscal Printer Model 3FA: Argentina Hardware Supplement

**Note!**

Before using this information and the product it supports, be sure to read the general information under "Notices" on page v.

### **Third Edition (October 1998)**

This edition applies to all subsequent releases and modifications until otherwise indicated in new editions.

This publication is available on the IBM Retail Store Solutions Electronic Support web site.

1. Go to <http://www.ibm.com/solutions/retail/>
2. Select **Support**
3. Select **Publications** to access the *IBM Retail Store Solutions - Free Publications* web site
4. Select **Fiscal Publications**

Publications are not stocked at the address given below.

Address any readers' comments to:

IBM Corporation, Department CJMA  
PO Box 12195  
Research Triangle Park, N.C., 27709  
U.S.A.

A Reader's Comment Form is also available on the Internet on the *IBM Retail Store Solutions - Free Publications* web site. When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

# Contents

Notices	v
Trademarks	v
Preface	vi
<b>Chapter 1. Fiscal Printer Installation</b>	<b>1-1</b>
4693/4694 Fiscal System Hardware Features	1-1
The Fiscal Base	1-1
Installing the Fiscal Printer	1-2
<b>Chapter 2. Hardware Service Manual Supplement</b>	<b>2-1</b>
Messages	2-1
Power-On Reset Messages	2-2
Tnnn Messages	2-6
Wnnn Messages	2-8
Ennn Messages	2-8
System Log Descriptions	2-10
B2 - Terminal Hardware Errors	2-10
B3 - Terminal Events	2-10
<b>Chapter 3. Hardware Service Manual for Input/Output Devices Supplement</b>	<b>3-1</b>
Start Here	3-1
Diagnostic and Service Diskettes	3-2
Fiscal Printer Messages	3-2
Fiscal Printer Return Codes	3-2
Fiscal System Utility – 4694 Service Diskette, 4693 Support and Diagnostic Diskette	3-4
4690 Operating System	3-5
Fiscal Printer Messages	3-5
Fiscal Printer Return Codes	3-5
Fiscal Printer Test – 4690 OS	3-7
Fiscal System Utility – 4690 OS	3-8
Removing and Replacing the Fiscal Printer Model 3FA	3-9
Removing the Fiscal Printer	3-9
Replacing the Fiscal Printer	3-9
Separating and Replacing the Fiscal Base Unit and the Printer	3-11
Separating the Fiscal Base Unit from the Printer	3-11
Reinstalling the Fiscal Base onto the Printer	3-11
Removing and Replacing the Fiscal Processor Card	3-12
Removing the Fiscal Processor Card	3-12
Replacing the Fiscal Processor Card	3-12
Removing and Replacing the Printer Card	3-13
Removing the Printer Card	3-13
Replacing the Printer Card	3-13
Removing and Replacing the Fiscal Base FRU	3-14
Cable Wiring Diagrams	3-15
Activating the J4 Jumper on the Fiscal Processor Card	3-16
Removing and Replacing the Printer Main Cover	3-17
Removing the Printer Main Cover	3-17
Replacing the Printer Main Cover	3-17
<b>Chapter 4. 4693/4694 Parts Catalog Fiscal Printer 3FA</b>	<b>4-1</b>

Printer Attachment Cables . . . . .	4-1
Assembly 1: IBM Fiscal Printer Model 3FA . . . . .	4-2
<b>Appendix A. Fiscal Unit Return Codes</b> . . . . .	A-1
4690 Hardware Return Code (ERRN) Descriptions . . . . .	A-1
Return Codes (ERRNs) 8090xxxx . . . . .	A-1
DOS and 4690 OS Return Code Descriptions . . . . .	A-2
Return Codes . . . . .	A-2
Return Code Conversion Table (4690 OS to DOS) . . . . .	A-25
<b>Index</b> . . . . .	X-1

---

## Notices

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
500 Columbus Avenue  
Thornwood, NY 10594  
USA

---

## Trademarks

The term "IBM" is a trademark of the IBM Corporation in the United States or other countries or both.

Other company, product, and service names, which may be denoted by a double asterisk (\*\*), may be trademarks or service marks of others.

---

## Preface

This book provides supplemental hardware information for the Fiscal Printer Model 3F that attaches to the IBM 4693 and 4694 point-of-sale terminals. For supplemental software information, see the *Fiscal Printer Model 3F Software Supplement* for your specific country.

**Note:** There is a sensor unique to Argentina. This is a *customer receipt paper supply* sensor. When the customer paper receipt paper supply needs to be replaced on the customer receipt station, the display will show Return Code 203. Return Code 203 can either mean that the printer cover is open, or that the customer receipt paper supply needs to be replaced.

Chapter 1 on page 1-1 supplements:

*IBM 4693 Point of Sale Terminals: Installation and Operation Guide, SA27-3978*

*IBM 4694 Point of Sale Terminal: Installation and Operation Guide, SA27-4005*

Chapter 2 on page 2-1 supplements:

*IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual, SY27-0337*

Chapter 3 on page 3-1 supplements:

*IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices, SY27-0339*

Chapter 4 on page 4-1 supplements:

*IBM Store Systems: Parts Catalog, S131-0097*

Appendix A on page A-1 contains explanations and user responses to system messages.

These publications are also available at the IBM Retail Store Solutions internet site:

1. Go to <http://www.ibm.com/solutions/retail/>
2. Select **Solutions**
3. Select **Public Documentation** to access the *Free Publication* page
4. Select **Fiscal Publications**

**Note:** Before using the Fiscal Publication and the product it supports, be sure to read the *IBM Safety Information — Read This First, GA27-4004*.

---

## Chapter 1. Fiscal Printer Installation

This chapter supplements:

*IBM 4693 Point of Sale Terminals: Installation and Operation Guide*

*IBM 4694 Point of Sale Terminal: Installation and Operation Guide*

---

### 4693/4694 Fiscal System Hardware Features

The Model 3FA fiscal printer consists of two major subassemblies: a point of sale (POS) printer, and a fiscal base. The POS printer is a modified version of the IBM Model 3 printer. The modifications include:

- The addition of a customer receipt paper-out sensor
- The addition of internal mechanical shields
- The addition of a means of securely mounting the printer to the fiscal base.

### The Fiscal Base

The fiscal base consist of a power supply, fiscal logic card, and fiscal memory. The fiscal base is secured to the point-of-sale printer with a single screw, then sealed with a tamper-evident wire seal, which protects the fiscal module from unauthorized access. The fiscal label is attached to the fiscal base and contains the same serial number that is electronically written to the fiscal memory in that base.

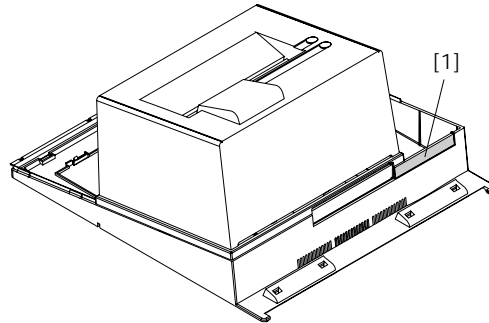
**Note:** The fiscal wire seal and the fiscal label are readily visible in every configuration of the POS terminal.

Figure 1-1 on page 1-2 shows a Model 3FA Fiscal Printer mounted in an integrated configuration. For a 4694 configuration, the printer can be mounted on top of the 4694 system unit, or it can be integrated on top of the cash drawer. In either the 4693 or the 4694 configuration, no point-of-sale display is required by fiscal law in Argentina.

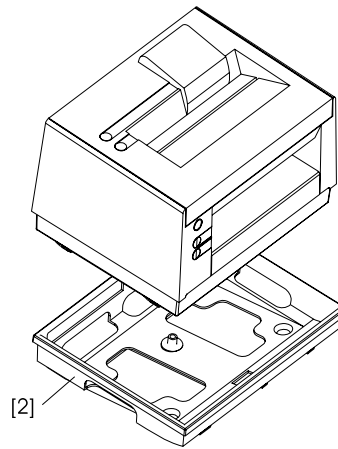
## Installing the Fiscal Printer

Figure 1-1 illustrates how to install the fiscal printer to the system unit or the cash drawer.

1. Determine which side of the system unit to install the fiscal printer. Install the fiscal printer filler [1] on the opposite side from the fiscal printer.



2. Install the fiscal printer onto the tray [2].



3. Install the tray to the system unit and press in on the locking lever [4] so that it engages the keyboard, printer, and fillers. Check to make sure that the locking lever securely holds the keyboard, printer, and fillers to the system unit.

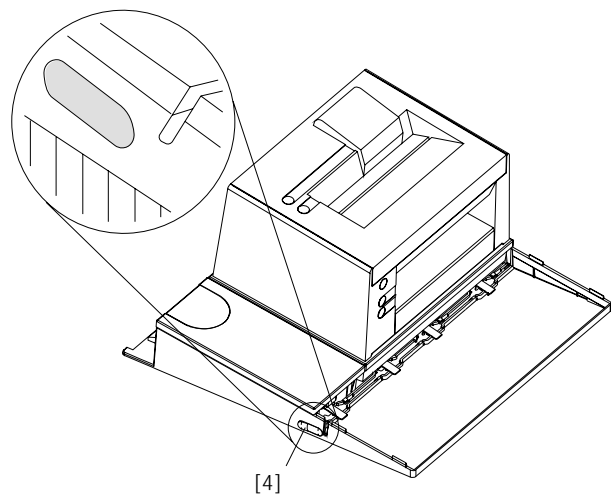


Figure 1-1. Installing the Fiscal Printer



---

## Chapter 2. Hardware Service Manual Supplement

This chapter supplements the *IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual*.

**CAUTION:**

**For your safety, connect equipment requiring electrical power to a properly wired and grounded outlet.**

**DANGER**

**Never work on equipment or connect or disconnect signal cables during periods of lightning activity.**

---

## Messages

There are messages that are displayed or printed at the point-of-sale terminal to provide information about the fiscal printer:

- Power-On Reset
- Tnnn
- Wnnn
- Ennn

For other messages, see Appendix A on page A-1, or “Return Code Conversion Table (4690 OS to DOS)” on page A-25. Also see the *IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual*.

## Power-On Reset Messages

At power-on reset completion, a message is printed on the customer receipt and summary journal stations to inform the operator of the fiscal unit status. If no message is printed, there may be a printer error interfering with the power-on reset. Refer to the terminal display for guidance. See Figure 2-1 for power-on reset message examples.

**Power-on Message FSS0001:** This message indicates all of the following:

1. The printer **has** had its serial number stored in its fiscal memory.
2. The printer **has** been set in "fiscal mode."
3. All power up diagnostics ran with no problems.

```

-----
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
| FSS0001      mmm sssssss      vv          |
| REGISTRADORA FISCAL ACTIVA                | "FISCAL REGISTER ACTIVATED"
| dd/mm/yy hh:mm:ss                        | Date and Time
| D.N.F.H.: nnn                            |
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
-----

```

Figure 2-1. Power On Message - FSS0001

mmm = Manufacturing/brand/model id  
 ssssssss = Machine serial number  
 vv = Code version  
 dd/mm/yy = Date  
 hh:mm = Time  
 nnn = non-fiscal documents counter

**Power-on Message FSS0002:** This message indicates all of the following:

1. The printer **has** had its serial number stored in its fiscal memory.
2. The printer **has** been set in "fiscal mode."
3. There was an error detected during the power on diagnostics. The field eee immediately after the FSS0002 is the error return code, which is described in Table 3-4 on page 3-5, or Appendix A on page A-1 of this manual.

```

-----
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
| FSS0002-eee      mmm sssssss      vv          |
| REGISTRADORA FISCAL NO ACTIVA                | "FISCAL REGISTER NOT WORKING"
| D.N.F.H.: nnn                            |
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
-----

```

Figure 2-2. Power On Message - FSS0002

eee = Error code  
 mmm = Manufacturing/brand/model id  
 ssssssss = Machine serial number  
 vv = Code version  
 nnn = non-fiscal documents counter

**Power-on Message FSS0003:** This message indicates all of the following:

1. The printer **has not** had its serial number stored in its fiscal memory.
2. The printer **has not** yet been set in "fiscal mode."
3. All power up diagnostics were successful.

```

-----
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
| FSS0003          mmm sssssss          vv    |
| REGISTRADORA FISCAL ACTIVA                | "FISCAL REGISTER ACTIVATED"
| dd/mm/yy hh:mm:ss                        | Date and Time
| D.N.F.H.: nnn                            |
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
-----

```

Figure 2-3. Power On Message - FSS0003

mmm = Manufacturing/brand/model id  
 ssssssss = Machine serial number  
 vv = Code version  
 dd/mm/yy = Date  
 hh:mm:ss = Time  
 nnn = non-fiscal documents counter

**Power-on Message FSS0004:** This message indicates all of the following:

1. The printer **has** had its serial number stored in its fiscal memory.
2. The printer **has not** yet been set in "fiscal mode."
3. All power up diagnostics were successful.

```

-----
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
| FSS0004          mmm sssssss          vv    |
| REGISTRADORA FISCAL ACTIVA                | "FISCAL REGISTER ACTIVATED"
| dd/mm/yy hh:mm:ss                        | Date and Time
| D.N.F.H.: nnn                            |
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
-----

```

Figure 2-4. Power On Message - FSS0004

mmm = Manufacturing/brand/model id  
 ssssssss = Machine serial number  
 vv = Code version  
 dd/mm/yy = Date  
 hh:mm:ss = Time  
 nnn = non-fiscal documents counter

**Power-on Message FSS0005:** This message indicates all of the following:

1. The printer **has not** had its serial number stored in its fiscal memory.
2. The printer **has not** yet been set in "fiscal mode."
3. There was an error detected during the power up diagnostics. The field eee immediately after the FSS0005 is the error return code. This error return code is described in the Table 3-2 on page 3-2 or Appendix A on page A-1 of this manual.

```

-----
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
| FSS0005-eee                                vv |
|          CJAJ REGISTRADORA NO ACTIVA        | "CASH REGISTER NOT WORKING"
| D.N.F.H.: nnn                              |
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
-----

```

Figure 2-5. Power On Message - FSS0005

eee = Error code  
vv = Code version  
nnn = non-fiscal documents counter

**Power-on Message FSS0006:** This message indicates all of the following:

1. The printer **has** had its serial number stored in its fiscal memory.
2. The printer **has not** yet been set in "fiscal mode."
3. There was an error detected during the power up diagnostics. The field eee immediately after the FSS0006 is the error return code. This error return code is described in the Table 3-2 on page 3-2 or Appendix A on page A-1 of this manual.

```

-----
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
| FSS0006-eee mmm ssssss                    vv |
|          CJAJ REGISTRADORA NO ACTIVA        | "CASH REGISTER NOT WORKING"
| D.N.F.H.: nnn                              |
|          * NO FISCAL HOMOLOGADO *          | "NOT FISCAL HOMOLOGATED"
-----

```

Figure 2-6. Power On Message - FSS0006

eee = Error code  
mmm = Manufacturing/brand/model id  
ssssss = Machine serial number  
vv = Code version  
nnn = non-fiscal documents counter

**Power-on Message FSS0007:** This message indicates all of the following:

1. The printer **has** had its serial number stored in its fiscal memory.
2. The printer **has** been set in "fiscal mode."
3. The fiscal printer memory has locked.

* NO FISCAL HOMOLOGADO *	"NOT FISCAL HOMOLOGATED"
FSS0007            mmm sssssss            vv	
IMPRESORA FISCAL BLOQUEADA	"FISCAL PRINTER LOCKED"
dd/mm/yy hh:mm:ss	Date and Time
D.N.F.H.: nnn	
* NO FISCAL HOMOLOGADO *	"NOT FISCAL HOMOLOGATED"

Figure 2-7. Power On Message - FSS0007

- mmm = Manufacturing/brand/model id
- sssssss = Machine serial number
- vv = Code version
- nnn = non-fiscal documents counter
- dd/mm/yy = Date
- hh:mm:ss = Time

## Tnnn Messages

These messages are displayed or printed at the point-of-sale terminal when tests are running.

---

<b>T0020</b>	<b>Request not valid, retry</b> <b>Explanation:</b> The test or utility request that was entered is not valid. <b>User Response:</b> Re-enter the correct test or utility request.
<b>T0050</b>	<b>RC=xxxxxxxx from main program</b> <b>Explanation:</b> A problem is detected within the operating system. <b>User Response:</b> Type <b>0</b> and press <b>S2</b> to stop the test and then re-run the test. If the problem remains, see Appendix A for your country's specific return codes.
<b>T0051</b>	<b>Return code = xxx</b> <b>Explanation:</b> A problem is detected by the fiscal unit. <b>User Response:</b> See "DOS and 4690 OS Return Code Descriptions" on page A-2.
<b>T7160</b>	<b>Fiscal unit failure</b> <b>Explanation:</b> A problem is detected in the fiscal unit. <b>User Response:</b> Switch <b>POWER OFF</b> and service the fiscal printer.
<b>T7161</b>	<b>Fiscal unit failure</b> <b>Explanation:</b> A problem is detected in the fiscal memory. <b>User Response:</b> Switch <b>POWER OFF</b> and service the fiscal printer.
<b>T9501</b>	<b>Length of input incorrect. Re-enter.</b> <b>Explanation:</b> A date or closure number that was entered for the dump is not valid. <b>User Response:</b> Re-enter the correct dates or closure numbers.
<b>T9502</b>	<b>Invalid password</b> <b>Explanation:</b> The password that was entered is not valid. <b>User Response:</b> Re-enter the correct password.
<b>T9503</b>	<b>No data available</b> <b>Explanation:</b> There is no dump data available for the dump request you entered. <b>User Response:</b> Re-enter different dates or closure numbers.
<b>T9504</b>	<b>Display error - OR - T9504 Display configuration error</b> <b>Explanation:</b> <ol style="list-style-type: none"><li>1. A problem is detected in the point-of-sale display.</li><li>2. A problem is detected in the configuration for the point-of-sale displays. Two displays must be configured with a combination of:<ul style="list-style-type: none"><li>• Alphanumeric</li><li>• Operator display</li><li>• Shopper display</li></ul></li></ol>

---

**User Response:**

1. Check that two of the correct displays are configured.
2. See Set Display Address as Configured in "Fiscal System Utility – 4690 OS" on page 3-8.
3. Run diagnostics on the displays.

---

<b>T9505</b>	<b>Print in process. Please wait.</b> <b>Explanation:</b> The printer is currently printing a dump request. <b>User Response:</b> Re-enter your request after the printing completes.
<b>T9506</b>	<b>Enter lower closure number: NNNN</b> <b>User Response:</b> Enter the lower closure number of the dump range.
<b>T9507</b>	<b>Enter upper closure number: NNNN</b> <b>User Response:</b> Enter the upper closure number of the dump range.
<b>T9509</b>	<b>Enter start day and month: DDMM</b> <b>User Response:</b> Enter the start day and month of the dump range.
<b>T9510</b>	<b>Enter end day and month: DDMM</b> <b>User Response:</b> Enter the end day and month of the dump range.
<b>T9511</b>	<b>Enter password</b> <b>User Response:</b> Enter the password.
<b>T9512</b>	<b>Enter start year: YYYY</b> <b>User Response:</b> Enter the start year of the dump range.
<b>T9513</b>	<b>Enter end year: YYYY</b> <b>User Response:</b> Enter the end year of the dump range.
<b>T9515</b>	<b>Enter operator number:</b> <b>User Response:</b> Wait for the application to complete loading.
<b>T9516</b>	<b>Enter start address: NNNN</b> <b>User Response:</b> Enter the start (lower) address (in decimal) of the dump range.
<b>T9517</b>	<b>Enter end address: NNNN</b> <b>User Response:</b> Enter the end (upper) address (in decimal) of the dump range.
<b>T9522</b>	<b>Enter new day and month: DDMM</b> <b>User Response:</b> Enter the day of the month and the number of the month in four consecutive digits.
<b>T9523</b>	<b>Enter new year: YYYY</b> <b>User Response:</b> Enter all four digits of the year.

---

**T9524**      **Enter new time: HHMMSS**  
**User Response:** Enter the time as 00 to 23 hours, 00 to 59 minutes, and 00 to 59 seconds.

---

**T9525**      **Enter start address: NNNNN**  
**User Response:** Enter the start (lower) address of the dump range.

---

**T9526**      **Enter end address: NNNNN**  
**User Response:** Enter the end (upper) address of the dump range.

## Wnnn Messages

This message is displayed or printed at the point-of-sale terminal when store operations are in progress.

---

**W332**      **FISCAL UNIT PROBLEM**  
**Bx/Sxxx/Ennn RC=xxxxxxx**  
**Explanation:** An error is detected in the fiscal printer.  
**Programmer Response:** Base your actions on the return code in the message. See "Return Code Conversion Table (4690 OS to DOS)" on page A-25 and "DOS and 4690 OS Return Code Descriptions" on page A-2 for your country's specific return codes.  
**System Action:** Logged as B2/S090/Ennn (E030 through E045). See the following event messages.

## Ennn Messages

These messages are event messages displayed in conjunction with message W332.

---

**E030**  
**Explanation:** An error occurred in the fiscal unit at power up.  
**User Response:** Run the "Fiscal Printer Test – 4690 OS" on page 3-7 to determine the cause of the problem.

---

**E032**  
**Explanation:** A power line disturbance occurred during command processing.  
**User Response:** Run the "Fiscal Printer Test – 4690 OS" on page 3-7 to determine the cause of the problem.

---

**E033**  
**Explanation:** An error occurred while processing the fiscal command.  
**User Response:** Follow the **User Response** for the return code in message W332. See "Return Code Conversion Table (4690 OS to DOS)" on page A-25 and "DOS and 4690 OS Return Code Descriptions" on page A-2 for your country's specific return codes.



---

**E034**

**Explanation:** An error occurred while writing to the fiscal memory.

**User Response:** Follow the **User Response** for the return code in message W332. See “Return Code Conversion Table (4690 OS to DOS)” on page A-25 and “DOS and 4690 OS Return Code Descriptions” on page A-2 for your country’s specific return codes.

---

**E036**

**Explanation:** A hardware error occurred in the fiscal unit.

**User Response:** Follow the **User Response** for the return code in message W332. See “Return Code Conversion Table (4690 OS to DOS)” on page A-25 and “DOS and 4690 OS Return Code Descriptions” on page A-2 for your country’s specific return codes.

---

**E037**

**Explanation:** An incorrect password was used when trying to access the fiscal unit.

**User Response:** Re-enter the correct password.

---

**E043**

**Explanation:** The fiscal memory is full.

**User Response:** The fiscal unit requires service.

---

**E044**

**Explanation:** The J4 (CE) jumper is required to continue.

**User Response:** The fiscal unit requires service.

---

**E045**

**Explanation:** More than 199 repair actions have been performed on the fiscal unit.

**User Response:** The fiscal unit requires service.

## System Log Descriptions

These tables contain information about the **Bx/Sxxx/Ennn** entry in system messages. For additional information, see "System Log Descriptions" in the *IBM 4690 Store System: Messages Guide*.

### B2 - Terminal Hardware Errors

<i>Table 2-1. B2 - Terminal Hardware Errors</i>					
SOURCE(S)	EVENT	SYSTEM MESSAGE	UNIQUE DATA	ALERT NO.	EXPLANATION
090	30	W332	See Note	N/A	An error occurred in the fiscal unit on power up.
090	32	W332	See Note	N/A	A power line disturbance (PLD) error occurred during command execution in the fiscal unit.
090	33	W332	See Note	N/A	An error occurred while processing a fiscal command.
090	34	W332	See Note	N/A	An error is detected while trying to write to the fiscal memory.
090	36	W332	See Note	N/A	A hardware error has occurred in the fiscal unit.
090	37	W332	See Note	N/A	An incorrect password was entered when attempting to access the fiscal unit.
<b>Note: Unique Data Format:</b>					
DEVICE ID: xx		COMMAND: xxxxx			
PRINTER STATUS: xxxxxx		FISCAL STATUS: xxxxxx			
RETURN CODE: xxxxxxxx					

### B3 - Terminal Events

<i>Table 2-2. B3 - Terminal Events</i>					
SOURCE	EVENT	SYSTEM MESSAGE	UNIQUE DATA	ALERT NO.	EXPLANATION
090	043	W332	See Note	N/A	The fiscal unit memory is full.
090	044	W332	See Note	N/A	The J4 (CE) jumper is required to continue.
090	045	W332	See Note	N/A	More than 199 repair actions have been performed on the fiscal unit.
<b>Note: Unique Data Format:</b>					
DEVICE ID: xx		COMMAND: xxxxx			
PRINTER STATUS: xxxxxx		FISCAL STATUS: xxxxxx			
RETURN CODE: xxxxxxxx					

---

## Chapter 3. Hardware Service Manual for Input/Output Devices Supplement

This chapter supplements the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.

### CAUTION:

For your safety, connect equipment requiring electrical power to a properly wired and grounded outlet.

### DANGER

<p>Never work on equipment or connect or disconnect signal cables during periods of lightning activity.</p>
---

---

## Start Here

Run the following two tests sequentially. See the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices* for details of the tests. The symptoms to troubleshoot the printer depend on adhering to the tests.

1. Run the **printer offline test** in the maintenance manual and troubleshoot any failure there.
2. When the printer offline test runs correctly, continue with the **printer test**.

**Note:** If there is an error message while running the diagnostic, see Table 3-3 on page 3-5 or Table 3-1 on page 3-2. If the message is not in one of these tables, see the messages in the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.

## Diagnostic and Service Diskettes

This section contains messages, return codes, and the system utility for the service, support or diagnostic diskettes. See "Printer Repair" in *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices* for printer test procedures.

## Fiscal Printer Messages

Use Table 3-1 to determine the cause of a diagnostic or service diskette message.

Table 3-1. Diagnostic or Service Diskette Fiscal Printer Messages

Printer Message	Repair Action
<b>6338, 63B8</b>	<ol style="list-style-type: none"> <li>1. The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.</li> <li>2. Cable 7 is failing. Replace the cable.</li> </ol>
<b>T0051</b> Return Code /xxx	xxx = the three digit <b>Printer Message</b> in Table 3-2.
<b>T7151</b> The printer is not communicating with the terminal.	<ol style="list-style-type: none"> <li>1. The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.</li> <li>2. Cable 7 is failing. Replace the cable.</li> </ol>
<b>T7160</b> Fiscal unit failure	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.

## Fiscal Printer Return Codes

Use Table 3-2 to determine the cause of diagnostic or service diskette return code T0051. See Appendix A for other hardware and software return codes.

Table 3-2 (Page 1 of 2). Fiscal Printer Return Code Associated with Printer Message T0051

Printer Message	Repair Action
<b>071</b> Internal code error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>073</b> Internal code error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>078</b> Internal code error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>083</b> Internal fiscal processor error	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>086</b> Invalid password	Use the correct password.
<b>089</b> Fiscal memory is full	The fiscal memory is full. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>091</b> Internal processor fiscal error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.

Table 3-2 (Page 2 of 2). Fiscal Printer Return Code Associated with Printer Message T0051

Printer Message	Repair Action
<b>097</b> RAM pattern is wrong	<ol style="list-style-type: none"> <li>1. Move the J4 (CE) jumper on the fiscal processor card to the active position. See "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.</li> <li>2. If the problem persists, check to see if the J5 jumper on the fiscal processor card was moved instead of the J4 jumper. To recover from this problem, see "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.</li> <li>3. If the problem persists, the fiscal processor card may be failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.</li> <li>4. Re-seat the cable connected to the fiscal memory. If the cable was disconnected, the J4 jumper procedure is required.</li> <li>5. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>098</b> Fiscal RAM is restored	Move the J4 (CE) jumper on the fiscal processor card to the stored position. See "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.
<b>099</b> More than 199 repair actions	The maximum number of repair actions allowed has been reached. Replace the fiscal base FRU when the next failure occurs. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>100</b> Error reading fiscal memory	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>101</b> Error writing fiscal memory	The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>109</b> Fiscal memory not connected	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory. If the cable was disconnected, the J4 jumper procedure is required. See "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>113</b> Unrecoverable printer error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>114</b> Printer communications error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>120</b> Printer timeout error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>121</b> Unrecoverable printer timeout error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>128</b> Fiscal memory not initialized correctly	The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>129</b> Fiscal memory not yet in fiscal state	If the printer should be in the fiscal state, then attempt to set fiscal mode using the "Fiscal System Utility – 4694 Service Diskette, 4693 Support and Diagnostic Diskette" on page 3-4. If the fiscal state cannot be set, then the fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>131</b> Displays not operational	<ol style="list-style-type: none"> <li>1. Check that the correct displays are configured.</li> <li>2. Run the set display utility. See "Fiscal System Utility – 4694 Service Diskette, 4693 Support and Diagnostic Diskette" on page 3-4.</li> <li>3. Run diagnostic on the displays.</li> </ol>
<b>134</b> Internal fiscal hardware error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.

## **Fiscal System Utility – 4694 Service Diskette, 4693 Support and Diagnostic Diskette**

This utility is used to print the fiscal printer totals from the fiscal memory, to set the printer in fiscal mode, to set the number of displays and their addresses, to set the time and date, and to print a dump of the RAM and of the fiscal memory EPROM. See “Configuration, Tests, and Utilities” in the *IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual* for more detail.

### ***Running the Utility:***

1. From the Main Menu, select TEST MENU.
2. From the Test Menu, select RUN POS DEVICE TESTS.
3. From the Menu TEST-7 (this menu appears on some models of 4693 only), select RUN 4693 MOD xxx TESTS.
4. From the Device Test Menu, select FISCAL PRINTER UTILITIES.
5. When the Menu UTILITY-4 is displayed, select one of the following:
  - Print All Totals
  - Print All Daily Totals
  - Print All Totals by Date
  - Print All Daily Totals by Date
  - Print All Totals by Closure Number
  - Print All Daily Totals by Closure Number
  - Set Fiscal Mode
  - Set Display Address as Configured
  - Set Date and Time
  - Print RAM data
  - Print memory data
  - Quit
6. Follow the instructions on the display.

**Note:** A password is required for the “Set Display Address as Configured” command.

## 4690 Operating System

This section contains messages, return codes, the fiscal printer test, and system utility for the 4690 operating system.

### Fiscal Printer Messages

Use Table 3-3 to determine the cause of a 4690 operating system message.

Table 3-3. 4690 Operating System Fiscal Printer Messages

Printer Message	Repair Action
<b>T0050</b> Return Code 8090xxxx	xxxx = the four digit <b>Printer Message</b> in Table 3-4.
<b>T7151</b> The printer is not communicating with the terminal.	<ol style="list-style-type: none"> <li>1. The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.</li> <li>2. Cable 7 is failing. Replace the cable.</li> </ol>
<b>T7160</b> Fiscal unit failure	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>W332</b> Fiscal unit problem	See "Wnnn Messages" on page 2-8.

### Fiscal Printer Return Codes

Use Table 3-4 to determine the cause of the 4690 operating system return code T0050. See Appendix A for other hardware and software return codes.

Table 3-4 (Page 1 of 2). Fiscal Printer Return Codes Associated with Printer Message T0050

Printer Message	Repair Action
<b>0302</b> Internal code error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>0303</b> Internal code error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>0304</b> Internal code error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>0307</b> Internal fiscal error	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>0312</b> Fiscal memory is full	The fiscal memory is full. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>0314</b> Internal fiscal error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>0318</b> More than 199 repair actions	The maximum number of repair actions allowed was reached. Replace the fiscal base FRU when the next failure occurs. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>0320</b> Fiscal memory not initialized correctly.	The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.
<b>0321</b> Fiscal memory not yet in fiscal state	If the printer should be in the fiscal state, then attempt to set fiscal mode using the "Fiscal System Utility – 4690 OS" on page 3-8. If the fiscal state cannot be set, then the fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.

Table 3-4 (Page 2 of 2). Fiscal Printer Return Codes Associated with Printer Message T0050

Printer Message	Repair Action
<b>0323</b> Display not operational	<ol style="list-style-type: none"> <li>1. Check that the display is configured correctly.</li> <li>2. Run the Set Display utility. See "Fiscal System Utility – 4690 OS" on page 3-8.</li> <li>3. Run diagnostics on the display.</li> </ol>
<b>0324</b> Fiscal memory not connected	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory. If the cable was disconnected, the J4 jumper procedure is required. See "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>0325</b> Internal fiscal hardware error	The fiscal processor card is failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.
<b>0326</b> Error writing fiscal memory	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>0329</b> Error reading fiscal memory	<ol style="list-style-type: none"> <li>1. Re-seat the cable connected to the fiscal memory.</li> <li>2. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>0341</b> Unrecoverable printer error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>0363</b> Printer communications error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>0401</b> Invalid password	Use the correct password.
<b>0410</b> RAM pattern is wrong	<ol style="list-style-type: none"> <li>1. Move the J4 (CE) jumper on the fiscal processor card to the active position. See "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.</li> <li>2. If the problem persists, check to see if the J5 jumper on the fiscal processor card was moved instead of the J4 jumper. To recover from this problem, see "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.</li> <li>3. If the problem persists, the fiscal processor card may be failing. See "Removing and Replacing the Fiscal Processor Card" on page 3-12.</li> <li>4. Re-seat the cable connected to the fiscal memory. If the cable was disconnected, the J4 jumper procedure is required.</li> <li>5. The fiscal memory is failing. Replace the fiscal base FRU. See "Removing and Replacing the Fiscal Base FRU" on page 3-14.</li> </ol>
<b>0411</b> Fiscal RAM is restored	Move the J4 (CE) jumper on the fiscal processor card to the stored position. See "Activating the J4 Jumper on the Fiscal Processor Card" on page 3-16.
<b>0678</b> Printer timeout error	The printer card is failing. See "Removing and Replacing the Printer Card" on page 3-13.
<b>0679</b> Unrecoverable printer timeout error	The printer processor card is failing. See "Removing and Replacing the Printer Card" on page 3-13.



## Fiscal Printer Test – 4690 OS

This test verifies correct operation of the fiscal printer.

### **Running the test:**

1. Press **S1**, type **9, 1** and press **S2** to enter Test Mode.
2. Message T0010 is displayed indicating the terminal is in Test Mode and waiting for a test request.
3. Type **7, 1** and press **S2** to start the test.
4. An “IH” pattern prints at the customer receipt station.
5. Observe the printing to ensure the printer is operating correctly.
6. Press **S2** to stop printing.
7. Press **S2** to start printing at the journal station.
8. The “IH” pattern now prints at the journal station.
9. Observe the printing to ensure the printer is operating correctly.
10. Press **S2** to stop printing.
11. Insert a document into the printer and press the READY (green) button.
12. Press **S2** to start printing on the inserted document.
13. The “IH” pattern now prints on the inserted document.
14. Observe the printing to ensure the printer is operating correctly.
15. Press **S2** to stop printing.
  - If there were **no** error messages or symptoms, the test ran successfully.
  - If a message is displayed, follow the **User Response** for the message under “Messages” on page 2-1 or in the *IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual*.
  - If a symptom is observed, see “Symptoms” in the *IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual*.
16. To stop the test, type **0** and press **S2**.
17. Message T0010 is displayed indicating the terminal is still in Test Mode and waiting for another test request.
18. To exit Test Mode, type **9, 9** and press **S2**.

## Fiscal System Utility – 4690 OS

This utility is used by authorized service personnel when they are servicing the printer with the 4690 operating system.

### **Running the utility:**

1. Press **S1**, type **9, 5** and press **S2**.
2. Wait until “Enter Request” displays.
3. Use the KEY SEQUENCE to execute a command from Figure 3-1.
4. Follow the instructions on the display.
5. Wait until the command has been completed and then:
  - Enter another key sequence to execute a command.
  - or -
  - Type **9, 9** and press **S2** to quit.

COMMAND	KEY SEQUENCE
Print All Totals	1, 0, 1, S2
Print All Daily Totals	1, 0, 2, S2
Print All Totals by Date	1, 1, 1, S2
Print All Daily Totals by Date	1, 1, 2, S2
Print All Totals by Closure Number	1, 2, 1, S2
Print All Daily Totals by Closure Number	1, 2, 2, S2
Print Fiscal RAM	5, 0, 0, S2
Print Fiscal EPROM	5, 1, 0, S2
Set Fiscal Mode	2, 0, 0, S2
Set New Date and Time	2, 0, 1, S2
Set Display Address as Configured	4, 0, 0, S2

Figure 3-1. Utility Commands

**Note:** A password is required to “Set Fiscal Mode” or “Set Display Address as Configured” commands..

---

## Removing and Replacing the Fiscal Printer Model 3FA

A non-replaceable lithium battery is inside the unit.

**Warning:** Turning **POWER OFF** at a 4693 affects operations at all point-of-sale terminals directly attached to it.

### Removing the Fiscal Printer

1. Switch **POWER OFF** at the point-of-sale terminal.
2. Switch **POWER OFF** at the back of the fiscal printer base unit.
3. Unplug the power cord from fiscal printer base unit.
4. If you are **not** removing the printer cable, continue at step 7.
5. Remove the POS terminal back cover.
6. Unplug the printer cable from socket 7 on the POS terminal.
7. Unplug the printer cable from the printer.

#### **Retain the following items for future use:**

- Both rolls of paper
- Printer cable
- Ribbon cartridge
- Keylock insert and keys **or** the blank lock insert.

### Replacing the Fiscal Printer

1. Switch **POWER OFF** at the point-of-sale terminal.
2. Switch **POWER OFF** at the back of the fiscal printer base unit.
3. If you are **not** replacing the printer cable, continue at step 6.
4. Remove the POS terminal back cover.
5. Plug the printer cable into socket 7 on the terminal and reinstall the back cover.
6. Plug the printer cable into the fiscal printer socket.
7. Plug the power cable into the fiscal printer base unit and AC outlet.
8. If applicable, reinstall the following:
  - Both rolls of paper
  - Ribbon cartridge
  - Keylock insert and keys **or** the blank lock insert.
9. Switch **POWER ON** at the back of the fiscal printer base unit.
10. Switch **POWER ON** at the point-of-sale terminal and verify the printer is operating correctly.

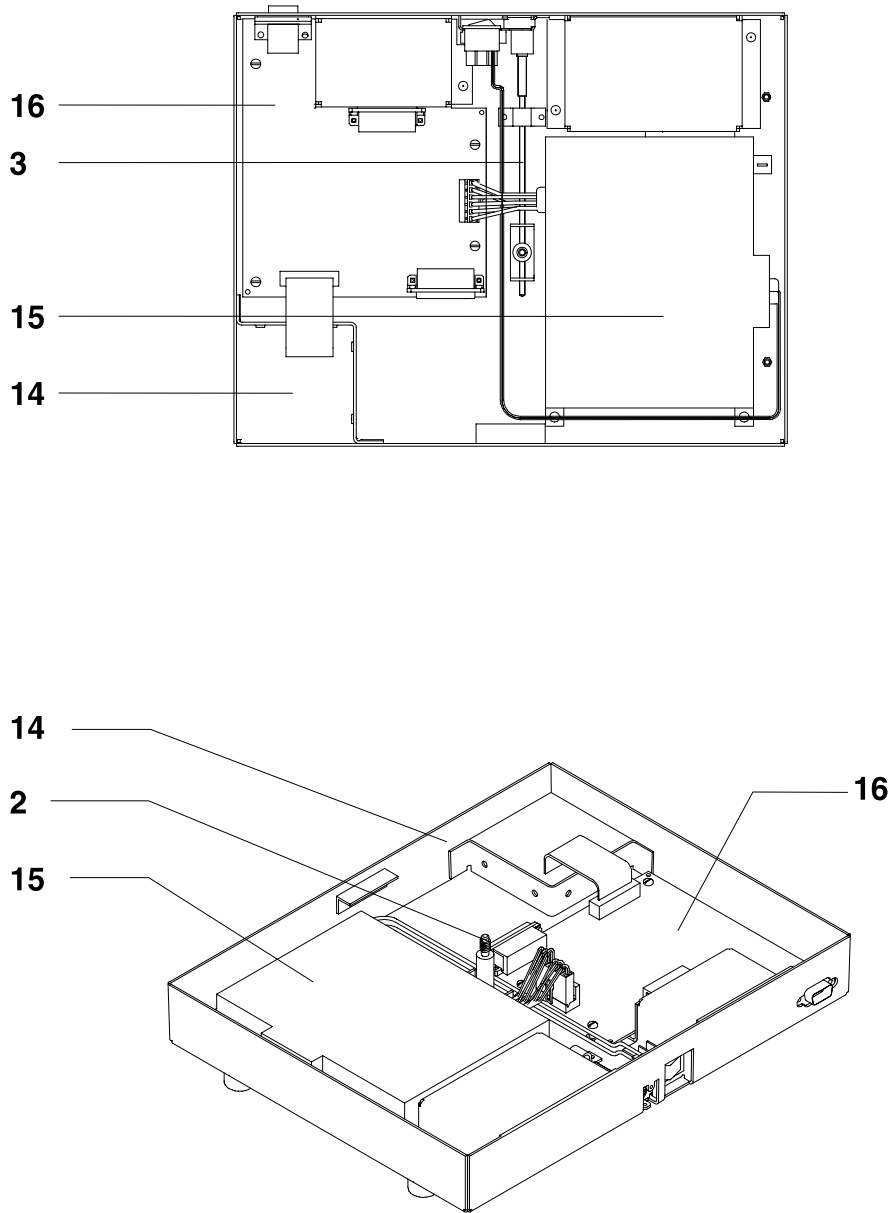


Figure 3-2. The Model 3FA Fiscal Base Unit

---

## Separating and Replacing the Fiscal Base Unit and the Printer

**Separating the Fiscal Base Unit from the Printer:** A non-replaceable lithium battery is inside the unit.

The call-out numbers in this procedure refer to Figure 3-2 on page 3-10.

1. Remove the wire seal from the back of the fiscal printer base unit.
2. Remove the fiscal screw [3] and save.
3. Remove the security screw [2] from the bottom of the fiscal base unit and save.
4. Separate the fiscal base from the printer.

Consult local procedures for recording repair actions and resealing the unit after repairs are complete.

After you separate the fiscal base and printer, all FRUs in the fiscal base are accessible for removal and replacement.

### Reinstalling the Fiscal Base onto the Printer

1. Install the top cover onto the fiscal base.
2. Install the printer onto the fiscal base unit.
3. Attach the printer and base unit together by installing the security screw [2] into the bottom of the fiscal base unit. Make sure that the slot on the screw is either parallel or perpendicular to the rear edge of the base unit.
4. Install the fiscal screw [3] and fiscal seal and record the repair action according to local procedures.
5. Attach the printer to the terminal. See "Replacing the Fiscal Printer" on page 3-9.

---

## Removing and Replacing the Fiscal Processor Card

A non-replaceable lithium battery is inside the unit.

The call-out numbers in this procedure refer to Figure 3-2 on page 3-10.

### Removing the Fiscal Processor Card

1. Remove the fiscal printer from the POS terminal. See “Removing the Fiscal Printer” on page 3-9.
2. Remove the fiscal base unit from the printer. See “Separating the Fiscal Base Unit from the Printer” on page 3-11.
3. Remove the top cover from the fiscal base (not pictured).
4. Disconnect all cables attached to the fiscal processor card [16]: the printer cable, the power supply [15] cable, and the fiscal memory [14] cable.
5. Loosen and remove the screws holding the fiscal processor card [15].
6. Remove the fiscal processor card from the fiscal base unit.

### Replacing the Fiscal Processor Card

1. Insert the fiscal processor card [16] into the fiscal base unit.
2. Install and tighten the screws that hold the card to the fsical base.
3. Reconnect all cables to the fiscal processor card: the printer cable, the power supply [15] cable, and the fiscal memory [14] cable.
4. Activate the J4 jumper. See “Activating the J4 Jumper on the Fiscal Processor Card” on page 3-16.

---

## Removing and Replacing the Printer Card

The call-out numbers in this procedure refer to Figure 3-2 on page 3-10.

### Removing the Printer Card

1. Remove the fiscal printer from the POS terminal.
2. Remove the fiscal base unit from the printer. See “Separating the Fiscal Base Unit from the Printer” on page 3-11.
3. Disconnect the cable from the bottom of the printer.
4. Remove the main printer cover. See “Removing the Printer Main Cover” on page 3-17.
5. Disconnect all of the cables from the printer card [2]. Notice how the cables are routed. If needed, a detailed illustration of the Model 3 printer card is in the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.
6. Release the tab holding the card in place. Carefully slide the printer card out of the printer.

### Replacing the Printer Card

1. Push the tab away from the card and carefully slide the printer card in the printer until the tab locks in place.  
**Note:** Ensure that the printer card slides under the hooks and that the ground clip is correctly positioned on the left side frame.
2. Connect the cables to the card. Connect cables J2, J6, and J7 first and be careful not to reverse cables J3 and J4. Route the cables in their original positions. If needed, a detailed illustration of the Model 3 printer card is in the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.
3. Install the main cover on the printer.
4. Connect the fiscal base cable to the bottom of the printer.
5. Reattach the fiscal base unit to the printer. See “Reinstalling the Fiscal Base onto the Printer” on page 3-11
6. Reattach the fiscal printer to the terminal. See “Replacing the Fiscal Printer” on page 3-9.

---

## Removing and Replacing the Fiscal Base FRU

The call-out numbers in this procedure refer to Figure 3-2 on page 3-10.

**Note:** Follow your local appropriate regulations for this procedure. This procedure may not be permitted to be performed at the customer location depending on your country's law.

1. To remove the fiscal base FRU, follow the steps as shown in "Removing the Fiscal Processor Card" on page 3-12. Keep the fiscal processor card [16] for installation in the new fiscal base.
2. Install the new fiscal base FRU [14]. Follow the steps in "Replacing the Fiscal Processor Card" on page 3-12.
3. Test the fiscal printer with the new base installed. See *IBM 4693, 4694, 4695 Point of Sale Terminals: Hardware Service Manual*.
4. Activate the fiscal memory (set fiscal mode on) on the new fiscal printer base if the base being replaced had the fiscal memory activated. Use the fiscal system utilities procedures "Fiscal System Utility – 4690 OS" on page 3-8 or "Fiscal System Utility – 4694 Service Diskette, 4693 Support and Diagnostic Diskette" on page 3-4.



## Cable Wiring Diagrams

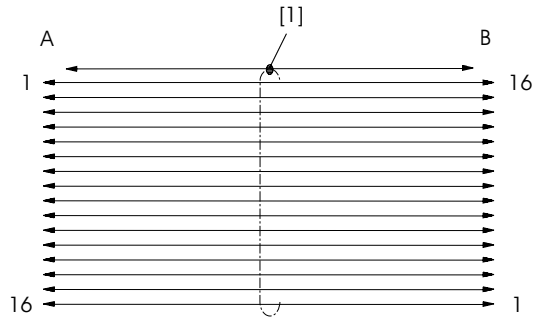
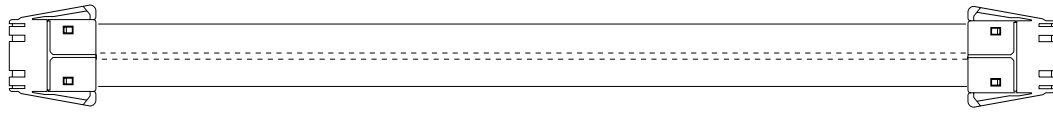


Figure 3-3. Number 7 Cable. [1] is the shield.

## Activating the J4 Jumper on the Fiscal Processor Card

This procedure writes the random access memory (RAM) control pattern.

1. Switch **POWER OFF** at the terminal and at the back of the fiscal base unit.
2. Remove the fiscal base unit from the printer, leaving the cable attached. See “Separating the Fiscal Base Unit from the Printer” on page 3-11.
3. Refer to Figure 3-4. Move the J4 jumper to the **Active** position in Figure 3-4.
4. Install the fiscal base unit top cover on the fiscal base, to protect the card from accidental damage.
5. Switch **POWER ON** at the fiscal base unit and at the terminal and wait up to 30 seconds to complete RAM initialization.
6. Switch **POWER OFF** at the terminal and at the back of the fiscal base unit.
7. Move the J4 jumper to the **Stored** position in Figure 3-4.

**Note:** When you activate the jumper, the display configuration must be entered again. Also initiate any other information required by local regulations. See the command and key sequences in “Fiscal System Utility – 4690 OS” on page 3-8 and “Fiscal System Utility – 4694 Service Diskette, 4693 Support and Diagnostic Diskette” on page 3-4. Also see fiscal unit return code message 131 in “DOS and 4690 OS Return Code Descriptions” on page A-2.

8. Reinstall the fiscal base unit on the printer. See “Reinstalling the Fiscal Base onto the Printer” on page 3-11.

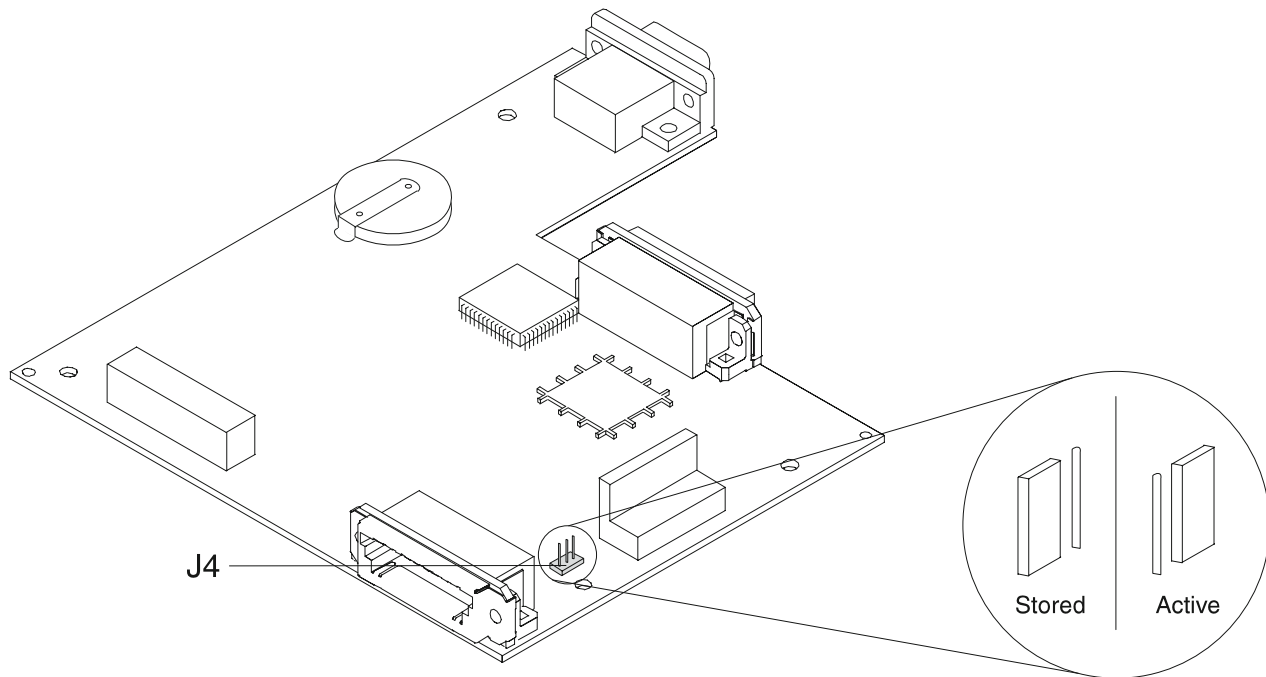


Figure 3-4. Fiscal Processor Card J4 Jumper

## Removing and Replacing the Printer Main Cover

### Removing the Printer Main Cover

- 1 Switch **POWER OFF** at the terminal and at the back of the fiscal base unit.
- 2 Remove the fiscal printer from the POS terminal. See “Removing the Fiscal Printer” on page 3-9.
- 3 Remove the fiscal base unit from the printer. See “Separating the Fiscal Base Unit from the Printer” on page 3-11.
- 4 Rotate the printer onto its back as shown in Figure 3-5 on page 3-18.  
**Note:** Do not rotate the printer so that it rests on its top.
- 5 Remove the two screws from the bottom of the printer [1] See Figure 3-5 on page 3-18.
- 6 Move the four main cover holding tabs toward the center of the printer with a screwdriver to release them as shown. Rotate the printer so that it rests on its base.
- 7 Remove the main cover from the printer by pivoting the cover onto its left side to prevent damage to the attached cables.
- 8 Disconnect the top and front keypad cables and the cover sensor cable from printer card connectors J8, J9, and J7, respectively. See Figure 3-2 on page 3-10 for an illustration of the printer card.

### Replacing the Printer Main Cover

- 1 Place the printer main cover, resting on its left side, to the left of the printer.
- 2 Connect the top and front keypad cables and the cover sensor cable to printer card connectors J8, J9, and J7, respectively. See Figure 3-2 on page 3-10 for an illustration of the printer card.
- 3 Align the holding tabs (2) over their slots. Ensure that all of the printer cables are within the main cover.
- 4 Push down on the main cover until the tabs lock into place. Ensure that all four tabs engage.
- 5 Replace the two screws on the bottom of the printer [1]. See Figure 3-5 on page 3-18.
- 6 Reattach the fiscal base unit to the printer. See “Reinstalling the Fiscal Base onto the Printer” on page 3-11.
- 7 Reattach the fiscal printer to the terminal. See “Replacing the Fiscal Printer” on page 3-9.
- 8 Switch power ON at the fiscal base unit and the terminal.
- 9 Run the Stand-Alone Printer Test.

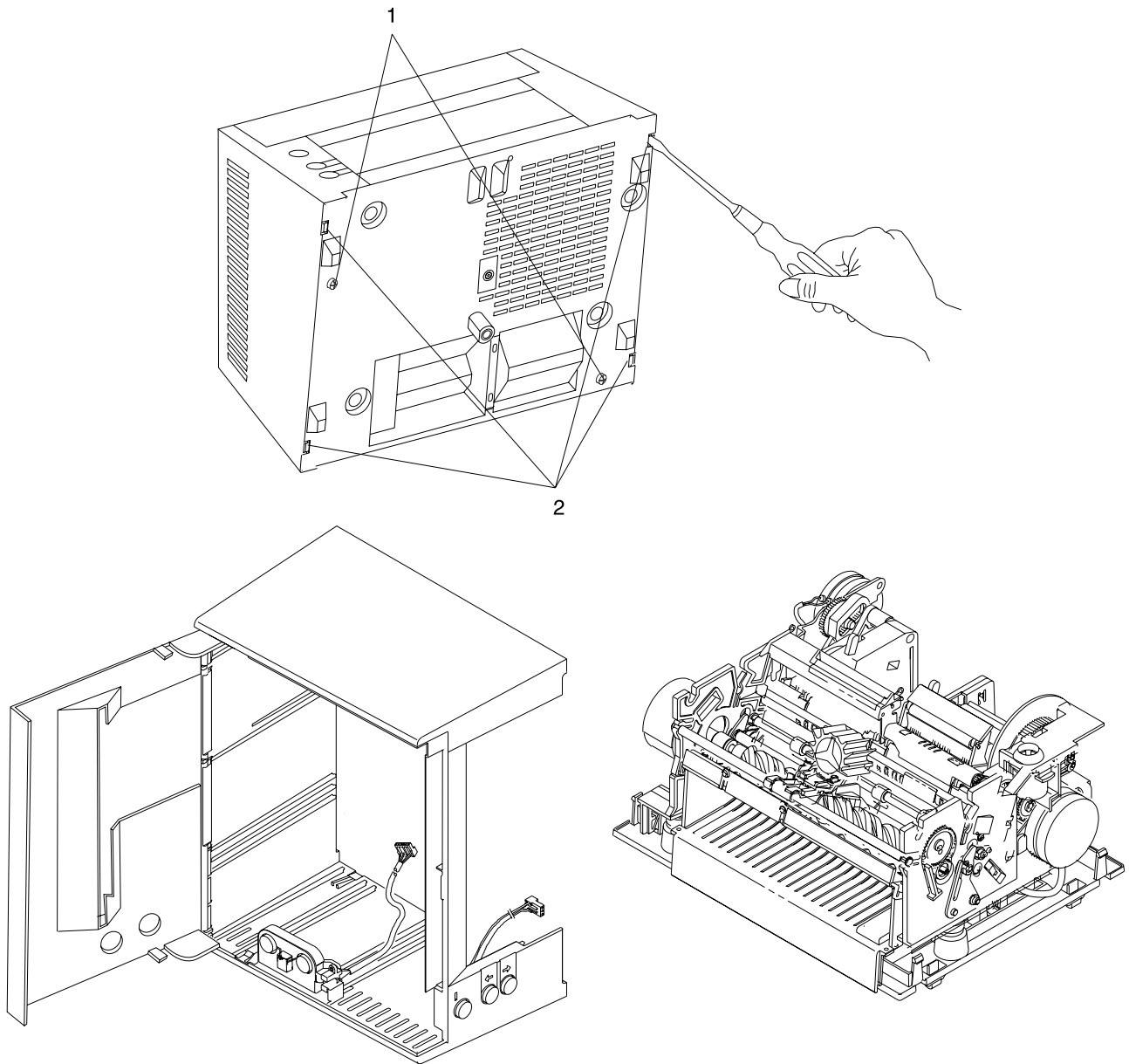


Figure 3-5. Main Cover

---

## **Chapter 4. 4693/4694 Parts Catalog Fiscal Printer 3FA**

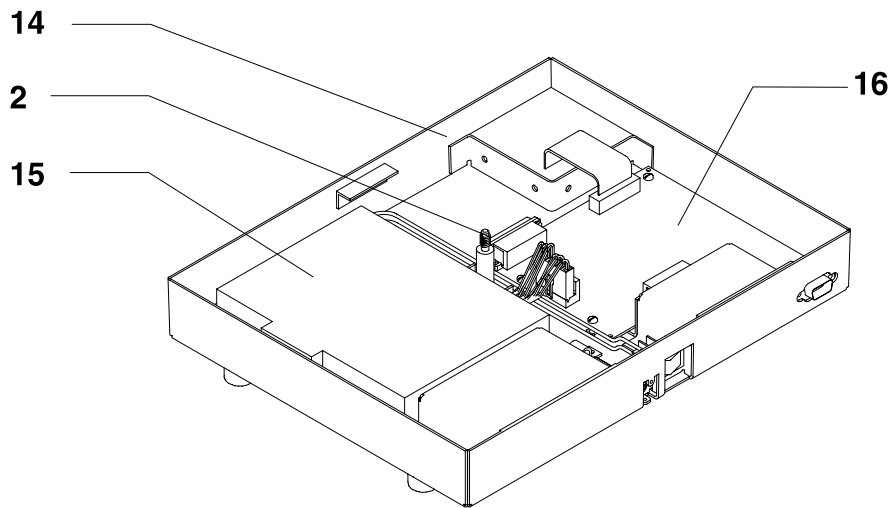
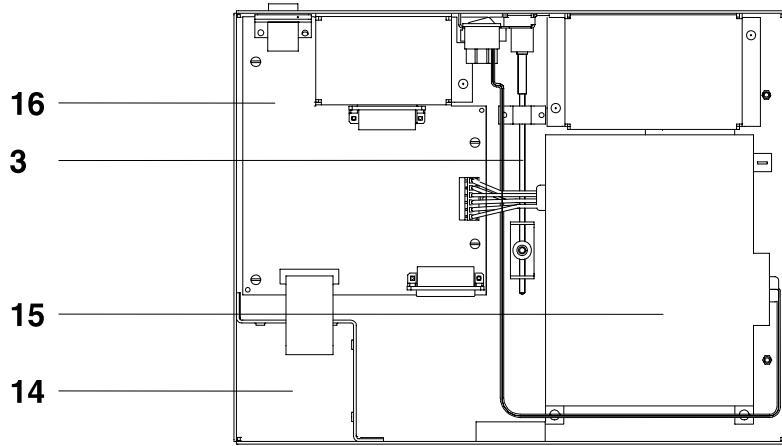
This chapter provides supplemental information for the *IBM Store Systems: Parts Catalog*.

### **Printer Attachment Cables**

The CR paper sensor cable plugs into the extension card at J105.

All other cable part numbers and descriptions for the IBM Fiscal Printer Model 3FA are the same as for the standard Model 3 printer. These can be found in the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.

## Assembly 1: IBM Fiscal Printer Model 3FA



Asm- Index	Part Number	Units	Description
1-			<b>UNIQUE PRINTER PARTS</b>
-	08L2266	1	Printer Logic Card (replaces Model 3 P/N 93F0238) (Not illustrated)
-	08L2267	1	Extension Card (replaces Model 3 P/N 53F4880) (Not illustrated)
-	08L2268	1	CR Frame ASM with CR paper sensor (replaces Model 3 P/N 93F0250) (Not illustrated)
-	08L2270	1	Main Cover (replaces Model 3 P/N 93F0246) (Not illustrated)
			<b>BASE</b>
-	08L2265	1	Top Cover (not illustrated)
-	93F0533	1	Cable (not illustrated)
-	25L4699	1	Fiscal Security Seal and Wire (Not illustrated)
-2	08L2272	1	Security Screw
-3	25L4692	1	Fiscal Screw
-14	85H7685	1	Metal Base with Memory Assembly
-15	08L2263	1	Power Supply
-16	47P0283	1	Fiscal Processor Logic Card Assembly (Argentina only)





---

## Appendix A. Fiscal Unit Return Codes

This chapter contains:

- 4690 hardware return code (ERRN) descriptions
- DOS return code descriptions
- Return code conversion table (4690 OS to DOS)

---

### 4690 Hardware Return Code (ERRN) Descriptions

This list contains information about the return code (RC=**8090xxxx**) in system messages.

#### Return Codes (ERRNs) 8090xxxx

---

##### 80900006

**Explanation:** The fiscal unit is off-line.

**User Response:** Retry the operation. If the problem remains, replace the fiscal processor card.

---

##### 80900007

**Explanation:** The fiscal unit is not ready.

**User Response:** Retry the operation. If the problem remains, replace the fiscal processor card.

---

##### 80900008

**Explanation:** A power line disturbance (PLD) occurred during command execution.

**User Response:** Issue a Resume command or a Resume Retry command.

---

##### 80900009

**Explanation:** The command was rejected by the fiscal unit at the time it was issued.

**User Response:** Issue the command again.

---

## DOS and 4690 OS Return Code Descriptions

The fiscal unit return codes are contained in byte 8 of the fiscal unit status byte.

### Return Codes

---

**001 => DOS      80900101 => 4690 OS**

**Explanation:** An overflow occurred. The Return transaction total exceeds the maximum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**002 => DOS      80900102 => 4690 OS**

**Explanation:** An overflow occurred. The Void transaction total exceeds the maximum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**003 => DOS      80900103 => 4690 OS**

**Explanation:** An overflow occurred. The Bonus transaction total exceeds the maximum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**004 => DOS      80900104 => 4690 OS**

**Explanation:** An overflow occurred. The Discount transaction total exceeds the maximum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**005 => DOS      80900105 => 4690 OS**

**Explanation:** An overflow occurred. The Empties transaction total exceeds the maximum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**006 => DOS      80900106 => 4690 OS**

**Explanation:** An overflow occurred. The Miscellaneous transaction total exceeds the maximum allowed value or the Uplift transaction total exceeds the maximum allowed value. The Miscellaneous transaction total exceeds the maximum allowed value. The Uplift transaction total exceeds the maximum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**007 => DOS      80900107 => 4690 OS**

**Explanation:** An overflow occurred. The Notpaid transaction total exceeds the transaction total value. The request is not processed.

**User Response:** Make the Notpaid amount less than or equal to the transaction total.

---

**008 => DOS      80900108 => 4690 OS**

**Explanation:** An underflow occurred. The current transaction total or one of the VAT Category (or Department) transaction sales totals is less than the minimum allowed value. The request is not processed.

**User Response:** Cancel the transaction or make the total greater than the minimum allowed value.

---

**009 => DOS      80900109 => 4690 OS**

**Explanation:** An underflow occurred. The Return transaction total is less than the minimum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**010 => DOS      80900110 => 4690 OS**

**Explanation:** An underflow occurred. The Void transaction total is less than the minimum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**011 => DOS      80900111 => 4690 OS**

**Explanation:** An underflow occurred. The Bonus transaction total is less than the minimum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**012 => DOS      80900112 => 4690 OS**

**Explanation:** An underflow occurred. The Discount transaction total is less than the minimum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**013 => DOS      80900113 => 4690 OS**

**Explanation:** An underflow occurred. The Empties transaction total is less than the minimum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**014 => DOS      80900114 => 4690 OS**

**Explanation:** An underflow occurred. The Miscellaneous transaction total or Uplift transaction total is less than the minimum allowed value. The Miscellaneous transaction total is less than the minimum allowed value. The Uplift transaction total is less than the minimum allowed value. The request is not processed.

**User Response:** Issue the Total and End Transaction commands to end the sales transaction or a Cancel Transaction command to cancel the sales transaction.

---

**015 => DOS      80900115 => 4690 OS**

**Explanation:** The Payment Rectify amount is greater than Payment amount. The request is not processed.

**User Response:** Make the Payment Rectify amount less than or equal to payment amount.

---

**016 => DOS      80900116 => 4690 OS**

**Explanation:** An overflow occurred. The daily total or one of the VAT Category (or Department) daily sales totals exceeds the maximum allowed value at Total request time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**017 => DOS      80900117 => 4690 OS**

**Explanation:** An overflow occurred. The Return daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**018 => DOS      80900118 => 4690 OS**

**Explanation:** An overflow occurred. The Void daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**019 => DOS      80900119 => 4690 OS**

**Explanation:** An overflow occurred. The Bonus daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**020 => DOS      80900120 => 4690 OS**

**Explanation:** An overflow occurred. The Discount daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**021 => DOS      80900121 => 4690 OS**

**Explanation:** An overflow occurred. The Empties daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**022 => DOS      80900122 => 4690 OS**

**Explanation:** An overflow occurred. The Miscellaneous daily total or the Uplift daily total exceeds the maximum allowed value at end transaction time. The Miscellaneous daily total exceeds the maximum allowed value at end transaction time. The Uplift daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**023 => DOS      80900123 => 4690 OS**

**Explanation:** An overflow occurred. The Notpaid daily total exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**024 => DOS      80900124 => 4690 OS**

**Explanation:** The user total amount is not equal to the fiscal total amount. The values associated with the total request do not match the totals stored in the fiscal memory. The request is not processed.

**User Response:** Correct the computation procedure of the total, then issue an End Transaction or Cancel Transaction command.

---

**025 => DOS      80900125 => 4690 OS**

**Explanation:** A fiscal rules violation has occurred. The word 'total' (or equivalent) or logo characters occurs in a message when not allowed, or a reserved character is used in the message. Note that not all rules violations apply to all countries. The request is not processed.

**User Response:** Correct the fiscal rules violation and try the command again.

---

**026 => DOS      80900126 => 4690 OS**

**Explanation:** An underflow occurred. A transaction amount was negative at Total request time. This return code applies (where applicable) to:

- Transaction total
- VAT total
- VAT category (or department) total accumulator
- VAT category (or department) tax accumulator

The request is not processed.

**User Response:** Make the amount greater than or equal to zero, then issue an End Transaction or Cancel Transaction command.

---

**027 => DOS      8090061B => 4690 OS**

**Explanation:** An overflow occurred. The Discount on Subtotal exceeds the maximum allowed value. The request is not processed.

**User Response:** Make the amount less than the maximum allowed value, then issue an End Transaction or Cancel Transaction command.

---

**028 => DOS      8090061C => 4690 OS**

**Explanation:** An overflow occurred. The Uplift on Subtotal exceeds the maximum allowed value. The request is not processed.

**User Response:** Make the amount less than the maximum allowed value, then issue an End Transaction or Cancel Transaction command.

---

**029 => DOS      80900129 => 4690 OS**

**Explanation:** Tender is not completed. The Payment total was less than the transaction total. The request is not processed.

**User Response:** Use the Rectify option on the Payment command or issue an additional Payment command to complete processing. Use the Rectify option on the Payment command, or issue an additional Payment command, or issue the Notpaid command to complete processing.

---

**031 => DOS      8090061F => 4690 OS**

**Explanation:** An underflow occurred. The sum of the Discount on Subtotal operations in this sales transaction is less than the minimum allowed value. The request is not processed.

**User Response:** Make the amount greater than or equal to the minimum allowed value, then issue an End Transaction or Cancel Transaction command.

---

**032 => DOS      80900620 => 4690 OS**

**Explanation:** An underflow occurred. The sum of the Uplift on Subtotal operations in this sales transaction is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to zero, then issue an End Transaction or Cancel Transaction command.

---

**033 => DOS      80900141 => 4690 OS**

**Explanation:** An underflow occurred. The Return daily total is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**034 => DOS      80900142 => 4690 OS**

**Explanation:** An underflow occurred. The Void daily total is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**035 => DOS      80900143 => 4690 OS**

**Explanation:** An underflow occurred. The Bonus daily total is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**036 => DOS      80900144 => 4690 OS**

**Explanation:** An underflow occurred. The Discount daily total is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**037 => DOS      80900145 => 4690 OS**

**Explanation:** An underflow occurred. The Empties daily total is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**038 => DOS      80900146 => 4690 OS**

**Explanation:** An underflow occurred. The Miscellaneous daily total or the Uplift daily total is less than the minimum allowed value. The Miscellaneous daily total is less than the minimum allowed value. The Uplift daily total is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**040 => DOS      80900628 => 4690 OS**

**Explanation:** The VAT category field is not blank and the amount field is blank in a Item Sales transaction. The request is not processed.

**User Response:** Correct the application program.

---

**041 => DOS      80900629 => 4690 OS**

**Explanation:** The current VAT rate table is not verified. The request is not processed.

**User Response:** Check the application program. The program must issue a Verify VAT Rate Table command before further operations are processed. The VAT rate table must be loaded before issuing the Verify VAT Rate Table command.

---

**042 => DOS      8090062A => 4690 OS**

**Explanation:** There is a VAT rate table mismatch. The request is not processed.

**User Response:** Correct the application VAT rate table and issue the command again.

---

**043 => DOS      8090062B => 4690 OS**

**Explanation:** The fiscal memory VAT rate table is full. The request is not processed.

**User Response:** Call for service. The fiscal base unit must be exchanged in order to load new VAT table rates.

---

**044 => DOS      8090062C => 4690 OS**

**Explanation:** The VAT category specified in Item Sale or Negative Item Sale command is not valid or the data supplied with the Load VAT Rate Table (20) command is not valid.

**Explanation:** The VAT category specified in Item Sale or Negative Item Sale command is not valid. For example, entering a non-zero rate for a category that must be equal to a rate of zero. Other possibilities include:

- The VAT category used in one of the reference database commands is not valid.
- The VAT category on the item, negative item, or uplift item sale command did not match the database entry for that item.

The request is not processed.

**User Response:** Correct the application program.

---

**045 => DOS      8090062D => 4690 OS**

**Explanation:** The Cancel Voucher (07) command is not allowed because the amount total was already printed. The request is not processed.

**User Response:** Correct the application program sequence.

---

**046 => DOS      8090062E => 4690 OS**

**Explanation:** The user tax total amount is not equal to the fiscal tax total amount. The values associated with the Total request do not match the totals stored in fiscal memory. The request is not processed.

**User Response:** Correct the computation procedure of the total, then issue an End Transaction or Cancel Transaction command.

---

**047 => DOS      8090062F => 4690 OS**

**Explanation:** The decimal point is already reset. The request is not processed.

**User Response:** No action is required.

---

---

**048 => DOS      80900630 => 4690 OS**

**Explanation:** An overflow occurred. The sum of the daily operations for Discount on Subtotal exceeds the maximum allowed value at end transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**049 => DOS      80900631 => 4690 OS**

**Explanation:** An overflow occurred. The sum of the daily operations for Uplift on Subtotal exceeds the maximum allowed value. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**050 => DOS      80900632 => 4690 OS**

**Explanation:** An underflow occurred. The sum of the daily operations for Discount on Subtotal is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**051 => DOS      80900633 => 4690 OS**

**Explanation:** An underflow occurred. The sum of the daily operations for Uplift on Subtotal is less than the minimum allowed value. The request is not processed.

**User Response:** Make the total greater than the minimum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

**052 => DOS      80900634 => 4690 OS**

**Explanation:** The transaction total is equal to zero. The request is not processed.

**User Response:** Adjust the transaction total or issue a Cancel Transaction command.

---

**053 => DOS      80900635 => 4690 OS**

**Explanation:** The requested time used on the Set Date command is not within the allowed range of the current fiscal printer time or the requested time is previous to the date of the last closure stored in the fiscal memory.

**Explanation:** The requested time used on the Set Date command is not within the allowed range of the current fiscal printer time.

**Explanation:** The requested time used on the Set Date command is previous to the date of the last closure stored in the fiscal memory. The request is not processed.

**User Response:** Either correct the time sent to the fiscal printer or, if the fiscal printer time differs from the actual time by more than the allowed range, call for service.

---

**054 => DOS      80900636 => 4680**

**Explanation:** The Set Date command was attempted within &dateelapse. days since the last time it was set. The request is not processed.

**User Response:** If the date and/or time is not correct, call for service.

---

**055 => DOS      80900203 => 4690 OS**

**Explanation:** The fiscal request message length is less than the minimum required value. The request is not processed.

**User Response:** Check the application program.



---

**056 => DOS      80900150 => 4690 OS**

**Explanation:** An overflow occurred. The cancel transaction daily total exceeds the maximum allowed value at cancel transaction time. The request is not processed.

**User Response:** Make the total less than or equal to the maximum allowed value, issue a Cancel Transaction command, and then issue a Daily Closure command.

---

**057 => DOS      80900151 => 4690 OS**

**Explanation:** An underflow occurred. The cancel transaction daily total is less than the minimum allowed value at cancel transaction time. The request is not processed.

**User Response:** Make the total greater than or equal to the minimum allowed value, issue a Cancel Transaction command, and then issue a Daily Closure command.

---

**058 => DOS      8090063A => 4690 OS**

**Explanation:** An overflow occurred. The Amount Due accumulator exceeds the maximum allowed value. The request is not processed.

**User Response:** Correct the payment amount and issue the command again.

---

**059 => DOS      8090063B => 4690 OS**

**Explanation:** An underflow occurred. The Amount Due accumulator is less than the minimum allowed value. The request is not processed.

**User Response:** Correct the payment amount and issue the command again.

---

**060 => DOS      8090063C => 4690 OS**

**Explanation:** The conditions defined between tax category and reduced-base percent are not valid. The request is not processed.

**User Response:** Correct the application program.

---

**061 => DOS      8090063D => 4690 OS**

**Explanation:** An overflow occurred. The transaction total or one of the VAT category (or department) transaction sales totals exceeds the maximum allowed value on an Item command. The request is not processed.

**User Response:** Issue an End Transaction or Cancel Transaction command.

---

**062 => DOS      8090063E => 4690 OS**

**Explanation:** A sale transaction was attempted at a time outside the time allowed for the active sales period. The request is not processed.

**User Response:** Issue a "Daily Closure" (13) command to end the active sales period.

---

**063 => DOS      8090063F => 4690 OS**

**Explanation:** The Set POS Identification is not loaded. The request is not processed.

**User Response:** Use the Set POS Identification command (1E) to load the information. Depending on the country laws, this command may require IBM service personnel.

---

**064 => DOS      80900127 => 4690 OS**

**Explanation:** An overflow occurred. The specified value received amount from the application program exceeds the maximum allowed amount. The request is not processed.

**User Response:** Correct the value and try the operation again.

---

<b>065 =&gt; DOS</b>	<b>80900201 =&gt; 4690 OS</b>
	<b>Explanation:</b> A request was sent to the fiscal unit and the fiscal command byte is not recognized. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>066 =&gt; DOS</b>	<b>80900202 =&gt; 4690 OS</b>
	<b>Explanation:</b> A request was sent to the fiscal unit and the fiscal command byte extension is not recognized. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>067 =&gt; DOS</b>	<b>80900643 =&gt; 4690 OS</b>
	<b>Explanation:</b> The command was processed successfully. No error occurred.
	<b>User Response:</b> No action is required.

---

<b>068 =&gt; DOS</b>	<b>80900204 =&gt; 4690 OS</b>
	<b>Explanation:</b> A request has been made to print more than the allowed number of check or credit card print lines. The request is not processed.
	<b>User Response:</b> Check the application program. Issue an end check or cancel check to exit the check or credit card printing sequence.

---

<b>069 =&gt; DOS</b>	<b>80900205 =&gt; 4690 OS</b>
	<b>Explanation:</b> An attempt was made to print a line on the customer receipt or summary journal stations that exceeds the maximum number of ordinary print lines allowed during a fiscal voucher. The request is not processed.
	<b>User Response:</b> Either issue an End Transaction or Cancel Transaction command before printing the ordinary print lines. If this error occurred during the online printer diagnostic test, it indicates that the test cannot be completed because a sales transaction is in progress. Either have the salesperson end the transaction, or diagnose the printer problem using the offline printer test that is invoked by pressing the keys on the printer in the correct sequence.

---

<b>070 =&gt; DOS</b>	<b>80900646 =&gt; 4690 OS</b>
	<b>Explanation:</b> Partial line feed dots are out-of-range on the Line Feed Check and Credit Slips (C3) command. The request is not processed.
	<b>User Response:</b> Check the application program sequence.

---

<b>071 =&gt; DOS</b>	<b>80900302 =&gt; 4690 OS</b>
	<b>Explanation:</b> An error occurred while printing on a customer receipt. The request is not processed.
	<b>User Response:</b> If the error continues, service the printer.

---

<b>072 =&gt; DOS</b>	<b>80900207 =&gt; 4690 OS</b>
	<b>Explanation:</b> The print operation requested during training mode is not valid. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>073 =&gt; DOS</b>	<b>80900303 =&gt; 4690 OS</b>
	<b>Explanation:</b> An error occurred while printing on an inserted document. The request is not processed.
	<b>User Response:</b> If the error continues, service the printer.

---

<b>075 =&gt; DOS</b>	<b>80900209 =&gt; 4690 OS</b>
	<b>Explanation:</b> Printing on an inserted document is not allowed at this point during a sales transaction. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>076 =&gt; DOS</b>	<b>80900210 =&gt; 4690 OS</b>
	<b>Explanation:</b> Invalid print station selected. The request is not processed.
	<b>User Response:</b> Correct the print station and issue the command again.

---

<b>077 =&gt; DOS</b>	<b>80900211 =&gt; 4690 OS</b>
	<b>Explanation:</b> An attempt was made to print a line on the summary journal station outside a sales transaction during training mode. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>078 =&gt; DOS</b>	<b>80900304 =&gt; 4690 OS</b>
	<b>Explanation:</b> An error occurred while printing on the summary journal station. The request is not processed.
	<b>User Response:</b> If the error continues, service the printer.

---

<b>079 =&gt; DOS</b>	<b>80900212 =&gt; 4690 OS</b>
	<b>Explanation:</b> A line feed on the customer receipt station is not allowed during printing of inserted fiscal documents. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>080 =&gt; DOS</b>	<b>80900213 =&gt; 4690 OS</b>
	<b>Explanation:</b> A line feed on an inserted document is not allowed at this point during a sales transaction. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>081 =&gt; DOS</b>	<b>80900651 =&gt; 4690 OS</b>
	<b>Explanation:</b> The print typeface specified is not valid. The request is not processed.
	<b>User Response:</b> Specify a valid print typeface.

---

<b>082 =&gt; DOS</b>	<b>80900306 =&gt; 4690 OS</b>
	<b>Explanation:</b> A request to print on the customer receipt, summary journal, or document insert station was made without the correct application-originated report mode selected. The request is not processed.
	<b>User Response:</b> Check the application program sequence.

---

<b>083 =&gt; DOS</b>	<b>80900307 =&gt; 4690 OS</b> <b>Explanation:</b> An unrecoverable error occurred reading the fiscal memory identification/status/setup area. <b>User Response:</b> Service the printer.
<b>085 =&gt; DOS</b>	<b>80900309 =&gt; 4690 OS</b> <b>Explanation:</b> The VAT rate for this VAT category (or department number) is not valid. The request is not processed. <b>User Response:</b> Check the application program.
<b>086 =&gt; DOS</b>	<b>80900401 =&gt; 4690 OS</b> <b>Explanation:</b> The password entered is not valid or the maximum number of attempts to enter the correct password was exceeded. The request is not processed. <b>User Response:</b> Reenter the correct password or, if the maximum number of attempts was exceeded, use the J4 (CE) jumper to restore normal operation. <b>Note:</b> Only authorized service personnel can perform functions that require a password.
<b>087 =&gt; DOS</b>	<b>80900657 =&gt; 4690 OS</b> <b>Explanation:</b> The printer command received by the fiscal printer is not valid. The request is not processed. <b>User Response:</b> Issue a valid printer command.
<b>088 =&gt; DOS</b>	<b>80900311 =&gt; 4690 OS</b> <b>Explanation:</b> The password was changed the maximum number of times; it cannot be changed again. The request is not processed. <b>User Response:</b> If the password must be changed, exchange the fiscal memory.
<b>089 =&gt; DOS</b>	<b>80900312 =&gt; 4690 OS</b> <b>Explanation:</b> The fiscal memory is full. All fiscal commands are rejected except the Fiscal Memory Dump commands. <b>User Response:</b> Service the printer.
<b>090 =&gt; DOS</b>	<b>8090065A =&gt; 4690 OS</b> <b>Explanation:</b> The requested Daily Closure was not found in the fiscal memory. The request is not processed. <b>User Response:</b> Specify a valid closure number or valid dates for the Fiscal Memory Dump command.
<b>091 =&gt; DOS</b>	<b>80900314 =&gt; 4690 OS</b> <b>Explanation:</b> An error occurred while printing the start-up message. <b>User Response:</b> Turn the power OFF and ON again. If the error continues, service the printer.
<b>092 =&gt; DOS</b>	<b>80900315 =&gt; 4690 OS</b> <b>Explanation:</b> The requested internal table register was not found in the fiscal memory. The request is not processed. <b>User Response:</b> Specify a valid table entry.

---

<b>093 =&gt; DOS</b>	<b>80900316 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal receipt/note counter is not valid; the valid numbers are 1 through 10. The request is not processed.
	<b>User Response:</b> Correct the input data.

---

<b>094 =&gt; DOS</b>	<b>80900317 =&gt; 4690 OS</b>
	<b>Explanation:</b> The specified fiscal receipt/note counter is not used. The request is not processed.
	<b>User Response:</b> Correct the input data.

---

<b>095 =&gt; DOS</b>	<b>80900425 =&gt; 4690 OS</b>
	<b>Explanation:</b> The address or length data is not valid. The requested address range is not valid or is wrong in the engineering dump command. The request is not processed.
	<b>User Response:</b> Correct the input data.

---

<b>096 =&gt; DOS</b>	<b>80900140 =&gt; 4690 OS</b>
	<b>Explanation:</b> A numeric field contains characters that are not valid. The request is not processed.
	<b>User Response:</b> Correct the value and issue the command again.

---

<b>097 =&gt; DOS</b>	<b>80900410 =&gt; 4690 OS</b>
	<b>Explanation:</b> Fiscal RAM is in error or does not match the fiscal memory.
	<b>User Response:</b> Service the printer. The J4 (CE) jumper procedure is required.
	<b>Note:</b> Only authorized service personnel can move the J4 jumper.

---

<b>098 =&gt; DOS</b>	<b>80900411 =&gt; 4690 OS</b>
	<b>Explanation:</b> Fiscal RAM is restored.
	<b>User Response:</b> Remove the J4 (CE) jumper to restore normal operation.
	<b>Note:</b> Only authorized service personnel can move the J4 jumper.

---

<b>099 =&gt; DOS</b>	<b>80900318 =&gt; 4690 OS</b>
	<b>Explanation:</b> The maximum 200 repair actions have been reached.
	<b>User Response:</b> Exchange the fiscal printer at the next failure occurrence.

---

<b>100 =&gt; DOS</b>	<b>80900329 =&gt; 4690 OS</b>
	<b>Explanation:</b> An error occurred while reading from the fiscal memory. The request is not processed.
	<b>User Response:</b> Service the printer.

---

<b>101 =&gt; DOS</b>	<b>80900326 =&gt; 4690 OS</b>
	<b>Explanation:</b> An unrecoverable error occurred when writing to fiscal memory. The request is not processed.
	<b>User Response:</b> Service the printer.

---

---

<b>102 =&gt; DOS</b>	<b>80900327 =&gt; 4690 OS</b>
	<b>Explanation:</b> The Fiscal Parameter Configuration (C4) command was attempted more than once with the same extension since the last J4 (CE) jumper reset.
	<b>Explanation:</b> The Fiscal Parameter Configuration (C4) command was attempted more than once with the same extension since the last J4 (CE) jumper reset or X'C402' was attempted with the display addresses already set. The request is not processed.
	<b>User Response:</b> Reset the printer using the J4 (CE) jumper procedure and initialize the printer again.
	<b>Note:</b> Only authorized service personnel can move the J4 jumper.

---

<b>103 =&gt; DOS</b>	<b>80900421 =&gt; 4690 OS</b>
	<b>Explanation:</b> The data is not valid. The requested data or number is out-of-range. The request is not processed.
	<b>User Response:</b> Correct the input data.

---

<b>104 =&gt; DOS</b>	<b>80900360 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal memory decimal point table is full. The request is not processed.
	<b>User Response:</b> If the table must be updated, exchange the fiscal memory.

---

<b>105 =&gt; DOS</b>	<b>80900361 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal memory currency table is full. The request is not processed.
	<b>User Response:</b> If the table must be updated, exchange the fiscal memory.

---

<b>106 =&gt; DOS</b>	<b>80900362 =&gt; 4690 OS</b>
	<b>Explanation:</b> An unexpected command error occurred. The request is not processed.
	<b>User Response:</b> If the error continues, service the fiscal printer.

---

<b>107 =&gt; DOS</b>	<b>8090066B =&gt; 4690 OS</b>
	<b>Explanation:</b> There is a print header application password matching error. The application password stored in fiscal memory does not match the password on a fiscal voucher command. The request is not processed.
	<b>User Response:</b> Issue the command again using the correct password.

---

<b>108 =&gt; DOS</b>	<b>80900328 =&gt; 4690 OS</b>
	<b>Explanation:</b> The POS identification table is full. The request is not processed.
	<b>User Response:</b> If the table must be updated, exchange the fiscal memory.

---

<b>109 =&gt; DOS</b>	<b>80900324 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal memory is not connected. The fiscal unit cannot restart processing.
	<b>User Response:</b> Service the printer. When servicing, first check to ensure the cable connections on the fiscal processor card are correct. The J4 (CE) jumper procedure is required when the fiscal memory is reconnected.
	<b>Note:</b> Only authorized service personnel can move the J4 jumper.

---

<b>110 =&gt; DOS</b>	<b>80900131 =&gt; 4690 OS</b>
	<b>Explanation:</b> An overflow occurred. The daily fiscal invoice total exceeds the maximum allowed value at end transaction time. The request is not processed.
	<b>User Response:</b> Issue a Daily Closure command.

---

<b>111 =&gt; DOS</b>	<b>80900132 =&gt; 4690 OS</b>
	<b>Explanation:</b> An overflow occurred. The daily fiscal receipt total exceeds the maximum allowed value at end transaction time. The request is not processed.
	<b>User Response:</b> Issue a Daily Closure command.

---

<b>112 =&gt; DOS</b>	<b>80900670 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal printer was reset.
	<b>User Response:</b> No action is required.

---

<b>113 =&gt; DOS</b>	<b>80900341 =&gt; 4690 OS</b>
	<b>Explanation:</b> An unrecoverable printer error occurred after two power-on resets.
	<b>User Response:</b> Turn the power off and then on again. If the problem persists, service the printer.

---

<b>114 =&gt; DOS</b>	<b>80900363 =&gt; 4690 OS</b>
	<b>Explanation:</b> A printer communication error occurred.
	<b>User Response:</b> Service the printer.

---

<b>115 =&gt; DOS</b>	<b>80900701 =&gt; 4690 OS</b>
	<b>Explanation:</b> The factor percent is allowed for Vat Category 01 only.
	<b>User Response:</b> Correct the Vat Category or disable the Factor Percent field.

---

<b>116 =&gt; DOS</b>	<b>80900702 =&gt; 4690 OS</b>
	<b>Explanation:</b> The payment transaction excess the maximum allowed payments. The request is not processed.
	<b>User Response:</b> Select any the payment type used before and then issue the command again.

---

<b>117 =&gt; DOS</b>	<b>80900703 =&gt; 4690 OS</b>
	<b>Explanation:</b> The factor percent is out of range. The request is not processed.
	<b>User Response:</b> Correct the factor percent and then issue the command again.

---

<b>119 =&gt; DOS</b>	<b>80900677 =&gt; 4690 OS</b>
	<b>Explanation:</b> Alphabetic fields with invalid data. The request is not processed.
	<b>User Response:</b> Correct the data and then issue the command again.

---

<b>120 =&gt; DOS</b>	<b>80900678 =&gt; 4690 OS</b>
	<b>Explanation:</b> A printer card time-out occurred while executing a command.
	<b>User Response:</b> Turn the power OFF and then ON again. If the problem persists, service the printer.

---

<b>121 =&gt; DOS</b>	<b>80900679 =&gt; 4690 OS</b>
	<b>Explanation:</b> Audit port wrap test fail.
	<b>User Response:</b> None. Service the printer.

---

<b>122 =&gt; DOS</b>	<b>8090067A =&gt; 4690 OS</b>
	<b>Explanation:</b> An underflow occurred. The Fixed transaction total is less than the minimum allowed value at end transaction time. The request is not processed.
	<b>User Response:</b> Cancel the transaction or make the total greater than the minimum allowed value.

---

<b>123 =&gt; DOS</b>	<b>8090067B =&gt; 4690 OS</b>
	<b>Explanation:</b> An overflow occurred. The Fixed transaction total exceeds the maximum allowed value at end transaction time. The request is not processed.
	<b>User Response:</b> Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

<b>124 =&gt; DOS</b>	<b>8090067C =&gt; 4690 OS</b>
	<b>Explanation:</b> An overflow occurred. The Fixed daily total exceeds the maximum allowed value at end transaction time. The request is not processed.
	<b>User Response:</b> Make the total less than or equal to the maximum allowed value, issue an End Transaction or Cancel Transaction command, and then issue a Daily Closure command.

---

<b>128 =&gt; DOS</b>	<b>80900320 =&gt; 4690 OS</b>
	<b>Explanation:</b> Fiscal memory is not serialized. The request is not processed.
	<b>User Response:</b> Service the printer.

---

<b>129 =&gt; DOS</b>	<b>80900321 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal unit is not in fiscal mode. The request is not processed.
	<b>User Response:</b> Call for service to set fiscal mode.

---

<b>130 =&gt; DOS</b>	<b>80900322 =&gt; 4690 OS</b>
	<b>Explanation:</b> The secondary serial number is not set. The request is not processed.
	<b>User Response:</b> Service the printer.

---

<b>131 =&gt; DOS</b>	<b>80900323 =&gt; 4690 OS</b>
	<b>Explanation:</b> A problem was detected in a display or in the configuration for the point-of-sale displays. No fiscal commands can be executed. The minimum number of POS displays that must be configured is &dispnum..
	<b>User Response:</b> Follow the maintenance manual procedures to set the configuration correctly. If problem persists, service the POS terminal.

---

<b>132 =&gt; DOS</b>	<b>80900684 =&gt; 4690 OS</b>
	<b>Explanation:</b> The category/department names are not loaded. The request is not processed.
	<b>User Response:</b> Follow the country-specific procedures to load the names using the Set Category/Department Name (22) command.



---

<b>133 =&gt; DOS</b>	<b>80900364 =&gt; 4690 OS</b>
	<b>Explanation:</b> The amount is zero. The request is not processed.
	<b>User Response:</b> The amount must be greater than zero.

---

<b>134 =&gt; DOS</b>	<b>80900325 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal unit detected an internal hardware error. The request is not processed.
	<b>User Response:</b> Run the printer test to determine the cause of the problem. Service the printer.

---

<b>135 =&gt; DOS</b>	<b>80900220 =&gt; 4690 OS</b>
	<b>Explanation:</b> The command is not valid outside of a sales period. The request is not processed.
	<b>User Response:</b> Issue the command when the sale period is in progress.

---

<b>136 =&gt; DOS</b>	<b>80900221 =&gt; 4690 OS</b>
	<b>Explanation:</b> A voucher-related sales transaction command was issued while a sales transaction was not in progress. OR a returned item voucher-related command was issued while a returned item voucher was not in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>137 =&gt; DOS</b>	<b>80900222 =&gt; 4690 OS</b>
	<b>Explanation:</b> A fiscal receipt/note-related command was issued while a fiscal receipt/note was not in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>138 =&gt; DOS</b>	<b>80900223 =&gt; 4690 OS</b>
	<b>Explanation:</b> A fiscal invoice-related command was issued while a fiscal invoice was not in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>139 =&gt; DOS</b>	<b>80900224 =&gt; 4690 OS</b>
	<b>Explanation:</b> An accompanying document-related command was issued while an accompanying document was not in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>140 =&gt; DOS</b>	<b>80900225 =&gt; 4690 OS</b>
	<b>Explanation:</b> A fiscal voucher-related command was issued before printing the store header. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>141 =&gt; DOS</b>	<b>80900226 =&gt; 4690 OS</b>
	<b>Explanation:</b> A command was issued that is not allowed before the Total command is successfully executed. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>142 =&gt; DOS</b>	<b>80900227 =&gt; 4690 OS</b>
	<b>Explanation:</b> The transaction payment procedure is not in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>143 =&gt; DOS</b>	<b>80900228 =&gt; 4690 OS</b>
	<b>Explanation:</b> Training mode is not selected. The request is not processed.
	<b>User Response:</b> Change the application program or set training mode on.

---

<b>144 =&gt; DOS</b>	<b>80900229 =&gt; 4690 OS</b>
	<b>Explanation:</b> The command was issued before the store header was set. The request is not processed.
	<b>User Response:</b> Correct the application program sequence to set the store headers before issuing this command.

---

<b>145 =&gt; DOS</b>	<b>80900691 =&gt; 4690 OS</b>
	<b>Explanation:</b> The command is not accepted when the J4 (CE) jumper is not active. The request is not processed.
	<b>User Response:</b> Activate the CE jumper and try issuing the command again.

---

<b>146 =&gt; DOS</b>	<b>80900692 =&gt; 4690 OS</b>
	<b>Explanation:</b> The Print Header command was attempted greater than three times using the wrong password. The request is not processed.
	<b>User Response:</b> Issue a Daily Closure command and then issue the Print Header command using the correct password.

---

<b>147 =&gt; DOS</b>	<b>80900693 =&gt; 4690 OS</b>
	<b>Explanation:</b> A voucher-related command was issued before the ordinary printing threshold was set by the Fiscal Parameter Configuration (C4) command at initialization time. The request is not processed.
	<b>User Response:</b> Reinitialize the printer issuing the Fiscal Parameter Configuration (X'C400') command.

---

<b>148 =&gt; DOS</b>	<b>80900694 =&gt; 4690 OS</b>
	<b>Explanation:</b> 100 Print Header commands were attempted using the wrong password. The request is not processed.
	<b>User Response:</b> Service the printer. Exchange the fiscal memory.

---

<b>149 =&gt; DOS</b>	<b>80900695 =&gt; 4690 OS</b>
	<b>Explanation:</b> The blank amount item range is not set by application program. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>150 =&gt; DOS</b>	<b>80900696 =&gt; 4690 OS</b>
	<b>Explanation:</b> The first two digits of UTIK User Number are invalid. The request is not processed.
	<b>User Response:</b> Correct the UTIK User Number and try the command again.

---

<b>151 =&gt; DOS</b>	<b>80900697 =&gt; 4690 OS</b>
	<b>Explanation:</b> The UTIK User Number is invalid. The request is not processed.
	<b>User Response:</b> Correct the UTIK User Number and try the command again.

---

<b>152 =&gt; DOS</b>	<b>80900698 =&gt; 4690 OS</b>
	<b>Explanation:</b> The Header for Invoice in DI Full is not set by application program. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>153 =&gt; DOS</b>	<b>80900698 =&gt; 4690 OS</b>
	<b>Explanation:</b> The Header for Invoice in CR and DI Narrow is not set by application program. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>154 =&gt; DOS</b>	<b>8090069A =&gt; 4690 OS</b>
	<b>Explanation:</b> The taxpayer issuer condition is invalid. The request is not processed.
	<b>User Response:</b> Correct the taxpayer issuer condition and issue the command again.

---

<b>155 =&gt; DOS</b>	<b>8090069B =&gt; 4690 OS</b>
	<b>Explanation:</b> There is a problem with the reference database input data that prevented processing. Possible causes of error:
	<ul style="list-style-type: none"> <li>• The application sent an item with a number less than or equal to the last record processed by the Write/Rewrite Entire RDB (X'7302') command. This error could have been caused by a power outage before the fiscal printer informed the application program of the completion status of a previous operation.</li> <li>• The application attempted to add an item record with item number 0000000000000000 or an item number greater than or equal to 281474976710655.</li> </ul>
	<b>User Response:</b> Check the application program. Either move to the next item to be written or eliminate the use of item number equal to 0000000000000000 or item numbers greater than or equal to 281474976710655.

---

<b>156 =&gt; DOS</b>	<b>8090069C =&gt; 4690 OS</b>
	<b>Explanation:</b> The command sequence is not valid. This error occurs when using the reference database feature if either phase 2 of command 71 has been attempted before phase 1 has successfully been executed, or if a command that starts a sales period has been attempted while the successful execution of command 71 phase 2 is pending, or if command 71 phase 1 has been attempted twice in a row without successfully executing command 71 phase 2. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>157 =&gt; DOS</b>	<b>8090069D =&gt; 4690 OS</b>
	<b>Explanation:</b> The correct operation of check printing or credit slip printing is not in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>158 =&gt; DOS</b>	<b>8090069E =&gt; 4690 OS</b>
	<b>Explanation:</b> The date is not set by application program. The request is not processed.
	<b>User Response:</b> Correct the application program sequence.

---

<b>159 =&gt; DOS</b>	<b>8090069F =&gt; 4690 OS</b>
	<b>Explanation:</b> The Fiscal Printer is locked. The request is not processed.
	<b>User Response:</b> Reset the printer using the J4 (CE) jumper procedure and initialize the printer again.
	<b>Note:</b> Only authorized service personnel can move the J4 jumper.

---

<b>160 =&gt; DOS</b>	<b>80900330 =&gt; 4690 OS</b>
	<b>Explanation:</b> Fiscal memory is serialized. The request is not processed.
	<b>User Response:</b> No action is required.

---

<b>161 =&gt; DOS</b>	<b>80900331 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal unit is in fiscal mode. The request is not processed.
	<b>User Response:</b> No action is required.

---

<b>162 =&gt; DOS</b>	<b>80900332 =&gt; 4690 OS</b>
	<b>Explanation:</b> The fiscal memory decimal point table and the fiscal memory currency table are full. The request is not processed.
	<b>User Response:</b> If the tables must be updated, exchange the fiscal memory.

---

<b>163 =&gt; DOS</b>	<b>809006A3 =&gt; 4690 OS</b>
	<b>Explanation:</b> Secondary serial number is set. The request is not processed.
	<b>User Response:</b> No action is required.

---

<b>164 =&gt; DOS</b>	<b>80900350 =&gt; 4690 OS</b>
	<b>Explanation:</b> The power-on sequence is in progress.
	<b>User Response:</b> No action is required.

---

<b>165 =&gt; DOS</b>	<b>809006A5 =&gt; 4690 OS</b>
	<b>Explanation:</b> The description information contained in the Item Sale command does not match the item information in the reference database.
	<b>User Response:</b> Check the application program.
	<b>Explanation:</b> The month has not ended yet. The request is not processed.
	<b>User Response:</b> Check the application program. Wait until the first day of the next month to execute the Monthly Closure (12) command.

---

<b>166 =&gt; DOS</b>	<b>809006A6 =&gt; 4690 OS</b>
	<b>Explanation:</b> There is a problem with the reference database input data that prevented processing.
	<ul style="list-style-type: none"><li>• An 'add item' request was made and the item is already in the database.</li><li>• A 'replace item' request was made and the item was not in the database.</li><li>• A 'delete item' request was made and the item was not found in the database.</li></ul>
	<b>User Response:</b> Check the application program.
	<b>Explanation:</b> A Monthly Closure command is required. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>167 =&gt; DOS</b>	<b>80900230 =&gt; 4690 OS</b>
	<b>Explanation:</b> The requested command cannot be issued while a sales period is in progress. The request is not processed.
	<b>User Response:</b> Perform a Daily Closure command and then issue the command again.

---

<b>168 =&gt; DOS</b>	<b>80900231 =&gt; 4690 OS</b>
	<b>Explanation:</b> A command not related to a sales transaction voucher was issued while a sales transaction is in progress. OR a command not related to a returned item voucher was issued while a returned item voucher was in progress. The request is not processed.
	<b>User Response:</b> Issue the command again after the fiscal voucher or returned item voucher is completed. If this error was encountered during the online printer diagnostic test, it indicates that the test cannot be completed because a sales transaction or a returned item voucher is in progress. Either have the salesperson end the transaction or diagnose the printer problem using the offline printer test that is invoked by pressing the keys on the printer in the correct sequence.

---

<b>169 =&gt; DOS</b>	<b>80900232 =&gt; 4690 OS</b>
	<b>Explanation:</b> A command not related to a fiscal receipt/note was issued while a fiscal receipt/note is in progress. The request is not processed.
	<b>User Response:</b> Issue the command again after the fiscal receipt/note is complete.

---

<b>170 =&gt; DOS</b>	<b>80900233 =&gt; 4690 OS</b>
	<b>Explanation:</b> A command not related to a fiscal invoice was issued while a fiscal invoice is in progress. The request is not processed.
	<b>User Response:</b> Issue the command again after the fiscal invoice is complete.

---

<b>171 =&gt; DOS</b>	<b>80900234 =&gt; 4690 OS</b>
	<b>Explanation:</b> A command not related to an accompanying document was issued while an accompanying document is in progress. The request is not processed.
	<b>User Response:</b> Issue the command again when the accompanying document transaction is completed.

---

<b>172 =&gt; DOS</b>	<b>80900235 =&gt; 4690 OS</b>
	<b>Explanation:</b> Only a fiscal voucher-related sales transaction command is accepted after the store header is printed. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>173 =&gt; DOS</b>	<b>80900236 =&gt; 4690 OS</b>
	<b>Explanation:</b> After the Total command was issued, the command sequence is not valid. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>174 =&gt; DOS</b>	<b>80900237 =&gt; 4690 OS</b>
	<b>Explanation:</b> A Payment is in progress. The request is not processed.
	<b>User Response:</b> After the Payment processing is complete, issue the request again.

---

<b>175 =&gt; DOS</b>	<b>80900238 =&gt; 4690 OS</b>
	<b>Explanation:</b> Training mode is in progress. The request is not processed.
	<b>User Response:</b> Correct the application program sequence or issue a Set Training Mode Off command.

---

<b>176 =&gt; DOS</b>	<b>80900239 =&gt; 4690 OS</b>
	<b>Explanation:</b> The payments are already completed and printed, so you can't continue paying. The request is not processed.
	<b>User Response:</b> Continue printing lines (normal printing) or end voucher.

---

<b>177 =&gt; DOS</b>	<b>809006B1 =&gt; 4690 OS</b>
	<b>Explanation:</b> The POS Id number is invalid. The request is not processed.
	<b>User Response:</b> Correct the POS Id number and issue the command again.

---

<b>178 =&gt; DOS</b>	<b>809006B2 =&gt; 4690 OS</b>
	<b>Explanation:</b> Invalid C.U.I.T. or C.U.I.L. number selected. The request is not processed.
	<b>User Response:</b> Correct the C.U.I.T or C.U.I.L number and issue the command again.

---

<b>179 =&gt; DOS</b>	<b>809006B3 =&gt; 4690 OS</b>
	<b>Explanation:</b> Invalid taxpayer customer condition selected. The request is not processed.
	<b>User Response:</b> Correct the taxpayer customer condition and issue the command again.

---

<b>180 =&gt; DOS</b>	<b>809006B4 = 4690 OS</b>
	<b>Explanation:</b> Fiscal EPROM is in error. EPROM serialized but pattern not found.
	<b>User Response:</b> Service the printer.

---

<b>181 = DOS</b>	<b>809006B5 = 4690 OS</b>
	<b>Explanation:</b> Fiscal RAM is in error. Return to the FB command.
	<b>User Response:</b> Service the printer.

---

<b>182 =&gt; DOS</b>	<b>809006B6 =&gt; 4690 OS</b>
	<b>Explanation:</b> An error occurred on an End Transaction command. The request is not processed.
	<b>User Response:</b> Issue the End Transaction command again or issue a Cancel Transaction command. If this error was encountered during the online printer diagnostic test, it indicates that the test cannot be completed because a sales transaction is in progress. Either have the salesperson end the transaction or diagnose the printer problem using the offline printer test that is invoked by pressing the keys on the printer in the correct sequence.

---

<b>183 =&gt; DOS</b>	<b>809006B7 =&gt; 4690 OS</b>
	<b>Explanation:</b> An error occurred on a Cancel Transaction command. The request is not processed.
	<b>User Response:</b> Issue the Cancel command again. If this error was encountered during the online printer diagnostic test, it indicates that the test cannot be completed because a sales transaction is in progress. Either have the salesperson end the transaction or diagnose the printer problem using the offline printer test that is invoked by pressing the keys on the printer in the correct sequence.

---

<b>184 =&gt; DOS</b>	<b>809006B8 =&gt; 4690 OS</b>
	<b>Explanation:</b> The command sequence is not valid. A command was requested that is not allowed during a Application-Originated Report. The request is not processed.
	<b>User Response:</b> Check the application program sequence.

---

<b>185 =&gt; DOS</b>	<b>809006B9 =&gt; 4690 OS</b>
	<b>Explanation:</b> An EEPROM load error occurred on the printer logic card. The request is not processed.
	<b>User Response:</b> Service the printer.

---

<b>186 = 4684</b>	<b>809006BA = 4680</b>
	<b>Explanation:</b> Mismatch between RAM Fiscalization Flag and EPROM Mark. The request is not processed.
	<b>User Response:</b> Insert the jumper and reinitialize the printer. If the problem persists, service the printer.

---

<b>187 =&gt; DOS</b>	<b>809006BB =&gt; 4690 OS</b>
	<b>Explanation:</b> Block read from Fiscal Memory empty. The request is not processed.
	<b>User Response:</b> Check the application program.

---

<b>188 =&gt; DOS</b>	<b>809006BC =&gt; 4690 OS</b>
	<b>Explanation:</b> Invalid customer document type selected. The request is not processed.
	<b>User Response:</b> Correct the customer document type and issue the command again.

---

<b>189 =&gt; DOS</b>	<b>809006BD =&gt; 4690 OS</b>
	<b>Explanation:</b> A different mode of check printing or credit slip printing is already in progress so the selected mode cannot be ended. The request is not processed.
	<b>User Response:</b> Check the application program sequence.

---

<b>190 =&gt; DOS</b>	<b>809006BE =&gt; 4690 OS</b>
	<b>Explanation:</b> The command is not accepted before fiscal receipt/note phase 1 is completed. The request is not processed.
	<b>User Response:</b> Issue an End Fiscal Receipt/Note phase 1 (X'E301' or X'0F01') command.

---

<b>191 =&gt; DOS</b>	<b>809006BF =&gt; 4690 OS</b>
	<b>Explanation:</b> The command is not accepted after fiscal receipt/note phase 1 is completed. The request is not processed.
	<b>User Response:</b> Check the application program sequence. Issue an End Fiscal Receipt phase 2 (X'E302') command.

---

<b>192 =&gt; DOS</b>	<b>80900524 =&gt; 4690 OS</b>
	<b>Explanation:</b> The command is rejected from the printer logic card. The request is not processed.
	<b>User Response:</b> Check for a device driver programming error.

---

<b>193 =&gt; DOS</b>	<b>80900527 =&gt; 4690 OS</b>
	<b>Explanation:</b> A front-insert document error occurred. The request is not processed.
	<b>User Response:</b> Ensure the document is inserted correctly.

---

<b>194 =&gt; DOS</b>	<b>80900521 =&gt; 4690 OS</b>
	<b>Explanation:</b> A print head home error occurred. The request is not processed. (On 4680 Operating System, this error could be reported for other types of printer problems besides home errors.)
	<b>User Response:</b> If the problem persists, service the printer.

---

<b>200 =&gt; DOS</b>	<b>8090070D =&gt; 4690 OS</b>
	<b>Explanation:</b> A customer paper error occurred. The request is not processed.
	<b>User Response:</b> Ensure the paper is installed correctly. If the problem persists, service the printer.

---

<b>201 =&gt; DOS</b>	<b>80900528 =&gt; 4690 OS</b>
	<b>Explanation:</b> The front-insert document is not present. The request is not processed.
	<b>User Response:</b> Insert the document or if a document is already inserted, try removing and reinserting it. If the problem persists, service the printer.

---

<b>202 =&gt; DOS</b>	<b>80900527 =&gt; 4690 OS</b>
	<b>Explanation:</b> The inserted document is not ready. The request is not processed.
	<b>User Response:</b> Try removing the document and reinserting it. If the problem persists, service the printer.

---

<b>203 =&gt; DOS</b>	<b>80900522 =&gt; 4690 OS</b>
	<b>Explanation:</b> The printer cover is open. The request is not processed.
	<b>User Response:</b> Close the printer cover. If the cover is already closed, service the printer.

---

<b>205 =&gt; DOS</b>	<b>80900526 =&gt; 4690 OS</b>
	<b>Explanation:</b> A printer keybutton is pressed. The request is not processed.
	<b>User Response:</b> Release the pressed keybutton. If a keybutton is not pressed, service the printer.

---

<b>206 =&gt; DOS</b>	<b>80900525 =&gt; 4690 OS</b>
	<b>Explanation:</b> A journal paper error occurred. The request is not processed.
	<b>User Response:</b> Ensure the paper is installed correctly. If the problem persists, service the printer.

---

<b>213 =&gt; DOS</b>	<b>80900528 =&gt; 4690 OS</b>
	<b>Explanation:</b> The top-insert document is not present. The request is not processed.
	<b>User Response:</b> Insert the document or if a document is already inserted, try removing and reinserting it. If the problem persists, service the printer.

---

<b>214 =&gt; DOS</b>	<b>80900527 =&gt; 4690 OS</b>
	<b>Explanation:</b> A top-insert document error occurred. The request is not processed.
	<b>User Response:</b> Ensure that the document is inserted correctly.



**225 => DOS      80900529 => 4690 OS**

**Explanation:** Front-insert document is present. The request is not processed.

**User Response:** If a document should not be inserted, remove the document. If a document is not inserted, service the printer.

**226 => DOS      80900527 => 4690 OS**

**Explanation:** The inserted document is ready. The request is not processed.

**User Response:** If a document should not be inserted, remove the document. If a document is not inserted, service the printer.

**237 => DOS      80900529 => 4690 OS**

**Explanation:** Top-insert document is present. The request is not processed.

**User Response:** If a document should not be inserted, remove the document. If a document is not inserted, service the printer.

## Return Code Conversion Table (4690 OS to DOS)

Use Table A-1 to convert 4690 OS return codes to DOS return codes. See DOS and 4690 OS Return Code Descriptions for the DOS return codes.

*Table A-1 (Page 1 of 3). 4690 OS to DOS Return Code Conversion*

4690 OS Return Code	Equivalent DOS Return Code
80900006	N/A
80900007	N/A
80900008	N/A
80900009	N/A
8090061F	031
80900100	000
80900101	001
80900102	002
80900103	003
80900104	004
80900105	005
80900106	006
80900107	007
80900108	008
80900109	009
80900110	010
80900111	011
80900112	012
80900113	013
80900114	014
80900115	015
80900116	016
80900117	017
80900118	018
80900119	019
80900120	020
80900121	021
80900122	022

*Table A-1 (Page 1 of 3). 4690 OS to DOS Return Code Conversion*

4690 OS Return Code	Equivalent DOS Return Code
80900123	023
80900124	024
80900125	025
80900126	026
80900127	064
80900129	029
80900130	030
80900131	110
80900132	111
80900140	096
80900141	033
80900142	034
80900143	035
80900144	036
80900145	037
80900146	038
80900150	056
80900151	057
80900201	065
80900202	066
80900203	055
80900204	068
80900205	069
80900207	072
80900208	074
80900209	075
80900210	076
80900211	077

Table A-1 (Page 2 of 3). 4690 OS to DOS Return Code Conversion

4690 OS Return Code	Equivalent DOS Return Code
80900212	079
80900213	080
80900220	135
80900221	136
80900222	137
80900223	138
80900224	139
80900225	140
80900226	141
80900227	142
80900228	143
80900229	144
80900230	167
80900231	168
80900232	169
80900233	170
80900234	171
80900235	172
80900236	173
80900237	174
80900238	175
80900239	176
80900302	071
80900303	073
80900304	078
80900306	082
80900307	083
80900308	084
80900309	085
80900311	088
80900312	089
80900314	091
80900315	092
80900316	093
80900317	094
80900318	099
80900320	128
80900321	129
80900322	130
80900323	131
80900324	109
80900325	134
80900326	101
80900327	102
80900328	108
80900329	100
80900330	160
80900331	161
80900332	162
80900341	113
80900350	164
80900360	104
80900361	105
80900362	106
80900363	114

Table A-1 (Page 2 of 3). 4690 OS to DOS Return Code Conversion

4690 OS Return Code	Equivalent DOS Return Code
80900364	133
80900365	116
80900401	086
80900410	097
80900411	098
80900421	103
80900425	095
80900521	194
80900522	203
80900524	192
80900525	206
80900526	205
80900527	193
80900527	202
80900527	226
80900528	201
80900529	237
8090061B	027
8090061C	028
80900620	032
80900627	039
80900628	040
80900629	041
8090062A	042
8090062B	043
8090062C	044
8090062D	045
8090062E	046
8090062F	047
80900630	048
80900631	049
80900632	050
80900633	051
80900634	052
80900635	053
80900636	054
8090063A	058
8090063B	059
8090063C	060
8090063D	061
8090063E	062
8090063F	063
80900643	067
80900646	070
80900651	081
80900657	087
8090065A	090
8090066B	107
80900670	112
80900677	119
80900678	120
80900679	121
8090067A	122
8090067B	123
8090067C	124

Table A-1 (Page 3 of 3). 4690 OS to DOS Return Code Conversion

4690 OS Return Code	Equivalent DOS Return Code
8090067D	125
8090067E	126
8090067F	127
80900684	132
80900691	145
80900692	146
80900693	147
80900694	148
80900695	149
80900696	150
80900697	151
80900698	152
80900699	153
8090069A	154
8090069B	155
8090069C	156
8090069D	157
8090069E	158
8090069F	159
809006A3	163
809006A5	165
809006A6	166
809006B0	176
809006B1	177
809006B2	178
809006B3	179
809006B4	180
809006B5	181
809006B6	182
809006B7	183
809006B8	184
809006B9	185
809006BA	186
809006BB	187
809006BC	188
809006BD	189
809006BE	190
809006BF	191
809006D0	208
809006D1	209
809006D2	210
809006D3	211
809006D4	212
809006D7	215
809006D8	216
809006D9	217
809006DA	218
809006DB	219
809006DC	220
809006DD	221
809006DE	222
809006DF	223
809006E0	224
809006E3	227
809006E4	228

Table A-1 (Page 3 of 3). 4690 OS to DOS Return Code Conversion

4690 OS Return Code	Equivalent DOS Return Code
809006E5	229
809006E6	230
809006E7	231
809006E8	232
809006E9	233
809006EA	234
809006EB	235
809006EC	236
809006EE	238
809006EE	239
809006F0	240
809006F1	241
809006F2	242
809006F3	243
809006F4	244
809006F5	245
809006F6	246
809006F7	247
809006F8	248
809006F9	249
809006FA	250
809006FB	251
809006FC	252
809006FD	253
809006FE	254
809006FF	255
80900701	115
80900702	116
80900703	117
80900704	118
80900708	195
80900709	196
8090070A	197
8090070B	198
8090070C	199
8090070D	200
80900711	204
80900714	207
N/A	067

Table A-2 (Page 1 of 2). 4690 OS to DOS Return Code Conversion for Fiscal Unit

4690 OS Return Code	Equivalent DOS Return Code	Fiscal Unit Return Code Microcode
80900521	194	16
80900522	203	23
80900524	192	1
80900525	206	21
80900526	205	n/a
80900527	193	20
80900527	202	24
80900527	214	24
80900527	226	24

Table A-2 (Page 2 of 2). 4690 OS to DOS Return Code Conversion for Fiscal Unit

<b>4690 OS Return Code</b>	<b>Equivalent DOS Return Code</b>	<b>Fiscal Unit Return Code Microcode</b>
80900528	201	24
80900528	213	24
80900529	225	24
80900529	237	24

---

# Index

## Numerics

- 4690 operating system
  - fiscal printer
    - messages 3-5
    - return codes 3-2, 3-5
    - system utility 3-8
    - test 3-7
  - hardware features 1-1
  - return code
- 4690 os to dos return code conversion table A-25
- 4693 diagnostic diskette
  - fiscal printer
    - messages 3-2
    - system utility 3-4
    - test 3-2
  - hardware features 1-1
  - return code

## A

- activating the J4 jumper 3-16
- attachment cable, printer 4-1

## B

- B2 - terminal hardware errors 2-10
- B3 - terminal events 2-10
- base, fiscal
  - removing and replacing 3-14
  - separating from printer 3-11

## C

- cable
  - printer attachment 4-1
  - wiring diagram 3-15
- card
  - printer
    - removing and replacing 3-13
  - processor
    - activating the J4 jumper 3-16
    - removing and replacing 3-12
- codes, return
  - See return code

## D

- diagnostic diskette
  - See 4693 diagnostic diskette

## E

- Ennn messages 2-8
- error messages 2-1, 2-10
- events, terminal 2-10
- exit messages 2-2

## F

- fiscal
  - base unit
    - assembly 4-2
    - removing and replacing 3-14
    - separating from printer 3-11
  - hardware features 1-1
  - printer
    - card, removing and replacing 3-13
    - messages, 4690 3-5
    - messages, 4693 3-2
    - parts catalog 4-1
    - power-on reset messages 2-2
    - removing and replacing 3-9
    - return codes, 4690 3-5
    - return codes, 4693/4694 3-2
    - separating from base 3-11
    - test, 4690 3-7
    - test, 4693 3-2
    - test, offline 3-1
  - processor card
    - activating the J4 jumper 3-16
    - removing and replacing 3-12
  - return codes A-1
  - system utility
    - 4690 operating system 3-8
    - 4693 support and diagnostic diskette 3-4
    - 4694 service diskette 3-4

## H

- hardware features 1-1

## J

- jumper, J4 3-16

## L

- log, system 2-10

## M

- messages
  - 4690 operating system 3-5

messages (*continued*)  
 4693 diagnostic diskette 3-2  
 Ennn 2-8  
 power-on reset 2-2  
 terminal hardware error 2-10  
 Tnnn 2-6  
 Wnnn 2-8

## O

operating system  
 See 4690 operating system

## P

parts catalog 4-1  
 power-on reset messages 2-2  
 printer  
 attachment cable 4-1  
 card  
 removing and replacing 3-13  
 messages  
 4690 3-5  
 4693 3-2  
 power-on reset 2-2  
 parts catalog 4-1  
 removing and replacing 3-9  
 return codes  
 4690 operating system 3-5  
 4693 diagnostic diskette 3-2  
 separating fiscal base from 3-11  
 test  
 4690 3-7  
 4693 3-2  
 offline 3-1  
 unit assembly, removing and replacing  
 problem determination 3-1  
 processor card  
 activating the J4 jumper 3-16  
 removing and replacing 3-12  
 publications vi

## R

reference diskette  
 See 4693 diagnostic diskette  
 removing and replacing  
 fiscal base 3-14  
 fiscal base from printer, separating 3-11  
 printer card 3-13  
 printer unit 3-9  
 processor card 3-12  
 reset messages, power-on 2-2  
 return code  
 conversion table A-25  
 fiscal printer  
 4690 operating system 3-5

return code (*continued*)  
 fiscal printer (*continued*)  
 4693 diagnostic diskette 3-2  
 fiscal unit A-1  
 return code conversion table (4690 OS to DOS) A-25

## S

separating fiscal base from printer 3-11  
 system log 2-10

## T

test, fiscal printer  
 4690 3-7  
 4693 3-2  
 offline 3-1  
 Tnnn messages 2-6

## U

utilities  
 4690 operating system 3-8  
 4693 diagnostic diskette 3-4

## W

wiring diagrams, cable 3-15  
 Wnnn messages 2-8

---

# Tell Us What You Think!

**Fiscal Printer Model 3FA:  
Argentina Hardware Supplement  
Publication No. GA27-4036-01**

We hope you find this publication useful, readable, and technically accurate, but only you can tell us! Your comments and suggestions will help us improve our technical publications. Please take a few minutes to let us know what you think by completing this form. If you are in the USA, you can mail this form postage free or fax it to us at 1-800-253-3520. Elsewhere, your local IBM branch office or representative will forward your comments or you may mail them directly to us.

<b>Overall, how satisfied are you with the information in this book?</b>	Satisfied	Dissatisfied
	<input type="checkbox"/>	<input type="checkbox"/>

<b>How satisfied are you that the information in this book is:</b>	Satisfied	Dissatisfied
Accurate	<input type="checkbox"/>	<input type="checkbox"/>
Complete	<input type="checkbox"/>	<input type="checkbox"/>
Easy to find	<input type="checkbox"/>	<input type="checkbox"/>
Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>
Well organized	<input type="checkbox"/>	<input type="checkbox"/>
Applicable to your task	<input type="checkbox"/>	<input type="checkbox"/>

Specific comments or problems:

---

---

---

Please tell us how we can improve this book:

---

---

---

Thank you for your comments. If you would like a reply, provide the necessary information below.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Company or Organization

\_\_\_\_\_

\_\_\_\_\_  
Phone No.

\_\_\_\_\_



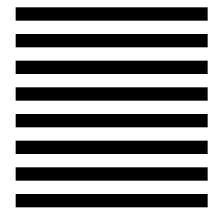
Fold and Tape

Please do not staple

Fold and Tape



NO POSTAGE  
NECESSARY  
IF MAILED IN THE  
UNITED STATES



# BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 40 ARMONK, NEW YORK

POSTAGE WILL BE PAID BY ADDRESSEE

Design & Information Development  
IBM Corporation  
Software Reengineering  
Department G71A/ Bldg 503  
P.O. Box 12195  
Research Triangle Park, NC 27709-9990



Fold and Tape

Please do not staple

Fold and Tape







created October 8, 2001

Printed in Argentina

GA27-4036-01

