```
+------------------------------------------------------------------------+
|                                                                        |
| _ _ _ _ _ _ _               Level of Urgency          Page_1_          |
||| | | | | | | |                 +--+                    Of_12          |
||d|i|g|i|t|a|l|       FCO        | I|                                    |
|||_|_|_|_|_|_|_|                 +--+                                    |
|_____|
|                                                                        |
| FIELD  CHANGE  ORDER                      Number:   CI750-I005          |
|_____|
| Applicability: The L0118 Rev B* module should be installed on all CI750,|
| CI780, CIBCI, & HSCxx nodes used in VAXclusters of 6 (six) or more CI/HSC|
| nodes connected to a common SC008 Star Coupler.   L0118s should replace all|
| L0100 Rev D* link modules; L0100 Rev E* can coexist with L0118s except in|
| greater than 16 node environment.                                      |
|                                                                        |
|    | This revised FCO supersedes Rev. A released 02 June 1988.  It has |
|   || revised to correct an error in the Revision Chart located on page 3,|
|    | concerning the L0101 Module.                                      |
|_____|
| Problem/Symptom:  Clusters of 6 or more CI/HSC nodes on SC008 may exhibit|
| CI-PATH NO_RSP or NAK, ARB-TIMEOUTS, and VC-CLOSURE.  L0118 (& L0100 Rev E*)|
| corrects adjacent-node collision & arb problems. * FIX DETAILS ON PAGE 2. *|
|_____|
| Quick Check:   Check that link module is part number L0118.            |
|_____|
| Compatibility/Prerequisite FCO:                   | Est. Time to Install:|
| CI780-I006, CIBCI-I002, HSC50-I009,HSC70-I001     |   1 hour per node   |
|_____|_____|
| Special Tools or Test Equipment:  See page 2.                          |
|_____|
|                       FCO    Parts   Information                       |
|_____|
| Order by          Quantity:       Part Number:        Description:     |
| FCO Kit#:                                                              |
| EQ-01454-05          1             L0118 (Rev B)      Link Module       |
| EQ-01454-04          1                                FA-04740-01/05    |
| FA-04740-01          1                                FCO Document      |
|_____|
|EQ Kit Variation System/Option Applic:    N/A                           |
|_____|
|                          Approvals                                     |
|_____|
|   CSSE Engineer     | F.S.  Product Safety   |   F.S.  Logistics        |
|   Bob Brassard      | Robert Brister         |   Ed Duggan              |
|_____|_____|_____|
|   CSSE Manager      | F.S. Microfiche Libraries|  Affected Population:   |
|   Jan Sicard        |                        |   12,000/2,000           |
|_____|   EP-FSNVX-LB   VAX    |--------------------------|
|   MicroMedia Pub.   |                        |   Initial Kitting:       |
|   Ray LeBlanc       |   VAXnotes             |   12,000/2,000           |
```

|_____| STARS |_____|
| Revision: | | Hardcopy Publication: |
| B | | 2,000 |
|_____| |_____|
| FCO Release Date | | Parts Availability: |
| 18-Jul-1988 | | May 1988 |
+--+

```
 _ _ _ _ _ _ _                  |        FCO    CI750-I005
| | | | | | | |                 |
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|_|_|_|_|_|_|_|                 |
                                |
_____|_____
```

PROBLEMS/SYMPTOMS: Continued from Page 1.

SOLUTION SUMMARY - L0118 DESIGN AND L0100 E* ECOS
        # - Denotes changes incompatible with L0100-D1, or CIBCA
        "7-tick DELTA-TIME mode; and controlled by "COMPATIBILITY
        7/10-tick" switch on L0100-E1/E2 or L0118.

1.# BASIC QUIET-SLOT extended from 7 to 10 ticks (tick=byte=114 ns.,
    change = 800 ns. to 1140 ns.) to fix adjacent node collision
    problem at 40% CI-path utilization caused by L0100 Tx-start/Rx-
    detect logic delays when such nodes simultaneously arbitrate.

2.# HIGH/LOW-PRIORITY (Round-ROBIN) ARBITRATION COUNTER logic fixed
    to prevent "false BEATEN-BY-NODE-0" detection during ACK-
    TURNAROUND carrier-delay, resulting in biasing arb-wins to
    low-nodes. Fix requires QUIET-SLOT change, and must be
    applied to all L0100 to prevent arbitration biasing.

3. # EXTEND ACK-TURNAROUND TIME (INFO-to-ACK PACKET delay) to
    ensure CI-sender (INFO-PKT) ready to receive ACK, under
    worst-case (short,fast) propagation delays, such as with
    SC004 (dual-CI750) and short-CI-cables (6-10 meter).
    Fix requires QUIET-SLOT change.

4. Fix SYNC-DETECT "PAL" to prevent lock-up during CI-carrier
    "flood", an infrequent CI-LINK failure mode.

5. EXTEND "TRAILER TRANSMIT TIME" to ensure at least 5 bytes
    of trailer (after CRC) sent, instead of 3.5 bytes.

6. EXTEND HEADER JUMPER (not used in current CI applic.) was
    non-functional: Fix.

7. ALTER-DELTA-TIME JUMPER (7/16-tick quiet-slot) was
    non-functional: Fix. Not currently used, but intended
    for extended CI-cabling lengths, or fiber.

8. ARBITRATION STATUS REPORTING enhanced to distinguish

ARB-TIMEOUT from "fail to xmit after successful ARB".

9. CI20 ONLY: CRC-COUNT RESET failed on SELF-DIRECTED
    packets: Fix.

10. MISCELLANEOUS L0100 Print-Set logic-drawing clean-up,
    marginal logic-design improvement, for benefit of
    future CIxxx chip-designs (CIBCA...) based on L0100.

SPECIAL TOOLS: Continued from page 1.

Field Service Tool Kit
VELOSTAT Electrostatic Field Service Kit (P/N 29-26246-00)
Loopback Attenuators (12-19907-01)

PARTS LIST: Continued from page 1.

Order by FCO Kit#:	Quantity:	Part Number:	Description:
EQ-01454-05	1	L0118 (Rev B1/B2)	Link Module
FA-04740-06	1		Inst. sheet for ordering kits
EQ-01454-04	1	FA-04740-01	CI750 FCO Doc.
	1	FA-04740-02	CI780 FCO Doc.
	1	FA-04740-03	CIBCI FCO Doc.
	1	FA-04740-04	HSC50 FCO Doc.
	1	FA-04740-05	HSC70 FCO Doc.

CI750 OPTION LEVEL REVISION CHART

CI750	00	B	C	D, (**DD1)	E	F
L0100***	D (B2*)	D (B2*)	D, (B2*)	D, (B2*)	D, (B2*)	E
L0118***	-	-	-	-	-	B
L0101	F	H	H	H, **HH1	J	J
L0009	A	A	A	A	A	B
L0400	B	B	B	B	B	B
Microcode						
CI780.BIN	Rev 2.0	Rev 3.0	Rev 4.0	Rev 5	Rev 7	Rev 8
BE-T204*-ME	E-F	G	H	I	L	O

```
                 |           |           |           |**Rev 6.0  |           |
Backplane        | B         | B         | B         | B         | B         | B
-----------------------------------------------------------------------------------
POWER SUPPLY     A           A           A           A           A           A
```

    * (NOTE) "B2" is being marked on "B" etch and is equal to "D1".

   ** (NOTE) Rev 6.0 ucode and the "HH1" module are only used if you
            need to install FCO CI750-DD1-I-004 making the CI750
            Rev DD1.

  *** (NOTE) L0118 is enhanced L0100 replacement and can be used as
            "universal spare". L0118 is required to support >16
            node functionality.

 Rev "F" also incorporates the CI750-I006 FCO which upgrades the L0009
 and fixes the following: Another VAXcluster node randomly receives
 incorrect data in data-packet originating from VAX750/CI750; when a
 VAX750 "single-bit or double-bit" main-memory (MS750-XX) error is
 encountered by the CI750.

           LINK MODULE UTILIZATION/SWITCH SETTINGS MATRIX

OPTION	1 - 5 NODES	6 - 16 NODES
	MODULE/REV/SLOT-COUNT	MODULE/REV/SLOT-COUNT
CI7XX, CIBCI, HSCXX	L0100 REV "D" L0100 REV "E" @ 7 TICK L0118 @ 7 TICK	L0100 REV E @ 10 TICK L0118 @ 10 TICK
CIBCA-AA	T1025 @ 7 TICK	T1025 @ 10 TICK

 NOTE: If all nodes in the VAXcluster system have 10 tick capability
 (I.E., L0118, L0100 Rev "E" and/or CIBCA-AA and NO L0100 Rev "D"),
 then all nodes should be set to 10 tick mode regardless of the
 VAXcluster system size.

 L0100 - Rev "E" - See page 7, step 6 for 7/10-TICK Switch setup.

 L0118 - Rev "B" - See page 7, step 6 for 7/10-TICK, Cluster-size
                       Switch set-up, and Misc. Function Jumpers.

```
      CIBCA-AA              - Add Jumper from E11 to E41 on VAXBI Backplane
                              for "10-TICK INCOMPATIBLE" mode operation.
                              Verify no jumpers D29-D59 and D30-D60 for cluster-
                              size (NODE-COUNT) of 16 or less.   Refer to
                              CIBCA User Guide Pg. 2-10 to 2-13 for set-up.

   CI-LINK MODULE FCO INSTALLATION SUMMARY
   -------------------------------------------
   *********************************************************************
   *          INCOMPATIBILITY WARNING  -  L0100-E1/E2 and L0118        *
   *          -------------------------------------------------        *
   *  The new L0100-E1/E2 and L0118 "10-TICK-MODE" design changes are  *
   *  *** INCOMPATIBLE *** with current L0100-D1 design, and CI/HSC-   *
   *  LINK modules (L0100-E, CIBCA, L0118) set to "7-TICK-MODE".       *
   *  Mixed "7 and 10-TICK-MODE" CI-LINK operation can have severe     *
   *  impact on CI-arbitration performance and collision-rate (NO_RSP).*
   *  For this reason, DEC does not support "10-TICK-MODE" CI-LINK     *
   *  ROLLING-UPGRADES, thus requiring a CLUSTER SHUTDOWN to "ENABLE"  *
   *  10-TICK-MODE ** ONLY ** after all CI/HSC-nodes have been FCO'd.  *
   *                                                                   *
   *      NOTE: High-availability customer exceptions to CLUSTER-      *
   *      SHUTDOWN "rule" should be referred to CSSE for advice on     *
   *      minimizing risks; but DEC will not assume any liabilities    *
   *      for lost data/time with such CLUSTER upgrade programs.       *
   *********************************************************************
```

   o Forecast and obtain sufficient CI/HSCxx L0100 FCO kits for all CI7x0,
     CIBCI, HSCxx Cluster Nodes, ensuring availability of 1 (one) spare
     for every 10 (ten) FCO kits. FCO kits should NOT BE "P1 ORDERED",
     but should be ordered according to the Corporate Implementation
     Plan. CIxxx Functional Diags (EVGAA/B) from VAX Diag. Rel #31 are
     also recommended for checkout.

   o Study SWITCH/JUMPER SET-UP Procedures for L0100, L0118, and CIBCA
     T1025 modules for adjusting the following CI-LINK functions/modes:

            - "7/10-TICK" DELTA-TIME/QUIET-SLOT:
                    + L0118   Page 7. Step 6
                    + L0100-E   Page 7, Step 6
                    + T1025/CIBCA   Page 7, Step 6 and
                                     CIBCA USER'S GUIDE Pg. 2-12
            - CLUSTER-SIZE of 16/32 NODES:
                    + L0118   Page 7, Step 6
                    + L0100-E   NOT APPLICABLE
                    + T1025/CIBCA   Page 7, Step 6 and
                                     CIBCA USER'S GUIDE Pg. 2-13

o Install L0118 set to "7-TICK/COMPATIBLE-MODE" in all CI780, CI750,
  CIBCI, and HSC50/70 Cluster nodes. There are no prerequisite/co-
  requisite CIxxx or HSCxx FCOs (modules or microcode) required for
  L0118 upgrade in "7-TICK 16-NODE MODE", but CI780.BIN Version V8.0
  and CIBCA.BIN Version V5.3 are recommended.

o Schedule and perform cluster shutdown after all non-CIBCA nodes are
  upgraded/FCO'd, and have been tested and verified to function in
  "7-TICK-MODE" operation under VMS. VMS system-testing is important
  to early detection and repair of any DOA FCO modules, prior to
  disrupting VAXcluster for CI-LINK 7-to-10-TICK mode-change.

```
        ***********************************************************
        *         IMPORTANT  NOTE  ===  IMPORTANT NOTE          *
        *  Customer should be involved or perform all CLUSTER-   *
        *  wide or node-specific VAX and HSC STARTUPS, BOOTS,    *
        *  and SHUTDOWNS.                                        *
        ***********************************************************
```

o Switch all L0100-E, L0118, and T1025/CIBCA to "10-TICK-MODE"
  "INCOMPATIBLE" operation. Ensure all CIs and HSCs are powered-off
  before changing switches/jumpers. Refer to appropriate FCO steps.
  Any planned CI-NODE-ADDRESSS changes should also be made at this
  time, with consideration of VMS SYSGEN and DECNET parameter changes
  required on reboot.

o Reboot cluster, with customer consent, starting with HSCs.

```
 _ _ _ _ _ _ _              |      FCO    CI750-I005
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_____|_____
```

CI-LINK MODULE FCO INSTALLATION PROCEDURE
----
1. Shutdown the system by executing the Shutdown Command Procedure,
    CUSTOMER SHOULD PERFORM THIS.

    $ "@SYS$SYSTEM:SHUTDOWN.COM"

2.   Set the the Circuit Breaker on the 877D/E Power Controller in
     the CI Expander Cabinet to the "OFF" (0) position.

```
******************************************************************
*                       NOTE                                    *
*                                                               *
*    For this FCO, you will not be going into CPU Cabinet.      *
*    You will be going into the CI Expander Cabinet only.       *
```

```
   *                                                                    *
   ********************************************************************

   3.   Disconnect all four BNCIA cables for this VAX-11/750 node
        at the SC008.  Using the loopback attenuators connect:

        Transmit Path "A" (TA) to Receive Path "A" (RA)
        Transmit Path "B" (TB) to Receive Path "B" (RB)


   ********************************************************************
   *                                                                  *
   *                        C A U T I O N                             *
   *                                                                  *
   *      The L0118 module, as all VAX 11/7X0 modules,                *
   *      contains electrostatic discharge sensitive                  *
   *      devices (ESDS).  The use of the VELOSTAT kit                 *
   *      is essential to prevent damage which may not                *
   *      be noticed immediately.                                     *
   *                                                                  *
   ********************************************************************
```

```
  _ _ _ _ _ _ _                      |    FCO    CI750-I005
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                                     |
_____|_____
```

   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 on the VAX-11/750 system.
        d.   Attach the wrist strap to either wrist and the
             alligator clip to a convenient portion of the mat.

   5.   Remove the L0100 or L0118 module from its CIxxx module slot
        and place it on the mat. Check the revision and module type:

             - L0100-E1/E2, or L0118, reinstall in same slot, and
               go to step 11 (no upgrade needed).
             - L0100 below Rev. E1/E2, go to step 6 to continue with upgrade.

        Record old CI-NODE ADDRESS settings on SW1 and SW2 switches
        (8-switch DIP on module handle).

   6.   With L0118 (EQ-01454-05) on ESD Mat, configure and verify CI-LINK
        mode jumpers/switches for "7-TICK COMPATIBLE" MODE operation.
        The L0118 also contains CLUSTER-SIZE switch and 4 (four) jumpers
        for MISC-FUNCTIONAL-MODES which should be checked.   Install the
        new L0118 in the CIxxx option slot.

```
        ***********************************************************
        *                    IMPORTANT  -  NOTE                   *
        *  Copy old CI-NODE ADDRESS to new L0100/L0118.           *
        *  Ensure "7-TICK COMPATIBLE" mode is ENABLED/SET to avoid *
        *  CI-PATH errors with L0100-D1 or other "7-TICK" CI/HSC  *
        *  nodes.  The "10-TICK INCOMPATIBLE" mode cannot be used *
        *  with L0100-D1 in cluster.   Default L0100/L0118 manuf. *
        *  switch setting should be "7-TICK COMPATIBLE" mode.     *
        ***********************************************************
```

SET L0100-E1 COMPATIBILITY JUMPER AS FOLLOWS:
----
o 7/10-TICK COMPAT. MODE SET BY 1 JUMPER @ E177 stake-pins.

     - "7-TICK   COMPAT.-MODE": jumper E177-11 to E177-12
     - "10-TICK INCOMPAT.-MODE": jumper E177-9 to E177-10

o NO CLUSTER-SIZE OR FUNCTION-MODE JUMPERS/SWITCHES.

o L0100-E1 QUICK-CHECK (PART-REVISION VERIFY):

     - ECO wires at E177-13 and E177-9.
     - STAKE-PINS (for jumper) @ E177-9,10,11,12.
     - ETCH REV-C: P/N "50-14430C-0" marking.
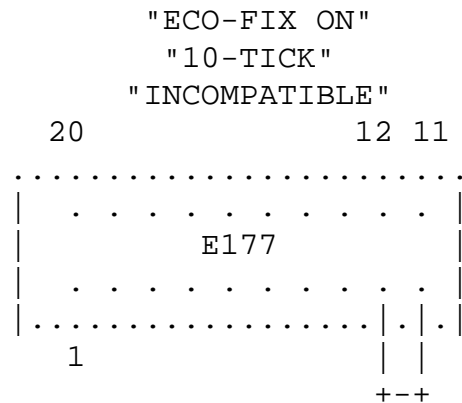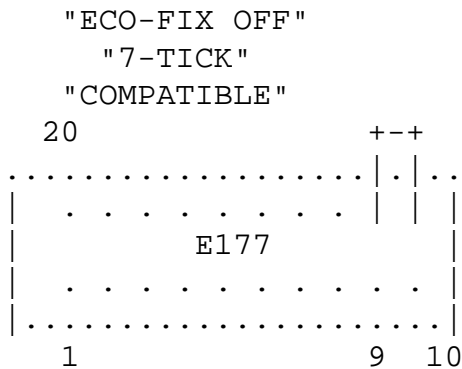

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  _ _ _ _ _ _ _        |       FCO    CI750-I005
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```



```
      "ECO-FIX OFF"                     "ECO-FIX ON"
        "7-TICK"                          "10-TICK"
      "COMPATIBLE"                      "INCOMPATIBLE"
    20                +-+            20                12 11
  ...................|.|..          ........................
  | . . . . . . . . | | |          | . . . . . . . . . |
  |        E177      |              |        E177        |
  | . . . . . . . . . |             | . . . . . . . . . |
  |...................|             |...................|.|.|
    1               9 10              1                  | |
                                                        +-+
```

SET L0100-E2 SWITCH SETTINGS AS FOLLOWS:
----
o 7/10-TICK COMPAT. MODE SET BY DIP-SWITCH SW3-1 LOCATED AT
  TOP CENTER OF L0100-E2 TO RIGHT OF E118:

     - "7-TICK   COMPAT.,ECO OFF": SW3-1 SWITCH "OFF"
     - "10-TICK INCOMPAT.,ECO ON ": SW3-1 SWITCH "ON" .

```
                    NOTE: SW3-2 IS NOT USED, BUT SET SAME
                    AS SW3-1 TO AVOID CONFUSION.


        o NO CLUSTER-SIZE OR FUNCTION-MODE JUMPERS/SWITCHES.


        o L0100-E2 QUICK-CHECK (PART-REVISION VERIFY):

            - SW3 DUAL-SWITCH-DIP-PACK AT TOP-CENTER, RIGHT OF E118.
            - ETCH REV-D: P/N "50-14430-0-0 D1-P4" marking.


        SET L0118 SWITCH/JUMPER SETTINGS AS FOLLOWS:
        ------------------------------------------------
            **************************************************
            *   NOTE: REFER TO L0118 FIGURES ON FCO PAGE 11 AND *
            *   12 FOR SW3 AND JUMPERS W1-W4 LOCATIONS.         *
            **************************************************


        o 7/10-TICK COMPAT. MODE SET BY DIP-SWITCH SW3-4 LOCATED AT
          TOP CENTER OF L0118 TO LEFT (BELOW IF VERTICAL) OF 2 CI-
          NODE-ADDRESS 8-SWITCH PACKS.
            - "7- TICK   COMPAT.,ECO OFF": SW3-4 SWITCH "OFF".
            - "10-TICK INCOMPAT.,ECO ON" : SW3-4 SWITCH "ON" .
            - SWITCHES SW3-2 AND SW3-3 MUST BE "OFF" (AFFECTS
              DELTA-TIME/QUIET-SLOT) !!


        o CLUSTER-SIZE FOR 16/32-NODE ADDRESSING AND ARBITRATION IS
          CONTROLLED BY SWITCH SW3-1.  DEFAULT = 16-NODE-MODE = "OFF".
            - 16-NODE MODE (DEFAULT WITH NO CISCE): SW3-1 "OFF".
            - 32-NODE MODE (CISCE 24-NODE CLUSTER): SW3-1 "ON" .
```

```
        o L0118 FUNCTION-MODE JUMPERS W1-W4 DEFAULT SETTINGS CHECK:
            View module with HANDLE-UP and FINGERS-DOWN.
            Refer to L0118 Figures on FCO pages 11 and 12.

            - L0118-B1 HAS ECO-WIRES ON E83-3 and E150-1:
                    = W1 located left of E2: plugged on left 2
                      stake-pins, marked with "box".
                    = W3 located between E54 and E75: plugged on
                      horizontal stake-pins, marked with "box".
                    = W2 and W4 located as 4 stake pins below E24
                      and E62: W2 and W4 "OUT".

            - L0118-B2 HAS NO ECO-WIRES TO E83-3 AND E150-1:
                    = W1 located left of E2: W1 on left 2
                      stake-pins, marked with "box".
```

= W3 located between E54 and E75: W3 on
                            horizontal stake-pins, marked with "box".
                          = W2 located below junction of E24 and E62:
                            W2 on left 2 stake-pins marked with "box".
                          = W4 located below E24: W4 plugged on left 2
                            stake-pins marked with "box".

          SET CIBCA BACKPLANE JUMPER SETTINGS AS FOLLOWS:(FOR QUICK REFERENCE)

               Refer to CIBCA Users Guide Pg. 2-10 to 2-13
               All jumpers are located behind T1015 Module.
               Jumper changes DO NOT take effect until SELF-TEST
               EXECUTED.

          o "7/10-TICK ALTER-DELTA-TIME" CONTROLLED BY JUMPER ON
            T1015 BACKPLANE PINS E11-E41, E09-E39, and E10-E40:
               - ENSURE E09-E39 and E10-E40 JUMPERS "OUT".
               - "7 -TICK COMPAT., ECO-OFF": Jumper OUT E11-E41.
               - "10-TICK INCOMPAT.,ECO-ON" : Jumper IN E11-E41.

          o CLUSTER-SIZE FOR 16/32-NODE ADDRESSING AND ARBITRATION IS
            SET BY JUMPER ON T1015 PINS D30-D60 AND D29-D59:
               - Ensure E29-E59 out for both 16 or 32-NODE mode.
               - 16-NODE mode (default no CISCE): D30-D60 "OUT".
               - 32-NODE mode (CISCE 24-NODE   ): D30-D60 "IN" .

     7.   Set the Circuit Breaker on the 877D/E Power Controller in
          the CI Expander Cabinet to the "ON" (1) position.

     8.   Power-up the system.

     9.   Run the following Level III (offline) diagnostics under the
          DIAG. SUPV. (DS>) E*SAA-10.8 to verify that the CI750 is
          functional.

      _ _ _ _ _ _ _ | FCO   CI750-I005
     | | | | | | | | | |
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                              |
_____|_____

          DIAGNOSTIC   MINIMUM VERSION   TITLE
          ----------   ---------------   -----
            EVGAA   4.1   CI Functional Diag Part I
            EVGAB   4.1   CI Functional Diag Part II

       WARNING: EVGAA/B may report "false errors" when connected to "live"
                CLUSTER due to receipt of SCS START-DATAGRAMS from VMS.

     10. Remove the loopback attenuators and reconnect the BNCIA cables
         to their original SC008 ports.

11. Boot system into VAXcluster, using customer's "standard operating
    procedures". IT IS PREFERRED THAT THE CUSTOMER PERFORM THIS STEP.

        EVERY UPGRADED CI/HSC NODE WITH NEW L0100-E*/L0118 SHOULD
        BE TESTED UNDER VMS IN "7-TICK ECO-OFF MODE" TO SYSTEM-TEST
        NEW FCO PARTS PRIOR TO CLUSTER-WIDE CI-LINK-MODE TRANSITION.

12. UPGRADE remaining CI750, CI780, CIBCI, HSC50, and HSC70 nodes
    that do not contain L0100-E1/E2 or L0118 CI-LINK module.

    *** REPEAT STEP 1 UNTIL ALL NODES ARE COMPLETED. ***

13. Set all CI/HSC nodes to "10-TICK, INCOMPATIBLE, ECO-ENABLED
    MODE" operation. *** THIS REQUIRES ENTIRE CLUSTER-SHUTDOWN
    TO AVOID CI-PATH FAILURES, CLUSTER-MEMBER LOSS, AND RISKS TO
    DATA-INTEGRITY. *** Ensure each CI is powered off when
    changing jumpers.

    Set "10-TICK, INCOMPATIBLE, ECO-ENABLED MODE" by referring
    to Page 7, Step 6; or use following quick reference chart:

| | L0100-E1 | L0100-E2 | L0118 | CIBCA |
| | E177 | SW3-1 | SW3-4 | T1015 |
	JUMPER	SWITCH	SWITCH	E11-E41
7 -TICK:	11-12 IN	"OFF"	"OFF"	"OUT"
10-TICK:	9-10 IN	"ON"	"ON"	"IN"

    Only L0100 Rev E* needs to be removed in order to set to 10-TICK.

14. Boot all systems back into VAXcluster, starting with HSCs, using
    customer's "standard operating procedures". IT IS PREFERRED
    THAT THE CUSTOMER PERFORM THIS STEP.

15. Report the FCO activity on the LARS form in the "module/fail/area/
    FCO" column as "FCO CI750-I005" as indicated. (See page 11)

16. Update Site Management Guide.

```
 _ _ _ _ _ _               |     FCO    CI750-I005
| | | | | | | |            |
|d|i|g|i|t|a|l|            |     PAGE  11  OF  12
|_|_|_|_|_|_|_|            |
                           |
_____|_____
```

                          LARS

                  USA   GIA   EUROPE

Activity -
   Contract and Warranty   W   U   Y

Non Contract/Non Warranty	F	F	F
DEC Option	CI750	CI750	CI750
Type of Call	M	M	M
Action Taken	D	D	I
Fail Area-Module-FCO-Comments	CI750-I005	CI750-I005	CI750-I005
Material Used	EQ-01454-05	EQ-01454-05	EQ-01454-05
	EQ-01454-04	EQ-01454-04	EQ-01454-04

FIGURE 1 - L0118 LINK MODULE SWITCHES

```
 _ _ _ _ _ _ _                |        FCO    CI750-I005
| | | | | | | | |             |
|d|i|g|i|t|a|l|               |        PAGE   12  OF   12
|_|_|_|_|_|_|_|               |
                              |
_____|_____
```

FIGURE 2 - L0118 LINK MODULE SETTINGS

```
\^ CI750
\\CI750
\\CI750-I005
\\BRASSARD
\\1988
\\JUL
\\FCO_DOCS
```