

PERIPHERAL EQUIPMENT DIVISION

TITLE X+90 ADJUSTMENT POT				PIB NO. DK3062										
PRODUCT LINE	TAPE DISK FORMATTER <input checked="" type="checkbox"/>	EQUIPMENT CHANGED 102811 PCBA	MODEL SERIES AFFECTED D3000		EFFECTIVE DATE August 31, 1976									
CLASS OF BULLETIN:		ORDER PART KIT NO.	EFFECTIVITY											
<input type="checkbox"/> IMPROVEMENT <input type="checkbox"/> RETROFIT ON FAILURE <input type="checkbox"/> RETROFIT RECOMMENDED <input checked="" type="checkbox"/> SERVICE INFORMATION ONLY		N/A	PCBA - 102811, Rev. T through Rev. W											
<p><u>PURPOSE:</u></p> <p>To inform customers of:</p> <ol style="list-style-type: none"> Additional potentiometer on Servo PCBA, R226 which is X+90 gain adjustment. (For adjustment procedure on this pot, see para. 3 on page 2). Resistor R80 which is in series with R226 may require changing if R226 is at end of adjustment. (May occur on rare occasions). <p><u>SYMPTOMS:</u> (For replacement of R80)</p> <p>X+90 gain adjustment pot is at the end of its range.</p> <p><u>PARTS REQUIRED</u> - Rev. T through Rev. W with symptoms above</p> <table border="1"> <thead> <tr> <th>QTY</th> <th>P/N</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>200 tpi 1</td> <td>100-1045</td> <td>Resistor, 100K, 1/4 watt, + 5%</td> </tr> <tr> <td>100 tpi 1</td> <td>100-5635</td> <td>Resistor, 56K, 1/4 watt, + 5%</td> </tr> </tbody> </table> <p><u>ACTION REQUIRED:</u></p> <ol style="list-style-type: none"> Remove power from drive. Locate R80 on Servo PCBA. Remove R80 and replace with P/N 100-1045 (100K) for 200 tpi and P/N 100-5635 (56K) for 100 tpi. <p><u>X+90 ADJUSTMENT PROCEDURE:</u></p> <p>NOTE: The "Positioner Servo Calibration" (para. 6.7) and the "X+0 Gain and Balance" (para. 6.8.1) of the Operating and Service Manual must be checked prior to adjusting "X+90" gain and balance test.</p>						QTY	P/N	DESCRIPTION	200 tpi 1	100-1045	Resistor, 100K, 1/4 watt, + 5%	100 tpi 1	100-5635	Resistor, 56K, 1/4 watt, + 5%
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Should Additional Information Be Required — Contact

DISTRIBUTION CODE - 6318

PERTEC
 PERIPHERAL EQUIPMENT DIVISION
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 ATTENTION: PRODUCT SUPPORT MANAGER
 PERTEC 20-K012C(11)

TITLE

X+90 ADJUSTMENT POT

PIB NO.
DK3062

1. Test Configuration

- A. Prepare the positioner and oscilloscope as described in para. 6.7.1 of the Operating and Service Manual (Positioner Preparation for Static Tests).
- B. (200 tpi only) Install a jumper between TP1 on the Servo PCBA and TP5 on the on the temperature and write compensation PCBA.
- C. (200 tpi only) Remove connector J215 from the Servo PCBA.
- D. Connect oscilloscope Channel 1 X10 test probe to TP2. Connect ground lead to TP1.
- E. Set oscilloscope Channel 1 sensitivity to 0.2V per division.
- F. Set horizontal sweep rate to 2 usec per division.
- G. Set oscilloscope trigger control to Line and Auto.
- H. Manually load the heads onto the disk.

NOTE:

A ground reference sweep trace is obtained by centering the trace on a particular graticule line with the vertical input mode switch of the oscilloscope set to ground position.

2. Test Procedure

- A. Manually move the positioner carriage slowly, and at a constant rate, back and forth through its full stroke, i.e., cylinder 000 to cylinder 202 (cylinder 000 to 405 for 200 tpi). Do not unload the heads from the disk.
- B. Monitor TP2 on oscilloscope Channel 1 and observe the X+90 position quadrature waveform shown in Figure as the positioner is being moved. The peak-to-peak voltage observed throughout the full stroke of the positioner must fall within the acceptable limits listed in Step C. If the acceptable limits are exceeded perform the adjustment procedure detailed in para. 3.
- C. Acceptance Limits: 13.2V (max.) peak to peak - 10.8V (min.) peak to peak

3. Adjustment Procedure

- A. Adjust potentiometer R226 (X+90 Gain) to attain a 12V peak-to-peak sine wave at TP2 on the oscilloscope screen while the positioner carriage is being slowly moved back and forth through its full stroke by hand.

NOTE:

Clockwise rotation of R226 will increase amplitude.

- B. Adjust potentiometer R79 (X+90 Balance) to center the sine wave equally about ground. If required, reposition the ground-referenced sweep trace to the center graticule line.

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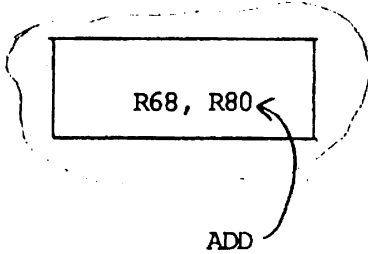
RELATED TEST

Perform X+0 and X+90 signal polarity and quadrature check detailed in para. 6.8.3 of the Operating and Service Manual.

DRAWING CHANGED

On schematic 102810 make changes as follows, sheet 3, table 1.

-01	R80 220K 100-2245
-02	220K 100-2245
-31	220K 100-2245
-32	220K 100-2245
-04	220K 100-2245
-34	220K 100-2245



DELETE

REVISION LEVELS

102811-01 AB, 102811-02 Z, 102811-31C, 102811-32 C
Add + ECN8360 to all versions

TIME REQUIRED

0.5 hours

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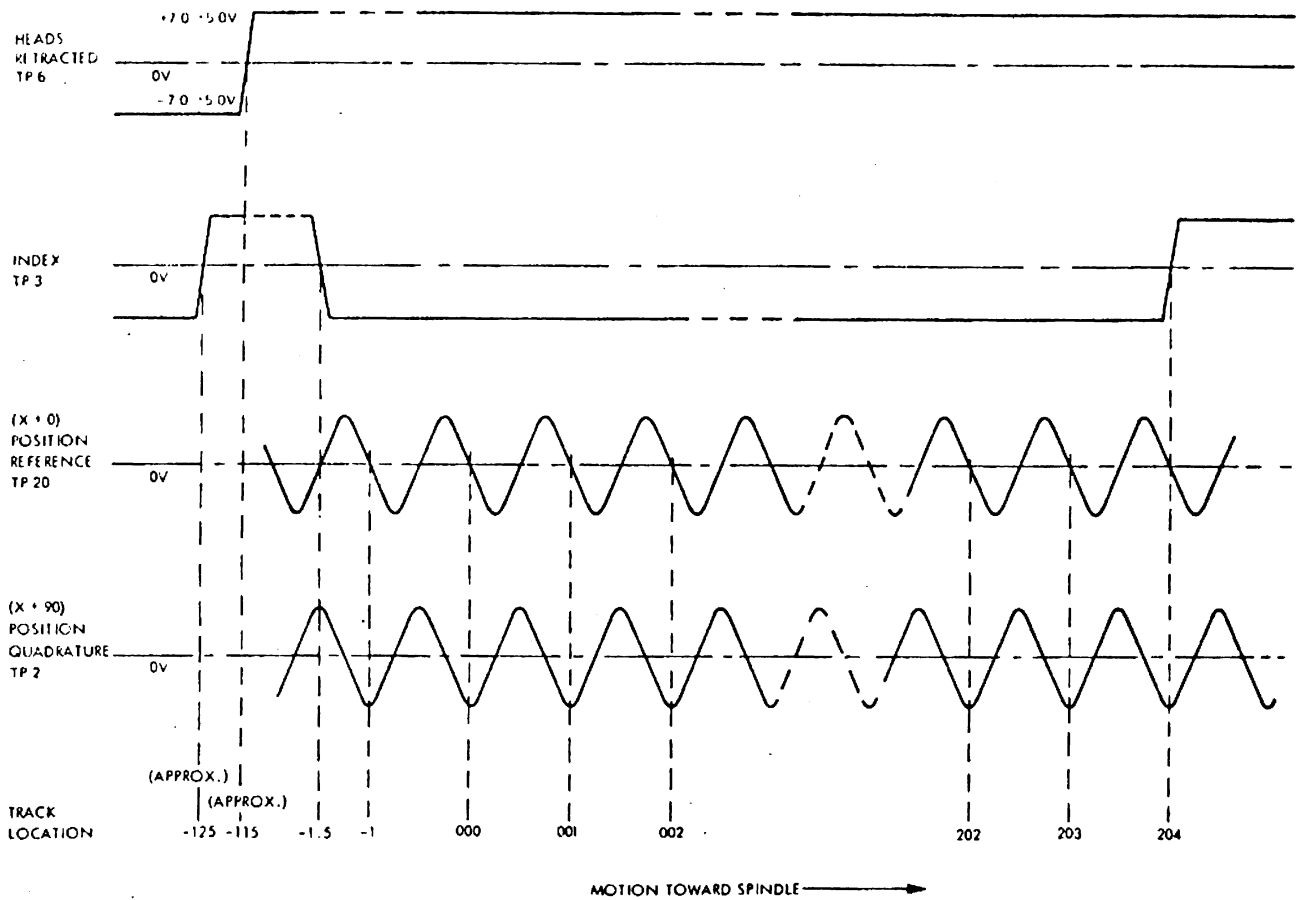


FIGURE 1