

**ZETACO  
ACCEPTANCE TEST PROCEDURE**

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**FOR:** SCZ-6D Disk Peripheral Controller

**BEFORE POWER-UP:**

1. Clean board edge connectors.
2. Rap board to remove any foreign materials.
3. Visually inspect board.

**PRELIMINARY STEPS:**

1. Insert the controller in an I/O ONLY slot and install the BMC cables and BMC terminator. Install the paddleboard. Install drive cabling to at least one supported disk drive with differential type SCSI interface.
2. Set the switches on the controller front edge to SW1 and SW2 DOWN, and SW3 - SW8 to device code 40 octal.
3. Apply power to the controller.
4. Set SW2 UP to allow power-on clear circuit adjustment. Set your +5v supply to +4.7v. With a scope probe on pin 4 of the ICL8211 at K29, adjust the pot next to J29 to just before the point where the signal on pin 4 begins to go low. Seal the pot. Set SW2 Down again.
5. Set the supply to +5v and measure the BMC termination voltage at the emitter (center lead) of Q1 at L18. It should be 3 volts +/- .2 volt.
6. Measure the clock periods at JP4-2 and JP5-2. Both should be 50 ns. Next, measure clock periods at JP4-1 and JP5-1. Both should be 25 ns.
7. If the EEPROMs have never been configured, the host-side micro should have failed self test #12. If so, set SW1 UP at this time to proceed from the error. Verify the controller passes all other Self-Tests and all LEDs go off within 5 seconds after power-up. Set Sw1 DOWN again. After configuring the EEPROMs, repeat power-up Self-Test at least five (5) times over the course of the ATP.

**CONFIGURATION:**

1. Boot the Configurator program and set the controller up with the following default values. (If the Configurator will not run at this point, run the Diagnostic program with SW1 UP to force default controller parameters. If the Configurator will still not run, check control logic around the EEPROMs.)

BMC BURST RATE = 32, BMC BREAK COUNT = 4  
DEVICE CODE = 24 OCTAL

BMC PRIORITY - 0

INITIATOR (SCZ-6D) SCSI ID = 7

**DIAGNOSTIC TESTING:**

1. Load the SCZ-6D Diagnostic program from tape file #6. The program listing is available on tape file #9 in LOAD format.
2. Run the diagnostic for 1 pass at +5.00 V, 1 pass at +4.75 V and 1 pass at +5.25 V.
3. Load the Disk Reliability program file #4 and set to the following parameters:

Execution Mode = RANDOM  
Write/Read/Verify Data  
Data Type = DO ALL PATTERNS

Run for 10 minutes at +4.75 V.  
Run for 10 minutes at +5.25 V.  
Run for 60 minutes at +5.00 V.

4. **BMC PARITY LOGIC TESTS:**

Perform the following tests with the Reliability program loaded.

- 4a. Remove power to the controller and ground IC K15-2. Power up the controller and verify the SCSI self test fails with error code = 21 octal, Power down and remove jumper.
  - 4b. Remove power to the controller and ground IC K15-5. Power up the controller and restart Reli. Verify that program fails or hangs after the Start command and that the SCSI LEDs display an error code of 77 octal. Power down and remove jumper.
  - 4c. Remove power to the controller and ground IC L29-20. Power up the controller and restart Reli. Verify that the program times out after the Start command. Power down and remove jumper.
  - 4d. Remove power to the controller and ground IC L8-23. Power up the controller and restart Reli. Verify that program fails or hangs after the Start command and that the SCSI LEDs display an error code of 77 octal, Power down and remove jumper.
5. Run Disk Reliability with a single-ended interface SCSI drives(s) for 30 minutes.

**AOS/VS SYSTEM TESTING:**

(use AOS/VS revision 7.67 or above)

1. Test booting AOS/VS with the controller.
2. Run AOS/VS CONTEST for 30 minutes. Test disk portions of the SCZ-6D.
3. Run MT.CLT (Mirror Test) on AOS/VS to test Mirror/Sync. Test requires 3 drives (DPJ0,DPJ1,DPJ2). DPJ1 and DPJ2 must be configured as the same size.

**SWITCH SETTINGS:**

After testing set the controller switch as follows:

SWITCH	1	2	3	4	5	6	7	8
SETTING	DOWN	DOWN	DOWN	UP	UP	UP	UP	UP

(Alternate mode off, EEPROM write protect, MPORT device code=40 octal.)