IBM INSTALLATION INSTRUCTIONS

Upgrade System and Cache Memory in IBM 3494 HA1 and Lxx Library Managers

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SSD - Tucson

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Status: Field Use

Note: Install this Field Bill of Material (FBM) only on the 3494 Tape Library for which it was shipped.

Before Install (Sections 1 through 8)

1.0 Machines Affected

This FBM affects all 3494 library managers with HA1 installed without EC D19293 that require system and cache memory upgrade.

2.0 Prerequisites

None

3.0 FBMs To Be Installed

3.1 Cache Memory Hardware

FBM	Qty	Description
08L6052	1	Hardware and Instructions

4.0 Preparation

Check all items listed on the Bill of Material to determine that all parts have been received.

Use the following documentation:

- *IBM Magstar 3494 Tape Library MI*, EC C70609 or later.
- *IBM 7588 Industrial Computer Information, Installation, Operation, Hardware Maintenance*, S76H-4349-00.

5.0 Programming Updates

None.

6.0 Purpose and Description

This FBM provides memory upgrade for 3494 HA1 and Lxx library manager units to enhance library performance.

7.0 Installation Time

Machine Hours	System Hours	CE Hours
1.0	0.0	3.0

8.0 Special Tools, Materials, and/or Procedures Required

Warning: Some parts handled during this installation are sensitive to electrostatic discharge (ESD). See "Working with ESD-Sensitive Parts" in the **CARR** section of the *IBM 3494 Tape Library MI*.

Details of Installation (Sections 9, 10, and 11)

9.0 Safety

9.1 Safety Notice

None

10.0 Details Of Installation

Note

In this procedure, the standby Library Manager will be upgraded first while the active Library Manager continues to run. Then you will switch the active Library Manager to standby and upgrade it.

10.1 Power Off the Standby LM

__ 1. If the standby LM is in the L1x frame (LMA) and the frame contains a tape subsystem, ask the operator to take the tape system(s) in the L1x frame offline to all hosts (power to the L1x frame will eventually be turned off).

__ 2. If applicable, disable dual active accessors. Make sure that local Accessor is active on the active LM (A and A or B and B). If not, use the **Mode** pulldown menu to switch accessors.

__ 3. Select **Shutdown** from the standby LM **Mode** pulldown menu.

__ 4. When the LM shutdown completes, select **Shutdown for Reboot** from the Shutdown panel.

__ 5. When the shutdown completes, turn off the CB1 breaker on the PCC to power off this frame.

Restrictions in this Mode: The library will indicate that it is running in degraded mode because the standby LM is not enabled.

Go to Section 10.2, “Upgrade Library Manager Memory.”

10.2 Upgrade Library Manager Memory

Attention

Electrostatic-sensitive parts will be removed and installed in this procedure.

__ 1. Follow the procedure in "Removing the IBM SBC" in the **Installing Options** chapter of the *IBM 7588 Industrial Computer Information, Installation, Operation, Hardware Maintenance*, then return here to the next step (read the following before performing the procedure).

Note: Before removing the SBC, disconnect all cables; these include keyboard/mouse, serial cables, CD-ROM, floppy drive, hard drive, and signal cables (color order from front of PC is green(P3) / yellow(P4) / red(P5) / white(P2)).

The mini connector (primary IDE controller) can be difficult to align. Leave the converter block connected to the SBC and remove the IDE cable from the converter block.

__ 2. Refer to Figure 6-1 (IBM SBC Component Layout) in the *IBM 7588 Industrial Computer Information, Installation, Operation, Hardware Maintenance* for this step. Remove the 256K cache memory module from slot **3** by pulling the top edge of the module up and out of the connector. Set aside for parts disposition as defined in section 14.0, “Parts Disposition” on page 9.

__ 3. Follow the procedure in "Removing SIMMs" in the **Installing Options** chapter of the *IBM 7588 Industrial Computer Information, Installation, Operation, Hardware Maintenance*, then return here to the next step (read the following before performing this procedure).

To remove the two 16MB SIMMs, press the tabs outward on each end of the memory slots (note notch in each SIMM and slots from which SIMMs are removed). Carefully tip the SIMM once the tabs have been pressed, and tilt the SIMM about 40°, then put in a static-safe area.

__ 4. Noting the correct placement of the notch to the SBC, install the replacement 32MB SIMMs (PN 76H4389, two supplied) in the same slots from which the 16MB SIMMs were removed.

__ 5. Install 512K cache memory as follows:

  __ a. Position the cache memory module (PN 76H4391, supplied) so the notch on the bottom edge aligns with the notch in the connector.

  __ b. Insert the bottom edge of the memory module into the connector and push down evenly so that the module is fully inserted.

__ 6. Re-install the SBC by following the steps in reverse found in the "Removing the IBM SBC" procedure in the **Installing Options** chapter of the *IBM 7588 Industrial Computer Information, Installation, Operation, Hardware Maintenance* then return here **(Note that the color order for the signal cables from the front of the PC is green(P3) / yellow(P4) / red(P5) / white(P2). On the IDE cable the connector key points upwards. If the converter block on the IDE connector needs to be replugged, it begins on the pins closest to the front of the PC (3 rows are leftover).)**.

__ 7. Power up the frame from the CB1 breaker.

__ 8. A configuration change will be detected as the PC reboots.

  __ a. At the **Post Startup Error** panel press **enter** to continue.

  __ b. At the **Configuration Error** panel press **enter** to continue.

  __ c. At the **Configuration/Utility Setup** panel press the **Esc** key to exit.

  __ d. Press **enter** to select "Yes, Save and exit the Setup Utility". This will cause the PC to reboot.

__ 9. As the PC reboots, check that the memory check counts up to 64 MB.

__ 10. The LM should come up in standby mode and the remote database copy will begin.

If you have not yet upgraded the second Library Manager, go to section 10.3, “Switch Active LM and Accessor.”

If you have completed the upgrade for both Library Managers, go to section 11.0, “Test Procedure” on page 7.

10.3 Switch Active LM and Accessor

__ 1. Wait for the remote database copy to complete (this can take up to two hours depending on the number of volumes in the database.). The **Database Dual Write** field on the **Operational Status** window under the **Status** pulldown menu will show the status of the remote copy.

__ 2. Ask the operator to complete or cancel jobs in the queue and to vary all tape subsystems in the library offline.

__ 3. From the **Mode** pulldown menu on the active LM, select **Offline**. As soon as the

LM is offline, use the **Mode** pulldown menu to place the library in **Pause** mode.

__ 4. Use the **Mode** pulldown menu to switch Accessors.

__ 5. After the accessor switch, use the **Mode** pulldown menu to switch active LM's.

__ 6. When the new LM becomes active, use its **Mode** pulldown menu to change the library to **Online** and **Auto**.

__ 7. At this point, the customer can start using the library again. If the new standby LM is in the L1x frame (LMA) and the frame contains a tape subsystem, have the operator to leave the tape system(s) in the L1x frame offline at all hosts (power to this frame will eventually be turned off).

Go to section 10.4, “Power Off New Standby LM.”

10.4 Power Off New Standby LM

__ 1. Select **Shutdown** from the standby LM **Mode** pulldown menu.

__ 2. When the LM shutdown completes, select **Shutdown for Reboot** from the Shutdown panel.

__ 3. When the shutdown completes, turn off the CB1 breaker on the PCC to power off this frame.

Restrictions in this Mode: The library will indicate that it is running in degraded mode because the standby LM is not enabled.

Upgrade this Library Manager by repeating the procedure in section 10.2, “Upgrade Library Manager Memory” on page 5.

11.0 Test Procedure

The test procedure was completed in the previous section.

If the LM is dual active, reactivate it.

Go to Section 12.0, “Field Updating” on page 9.

After Installation (Sections 12 through 15)

12.0 Field Updating

None

13.0 Field Support Publications

None

14.0 Parts Disposition

Refer to the *Ownership of Parts Matrix* to determine the correct owner of removed or unused parts. Process all parts determined to be IBM property as follows:

USA

Provide all parts to the IBM Branch Office for potential return in accordance to existing return, recovery, and reclamation programs.

World Trade

Return removed parts to Country Central Stock per existing procedures.

15.0 Machine Records

__ 1. Update machine history provided. Using existing procedures, update all appropriate field records to reflect that the EC update was installed in the 3494 Model Lxx serial number.

__ 2. Using existing procedures, report installation and quality.