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FIELD CHANGE ORDER

Number: 85XBA-R005

Applicability: Retrofit all VAX 85X0s to Revision Level "D1". This FCO incorporated the following ECOs: 851BA-Y-LK004 and 855BA-Y-LK005; New Part Revision "D1".

This revised FCO supersedes Rev. B released 14 August 1987. It has been revised to correct step 5 and step 13.

Problem/Symptom:

Machine shuts down prematurely because of error in Temp Sensor-3 Location. Change Temp Sensor-3 with Air Flow Sensor-1.

Quick Check: Temp Sensor-3 located behind ground strap.
(See Figure 1, Page 6)

Compatibility/Prerequisite FCO:
See Revision Chart on Page 5.

Est. Time to Install:
1 hr.

Special Tools or Test Equipment:
Field Service Tool Kit

FCO Parts Information

Order by	Quantity:	Part Number:	Description:
FCO Kit#:			
EQ-01470-01	1		See page 2
FA-04757-01	1		FCO Document

EQ Kit Variation System/Option Applic: N/A

Approvals

CSSE Engineer
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EP-FSNVX-LB VAX

Affected Population:
1105

MicroMedia Pub.
Ray LeBlanc

VAXnotes
STARS

Initial Kitting:
1105

Revision:

Hardcopy Publication:

FCO Release Date
21-DEC-87

Parts Availability:
January 1988

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SPECIAL TOOLS OR TEST EQUIPMENT:

VELOSTAT Electrostatic Field Service Kit (P/N 29-26246-00).
Torque Wrench, Field Service Tool Kit, 3/8 in socket with 1/4 in sq. drive.

FCO KIT CONTENTS: Continued from page 1.

EQ-01470-01	Quantity	Part Number	Description
-----	-----	-----	-----
	1	74-35168-01	Adapter Plate
	2	90-06563-00	8-32 Hex Nuts
	2	90-09759-00	8-32 x .38 F.H. Screws
	1	36-28036-01	Label
	1	FA-04757-01	FCO Document

INSTALLATION PROCEDURES

1. Shut down the system by executing the Shutdown Command Procedure.

```
$ @SYS$SYSTEM:SHUTDOWN
```

After VMS shuts down, type CTRL^P HALT... you will now be in the console mode. The prompt is ">>>"

2. Using the 8500/8550 console commands, power the 8500/8550 off. Open the rear of the cabinet and pull the plastic "T" handle located near the input power cord and set CB1, the Main Circuit Breaker on the H405-A/B Power Controller to the "OFF" (O) position.

```
>>> Power Off (CR)
```

Now turn CB1 off

Five minutes should be allotted to allow capacitors to bleed down.

3. Open the rear CPU cabinet doors.

4. Remove Air Exhaust Vent by removing 4 Phillips head screws that secure it to CPU Cab.

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5. Locate and Remove the Power Bus Bar. (See figure 1 - page 6.)

- a. Remove 10 Hex Nuts that secure Bus Bar to CPU Backplane.
- b. Remove 2 Phillips Head Screws that connect Bus Bar to Memory Backplane.
- c. Remove Phillips Head Screws that attach Bus Bar to Power Regulators.
- d. Remove 1 Phillips Head Screw that attaches Ground Bus Bar to MPS Backplane.
- e. Remove 4 Phillips Head Screws that attach Bus Bar Assembly to Cabinet frame.
- f. Slide Bus Bar out and place it in a safe place.

6. Disconnect the cables to TS-3 and AFS-1 and remove both sensors.

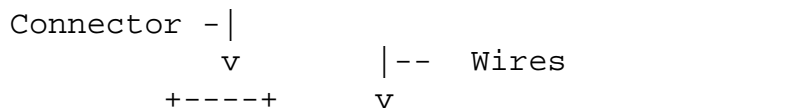
7. Locate Adapter Plate (P/N 74-35168) in EQ Kit. Hold Adapter Plate with studs facing you and large hole on end on your right. This will be the mounting orientation.

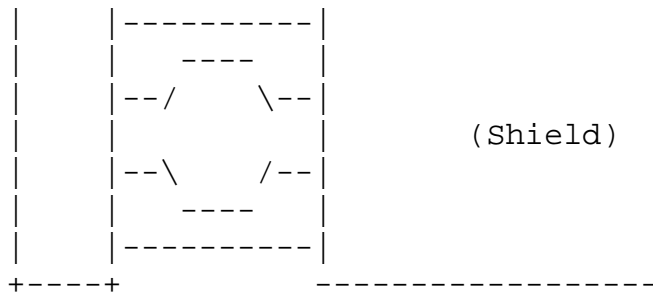
8. Mount Adapter Plate over holes for AFS-1 and TS-3 using two flat head screws.

9. Mount AFS-1 to Adapter Plate, using Hex Nut provided, in the location formally occupied by TS-3. Mount TS-3 in the location formally occupied by AFS-1.

Some of the brackets have extra long threaded studs which will get in the way of the air flow sensor cable when it is installed. To eliminate chafing of the cable by the threaded stud, tie wraps should be installed on the wires using the following procedure.

Holding the connector that plugs into the air flow sensor you will notice four wires going into the plug. Separate the wires so that with the connector held flat the two inboard wires are next to the two outboard wires; as shown in the diagram below below.





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Now take a tie wrap and install it around one two wire group, drawing it snug, but loose enough that it will slide on the wires. Now do the same for the other wire pair. This should leave you with a space near where the wires connect to the connector block that the threaded stud can fit through.

Next plug the connector into its receptacle on the air flow sensor and feed the stud through the space you created in the cable. Take special care to insure that the tie wraps and not the wires are pressing against the side of the stud. Reposition the tie wraps if necessary.

10. Scrape Off old AFS-1 and TS-3 Labels. Attach new labels from EQ Kit EQ-01470-01. AFS-1 Label should be above AFS-1 and TS-3 Label should be above TS-3.
11. Manufacturing has found some temperature sensors that exhibit an early failure rate. They will only fail within the first 75-100 hours of machine time. Only 10% of the date codes of 709, 710 or 715 will have this problem and if needed, replace them by ordering P/N 12-22805-00.
12. Connect cables to TS-3.
13. Replace Power Bus Bar by reversing steps explained in Step 5 above. The ten nuts connecting the Bus Bar to the Backplane must be torqued to 20 inch pounds. Also the ground bus bar located over Temp Sensor-3 may need to be bent slightly to eliminate interfere with this sensor.
14. Replace the Exhaust Vent and close CPU Cabinet Door.
15. Restore Power to the system by resetting CB1.
16. Change the PL2REG.DAT Parameters by following this procedure:

>>> EXIT

```
$ Run EDT
EDT> PL2REG.DAT
```

17. When EDT displays the PL2REG.DAT file use the Down Arrow key to place cursor in front of D31_YELLOW_ZONE. Change value to the following:

```
18      D31_YELLOW_ZONE
1A      D31_RED_ZONE
```

Type Control Z and EXIT.

```
$ Run Control
>>> Power ON
>>> SHOW POWER
```

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```

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- 18. Record temperature reading of TS-3.
- 19. Run 1 pass of Micro Diagnostics.
- 20. Type SHOW POWER COMMAND again and compare reading of TS-3 to the temperature recorded in Step 18. It should be lower.
- 21. Bring up the Operating System.
- 22. Update the Site Management Guide to reflect this FCO.
- 23. Report this FCO activity on the LARS form in the "Fail Area/Module/FCO/Comments" column as follows: FCO 85XBA-R005

LARS

	USA	GIA	EUR
Activity -			
Contract and Warranty	W or	U	Y
Non Contract/Non Warranty	F	U	F
DEC Option	85XBA	85XBA	85XBA
Type of Call	M	M	M
Action Taken	D	D	I
Fail Area-Module-FCO-Comments	85XBA-R005	85XBA-R005	85XBA-R005
Material Used	EQ-01470-01	EQ-01470-01	EQ-01470-01

Revision Chart

85XBA	C1		D1
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KA85	B1	(FCO 85XBA-R001 F1001 Rev F	B1
		(FCO 85XBA-R002 F1010 Rev B F1005 Rev B	
70-23575-01 (8500/8530)	B1		C1 (FCO 85XBA-I003 H7176)
70-23145-01 (8550)			(FCO 85XBA-R005 Temp sensor)
PC38N	A1	(Cons. Rev D (4)	B1 (FCO 85XBA-I006 Cons Rev E (5)

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Figure 1

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\FCO_DOCS