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FIELD CHANGE ORDER	NUMBER: KN430-F004
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APPLICABILITY:

DEC4000 memories [B2002-CA & DA] below revision C01 will not function in DEC4000 multiprocessor [SMP] configurations. This FCO applies ONLY to those DEC4000-610 systems to be field-upgraded to SMP, where the existing memories are below revision C01.

This FCO incorporates the following ECO: B2002-SH001.

NOTE: SMP upgrade should not be attempted if I/O module [B2101-AA] is below revision H, or if the incremental current drawn by the second CPU module [8.25A, 64.3W] would exceed regulator specifications [applies to systems with H7179 5VDC regulators (90A DC5)].

Check with FCO coordinators for I/O and power supply FCO availability.

PROBLEM & SYMPTOM:

Attempting to run SMP with memories below revision C01 will result in system crashes due to [FALSE] parity errors. O/S error logger will indicate "Parity Errors".

SOLUTION:

Install B2002-CA or -DA part revision C01 in memory slot(s).

QUICK CHECK:

Look for B2002-CA or DA part revision C01 in backplane slots 4-7, or at console prompt type "show fru" and return. Check the hardware revision under memory options(slots 4-7).

PRE/COREQUISITE FCO: N/A	MFIT HRS
	1.5

TOOL/TEST EQUIPMENT:

Field service maintenance tool kit.

FCO PARTS INFORMATION

FCO KIT NO.	DESCRIPTION OF CONTENTS
EQ-01681-01	1 B2002-CA - Part Rev C01 Memory Module
EQ-01681-02	1 B2002-DA - Part Rev C01 Memory Module
FA-05018-01	1 Field Application (FA) Document

APPROVALS

TECH. ENGINEER Bharat S. Shah	ENG. BUSINESS MGR. Mike Collins	DS LOGISTICS Robert France	DS PRODUCT SAFETY Robert Brister
MICROMEDIA Brenda Rogers	PARTS AVAILABILITY November 1, 1993	FCO REVISION A	FCO RELEASE DATE November 1, 1993

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FIELD INSTALLATION PROCEDURES

***** IMPORTANT *****

1. When receiving a customer call for a SMP upgrade installation, you must identify the following information before going to the site:

How many memory boards are installed in Customer's system and the hardware part revision of those boards. This can be done at O/S level by looking into error logger. Look for the last configuration entry.

Commands are as follows:

```
Analyze/error For Open VMS system
etc/uerf For OSF1 System
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Console level command is as follows:

```
show fru
```

2. Shut down the operating system.

Have the customer notify all affected system users and shutdown the operating system.

3. Halt the system.

Once the operating system has been shutdown, press the Halt button on the operator control panel (OCP) and leave the HALT button in the halt position.

4. Set up VELOSTAT KIT:

- a. Unfold the VELOSTAT mat to full size (24" x 24").
- b. Attach the 15 foot ground cord to the VELOSTAT snap fastener on the mat.
- c. Attach the alligator clip end of the ground cord to a good ground.
- d. Attach the wrist strap to either wrist and the alligator clip to a convenient portion of the mat.

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*****  
*           C A U T I O N           *  
*               *                   *  
* If using a module in an ESD box, ensure wrist strap is *  
* connected to the box and the box is connected to chassis *  
* of the device being upgraded. *  
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5. Power down the system.

Turn off the DC ON/OFF switch on the OCP, turn off the AC circuit breaker at the rear of the system, and finally pull out the power cord from the electrical outlet.

6. Open the back cover.

7. Locate memory module(s), and undo the two captive screws which secure the memory module.

8. Unseat the memory module, remove it from the backplane, and place it on the anti-static mat.

9. Remove the new module from the package and insert it into its backplane slot. Secure the module with the two screws.

10. Plug the power cord into the power source. Turn "ON" the AC circuit breaker at the rear and then turn the DC ON/OFF switch on the OCP to "ON" position

11. Run system verification test, and observe console terminal for

correct power up sequence.

If the power up sequence is correct and no errors are indicated then go to next step.

If the power up self test indicates an error, refer to the "DEC 4000 AXP Model 600 Series Service Guide", P/N EK-KN430-SV, for troubleshooting information.

12. Execute "show fru" command and make sure the new memory board(s) and appropriate revision(s) are reported in the table.
13. Run memory exerciser by executing command "memexer 5" at the console prompt.
14. Run multiprocessor memory exerciser by executing command "memexer_mp 5" at the console prompt.
15. Run the whole system diagnostic by executing command "test" at the console prompt.

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16. Reboot the System.

Place system in "RUN" mode(Halt switch "OUT") and type "BOOT" at the console prompt. The system will initiate the boot sequence from the default boot device.

17. Clean-Up

Tag the FRU as indicated below :

Part # B2002-CA or DA

Revision Insert Part Revision from FRU here

Reason for return FCO

Comments FCO # KN430-F004

18. Package the FRU in the container from the kit and return it through normal logistics channels.
19. Report this FCO activity on the LARS form in the "Fail Area/Module/FCO/Comments" column as follows: FCO KN430-F004 (See the LARS example on Page 5).

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LARS

CATEGORY F	USA	APA	EUROPE
Activity -			
(a)Contract	W	U	K
Warranty	W	U	W
(b)IN-DEC Contract	K	U	A
Non Contract/Non Warranty	F	F	F
(c)RTD/Off-site Agreement	F	U	F
Hardware Segment Code	111	111	***
Product Line	031		
DEC Option	B2002	B2002	B2002
Option ID	X	N/A	N/A
Type of Call	M	M	M
Action Taken	D	D	I/V
Fail Area-Module-FCO-Comments	KN430-F004	KN430-F004	KN430-F004
Material Used	EQ-01681-01	EQ-01681-01	EQ-01681-01
	EQ-01681-02	EQ-01681-02	EQ-01681-02

(a) Warranty Optimum, Warranty Standard and Warranty Basic (on-site) Agreements; * Note material (only) free of charge for all customers.

(b) Applies to IN-DEC Area Only

(c) RTD=Return to Digital or Off-site Agreements; If Field Engineer On-site, use Activity Code "F".

FCO CHARGING INFORMATION

WARRANTY/CONTRACT				NONWARRANTY/NONCONTRACT				
ON-SITE		OFF-SITE		ON-SITE		OFF-SITE		MATERIAL ONLY
TRAVEL/	EQ		EQ	TRAVEL/	EQ		EQ	ORDER-ADMIN, HANDLING
INSTALL	KIT	INSTALL	KIT	INSTALL	KIT	INSTALL	KIT	PKG, SHIPPING & EQ KIT

DEC	DEC	DEC	DEC		CUS	CUS	CUS	CUS	CUS
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