

**PROCESSOR TYPE PDP-8 Family, PDP-12, PDP-11 Family**

**5409728-00007 CODE: D CS: H**  
NOV-72 - PROBLEM: Drilling of printed circuit board is too expensive.  
CORRECTION: Reduce number of drill sizes and thereby reduce the number of drill and tape changes.  
In-plant effectivity -02 phase-in

**5409728-00008 CODE: D CS: J ETCH: E**  
DEC-72 - PROBLEM 1: Transistor Q1 inadequate in heat.  
CORRECTION 1: Change Q1 from MJ900, #15-10712, to MJ2500, #15-11282.  
PROBLEM 2: Voltage rating of capacitor C16 inadequate.  
CORRECTION 2: Change capacitor C16 from 47 ufd 20V, #10-04814, to 22 ufd 35V, #10-02433.  
PROBLEM 3: Crowbar may trip due to noise.  
CORRECTION 3: Change capacitors C8 and C15 from 0.01 ufd 100V, #10-01610, to 0.22 ufd 50V, #10-10274.  
PROBLEM 4: Diode D13 breaks due to physical placement.  
CORRECTION 4: Layout etch and relocate D13.

NOTE: See correction supplement ECO 5409728-0008A.  
In-plant effectivity -02 phase-in before March 1, 1973.

**5409728-0008A CODE: D**  
FEB-73 - PROBLEM: Parts for implementation of ECO 5409728-00008 will not be available by break-in date of March 1, 1973  
CORRECTION: Change break-in date from March 1, 1973 to March 19, 1973.  
In-plant effectivity -Delayed

**5409728-00009 CODE: P CS: C1**  
JAN-73 - PROBLEM: No documentation exists for rework ECO's 5409728-00006, 5409728-0006A and 5409728-0006B.  
CORRECTION: Generate new CS revision "C1" reflecting change in diode D12 from #11-02808, 5.6V 5%, to #11-11205, 5.7V 2%.  
In-plant effectivity -06 documentation change only

**5409728-C0010 CODE: F CS: K**  
MAR-73 - PROBLEM: Capacitor holder, Item #73, hold down screws loosen during vibration test. Capacitors, Item #15, rub and cause wear on etch board.  
CORRECTION: Add 1/8 inch spacer between capacitor holder and etch board. Add 1/8 inch thick by 1/2 inch wide by 1 inch long adhesive backed foam to each end of the capacitors.

NOTE: See continuation supplement FCO 5409728-C010A and correction supplement FCO 5409728-C010B.  
In-plant effectivity -02 phase-in immediately  
Field effectivity -Rework all #54-09728 and #54-09728-YA's  
( Time To Install And Test 2.0 Hours. ) ( Kit Contents -FCO/Prints And Parts )

**5409728-C010A CODE: F**  
APR-73 - PROBLEM 1: No BREAK-IN DATE specified.  
CORRECTION 1: Change BREAK-IN DATE to read "Phase-in to be completed by April 16, 1973.  
PROBLEM 2: Incomplete " " options affected "list.  
CORRECTION 2: Update " " options affected "listing.  
In-plant effectivity -Phase-in delayed to April 16, 1973  
Field effectivity -None

**5409728-C010B CODE: F**  
MAY-73 - CORRECTION: Indicate that Field Service is affected by removing the " X "in the " NO "box and checking " YES "  
In-plant effectivity -Unchanged  
Field effectivity -Initiated

**5409728-E0011 CODE: F CS: L**  
JUL-73 - PROBLEM 1: Excessive drift of +5V with temperature.  
CORRECTION 1: Change PTC resistor R51 to a higher PPM ; change current limit resistor R41 to a lower value, from 0.025 ohms to 0.020 ohms.  
PROBLEM 2: Three pin MATE-N-LOCK connector breaks off.  
CORRECTION 2: Use new MATE-N-LOCK.

NOTE 1: All reworking will be done by the DEC depot. Field implementation will involve board exchange.

NOTE 2: See correction supplement FCO's 5409728-E011A, 5409728-E011B and 5409728-E011C.  
In-plant effectivity -02 -Phase-in all units in-plant by September 1, 1973  
Field effectivity -Exchange any 5409728's when symptoms are present.  
( Time To Install And Test 1.5 Hours. ) ( Documentation \$ 5.00 , Parts \$ 75.00 ) The DEC on-site labor charge will be the time required to install and test the FCO at the then current hourly rate. ( Kit Contents -F977 FCO/Prints And Parts )

**5409728-E011A CODE: F**  
AUG-73 - PROBLEM: Parts availability will not allow phase-in by September 1, 1973.  
CORRECTION: Change break-in to October 1, 1973.  
In-plant effectivity -Phase-in to all units in-plant by October 1, 1973.  
Field effectivity -Unchanged

**5409728-E011B CODE: F**  
OCT-73 - PROBLEM: Parts not available for phase-in of FCO 5409728-E0011 by October 1, 1973 as ordered.  
CORRECTION: Change break-in date to November 1, 1973.  
In-plant effectivity -Delayed to November 1, 1973  
Field effectivity -Unchanged

**5409728-E011C CODE: F**  
NOV-73 - PROBLEM: Parts will not be available by BREAK-IN date specified in FCO 5409728-E011B.  
CORRECTION: Change BREAK-IN date to December 1, 1973.  
In-plant effectivity -Implement FCO 5409728-E0011 by December 1, 1973  
Field effectivity -Unchanged

**5409728-B0012 CODE: F CS: M**  
DEC-73 - PROBLEM 1: Excessive heat at capacitor C7 and choke L1 circuit contact points caused by high current, causes G10 PCB material to compress and loosen bolted connections.  
CORRECTION 1: Provide straps to conduct high current and radiate heat. Add flat washers between screw head and printed circuit board to increase contact area and reduce pressure.  
PROBLEM 2: Tri-bath washes out thermal compound from under transistors on heat sink.  
CORRECTION 2: Add note eliminating tri-bath on heat sink.

NOTE: See correction supplement FCO's 5409728-B012A and 5409728-B012B.  
In-plant effectivity -Rework all etch revisions " C " " D "and " E "modules in Module Production, Module Test, Module Repair and Field Service Depot by 1/1/74. Rework all modules in computers, system checkout areas and all in-plant modules by February 1, 1974.  
Field effectivity -Rework all #54-09728 boards  
( Time To Install And Test 1.0 Hour. ) ( Documentation \$ 5.00 , Parts \$ 1.00 )  
the DEC on-site labor charge will be the time required to install and test the FCO at the then current hourly rate. ( Kit Contents -PF1141 -FCO/Prints And Parts )

PROCESSOR TYPE PDP-8 Family, PDP-12, PDP-11 Family

**5409728-B012A CODE: F**

DEC-73 - CORRECTION 1: Provides a complete list of all options affected by this FCO.

CORRECTION 2: Corrects BREAK-IN/EFFECTIVITY which has an incorrect date for Module Test and Module Repair.

NOTE: See correction supplement FCO 5409728-B012B which corrects the BREAK-IN/EFFECTIVITY ordered by this supplement.

In-plant effectivity -Changed to : Rework all etch revision " C "" D "and " E "modules in Module Production and Field Service Depot by 1/1/74. Rework all modules in Module Test, Module Repair, modules in computers and system checkout area and modules in-plant by February 1, 1974. Field effectivity -Unchanged

**5409728-B012B CODE: F**

DEC-73 - PROBLEM 1: Thermal strap #1, #55-10892, has had an engineering change.

CORRECTION 1: Show new strap on drawing E-IA-5409728-0-0.

CORRECTION 2: Change break-in dates as noted below.

In-plant effectivity -Changed to: Rework all etch revision " C "" D "and " E "modules in Module Production and Field Service Depot by 2/1/74. Rework all modules in Module Test, Module Repair, modules in computers and system checkout area and modules in-plant by March 1, 1974. Field effectivity -Unchanged

**5409728-00013 CODE: D CS: N**

JAN-74 - PROBLEM 1: Oscillation in +15V circuit causing possible premature failure of output capacitor due to excessive ripple current.

CORRECTION 1: Improve stability by changing components in the compensation circuitry.

PROBLEM 2: Possible failure of D14 under heat stress.

CORRECTION 2: Change D14 to new type bridge.

In-plant effectivity -Rework all etch revision " E "modules in module production and test after March 1, 1974, or earlier if possible.