Digital	FCO	CATEGORY [F]	PAGE 1 OF 7

FIELD CHANGE ORDER	NUMBER: DEBET-F003

APPLICABILITY: Rework "as needed" DEBET LAN BRIDGE 150 models, DEBET-AC, DEBET-AD, DEBET-RP, DEBET-RQ, DEBET-AU, DEBET-AG, DEBET-RU, DEBET-RG DEBET-AK and DEBET-RK at and below Revision Level "D01" for Customers experiencing problems as noted in the Problem/Symptom Section of this FCO document. This FCO implements ECO numbers 5417521-TWO015 and DEBET-TWO021.

PROBLEM & SYMPTOM: This FCO corrects the following problems: 1) HELLO messages with a SNAP header were treated as a regular HELLO message and processed incorrectly. (Problem/Symptom Section continued on Page 2 of 7).

SOLUTION: Replacement of ROM's located at locations E131 and E132 with those supplied in this FCO EQ Kit, number EQ-01646-01.

QUICK CHECK: The unit tag located at the rear of the DEBET-AC, DEBET-AD, DEBET-RP, DEBET-RQ, DEBET-AU, DEBET-AG, DEBET-RU, DEBET-RG, DEBET-AK and DEBET-RK will indicate a REVision level at or above "E1".

PRE/CO-REQUISITE FCO: N/A	MTTI HRS 1.0 hour

TOOL/TEST EQUIPMENT: N/A

FCO PARTS INFORMATION

FCO KIT NO.	DESCRIPTION OF CONTENTS	EQ KIT VARIATION APPLICABILITY
EQ-01646-01	23-654E6-00 (E132) Microcode ROM 23-655E6-00 (E131) Microcode ROM 36-19209-05 Brady Marker "E" 36-19208-01 Brady Marker "1" FA-04982-01 FA Document	DEBET LAN BRIDGE 150 FAMILY OF ETHERNET BRIDGES

FCO CHARGING INFORMATION

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

APPROVALS

SPE	DSHQ LOGISTICS	DS PRODUCT SAFETY
David Benson	Moshe Roditi	Robert Brister
_____	_____	_____
SPE MANAGER	This document is published	FCO RELEASE DATE
Jonathan Lewis	on multiple media including	05 August 1992
_____	Customer Services and MDS	_____
MICROMEDIA	Microfiche Libraries. It is	FCO REVISION
Anne James Smith	also available electronical-	B
_____	ly via TIMA and the SSD	_____
POPULATION	CD-ROM.	PARTS AVAILABILITY
3187		July 1992
_____	_____	_____

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Problem/Symptoms (Continued from Page 1)

2) The LB150 was responding incorrectly to the all-bridge-multicast
   address (the response packets would have the wrong source address).

3) Address filtering on addresses of the form FF-FF-FF-FF-xx-xx (where the
   first 4 bytes are FF) are not handled correctly once the bridge is
   rebooted).

4) The "second operating" counter would drift 24 minutes and 48 seconds
   ahead every day the bridge is operating.

5) No-frame-interval is implemented in the LB150. If no packets are
   received for 5 minutes, on either port, then a loopback packet test is
   run on the LANCE for that port. If the test fails, the LB150 goes into
   self-test. If the test passes, the LANCE is initialized again and the
   bridge operation continues. Furthermore..

   If COLLISION LIMIT EXCEEDED gets incremented 5 consecutive times in a
   row, run the Quick Test on the LANCE.

6) If the bridge is running in IEEE mode and it's in backup mode (in
   parallel with another bridge), it would sometimes receive a packet on
   Port B and transmit it out on Port A.

7) The RBMS/ELMS command INIT WITH DEFAULTS will cause the power-up
   counter to be equal to -1 (65535) when the LB150 comes back up.

8) TCN messages go out every 9 minutes 50 seconds from backup bridge when
   in IEEE mode.

9) LB150 no longer forwards oversized packets (greater than 1518 bytes).

10) Invalid_message counter was being incremented incorrectly by firmware.

11) Receiver Overrun/System Buffer Unavailable/Unsolicited Reset
    (RO/SBU/UR).

                        REWORK PROCEDURE

   1. Obtain the Customers permission and perform all necessary
      procedures to remove the DEBET from the Network.

   2. To insure that the DEBET maintains the Customers parameters, verify
that switch #2 on the rear I/O panel in the off (UP) position. If
switch #2 is not in the off (UP) position, set it to this now.

   ** Switch #2 in the off (UP) position prevents NVRAM from resetting to
factory default setting when the bridge is powered up. This setting
should be used to prevent the loss of parameters stored by RBMS, during
a power failure.

   3. Remove power from the DEBET by disconnecting the AC power cord
      from the outlet.

```
*********************************************************************************
*                           *** CAUTION ***                                    *
*    To assure that the AC power is removed from the unit, the AC power *
*    cord must be disconnected.                                                 *
*********************************************************************************
```
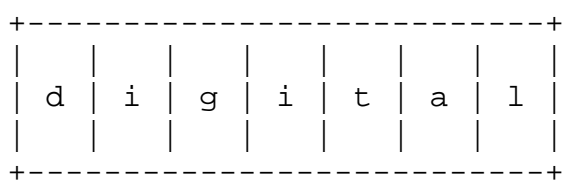
   4. Remove the DEBET chassis assembly by removing four rubber feet and
      four screws at the bottom of the unit.

   5. To gain access to the module and power assemblies, remove the 24
      machined screws holding on the FCC enclosure.

      NOTE - On Value Engineered DEBETs* Steps 6, 7, 8 and 9 are not
      required. In Value Engineered DEBET*, the power supply is housed in
      the top cover of the unit.

   6. Remove three wire harnesses at J1, J4 and P1 of the Power Supply
      module, and the flat ribbon cable that goes thru the rear access hole
      of the plenum, located at the front center of the unit. (See Figure 2)

7. Remove the Fan Assembly Harness (70-22908-01) from the cable
   retainers located on the inner rear enclosure wall. (See Figure 2)

8. Loosen two captive screws on the plenum that the Power Supply
   board is attached to, and two Phillips head screws also located on
   the plenum at the front of the unit. (See Figure 2)

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                    REWORK PROCEDURE (con't)

9. Remove the Power Supply assembly from the FCC enclosure.

```
*************************************************************************
*                        *** CAUTION ***                              *
*    The ROMS in this FCO, as with other modules and ROMS, contain    *
*    electrostatic discharge sensitive devices (ESDS). The use of the *
*    VELOSTAT kit is essential to prevent damage which may not be     *
*    noticed immediately.                                             *
*************************************************************************
```

10. Locate and remove the microcode ROM at location E132 using an IC
    remover or small screw driver, and replace with microcode ROM 654E6.
    (See Figure 1)

11. Locate and remove the microcode ROM at location E131 using an IC
    remover or small screwdriver, and replace with microcode ROM 655E6.
    (See Figure 1)

12a. After ROM replacement place the Brady Marker stickers "E" and "1" over
the existing Revision level on the rear panel of the DEBET FCC (plenum)
        enclosure.

12b. After ROM replacement place the Brady Marker stickers "E" and "1" over
        the existing Revision level on the rear panel of the DEBET plastic
enclosure.

13. Reverse sequence steps 1 thru 8 to restore the DEBET back to
    operation.

14. Testing of the DEBET is accomplished in the following two manners:

a) By a diagnostic self-test whenever power is applied to the unit.
   To verify successful completion of the diagnostic upon power-up
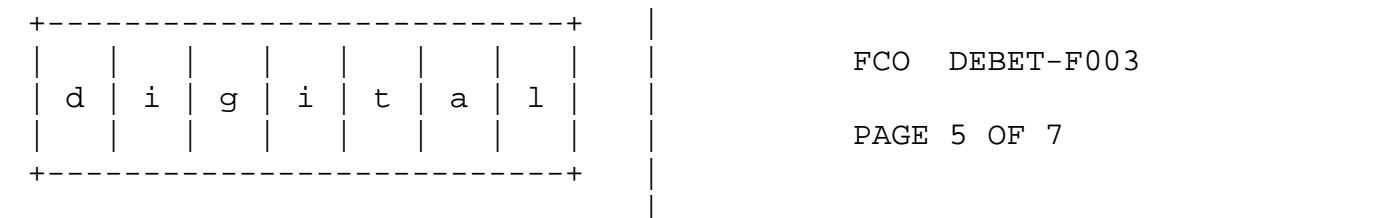   examine the self-test LED on the rear of the unit. If the diagnostic

is successful the "T" (self-test ok) and the DC OK LED's will be ON.

  NOTE** (Please allow up to 45 seconds for the self-test and communic-
  ations tasks to complete, then compare the status of the LED's.)

  b) Check the logical link by sending a message from a node on one side
     of the bridge to a node on the other side. On a VAX/VMS system
     running DECnet, you can send a message of this type by issuing
     the SET HOST command.

 15. Complete LARS data as shown on Page 6.

 16. Update Site Management Guide to reflect installation of this FCO.


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          QUICK CHECK (Continued from page 1 of 7)

1) Invoke ELMS (Extended LAN Management Software) by typing ELMS at
   the DCL ($) prompt.

2) Issue the command, USE BRIDGE "BRIDGE NAME or PHYSICAL ADDRESS" at
   the ELMS prompt.

3) Issue the command SHOW "BRIDGE NAME or PHYSICAL ADDRESS" CHARACTERISTICS
   at the ELMS prompt.

4) Examine the software version field. The value should be V1.4 or higher.

* If the software version is at V1.3 or lower this FCO should be installed.

        FIGURE 1


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|   |   |   |   |   |   |   | |     |              FCO   DEBET-F003
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|   |   |   |   |   |   |   | |     |              PAGE 6 OF 7
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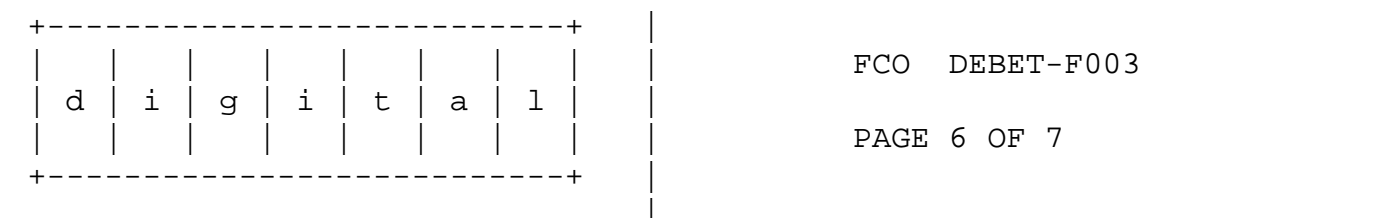
FIGURE 2

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|   |   |   |   |   |   |   |   |    |           FCO   DEBET-F003
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LARS EXAMPLE

CATEGORY F	USA	GIA	EUROPE
Activity –			
(a)Contract and Warranty	W	U	Y
(b)IN-DEC Contract & Warranty	K		
Hardware Segment Code	111	111	
Non Contract/Non Warranty	F	F	F
(c)RTD/Off-site Agreement	F		
Product Line 01	01		
DEC Option	DEBET	DEBET	DEBET
Type of Call	M	M	M
Action Taken	D	D	I
Fail Area-Module-FCO-Comments	DEBET-F003	DEBET-F003	DEBET-F003
Material Used	EQ-01646-01	EQ-01646-01	EQ-01646-01

(a)   Warranty Optimum, Warranty Standard and Warranty Basic (on-site)
      Agreements.
(b)   Applies to INDEC AREA ONLY - Warranty Optimum, Warranty Standard
      and Warranty Basic (on-site) Agreements.
(c)   RTD=Return to Digital or Off-site Agreements; If Field Engineer
      On-site, use Activity Code "F".

\\FCO_DOCS
\\DEBET
\\EQ-01646-01
\\JUL 1992
\^ DEBET