

PERIPHERAL EQUIPMENT DIVISION

TITLE A.C. MOTOR SPEED CONTROL			PIB NO. DK3048	
PRODUCT LINE: TAPE DISK FORMATTER	EQUIPMENT CHANGED N/A	MODEL SERIES AFFECTED D3000	EFFECTIVE DATE April 15, 1976	
CLASS OF BULLETIN: <input type="checkbox"/> IMPROVEMENT <input type="checkbox"/> RETROFIT ON FAILURE <input type="checkbox"/> RETROFIT RECOMMENDED <input checked="" type="checkbox"/> SERVICE INFORMATION ONLY		ORDER PART KIT NO. N/A	EFFECTIVITY All Units	
<p><u>PURPOSE</u></p> <p>The procedure for speed control adjustment of the AC drive motor in early revision manuals does not always result in the correct waveform being observed. The following procedure rectifies this problem and is easier and quicker to carry out.</p> <p>The speed control adjustment for the AC drive motor is made to establish the correct spindle speed of 1500 or 2400 rpm within a plus or minus one percent tolerance.</p> <p>1.0 <u>Test Configuration</u></p> <ul style="list-style-type: none">1.1 Remove power from the disk drive.1.2 Disconnect connector J205 from the Servo PCBA.1.3 Disconnect connectors J405 and/or J406 from the Motor Control PCBA.1.4 Connect oscilloscope Channel 1 probe to TP22 on the Servo PCBA.1.5 Connect the ground clip of the oscilloscope probe to TP1 on the Servo PCBA.1.6 Set oscilloscope as follows:<ul style="list-style-type: none">o Voltage sensitivity to 0.2V per division if the X10 probe is used.o Select DC input mode.o Sweep rate to 0.1 ms per division.o Set to normal trigger mode.o Use internal sync and set to trigger on negative slope. <p>2.0 <u>Test Procedure</u></p> <ul style="list-style-type: none">2.1 Establish test configuration described in paragraph 1.0.2.2 Select Channel 1 on the oscilloscope.2.3 Ground U19A-2 (NLMEAG) on the servo PCBA.2.4 Apply power to the disk drive.				

Should Additional Information Be Required — Contact

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TITLE

A.C. MOTOR SPEED CONTROL

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DK3048

3.0 Adjustment Procedures

- 3.1 Establish test configuration described in paragraph 1.0.
- 3.2 Observing the waveform displayed on Channel 1 (TP22) adjust potentiometer R212 so that the positive-going edge of the pulse occurs between 0.3 ms and 0.6 ms as shown in Figure 1. Ensure the oscilloscope is still synced on the negative going edge of the pulse. Some hysteresis effect, approximately 0.1 ms, may be noted on the positive-going edge due to variations in line frequency.
- 3.3 Remove power from the disk drive.
- 3.4 Replace connector J205 on the Servo PCBA.
- 3.5 Replace connectors J405 and/or J406 on the Motor Control PCBA.
- 3.6 Remove the ground from U19A-2 on the Servo PCBA.

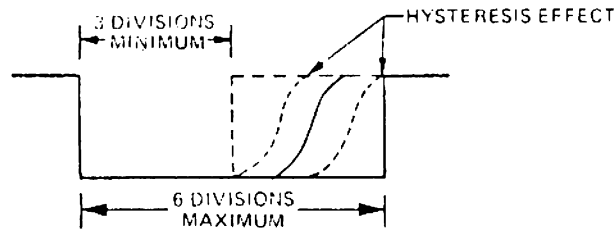


Figure 1. AC Motor Speed Control Signal Pulsewidth