Installation Guide

English

Brisque and Brisque Serve Memory Upgrade

399Z3R347B

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Installation Guide

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4743091	5291273	5459505	5625766	5854883	6014471	6159659
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5049901	5313278	5481379	5649220	5861992	6031932	6180325
5079721	5323248	5488906	5650076	5864651	6043865	6181362
5103407	5325217	5497252	5652804	5875288	6060208	6181439
5111308	5331439	5508828	5691823	5894342	6063528	6186068
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5122871	5339176	5517359	5696393	5934196	6072518	6191882
5124547	5343059	5519852	5699174	5942137	6090529	6204874
5132723	5355446	5526143	5699740	5946426	6096461	6208369
5150225	5359451	5532728	5708736	5947028	6098544	6252522
5153769	5359458	5561691	5713287	5958647	6107011	6260482
5155782	5367360	5568595	5739819	5966504	6112663	
5157516	5367388	5576754	5742743	5969872	6115056	
5208818	5384648	5579115	5764381	5973801	6121996	
5208888	5384899	5592309	5771794	5986819	6130702	
5247174	5412491	5594556	5785309	5995475	6134393	

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399Z3R347B

May 2002

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About This Document

The Memory Upgrade for E30, 43P, F50, 44P and 6F1 is intended for use by Creo Service Engineers. This guide is designed to accompany each Upgrade kit, and includes the following topics:

- System Requirements sets out an overview of the memory requirements and a hardware description for each of the four platforms.
- Installation describes installation procedures for memory upgrading.
- Updating Paging Space describes how to use the paging space option.
- Memory Upgrade Kit Listings.



Note: Currently, there are memory upgrade kits available for models E-30, 43P-140, 43P-150, F-50, 44P and 6F1.

1 System Requirements

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1.1 Overview

The Creo Brisque and Brisque Server models E-30, 43P and F-50 can be upgraded to a larger RAM capacity by adding or replacing either memory cards, or different combinations of both addition and replacement. For the E-30, 43P and F-50 models, on board dual inline memory modules (DIMMs) can be changed.



Note: Memory modules for each platform are different and cannot be interchanged between platforms.

- For the E-30, 43P and 44P models the DIMMs are installed directly on the system board.
- For the F-50 and 6F1 models the DIMMs are installed directly on the memory card (either 1 or 2), refer to *Figure 4 on page 11* and *Figure 6 on page 13*.

1.2 System Configuration

The following tables set out the memory configuration of the different units leaving the factory and the maximum memory upgrade available.

Brisque System Unit	Factory Installed	Max Memory Upgrade	Max Number of Modules
E-30	3x32MB=96MB or 64MB+32MB	8x32MB=256MB 8x64MB=512MB 8x128MB=1GB	8 DIMMs
43P-140	2x64MB=128 or 2x64MB+128MB	6x64=384MB 6x128MB=768MB	6 DIMMs
43P-150	2x128MB=256MB	4x128MB=512MB 4x256MB=1 GB	4 DIMMs

Brisque System Unit	Factory Installed	Max Memory Upgrade	Max Number of Modules
F-50 Brisque[2]	4x64MB*=256MB	8x64MB*=512MB 8x256MB*=2GB (on each board up to 2GB)**	8 pairs on each memory board (1 or 2 boards)
F-50 Brisque[4]	4x64MB*+256MB* =512MB	8x64MB*=512MB 8x256MB*=2GB (on each board up to 2GB)**	8 pairs on each memory board (1 or 2 boards)
44P-170	2x256MB*=512MB or 1x512MB*	2x512MB*=1GB	2 pairs
6F1 - Dual	512MB*	4x512MB*=2GB 4x1GB*=4GB	4 quads
6F1 - Quad	1GB*	4x512MB*=2GB 4x1GB*=4GB	4 quads
6F1 - Sixt	512MB*+1GB*=1.5 GB	4x512MB*=2GB 4x1GB*=4GB	4 quads

*. For F-50 and 44P, 64MB comes as a pair DIMMs of 32MB each and 256MB comes as a pair of DIMMs of 128MB each.
For F61, 512MB comes as 4 DIMMS of 128MB each and 1GB comes as 4 DIMMs of 256MB each.

**. Total allowed memory per machine = 3GB.

Server System Unit	Factory Installed	Max Memory Upgrade	Max Number of Modules
Server 2100 **E-30**	64MB	8x32MB=256MB 8x64MB=512MB 8x128MB=1GB	8 DIMMs

Server System Unit	Factory Installed	Max Memory Upgrade	Max Number of Modules
Server 3000 43P-140	2x64MB+128MB= 256MB	6x64=384MB 6x128MB=768MB	6 DIMMs
Server 3000 43P-150	2x128MB=256MB	4x128MB=512MB 4x256MB=1GB	4 DIMMs
Server 5000 F50-2	4x64MB* +256MB* = 512MB	8x64MB*=512MB 8x256MB*=2GB (on each board up to 2GB)**	8 pairs on each memory board (1 or 2 boards)
Server 5000 F50-4	4x64MB* +2x256MB*=768M B	8x64MB*=512MB 8x256MB*=2GB (on each board up to 2GB)**	8 pairs on each memory board (1 or 2 boards)

Brisque Serve System Unit	Factory Installed	Max Memory Upgrade	Max Number of Modules
44P-170	2x256MB=512MB or 1x512MB*	2x512MB*-1GB	2 pairs
6F1-Dual	2x512MB*=1GB	4x512GB*=2GB 4x1GB*=4GB	4 quads
6F1-Quad	512MB*+1GB*=1.5 GB	4x512GB*=2GB 4x1GB*=4GB	4 quads
6F1-Sixt	2x512MB*+1GB*=2G B	4x512GB*=2GB 4x1GB*=4GB	4 quads

*. For F-50 and 44P, 64MB comes as a pair of DIMMs of 32MB each and 256MB comes as a pair of DIMMs of 128MB each.
For F61, 512MB comes as 4 DIMMS of 128MB each and 1GB comes as 4 DIMMs of 256MB each.

**.Total allowed memory per machine=3GB

1.3 System Limitations

The Paging Space size is defined according to memory size. Setting the Paging Space correctly will optimize the system performance.

Installation of the additional memory units requires the enlargement of the Paging Space size. The **Upgrade Paging Space** option in the SciSmit is used for updating the Paging Space size after memory upgrade. For details refer to *Updating the Paging Space* on page 16.

As the Paging Space is defined on the system disk, it depends on the free space on the system disk. The following system limitations should be considered while upgrading the memory:

- System disk is full before you run the **Upgrade Paging Space** option.
- System disk is almost full after you run the **Upgrade Paging Space** option. This may cause problems while loading a new version.
- After you run the Upgrade Paging Space option, the Paging Space size is larger than 20% of the system disk size.



Note: For the above system limitations it is recommended to replace the system disk with a larger one.
If you choose to keep the existing disk, you have to perform the Cold Start procedure to reduce the Paging Space.

2

Memory Installation

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2.1 Foreword

Before the installation, it is important to remember that:

- For the E-30 and 43P units, the memory modules can be combinations of different size DIMMs to achieve the required configuration.
- For the F-50 and 44P units, the memory modules can be combinations of different size DIMMs (in identical pairs) to achieve the required configuration.
- For the 6F1 units, the memory modules can be combinations of different size DIMMs (in identical foursomes) to achieve the required configuration.

The installation procedure contains the following:

- Shutting down the system.
- Installing the memory upgrade units.
- Verifying that the memory upgrade is successful.
- Updating the Paging Space.

2.2 Shutting Down Unit

To shut down the unit:

1. Remove all media from drives.
2. Shutdown system unit, using the **shutdown** command.
3. Power off all attached devices.
4. Disconnect the power cord.

2.3 Installing the Memory Upgrade Units

WARNING: Before opening your computer, make sure you are properly grounded. Static electricity stored on your body or clothing can damage and/or destroy static sensitive electronic components.
Make sure your work area includes some form of static protection. There are a number of inexpensive commercially available antistatic devices designed to protect your installation.

To install memory upgrade units:

1. Remove the system unit covers and store in safe place.

   Refer to the Removing Covers section in the IBM User Guide or Service Guide of the machine you are installing.

2. Locate memory module connectors.

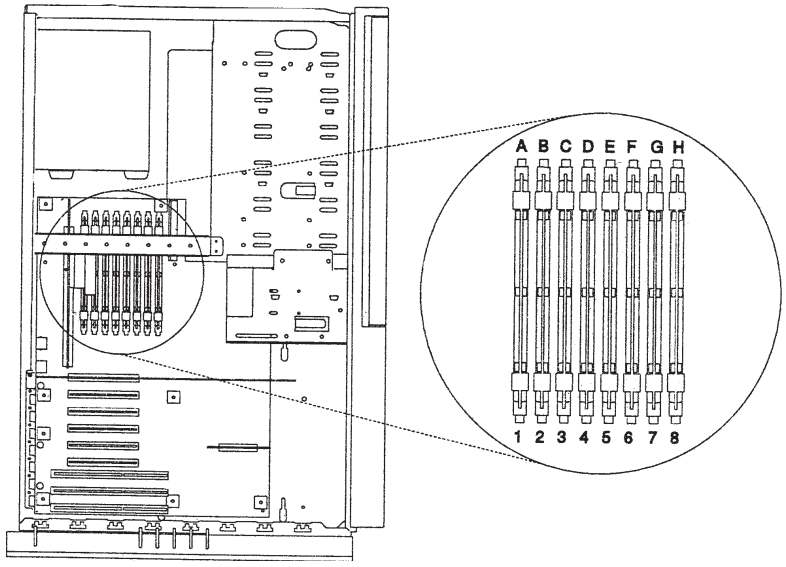


Figure 1: Memory Module Location (E-30)

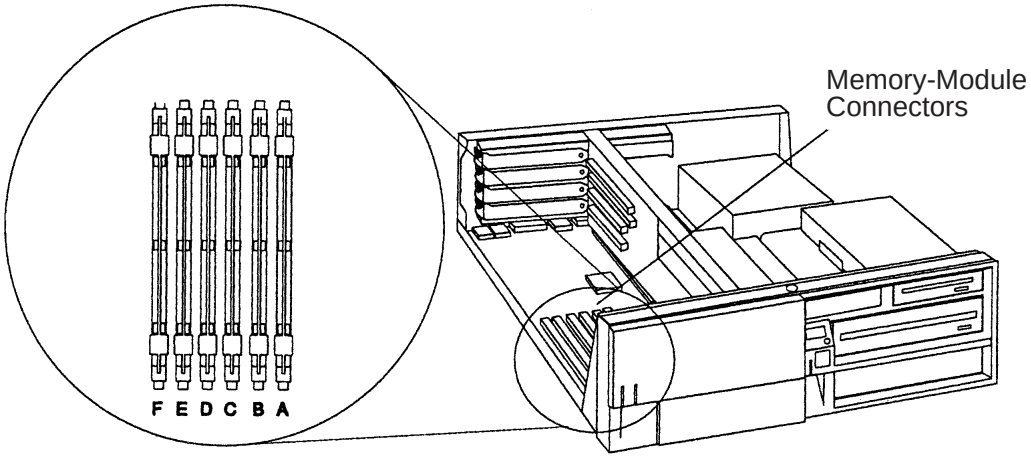


Figure 2: Memory Module Location (43P-140)

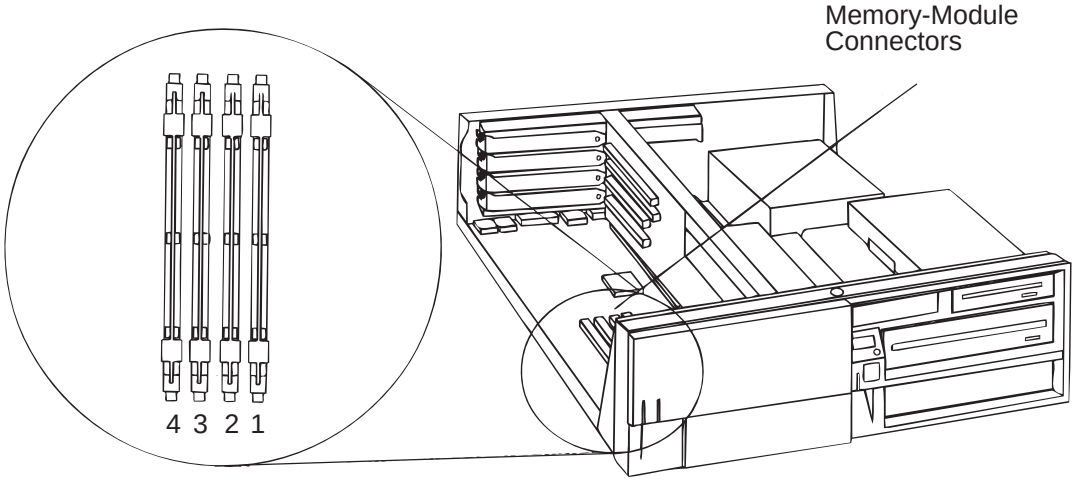


Figure 3: Memory Module Location (43P-150)

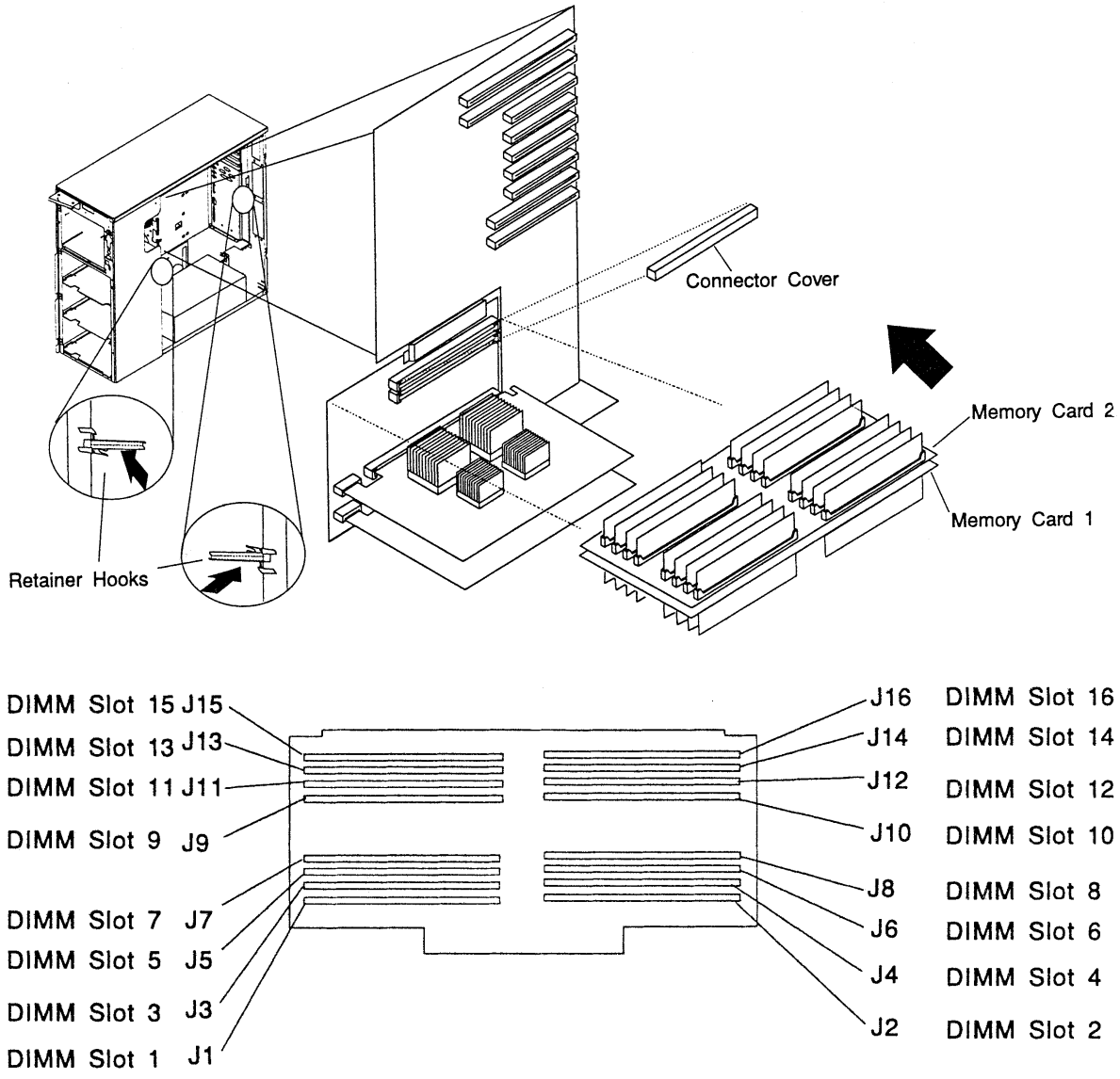


Figure 4: Memory Module Location (F-50)

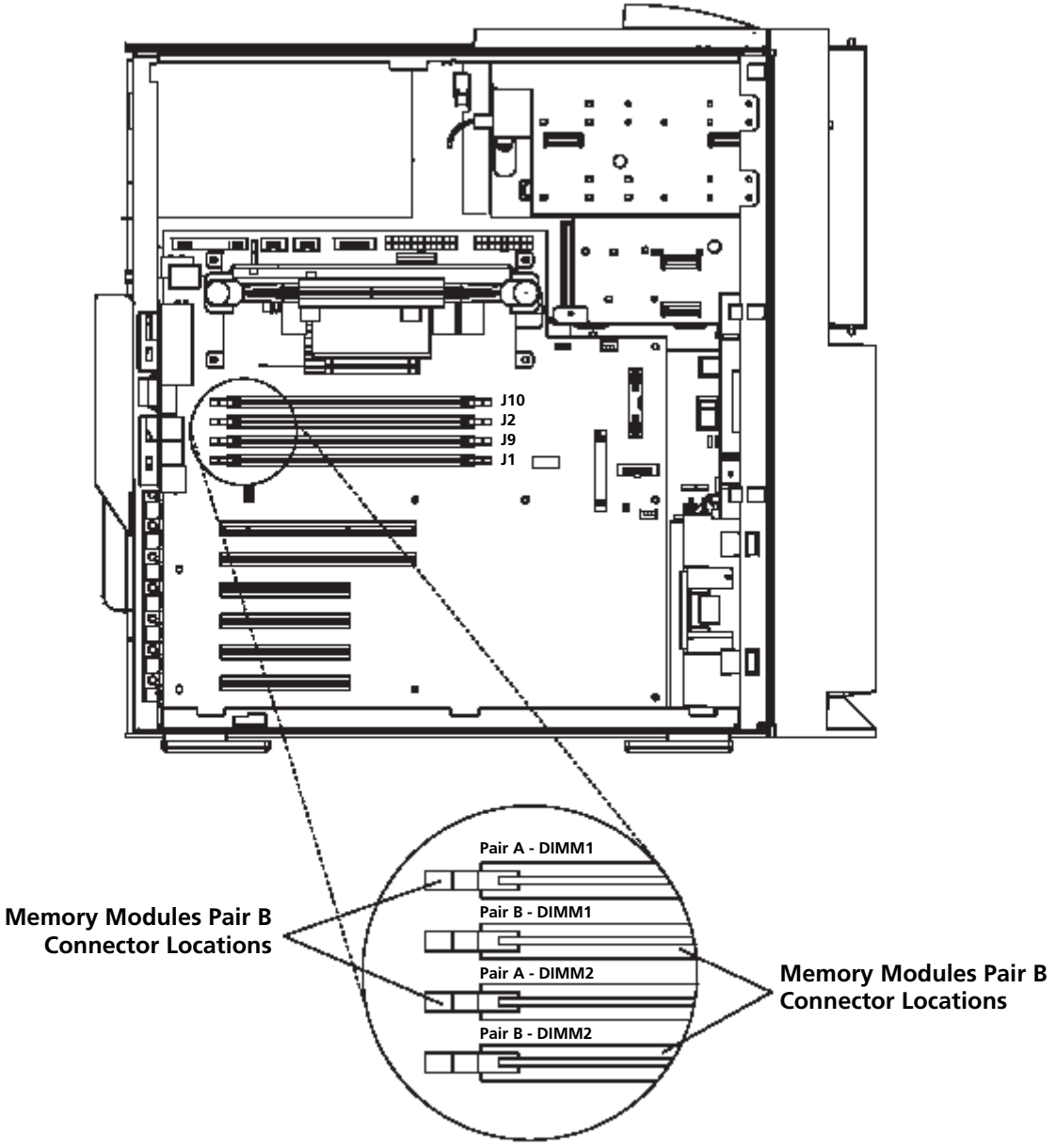


Figure 5: Memory Module Location (44P)

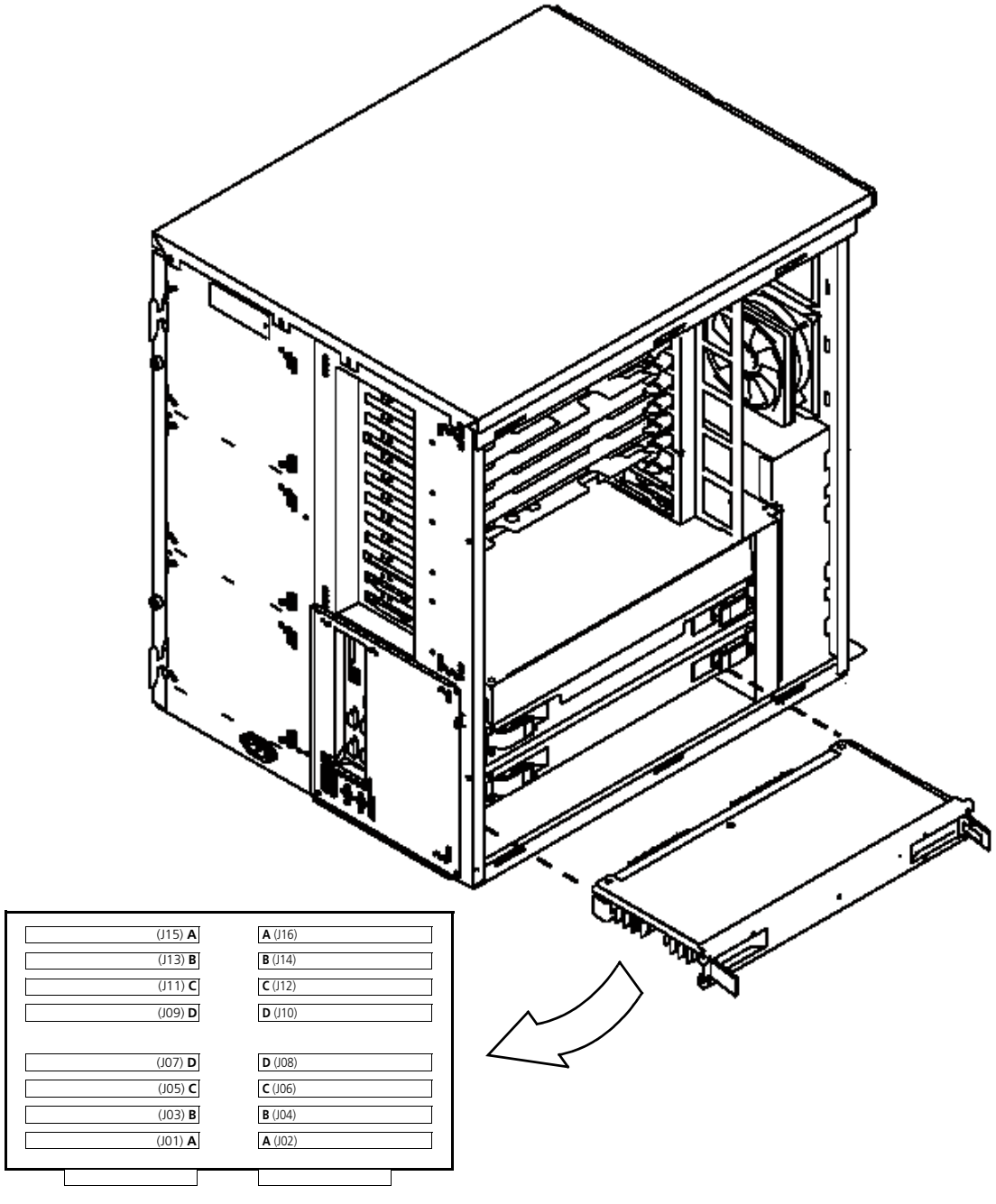


Figure 6: 6F1 Memory Module Locations

3. Insert memory module into the appropriate slots.
   - **E-30** - starting at A and progressing to H, see *Figure 1* on page 9.
   - **43P-140** - starting at A and progressing to F, see *Figure 2* on page 10.
   - **43P-150** - starting at 4 and progressing to 1, see *Figure 3* on page 10.
   - **F-50** - new memory modules must be installed in the first available pair of vacant connectors starting at pair 1 (connectors J1 and J2) and progressing to pair 8 (connectors J15 and J16), see *Figure 4* on page 11.
   - **44P** - new memory modules must be installed in the first available pair of vacant connectors starting at pair A (connectors J9 and J10) and progressing to pair B (connectors J1 and J2), see *Figure 5* on page 12.
   - **6F1** - new memory modules must be installed in the first available quad of vacant connectors starting at quad A (connectors J1, J2, J15 and J16) and progressing to quad D (connectors J7, J8, J9 and J10), see *Figure 6* on page 13.
4. Align the memory module kit notches with the keys in the memory connectors.



Note: The memory module kits are keyed and can only be inserted one way.

5. Insert the memory-module kit into the next unused memory connector.
6. Push down on the memory-module kit until the latch tabs lock the memory-module kit into the connector.



Note: Do not attempt to move the latch tabs yourself. They will lock automatically when you have fully inserted the memory-module kit.



WARNING: Inserting the memory-module kit at an angle may damage the memory-module kit.

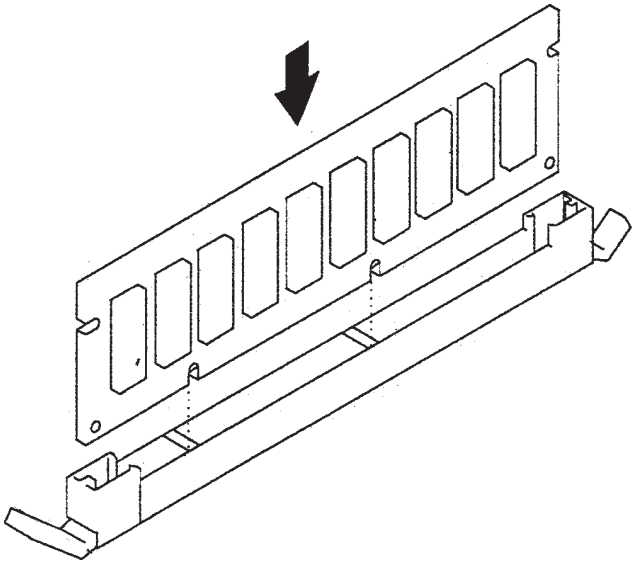


Figure 7: Memory Module - locking latch tabs.

To replace the system unit covers refer to the Replacing Covers section in the IBM User Guide or Service Guide of the machine you are installing.

2.4 Verifying that the Memory Upgrade is Successful

To verify that upgrade is successful:

1. Log in as **root**.
2. Activate SciSmit.
3. Select **SciSmit -> Information -> Station Information**. The Station Information window displays the memory size after upgrading.

2.5 Updating the Paging Space

The SciSmit **Update Paging Space** option is used to increase the amount of the Paging Space to fit the new memory size after installing extra memory modules.

To perform the Update Paging Space:

1. Log in as **root**.
2. Activate SciSmit.
3. Select **Devices -> Paging Space -> Update Paging Space** and press ENTER.

3 Memory Upgrade Kit Listings

No.	Kit Description	Part No.
1	Upgrade 32MB for E-30 (DIMM)	510K50732
2	Upgrade 64MB for E-30 (DIMM)	510K51647
3	Upgrade 128MB for E-30 (DIMM)	510K52693
4	Upgrade 128MB for 43P-140 (DIMM)	510K51088
5	Upgrade 256MB for 43P-150 (DIMM)	510K1M064
6	Upgrade 128MB for F-50 (for Server only)	501R44706
7	Upgrade 256MB for F-50 (SDRAM)	510K51087
8	Kit, add 512MB memory for 44P-170	510K1R301
9	Kit, add 512MB memory for 6F1	510K1R302
10	Kit, add 1GB memory for 6F1	510K1R303

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