IV. Tests and Adjustments

4.1 Controller Adjustments

Controller adjustments consist of:

a. Center frequency adjust.

b. 1 us single-shot adjust.

c. 0.5us single-shot adjust.

4.1.1 Test Configuration

a. Insert the controller in an S-100 bus 8080/Z80 computer using an extender card.

b. Connect controller to any Data Trak 8 storage module.

4.1.2 Center Frequency Adjust Test Procedure

a. Ensure that the drive is not on.

b. Connect oscilloscope to U16-p7. Set oscilloscope to 100 ns/div.

c. Measure frequency of oscillator.

4.1.3 1 us Single-Shot Adjust Test Procedure

a. Insert a diskette in the drive.

b. Perform a continuous read operation (e.g., run a disk verify utility).

c. Observe and measure duration of positive going pulses at U24-p5.

4.1.4 0.5 us Single-Shot Adjust Test Procedure

a. Insert a diskette in the drive.

b. Perform a continuous read operation (e.g., run a disk verify utility).

c. Observe and measure duration of negative going pulses at U24-p4.

4.1.5 Acceptable Limits

a. Center Frequency: 1.97 mhz minimum – 2.033 mhz maximum.

b. 1 us single-shot: 0.97 us minimum – 1.03 us maximum.

c. 0.5 us single-shot: 0.485 us minimum – 0.515 us maximum.

4.1.5 **Adjustment Procedure**

a. Center Frequency: Adjust R12 until output frequency is 2.0 mhz.

b. 1 us single-shot: Adjust R10 for a period of 1 us.

c. 0.5 us single-shot: Adjust R11 for a period of 0.5 us.