

**SPECTRA 01**

**PRODUCT REFERENCE MANUAL**

**P/N: 8500013**  
**REVISION: A**  
**DATE: 17 JAN, 1983**

## Spectra Test Panel

The Spectra Test Panel is a test tool for use with all Spectra Logic controllers. Attachment to the controller is made through a 20 pin flat ribbon cable. The controller has a 20 pin test socket for each microprocessor, i.e. disk section and host CPU section. The test panel should be connected to the appropriate test socket depending upon which microprocessor/firmware is to be examined. To determine which test socket is associated with which microprocessor, refer to the product's logic diagrams.

The following is a brief description of the switch and display functions of the test panel.

<u>SWITCH</u>	<u>FUNCTION</u>
START	Causes the microprocessor and sequencer to start executing microcode. If the HALT switch is set to halt, then START acts as a single instruction cycle switch.
HALT	Causes the microprocessor and sequencer to halt at the end of the current instruction being executed in the pipeline register.
RESET	Causes the microprocessor and sequencer to be reset. Micro-program starts at location zero.
CYCLE	Causes a reset and restart to occur based on single shot time-out. Time-out is adjustable by PDT (TI). Cycle is useful to get repetitive operation to permit scoping when the hardware is not functioning properly.
ADDR STOP	Causes the microsequencer to halt after an address match occurs between the address set into the (3) thumbwheel address compare switches and the current address being executed.
ADDRESS COMPARE	The (3) thumbwheel switches are used to set a hexadecimal address of a specific microword which will be compared against the current address being executed. The rightmost switch (viewing from front) is the least significant hex digit. When a match occurs the "ADDR MATCH" LED is lit. If "ADDR STOP" is also on, when a match (compare equal) occurs, the sequencer halts after execution of that microword.
DISK/CPU	This switch is used only with a Spectra 11.

LEDFUNCTION

ON

Indicates power (+5) is on; supplied through cable from controller.

RUN

Indicates the microprocessor sequencer is cycling.

ADDR MATCH

Indicates an address match occurred between the hex address set into the address switches and the current address being executed.

CURRENT ADDRESS  
0 to 11

Indicates the current microword being executed.

NEXT ADDRESS  
0 to 11

Indicates the next microword address to be executed.

CONNECTORSFUNCTION

J1

20 pin header used to connect the test panel to the controller. All controllers except the Spectra 11 use J1.

J2

50 pin header used to connect the test panel to a Spectra 11 controller.

JUMPERS/TEST POINTSFUNCTION

ADDR=

This test point is used as a scope sync to sync on a specific microword being executed.

CYCLE RST\*

This test point can be observed on a scope while adjusting TI to establish the time-out duration when using the CYCLE switch.

W1

This jumper normally ties an input bit(11) into the address comparator to ground. Provision for 4K addressing, not used.