

FOR REFERENCE ONLY

14.) SYSTEM OPERATIONAL CHECK AFTER INSTALLATION:

WITH THE MASTER SWITCH ON BEFORE ENGINE START BOTH WARNING LAMPS SHOULD BE ILLUMINATED.

AFTER ENGINE START THE WARNING LAMPS SHOULD EXTINGUISH WHEN THE VACUUM OR PRESSURE IS GREATER THAN 3.5 IN-HG, $\pm .4$ IN-HG .

PRESSURE SWITCHES INCORPORATE SET POINT ADJUSTMENT SCREWS WHICH MAY BE ADJUSTED TO CHANGE WARNING LAMP ILLUMINATION POINT.

IF WARNING LAMPS STAY ILLUMINATED DURING NORMAL OPERATIONS THE SET POINT WHERE THE SWITCH OPENS TURNING OFF THE WARNING LAMP MAY BE DECREASED BY TURNING THE GOLD SCREW IN THE PRESSURE SWITCH CLOCKWISE.

CARE SHOULD BE TAKEN TO TURN THESE SET SCREWS GENTLY. USE 1/4 TURN INCREMENTS WHEN ADJUSTING PRESSURE SWITCH SET SCREWS.

AFTER ENGINE SHUT DOWN AND WITH THE MASTER SWITCH STILL ON THE WARNING LAMPS SHOULD AGAIN BE ILLUMINATED.

13.) RECONNECT THE AIRCRAFT BATTERY.

12.) INSTALL PILOT PLACARD P/N ADV31171 ON INSTRUMENT PANEL IN FRONT OF AND IN FULL VIEW OF THE PILOT.

11.) CONNECT EACH PRESSURE SWITCH P/N ADV31101 TO GROUND BY TAKING AN APPROPRIATE LENGTH OF WIRE P/N MS22759/32-22 AND ON ONE END OF THE WIRE CRIMP CONNECT A RING TERMINAL P/N ADV31131 AND ON THE OTHER END OF THE WIRE CRIMP CONNECT A FEMALE TERMINAL P/N ADV31132.

CONNECT THE FEMALE TERMINAL OF THE WIRE ASSEMBLY TO THE OPEN CONNECTOR ON THE PRESSURE SWITCH CONNECT THE RING TERMINAL TO AN APPROPRIATE AIRCRAFT GROUND.

REPEAT THIS PROCEDURE FOR THE OTHER PRESSURE SWITCH.

10.) TAKE A FEMALE TERMINAL FROM EACH WARNING LAMP WHICH IS CONNECTED TO THE WHITE WIRE OF THE WARNING LAMP, AND CONNECT THIS FEMALE TERMINAL TO EITHER OF THE TERMINALS OF ONE OF THE PRESSURE SWITCHES P/N ADV31101.

REPEAT THIS PROCEDURE FOR THE OTHER PRESSURE SWITCH

NOTE EACH WHITE WIRE SHOULD BE CONNECTED TO A DIFFERENT PRESSURE SWITCH.

9.) TAKE THE TWO WIRES WHICH EXTEND THE RED WIRES FROM THE WARNING LAMPS AND CRIMP CONNECT THEM INTO ONE END OF A BUTT CONECTOR P/N ADV31151. INTO THE OTHER END OF THE BUTT CONNECTOR CRIMP CONNECT ONE WIRE FROM THE IN-LINE FUSE HOLDER P/N ADV31181, (IF THE AIRCRAFT HAS A UNUSED 3-5 AMPERE FUSE OR CIRCUIT BREAKER THE INLINE FUSE HOLDER MAY BE OMITTED).

ON THE OTHER WIRE OF THE IN-LINE FUSE HOLDER CRIMP CONNECT A RING TERMINAL P/N ADV31131.

CONNECT THE RING TERMINAL TO AN ESSENTIAL DC BUSE FUSE OR CIRCUIT BREAKER WITH A RATING OF 3 TO 5 AMPERES.

8.) INSTALL WARNING LAMPS NEAR AIR DRIVEN GYRO INSTRUMENTS IN AN AREA WHERE A 21/64" HOLE MAY BE DRILLED THROUGH INSTRUMENT PANEL WITHOUT INTERFERING WITH ANYTHING BEHIND THE INSTRUMENT PANEL.

ALSO VERIFY THAT THERE IS ENOUGH ROOM TO INSTALL THE "VACUUM PUMP CHECK GAGE" PLACARD P/N ADV31161 AROUND EACH WARNING LAMP.

VACUUM PUMP PLACARDS MAY BE INSTALLED UNDERNEATH WARNING LAMPS BEFORE INSTALLATION OR ONTO INSTRUMENT PANEL OVERLAYS. WASHERS OR SHIMS MAY BE USED TO ADJUST WARNING LAMP PROTRUSION.

SECURE WARNING LAMPS WITH INCLUDED SPEED NUTS.

7.) EXTEND THE RED WIRES FROM EACH WARNING LAMP P/N ADV31112V OR ADV31124V BY ADDING A BUTT CONNECTOR P/N ADV31133, AND AN APPROPRIATE LENGTH OF WIRE P/N MS22759/32-22 TO REACH THE FUSE HOLDER P/N ADV31181.

6.) EXTEND THE WHITE WIRES FROM EACH WARNING LAMP IF REQUIRED BY ADDING A BUTT CONNECTOR P/N ADV31133, AND AN APPROPRIATE LENGTH OF WIRE P/N MS22759/32-22 TO REACH THE PRESSURE SWITCH. AT THE END OF THESE WIRES CRIMP CONNECT A FEMALE TERMINAL P/N ADV31132.

5.) VERIFY THAT WARNING LAMPS SUPPLIED MATCH YOUR AIRCRAFT'S VOLTAGE REQUIREMENTS ADV31112V FOR 12 VOLT AIRCRAFT, ADV31124V FOR 24 VOLT AIRCRAFT.

16.) CONTINUING AIRWORTHINESS: CONFIRM THAT WARNING LAMPS EXTINGUISH AT THE 3.5 IN-HG, $\pm .4$ IN.-HG. ADJUST SWITCHES PER STEP 9, IF REQUIRED.

15.) MAKE APPROPRIATE LOG BOOK ENTRY FOR MONITORING SYSTEM (WEIGHT AND BALANCE CHANGE IS NEGLIGIBLE).

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES + .XX \pm .03 \pm .5 deg. .XXX \pm .010		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE		Aero Advantage	
MATERIAL		APPROVALS	DATE	AIR PUMP MONITORING SYSTEM INSTALLATION	
FINISH		DRAWN			
DO NOT SCALE DRAWING		CHECKED			
		RESP ENG			
		MFG ENG		SIZE	DWG. NO.
		QUAL ENG		B	ADVMSI 500
				SCALE	CAD FILE:
					REV. D
					SHEET 2 OF 2