

# TEST FIXTURES

WM-III Linearity Test Fixture

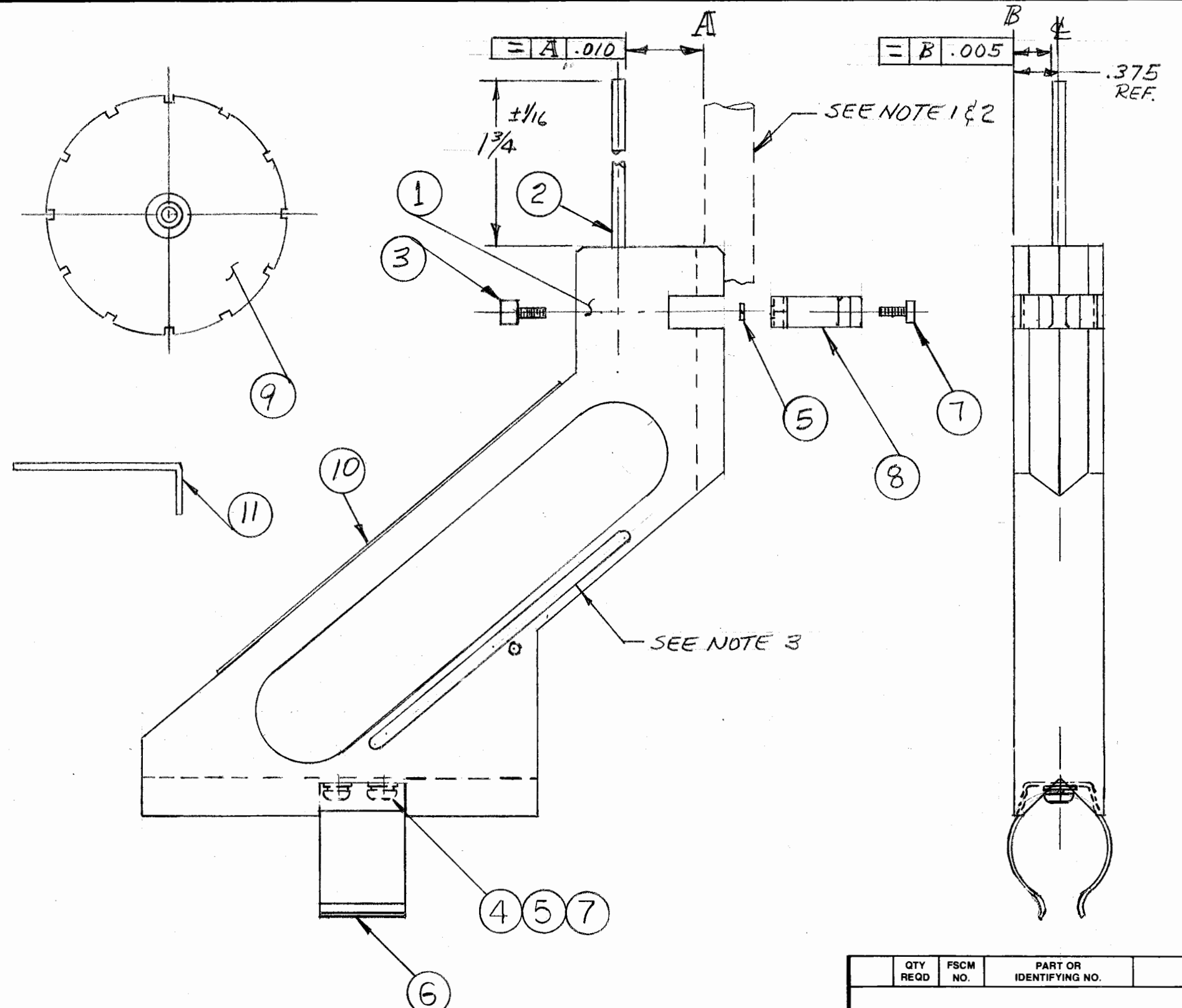
P/N M101966 Rev -

The linearity test fixture consists of a stand index pin, a notched calibrated dial, and one Allen key. To align the transmitter and check linearity, proceed as follows: (NOTE: This procedure applies to S/N 977 and above, and assumes an EAST-WEST orientation of the crossarm, with the wind direction sensor at the EAST end).

- 1) Visually align the vane shaft along the crossarm with the vane tail pointing toward the wind speed sensor. A reading corresponding to approximately "EAST" should be obtained. If not, check out the electronics and orientation of the crossarm before proceeding to Step 2.
- 2) Remove the thumbscrew and index pin from the side of the stand. Insert the index pin into the hole at the top of the stand and secure with the thumbscrew.
- 3) Orient the flat on the sensor cap at the top of the wind direction column so that it faces the wind speed sensor. Place the large clips at the bottom of the stand on the crossarm and push down to seat the clip. Slide the stand towards the wind direction column and push the stand until the small clips on the side of the stand seat on the column. Be sure the fixture is firmly seated on the crossarm and the wind direction column.
- 4) Place the notched dial over the shaft so that the flat side of the dial hub mates with the flat of the sensor hub. CAUTION: Do not force dial hub onto sensor cap. If required, rotate the dial until the index pin is in the 180° notch of the dial. The output reading obtained should correspond to SOUTH.
- 5) If the reading obtained in Step 4 is correct, go on to Step 6. If not, proceed as follows:
  - a) Using the Allen key, loosen the two set screws in the sensor hub.
  - b) With the index pointer still in the 180° notch, rotate the shaft until an output reading corresponding to SOUTH is obtained. Retighten the screws.
- 6) Move the pointer out of the 180° notch and rotate dial to the next notch, allowing the pointer to detent into the notch. Check the corresponding output reading. Continue above for the full 360° rotation, thus checking linearity.  
NOTE: Dial is calibrated so that 90=EAST, 0=NORTH, and 270=WEST.

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Revision	Description	Date	Approved
-	Released to Production	10/21/05	D.A.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	SEE ECN 3793	2-15-90	S.F.
B	SEE ECN 3839	5-3-90	S.F.
C	SEE ECN 3860	6-4-90	SC
D	SEE ECN 4708	7-24-96	
E	SEE ECN 5293	3-29-04	C.H.
F	SEE ECN 5487	9-14-05	C.H.

NOTE

- 1) TO ESTABLISH A SURFACE, P/N 500068 (SENSOR COLUMN) SHALL BE USED.
- 2) MAKE SURE O.D SURFACE OF THE SENSOR COLUMN (P/N 500068) IS SITTING PROPERLY ON THE V GROOVE WHEN ESTABLISHING A SURFACE.
- 3) WHEN FIXTURE NOT IN USE, REMOVE ITEM 2 & STORE IN GROOVE PROVIDED ON ITEM 1. TO CLAMP DOWN USE ITEM 3.

QTY REQD	FSCM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.		
FRACTIONS	DECIMALS	ANGLES	<b>CLIMATRONICS</b>	
± —	.XX ± —	± —		
	.XXX ± .005		APPROVALS	DATE
MATERIAL			DRAWN <i>S. FRANCES</i>	9-29-89
FINISH			CHECKED <i>D. Adams</i>	10-5-89
NEXT ASSY	USED ON		ISSUED <i>JF</i>	12-5-89
APPLICATION		DO NOT SCALE DRAWING		
			SIZE <b>B</b>	FSCM NO. <b>52332</b>
			DWG. NO. <b>101966</b>	REV. <b>F</b>
			SCALE <i>Full</i>	SHEET <b>1 OF 2</b>

WM-III LINEARITY TEST FIXTURE  
 F/N 101966 Rev F  
 PARTS LIST  
 Sheet 2 of 2

ITEM	SYM.NO	QTY	PART NO.	DESCRIPTION
1		1.0	501172	WM-III TEST FIXTURE BRACKET
2		1.0	501185	POINTER BAR, WM-III TEST FIXT.
3		1.0	294-04SS4-40E	SCREW THUMB 4-40 x 1/2 SS
4		2.0	MS15795-803	WASHER FLAT #4
5		3.0	MS35338-135	WASHER, LOCK SPLIT #4
6		1.0	4511-100-68-1	SPRING CLIP
7		2.0	MS51957-13	SCREW 4-40 x 1/4 PH
8		1.0	501186	HOLDING CLIP
9		1.0	101965	WM-III, DIAL ASSY
10		1.0	501215	LABEL, PART NBR / SERIAL NBR
11		1.0	1/16KEY	KEY, ALLEN 1/16