TM 55-4920-378-14&P

TECHNICAL MANUAL

OPERATORS, ORGANIZATIONAL, DIRECT SUPPORT
AND
GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

TESTER, PITOT AND STATIC SYSTEM

(MFR. PART NO. TPS-2550-1
MFR. PART NO. TPS-2550-2)

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NOTE

Except for the RPSTL, this manual has not been prepared according to military specification; but, despite the limitations of its contents, the publication does provide the essential data needed to operate and maintain the equipment.

CHANGE

NO. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 28 MAY 1993

Operators, Organizational, Direct Support
and
General Support Maintenance Manual
(Including Repair Parts and Special Tools List)

TESTER, PITOT AND STATIC SYSTEM

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Operators, Organizational, Direct Support
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TESTER, PITOT AND STATIC SYSTEM

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INTRODUCTION

1-1. GENERAL.

This handbook contains operation and maintenance instructions for the Pitot and Static Tester, TPS-2550-1 and TPS-2550-2 (See Figure 1-1) manufactured by the Aerosonic Corporation.

1-2. PURPOSE OF EQUIPMENT.

The tester is a portable, self-contained vacuum and pressure tester whose purpose is the testing of aircraft altimeters, rate of climb indicators, airspeed indicators, manifold pressure gauges and fuel pressure gauges. The tester accurately effects engine or atmospheric vacuums and pressures such as are met in the normal operation of an aircraft. The vacuums and pressures are accomplished by means of a small high speed pump capable of producing a vacuum of 29 inches of mercury and pressures up to 25 pounds per square inch.

1-3. DESCRIPTION.

The overall size of the tester is 16 9/ 16 inches wide by 14 9/16 inches deep by 18 inches high. This includes a removable cover which contains all the accessories and tools necessary for proper operation of the tester. With the cover removed, all of the major operating components of the tester are visible. These consist of five aircraft instruments representative of the types to be tested: two multiple function selector valves (Figure 1-1, Ref. 1 and 17), one for vacuum and one for pressure tests: four micrometer needle valves (2 and 3) used for fine or vernier control of vacuum and pressure; a power switch (4) for the pump motor, along with an indicator lamp (5) and fuses (6). At the rear of the tester are four self-sealing quick-couplings (7) for connecting air lines and a multi-terminal AN receptacle (8) for electrical connections. Along the top of the instrument is a Table (10) which gives the latest calibration corrections for the master instruments on the tester panel. Under this Table, accessible by lifting the narrow aluminum cover, are five small selector valves (9) used for self-checking of the tester master instruments during calibration and recalibration of these instruments. For convenient access to components of the tester. the main panel is hinged at the top and may be opened by turning the five Camloc fasteners (11) accessible from the front. When the main panel is opened the motor pump assembly, air-oil reservoir and the electrical power supply components are visible. In addition, the side doors and the lower front panel are hinged and secured with Camloc fasteners (11). These doors provide access to the reservoir, with its drain-refill valve and hose, and the filter sumps in the vacuum and pressure systems. The lower front panel provides access to the two vacuum (12) and three pressure (13) safety valves. The tester is designed to operate from three separate and distinct power sources.

1 . 28 Volts, d.c.

2. 115 Volts, a.c. 50-500 cycles, single-phase

3. 115 Volts, a.c. 50-500 cycles, three phase

1-4 ACCESSORES SUPPLIED WITH TEST SET.

Table 1-1. Accessories

ITEM	PART NUMBER	DESCRIPTION	QTY
1	12366-3	Hose Assembly V98810 (TPS-2550-1 only)	1
1	12366-4	Hose Assembly V98810 CIPS-2550-2 only)	1
2	12366-2	Hose Assembly V98810	2
4	AVEC-4-2F	Coupling Assy., Quick Disconnect V78357	1
5	AN816-4D	Union, 1/8" Pipe Thread to 1/4" Flared Tube	1
6	MS24399D3	Union, Reducer, 1/4" Flared to 3/16" Flared Tube	1
7	AN815-4D	Union, 1/4" Flared Tube to 1/4" Flared Tube	
8	AN737-TW-48	Clamp, Sleeve	1
9	A 21032	Adapter, Pitot Head V98810	1
10	A 21033	Adapter, Flush Static Port V98810	1
11	A 31203-1	Cord Assy., Power V988 10	1
12	A 31203-2	Cord Assy., Power V988 10	1
13	A 31203-3	Cord Assy., Power V988 10	1
14	A 31203-4	Cord Assy., Power V988 10	1

1-5. FORMS AND RECORDS.

Maintenance forms, records and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed DA PAM 738-751.

1-6. REPORTING OF ERRORS.

Report of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028, (Recommended Changes to Publications), and forwarded direct to Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd, St. Louis, MO. 63120-1798. A reply will be furnished to you.

FIG. & INDEX NO.	PART NUMBER	1 2 3 4 5 6 7 NOMENCLATURE	QTY.
1-1	AL5TSL	SELECTOR VALVE, VACUUM	1
1-2	B2MG2	STR.PATTERIN FINE METERING VALVE GRANADA VALVE & FITTING CO. TAMPA, FLORIDA	4
1-3	B2MG2	STR. PATTERN FINE METERING VALVE	REF
1-4	MS35059-22	TOGGLE SWITCH (V15605)	1
1-5	111-3830-112	PILOT LIGHT (V72619)	1
1-	MS25237-327	LAMP (V24455)	1
1-6	313-3AG	3A FUSE 125V (V71400)	2
1-7	AVEN4-2F	SPECIAL VALVE (V78357)	4
1-8	A 21030	HARNESS ASSEMBLY	1
1-9	711-222-1/8D	VALVE (V15081)	2
1-9	710-13-1/8D	VALVE (V15081)	3
1-10	FORM 210	SCALE ERROR CHART	1
1-11		CAMLOC FASTENER (V71286)	20
1-12	A 11805	VACUUM BELLOW ASSEMBLY	2
1-13	A 11806	PRESSURE BELLOW ASSEMBLY	3
1-14	AN929-3D	FLARED TUBE CAP (V15081)	1
1-15		INDICATING HANDLE, VALVE ASSEMBLY	1
1-16	11722	WINDOW	1
1-17	82456-1	SELECTOR VALVE, PRESSURE	1

LEGEND FOR FIGURE 1-1

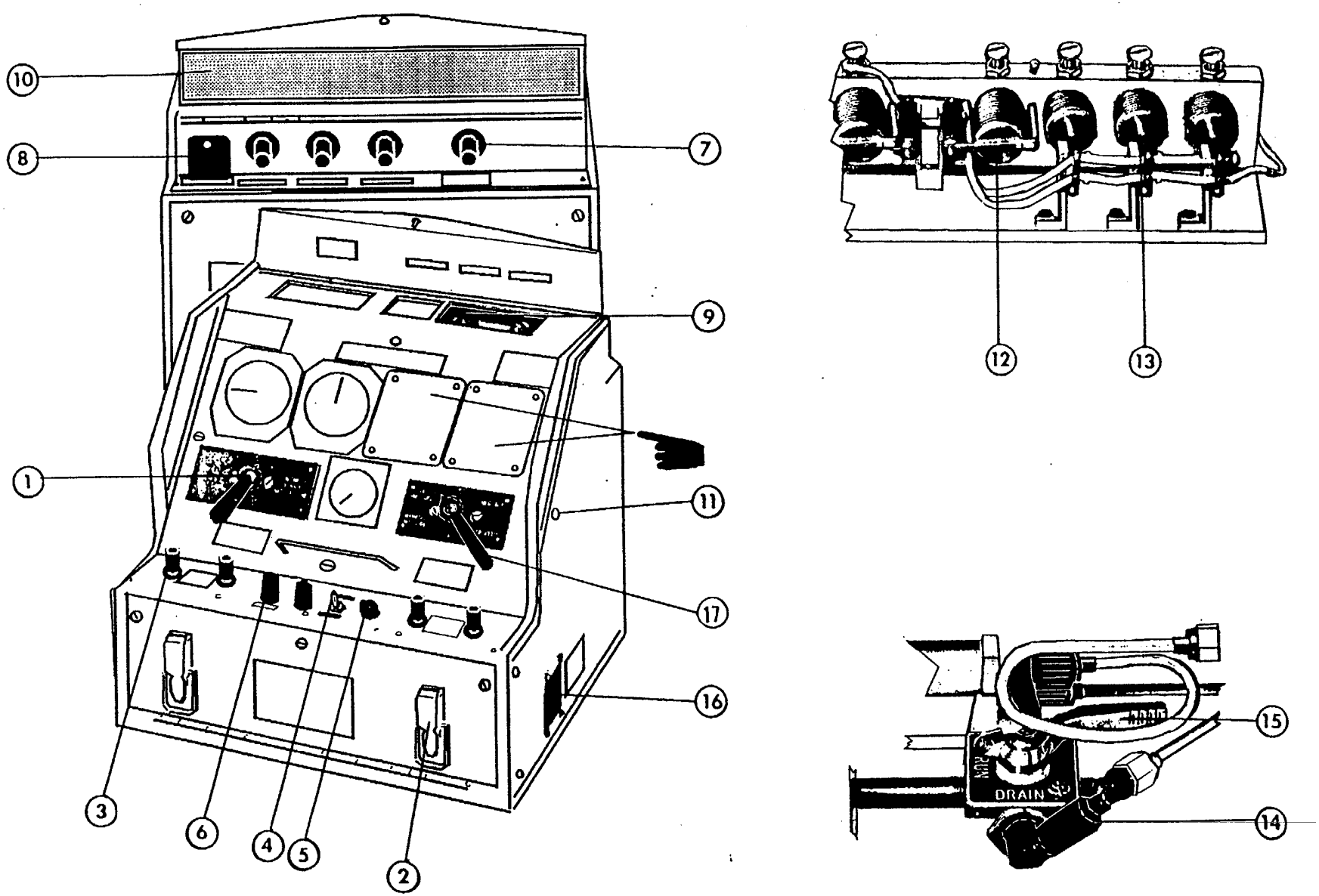


Figure 1-1. Tester TPS-2550-1 and TPS-2550-2

SECTION II

OPERATIONS OF THE TESTER

WARNING

Do not operate the tester unless all access panels are in place: Injury could result from the shattering of the glass reservoir or other malfunction of the tester.

2-1. GENERAL.

The tester can be utilized as a two-fold purpose:

a. To test other indicators of equivalent pressure and vacuum.

b. To test out tbe pitot static system of the aircraft.

2-2. OPERATION PROCEDURES.

To operate, the following procedures must be followed:

a. Set the tester on a level bench or platform. Check to see that the oil level in the reservoir is at the correct height. If the oil level is not at the correct height, fill by viewing through window (Figure 1-1, Ref. 16), in accordance with maintenance procedure, paragraph 3-2. Before connecting to the desired power source be certain that the "ON/OFF' switch (4) is in the "OFF" position, control valves (2 & 3) are closed and the two sector valves (1 and 17) on the front instrument panel of the tester are in the "OFF' position. You are now ready for testing.

b. If you are going to use pressure, then be sure at this point both the vacuum control valves (3) are opened. If you are going to use vacuum to test, be sure both the pressure control valves (2) are open. Move the selector valve (1 and 17) to the marking shown for the instrument you wish tested. Be sure that both control valves (2 & 3) of the specific selector are closed.

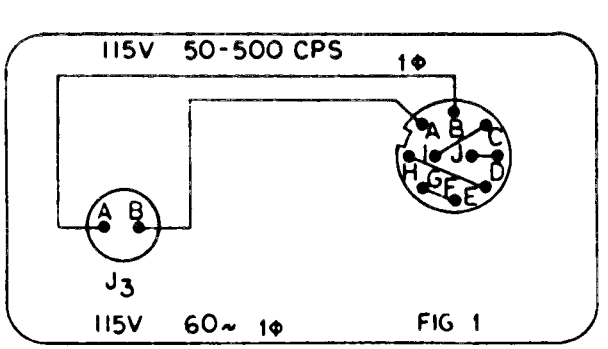
c. To test a specific instrument, plug into the desired instrument outlet (7) from the rear of the case as marked and open one of the valves (9) at the top of the test set for the specific instrument you wish tested. Turn the "ON/OFF" switch (4) to "ON" which will start the pump running.

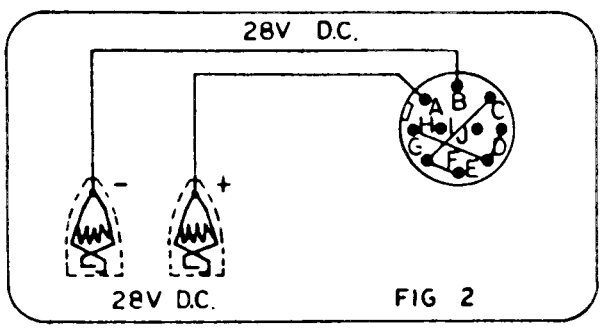
d. Open, with a very slight turn, the "UP" valve of your selected pressure (2) or vacuum (3) and the instrument will start indicating for you. See Table 2-1. To get true readings for the instrument you are testing, set the master instrument to the corrected reading as shown on the correction card (10) for each instrument. You can proceed all the way up to the top of the scale and then return to zero by shutting off the "UP" valve and opening the "DOWN" valve. This test or method of operation can be repeated with all instruments of the type shown in Table 2-1.

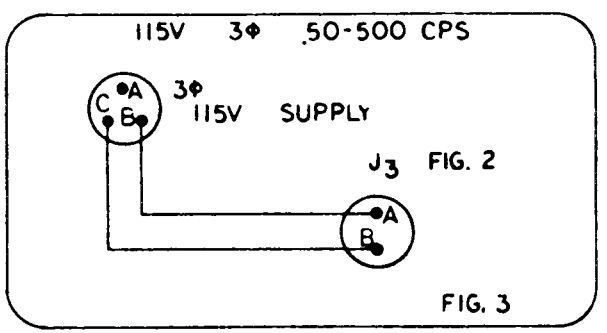
It should be noted at this point, that each one of the instruments on the test panel has a safety overload and that it is impossible to damage any of the instruments by exerting too much pressure or vacuum to the specific instruments. However, it should be pointed out that a maximum reading of 5,000 feet per minute, "UP" or "DOWN", should be used on the rate of climb. The tester comes with all the necessary tubing and lines to connect directly to aircraft instruments or to connect to a pitot system or a static system. See Table 1-1. Upon completion of any and all testing, be sure that both selector valves (1 and 17) are in the "OFF" position and that both sets of valves (2&3) operating pressure and vacuum are closed.

Table 2-1. Instrument Test Chart

INSTRUMENT	OVERPRESSURE		SYSTEM LEAK		OPERATIONAL RATE
	CHECK PO)INT	SAFETY RELIEF POINT	CHECK POINT	MAX.ALLOW-ABLE LEAK RATE PER MIN.	
MANIFOLD (VAC)	10" HG	+0 HG -1"	11" HG	V4" HYG/MIN	10" EVERY 15 SEC. MAX. 10" EVERY 15 SEC. MAX. (30-20 RANGE)
AIRSPEED (PRESSURE)	400 KNOTS	+20 -0	200 KNOTS	6 KNOTTSMIN	25 SEC. MIN. FULL SCALE= 35 SEC. MAX.
DELETED					
DELETED					
ALTITUDE (35,000 FT.)	35,000 FT.	+5,000 Ft. -0000	25,000 FT.	100FT/MIN.	RATE OF CLIMB NOT TO EXCEED 5,000 FT. PER. MIN. ASCENDING OR DESCENDING.
NEGATIVE ALT.	--	--	50 FT/MIN.	50 FT/MIN.	RATE OF CLIMB NOT TO EXCEED 5,000 FT. PER. MIN. ASCENDING OR. DESCENDING







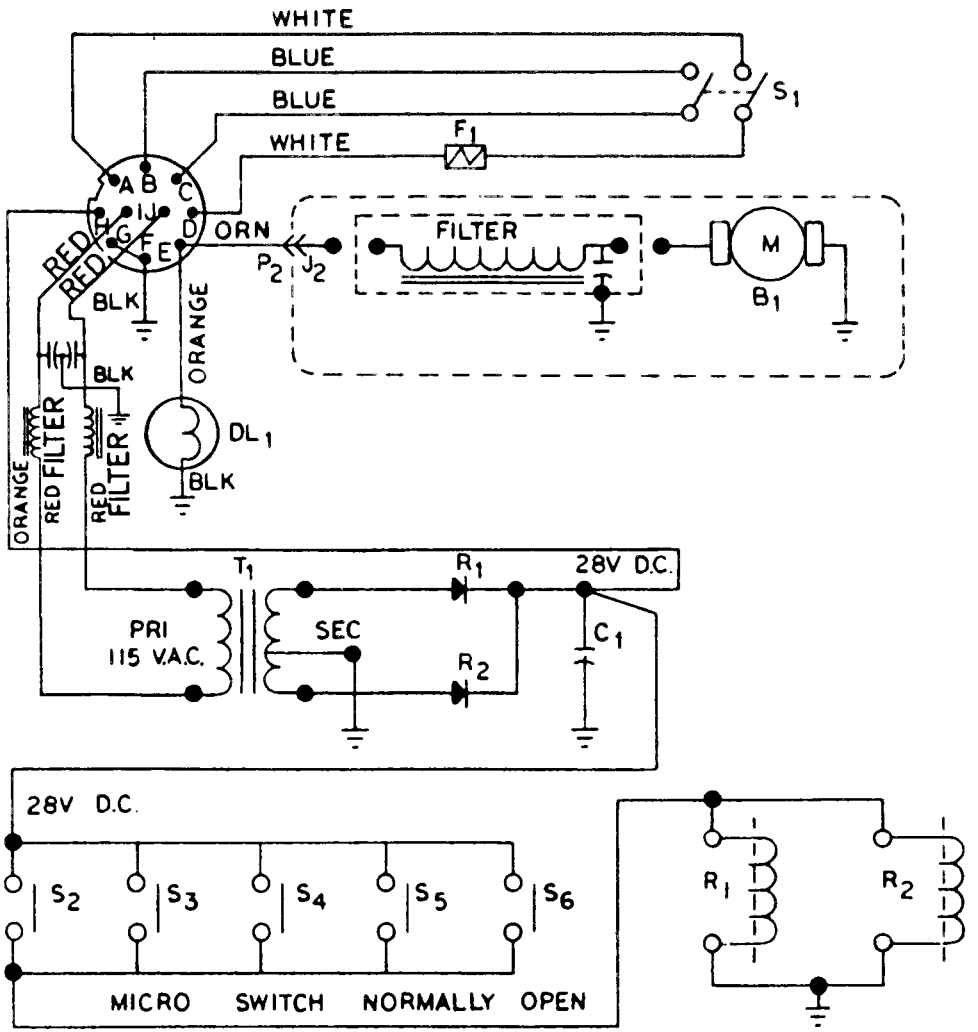


Figure 2-1. Electrical Hook-Up

SECTION III

MAINTENANCE

3-1. GENERAL.

The basic principle of the tester is the use of a vacuum pressure pump, a series of instruments, connecting lines to selector valves (Figure 1 - 1, Ref. 1 & 17) and control valves (2 & 3). The following procedures should be followed for maintenance of the test set.

3-2. OIL RESERVOIR Maintenance of the reservoir consists of servicing as follows:

a. To fill the oil reservoir, open up the right side of the cabinet, unscrew the cap nut (14) next to the oil reservoir and adjust the indicated handle (15) so that the handle points to the word "FILL". Attach the filler hose (Table 1-1, Item 1) to the threads where you just removed the cap nut (14) and tighten securely. Place end of the filler hose in container of oil (MIL-H-5606).

b. With the valve in the "FILL" position, the hose in the oil, open valves (3), connect electricity to desired source and turn on switch (4). You will note immediately the oil is sucked into the reservoir and you can control the amount of oil by turning off the switch when the correct limit is reached. Then disconnect the filler hose, replace the cap nut (14) on the threads of the filler valve and reset the indicating handle (15) to the "RUN" position. You are now ready for operation.

3-3. SAFETY RELIEF VALVES.

All the instruments have been pre-set with the use of safety relief or overload valves (12 & 13). The safety relief valves have been properly set at the factory to enable safe operation of these instruments even if overpressure is applied.* In the event adjustments to the safety relief valves are needed, proceed as follows:

a. Place the instruments under pressure or vacuum, depending upon the desired instrument you wish checked, and slowly run the instrument up to its maximum reading.

b. In the event that minor adjustments to the overload protection system are required open the lower front panel. The overpressure safety relief valves (12 & 13) are identified for vacuum or pressure and the particular instrument system they protect. Adjustment to the vacuum relief valves (12) require clockwise motion to decrease and counterclockwise motion to increase. Adjustment to the pressure relief valves (13) require counterclockwise motion to decrease and clockwise motion to increase.

3-4. INDICATORS.

The instruments are standard AN or MS type indicators and are stock units in the Army and can, therefore, be very readily replaced by disconnecting the rear fitting hose and replacing the instrument. However, in the event the instrument is to be replaced, be sure that the new instrument has a correct true calibration correction card with it or that these readings can be transferred to the Table (10) on top of the tester for future use. Fuel pressure indicator and manifold pressure indicators gauges are no longer required in testing aircraft components. Remove indicators, cap off airlines, stow electrical 'connectors and install cover plates over existing holes.

3-5. FUEL FILTER SUMPS.

The tester has also been equipped with two sumps which permit only the air to go into the instruments and, in the event there is oil in the lines, it will be trapped in these sumps. You can readily see any trapped oil since the sump itself is clear glass. If the off after months of operation gets to more than 500/0 of the total glass area, empty the sump and transfer the oil back into the reservoir. This can be done by unscrewing the bottom of the sump, removing the sump and transferring oil to the reservoir. However, when replacing the glass sump, be sure that it is securely tightened to prevent any possibility of leakage at this point. As soon as the sump is replaced retest the unit for top vacuum, using the altimeter, and top pressure, using the fuel pressure. If you do not reach the top point, it is because the gasket in the sump is not completely sealed. Tighten the bottom screw of the glass sump more.

*Does not apply to Rate of Climb - See Table 2-1.

3-6. PUMP.

There should be no problem with the electrical system nor the hoses, therefore, the remaining part of the maintenance and overhaul should be confined to inspection. If you are not getting the total amount of vacuum or pressure that is needed to give you maximum readings on both vacuum and pressure, find out whether the pump itself is at fault. Connect the pump prior to entering the sump on the vacuum and pressure line to the altimeter or fuel pressure instrument to check the correct vacuum or pressure. 29” of vacuum is necessary for the vacuum side, and a minimum of 25 pounds of pressure for the pressure side. If the pump is capable of this operation, then you have a leak some place else in the system. If the pump is incapable of this operation the pump should be replaced. However, this should not occur for a minimum of a year to two years.

ILLUSTRATED PARTS BREAKDOWN

GENERAL.

This Illustrated Parts Breakdown Manual contains a Group Assembly Parts List for the Vacuum - Pressure Test Set, TPS-2550-1 and TPS-2550-2 (See figure 1.)

USABLE ON CODES.

There are two usable on codes. They are used to differentiate between TPS-2550-1 and TPS-2550-2 and thus noted as -1 and -2. The absence of a code in Usable On Code column indicates that parts so shown are usable as replacements on all models covered by this publication.

LOCATION OF PART NUMBER.

a. WHEN THE PART NUMBER IS NOT KNOWN.

1. Determine the application of the part required. Select the most appropriate title listed below. Note the illustration page number.

2. Turn to the page indicated and locate the desired part number on the illustration.

3. From the illustration, obtain the index number assigned to the part desired. Refer to the accompanying description for specific information regarding the part.

b. WHEN THE PART NUMBER IS KNOWN.

1. When the part number is known, refer to the Numerical Index. Locate the part number and note figure and index number assigned to the part number.

2. Turn to figure number indicated and locate the index number referenced in the Numerical Index.

3. If a pictorial representation of the part, or its location is desired, refer to the same index number on the accompanying illustration.

SYMBOLS AND ABBREVIATIONS.

All symbols and abbreviations used in this publication were taken from MIL-STD-12, MIL-STD-15, and MIL-STD-17.

FEDERAL SUPPLY CODES.

List of manufacturers supplying articles not carried under the prime contractor's, AEROSONIC CORPORATION, part numbers, together with their codes, listed in numerical sequence and taken from Cataloging Handbook H4-1 and H4-2 Federal Supply Code For Manufacturers.

06247	General Electric Company Lamp Metals and Components Dept. Cleveland, Ohio
15605	Cutler Hammer Inc. Milwaukee, Wisconsin
18034	Nupro Co. 15635 Saranac Cleveland, Ohio 44110
37942	P. R. Mallory Co., Inc Indianapolis, Indiana
61349	United States Gauge Division of Ametek Inc. Sellersville, Pennsylvania
64560	Weldon Tool Company 3000 Woodhill Road Cleveland, Ohio 44104
71286	Cam-Loc Fastener Corporation 22 Spring Valley Road Paramus, New Jersey
71400	Bussmann Manufacturing Division of McGraw-Edison Company 2538 West (University Street St. Louis, Missouri
76219	Dialight Corporation Brooklyn, New York
74284	Skydyne Inc. River View Port Jervis, New York
75255	Kem Manufacturing Co., Inc. River Road and Maple Ave. Fairlawn, New Jersey
76545	Mueller Electric Co. 1756 N.E. 31st. St. Cleveland, Ohio
76599	Murray Corporation 600 East Joppa Road Towson, Maryland 21204
78357	Snap Tite 201 Titusville Road Union City, Pennsylvania
78553	Timmerman Products, inc. Cleveland, Ohio
81978	Skinner Electric Valve Division of Skinner Precision Industries Inc. Ncw Brittain, Connecticut
86768	Republic Manufacturing Co. 15655 Brookpark Road Cleveland, Ohio 44153
91929	Honeywell Incorporated Micro Switch Division Freeport, Illinois
98810	Aerosonic Corporation 1212 N. Hercules Ave. Clearwater, Florida 33517
	Allied Electronics Chicago 80, Illinois

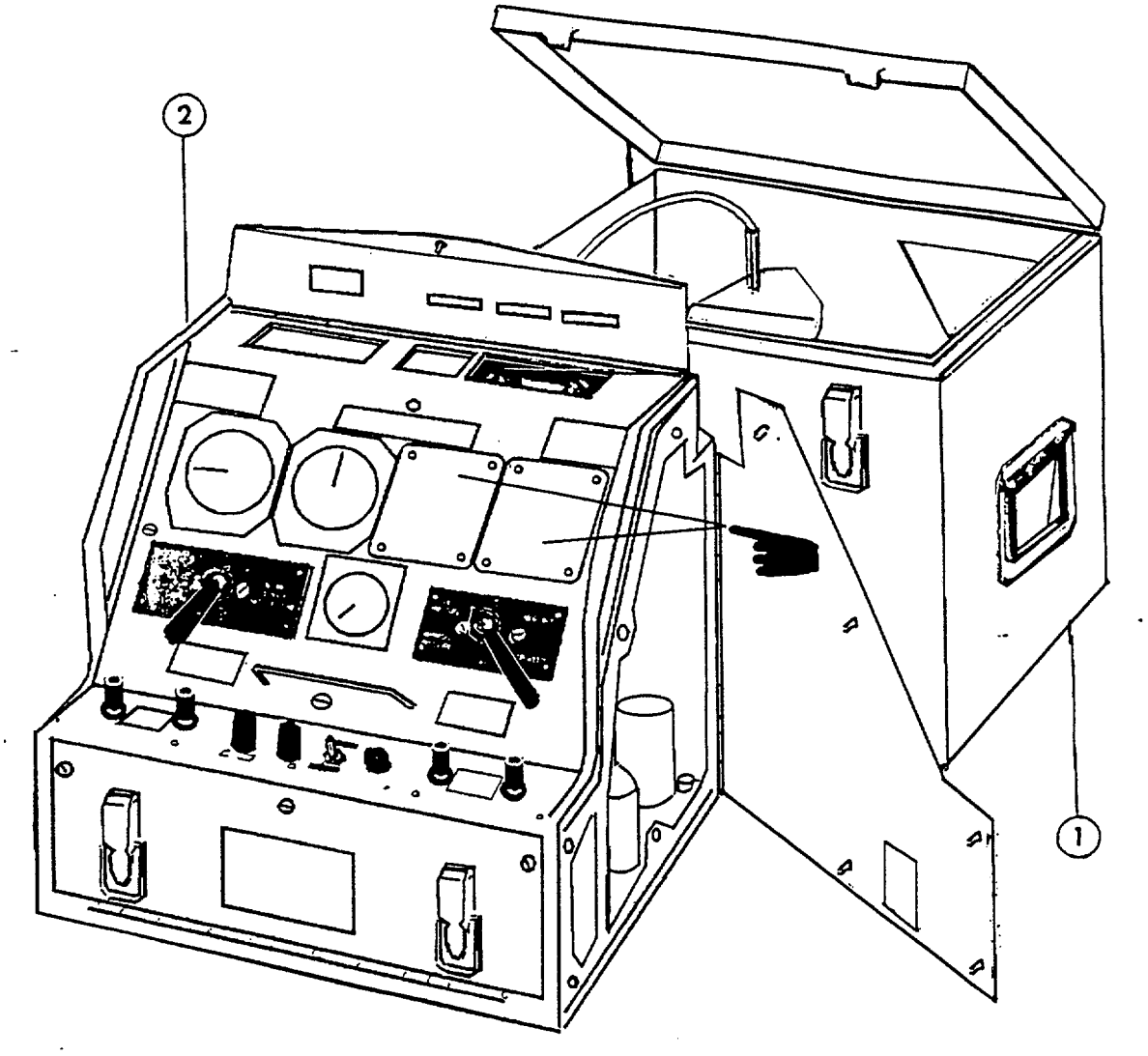


Figure 1. TPS-2550 Test Set

FIGURE & INDEX NO.	PART NUMBER	UNITS NOMENCLATURE 1234 567	USABLE PER ASSY.	ON CODE
1-	TPS-2550-1	TEST SET, Vacuum-pressure (98810 part 41062).....	-1	
1-	TPS-2550-2	TEST SET, Vacuum-pressure (98810 part 41135).....	-2	
-1	A31187	• COVERASSEMBLY.....	1	
-2	41059	• TESTERASSEMBLY.....	1	-1
-2	41134	• TESTER ASSEMBLY.....	1	-2

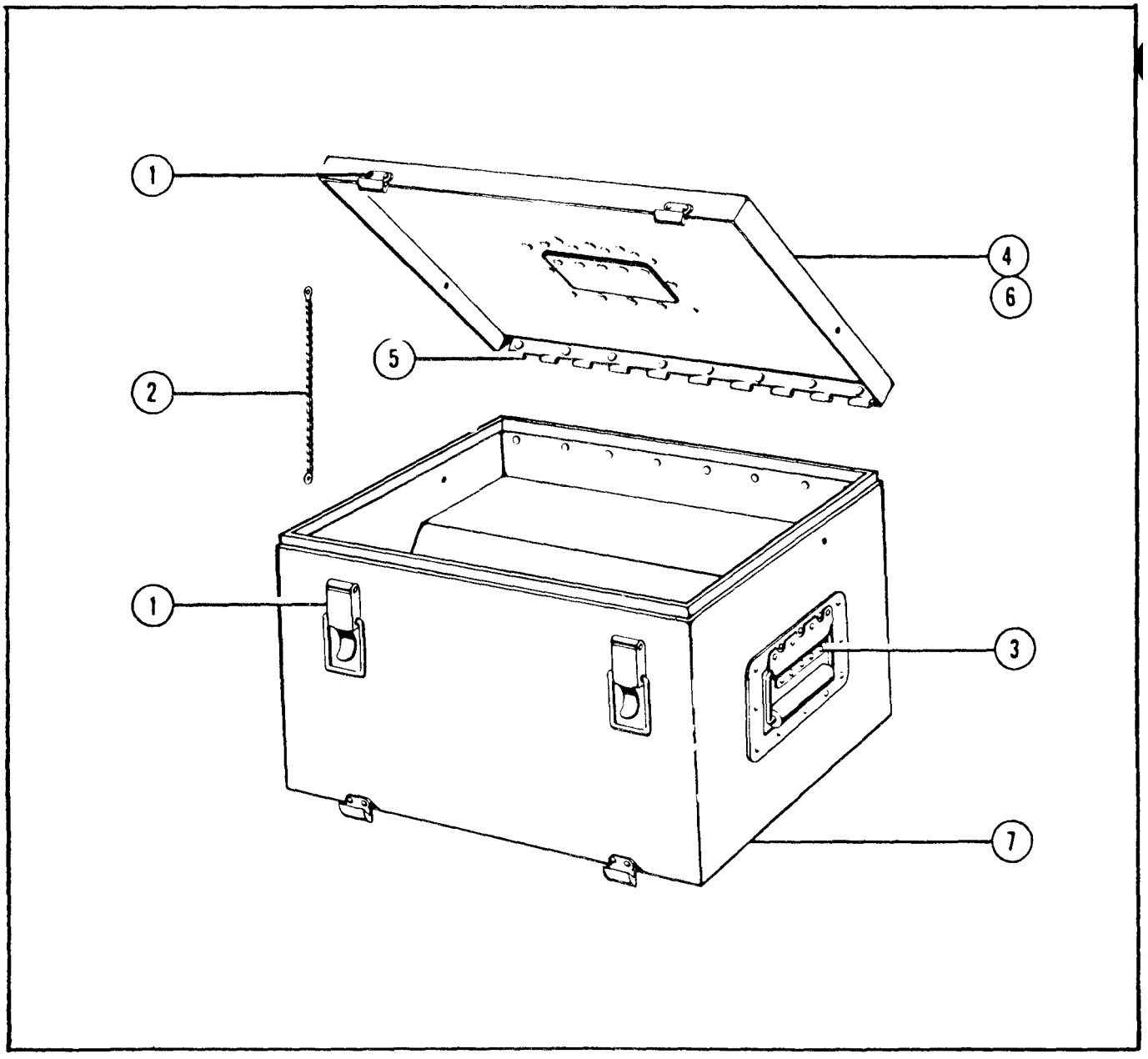


Figure 2. Cover Assembly

FIGURE & INDEX NO.	PART NUMBER	1 2 3 4 5 6 7 NOMENCLATURE	UNITS PER ASSY.	USABLE ON CODE CODE
2-	A 31187	COVER ASSEMBLY (See figure 1 for next higher assembly)	REF	
-1	HC 205	• CATCH AND STRIKE ASSEMBLY (Mfr. code 98003)	2	
-2	COML	•CHAIN,	1	
-3	SKMT 300	· HANDLE (Mfr. code 74284)	3	
-4	21333	· LID	1	
		(ATTACHING PARTS)		
-5	MS 35822-3A	•HINGE, 16 in. 1g	1	
		----*----		
-6	SKMT 300	· · HANDLE, Same as 2-3	REF	
-7	21344	· COVER SUBASSEMBLY	1	

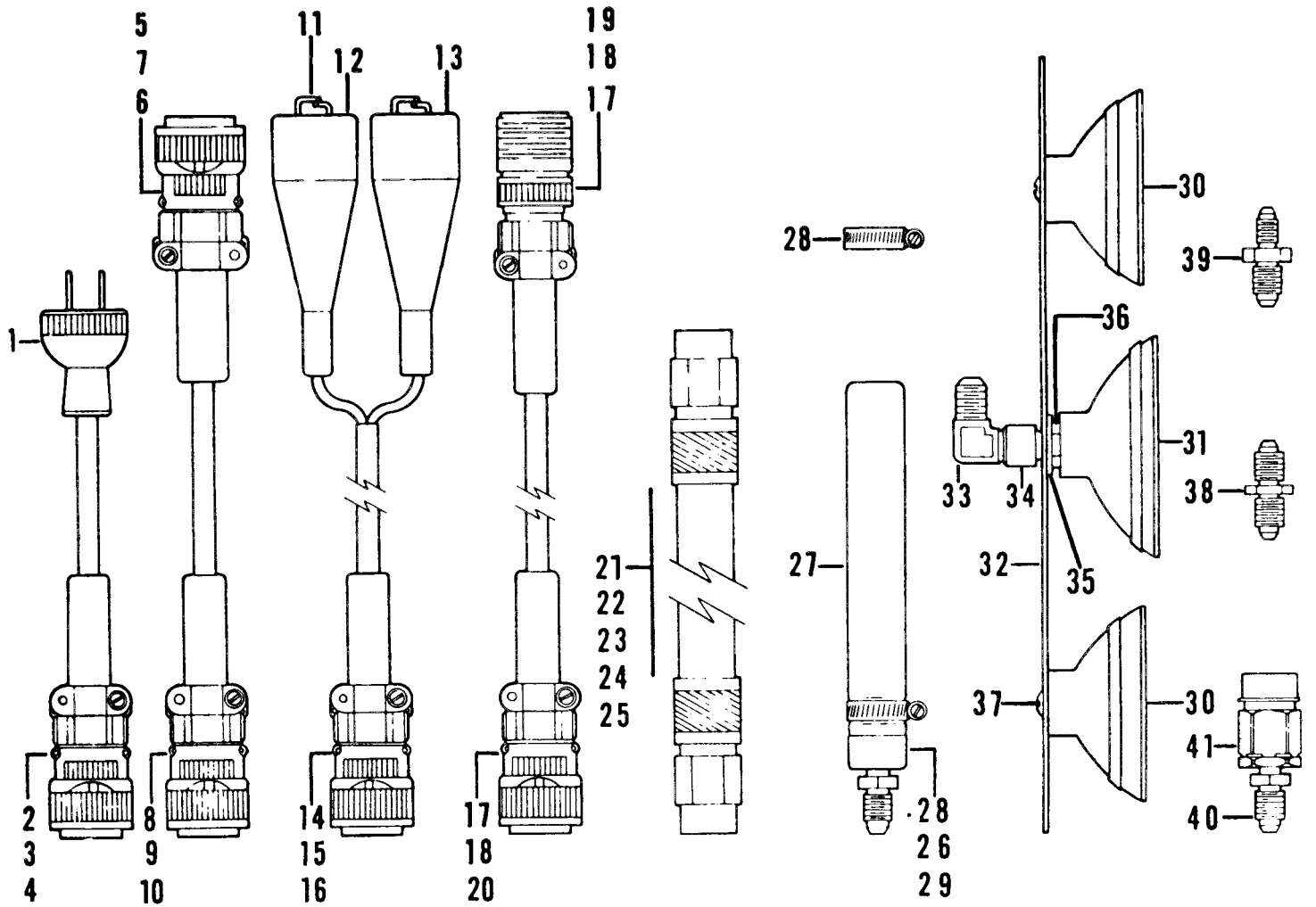


Figure 3. Accessories

FIGURE & INDEX NO.	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY.	USABLE ON CODE
		ACCESSORIES (STORED IN LID)		
3-	A 31203-1	• ADAPTER, A.C. Power, 8 In. 1g	1	
-1	COML	•• CONNECTOR, Plug	1	
-2	MS 3057-10A	•• CLAMP, Cable (71468)	5	
-3	18	•• BUSHING, Telescoping (71468)	5	
-4	MS 3106-A18-5S	•• CONNECTOR, Receptacle (Insert)	2	
		----*----		
3-	38615	• ADAPTER, 3 Phase power, 11 In. 1 g	1	
-5	MS 3106-A204P	•• CONNECTOR, Plug, 4 pin	1	
-6	MS 3057-12A	•• CLAMP, Cable (71468)	1	
-7	20	•• BUSHING, Telescoping (71468)	1	
-8	MS 3057-lOA	•• CLAMP, Cable (Same as 3-2)	REF	
·9	18	•• BUSHING, Telescoping (71468)	REF	
-10	MS 3106-A18-5S	•• CONNECTOR, Same as 3-4	REF	
		----*----		
3-	A 31203-3	• CABLE, D.C. Power, 9 ft. 1g	1	
·11	24A	•• CLIP, Alligator (76545)	2	
-12	26	•• INSULATOR, Red (76545)	1	
·13	26	•• INSULATOR, Black (76545)	1	
-14	MS 3057-10A	•• CLAMP, Cable, Same as 3-2	REF	
-15	18	•• BUSHING, Same as 3-3	REF	
-16	MS 3106A-A18-1S	•• CONNECTOR, Receptacle (Insert)	2	
		----*----		
3-	A 312034	• CABLE, A.C. Power, 9ft. 3 In. 1 g	1	
-17	MS 3057-10A	•• CLAMP, Cable, Same as 3-2	REF	
-18	18	•• BUSHING, Telescoping, Same as 3-3	REF	
-19	MS 3101-A18-5P	•• CONNECTOR, Plug	1	
-20	MS 3106-A18-1S	•• CONNECTOR, Receptacle, Same as 3-16	REF	
		----*----		
-21	12366-2	• HOSE ASSEMBLY, 6 ft. 1	1	-1
-22	12366-2	• HOSE ASSEMBLY, 6 ft. 1g	2	-2
-23	12366-4	• HOSE ASSEMBLY, 5 ft. 1g	1	-2
-24	12366-3	• HOSE ASSEMBLY, 25 ft. 1g	1	-1
-25	SA 21369-1	• HOSE ASSEMBLY, 2-1/2 In. 1g -NOT USED-	5	
3-	A 21032	• ADAPTER Pitot head	1	
-26	A 21032-1	•• ADAPTER, Hose	1	
-27	S-73505 KH	•• HOSE	1	
-28	AN 737 TW-48	•• CLAMP, Sleeve (1 on hose, 1 loose)	2	
-29	AN 816-4D	•• UNION, 1/8 pipe to 1/4 flared tube	2	
3-	A 21033	• CLAMP, Static	1	
-30	M 11191	•• CUP, Suction, end	2	
-31	P 11189	•• CUP, Suction, center	1	
-32	M 11192	•• PLATE, Static	1	
-33	AN 822-4D	•• ELBOW, 90°, Flared tube and pipe thd	1	
-34	M 11978	•• COUPLING	1	
-35	COML	•• WASHER, Flat, 29/64 Id x 3/4 od, stl, cd pl	1	
-36	AN 924-4D	•• NUT, Hex	1	
-37	COML	•• SCREW, Mach, fil hd, slot, stl, cd pl,1/4-20x3/4 lg	2	
		----*----		
-38	AN 815-4D	• UNION, Flared tube, 1/4 to 1/4	2	
-39	MS 24399D3	• UNION, Reducer, 1/4 IL flared tube to 16 In flared tube	1	
-40	AN 816-4D	• NIPPLE, 1/8 pipe to 1/4 In. flared tube	REF	
-41	AVEC-4-2F	• COUPLING, Quick disconnect (Mfr. code 78357)	1	

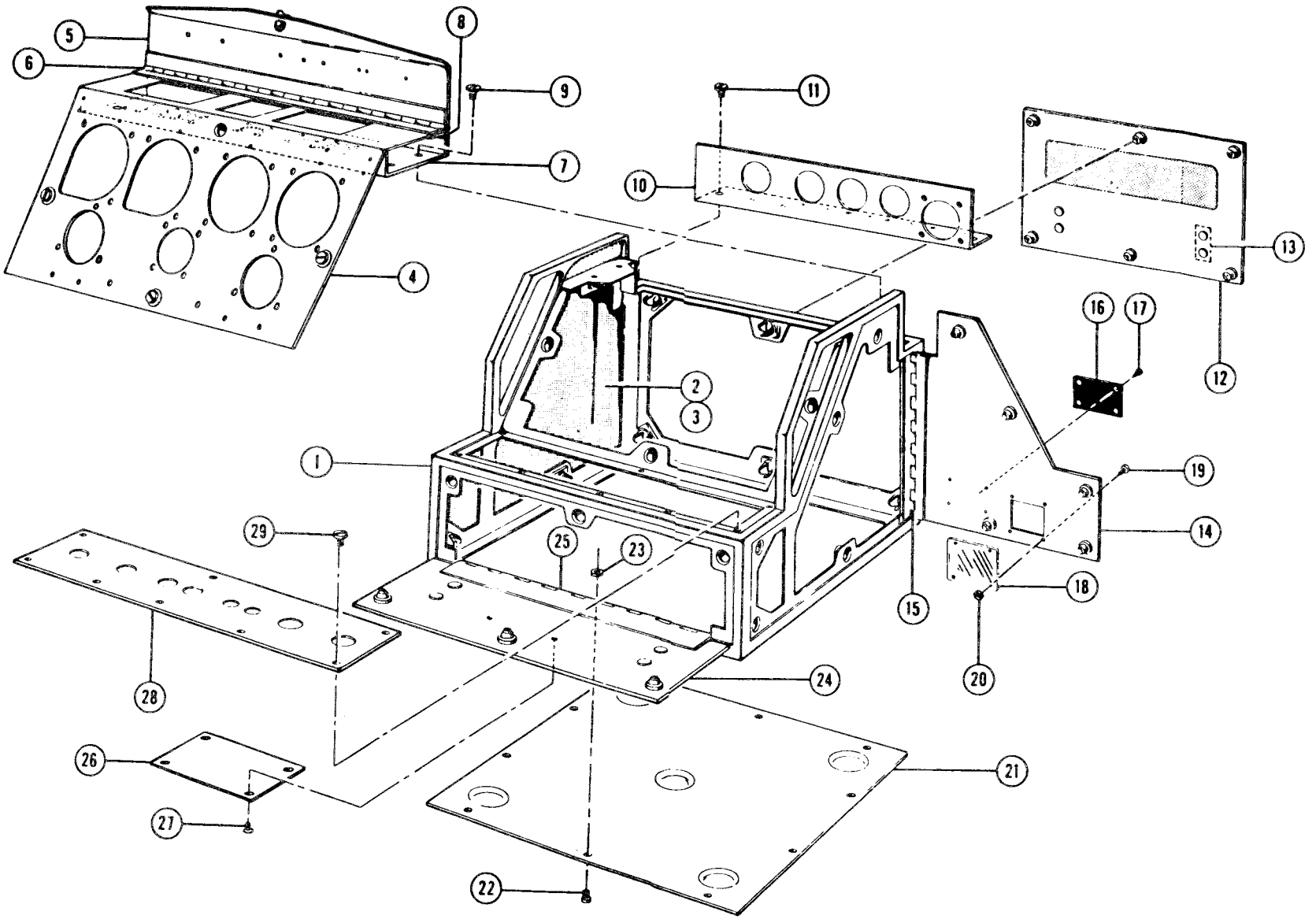


Figure 4. Frame, Doors and Associated Panels and Hardware

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
4-		.FRAME & DOOR ASSEMBLY WITH ASSOCIATED HARDWARE		
-1	P 41056	..FRAME	1	
-2	A 31181	..DOOR, LEFT	1	
		(ATTACHING PARTS)		
-3	MS 35822-3A	..HINGE, 13 IN. LG	1	
-4	M 41055	..PANEL, INSTRUMENT MOUNTING	1	
-5	P 21325	..COVER, SCALE ERROR	1	
		(ATTACHING PARTS)		
-6	MS 35822-3A	..HINGE, 15-3/16 IN. LG	1	
-7	P 21322	..MOUNTING, VALVE	1	
		(ATTACHING PARTS)		
-8	MS 35822-3A	..HINGE, 15-3/16 IN. LG	1	
-9	COML	..SCREW, PAN HD, SLOT, STL, CD PL, #6-32 X 3/8	4	
-10	P 21324	..BRACKET, VALVE	1	
		(ATTACHING PARTS)		
-11	COML	..SCREW, SAME AS 4-9	2	
-12	A 31180	..COVER, BACK	1	
		(ATTACHING PARTS)		
-13	HC 205	..CATCH & STRIKE ASSEMBLY (MFR. CODE 98003)	2	
-14	A 31182	..DOOR, RIGHT	1	
		(ATTACHING PARTS)		
-15	MS 35822-3A	..HINGE, 13 IN. LG	1	
-16	P 11303	..PLATE, CAUTION RESERVOIR	1	
		(ATTACHING PARTS)		
-17	COML	..SCREW, TAP,PAN HD,SLOT,STL, CD PL, #2 TYPE B(Z) X 1/8	4	
-18	11722	..WINDOW, RIGHT, SIDE	1	
		(ATTACHING PARTS)		
-19	COML	..SCREW, MACH, PAN HD, SLOT, STL, CD PL, 4-40 X 1/4 LG	4	
-20	COML	..NUT, HEX, DC, STL, CD PL, 4/40 X 3/32 THK 1/4	4	
-21	P 41061	..PLATE, BOTTOM	1	
		(ATTACHING PARTS)		
-22	COML	..SCREW, MACH, PAN HD, SLOT, STL, CD PL, 6-32 X 5/16	10	
-23	COML	..NUT, HEX, DC, STL, CD PL, 6-32 X 7/64 THK X 5/16 IN. W.	10	
-24	M 21303	..DOOR, FRONT	1	
		(ATTACHING PART)		
-25	MS 35822-3A	..HINGE, 15-3/16 IN. LG	1	
-26	P 19093	..PLATE, IDENTIFICATION	1	-1
-26	P 19369	..PLATE, IDENTIFICATION	1	-2
		(ATTACHING PARTS)		
-27	COML	..SCREW, SAME AS 4-17	4	
-28	P21323	..PANEL, CONTROL	1	
		(ATTACHING PARTS)		
-29	COML	..SCREW, SAME AS 4-9	8	

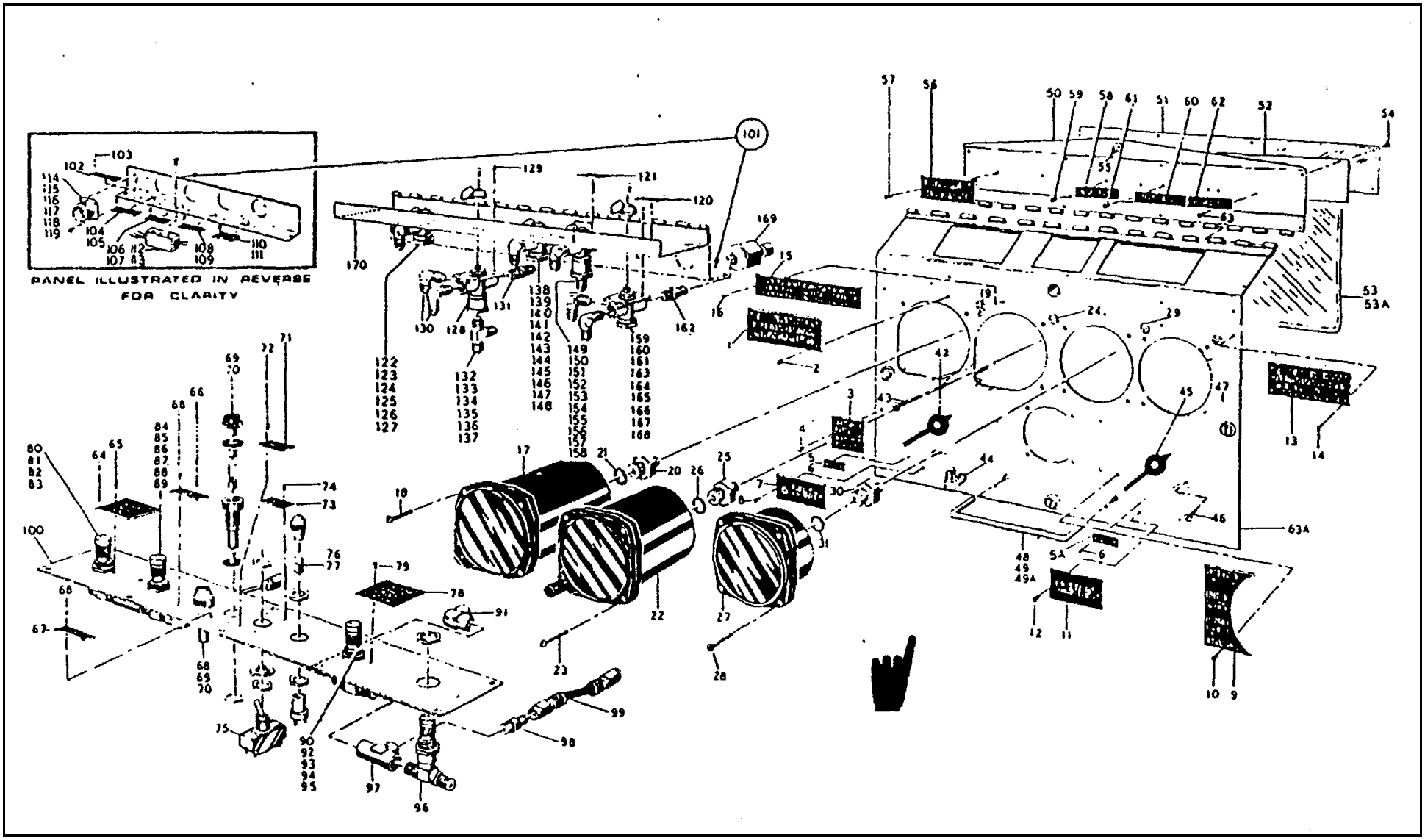


Figure 5. Tester Assembly (Sheet 1 of 2 Sheets)

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
5-	41059	.TESTER ASSEMBLY, (INST PANEL) SEE FIGURE 1-3 FOR NEXT HIGHER ASSEMBLY	REF	-1
5-	41134	.TESTER ASSEMBLY, (INST PANEL) SEE FIGURE 1-3 FOR NEXT HIGHER ASSEMBLY.	REF	-2
-1	P 11302	..PLATE, WARNING, RATE OF CLIMB (ATTACHING PARTS)	1	
-2	COML	..SCREW, TAP, PAN HD (SAME AS 4-17)	REF	
-3	P21088	PLATE, VACUUM SELECTOR VALVE (ATTACHING PARTS)	1	
-4	COML	..SCREW, SAME AS 4-17	REF	
-5	P11298-1	..PLATE, ON	1	
-5A	P11298-2	..PLATE, OFF	1	
-6	COML	..SCREW, SAME AS 4-17	REF	
-7	P 11294-1	..PLATE, VACUUM (ATTACHING PARTS)	1	
-8	COML	..SCREW, SAME AS 4-17)	REF	
-9	P 21089	..PLATE, PRESSURE SELECTOR VALVE (ATTACHING PARTS)	1	
-10	COML	..SCREW, SAME AS 4-17	REF	
-11	P 11294-2	..PLATE, PRESSURE (ATTACHING PARTS)	1	
-12	COML	..SCREW, SAME AS 4-17	REF	
-13	P 11304	..PLATE, WARNING, SELECTOR VALVES (ATTACHING PARTS)	1	
-14	COML	..SCREW, SAME AS 4-17	REF	
-15	P 11301	..PLATE, CAUTION VALVES (ATTACHING PARTS)	1	
-16	COML	..SCREW, SAME AS 4-17	REF	
5-	41058	..PANEL ASSEMBLY, INSTRUMENT	1	-1
5-	41133	..PANEL ASSEMBLY, INSTRUMENT	1	-2
-17	RC-60-MS	...INDICATOR, RATE OF CLIMB (MFR. CODE 98810) (ATTACHING PARTS)	1	
-18	COML	...SCREW, HEX HD, BRS BLK OX, 6-32 X 1 IN. LG	18	
-19	COML	...NUT, HEX, BRS BLK OX. 6-32 X 7/64 THK	18	
-20	AN 919-2D	....REDUCER, FLARED TUBE, 1/4 TO 3/16	4	
-21	AN 6227-6	...."O" RING	4	
-22	A50-MB-1A	...INDICATOR, ALTIMETER, (MFR. CODE 98810)	1	-1
-22	MILA27229	...INDICATOR, ALITMETER, (MFR. CODE 98810) (ATTACHING PARTS)	1	-2
-23	COML	...SCREW, SAME AS 5-18	REF	
-24		...NUT, SAME AS 5-19	REF	
-25	AN 816-3D	...NIPPLE, FLARED TUBE AND PIPE THD	2	
-26	AN 6227-6	..."O" RING-NOT USED-	1	

FIGURE & INDEX NO.	PART NUMBER	UNITS 1 2 3 4 5 6 7	NOMENCLATURE ASSY.	USABLE PER CODE	ON
-27	MS 28046T1	•••	INDICATOR, Airspeed.....	1	
			(ATTACHING PARTS)		
-28	COML	•••	SCREW, Same as 5-18.....	REF	
-29	COML	•••	NUT, Same as 5-19.....	REF	
-30	AN 919-2D	•••	REDUCER, Same as 5-20.....	REF	
-31	AN 6227-6	•••	"O" Ring, Same as 5-21.....	REF	
			----*----		
-32	DELETED				
-33	DELETED				
-34	DELETED				
-35	DELETED				
-36	DELETED				
-37	DELETED				
-38	DELETED				
-39	DELETED				
-40	DELETED				
-41	DELETED				
-42	AL5TSL	•••	VALVE, Selector, vacuum side.....	1	
			(ATTACHING PARTS)		
-43	COML	•••	SCREW, Mach, fil hd, slot, stl, cd pl, 1/4-20xV12 In. lg	2	
-44	AN 822-3D	••••	ELBOW, 90, Flared tube and pipe thd.....	22	
-45	82456-1	•••	VALVE, Selector, pressure side.....	1	
			(ATTACHING PARTS)		
-46	COML	•••	SCREW, Mach, fil hd, sit, stl, cd pl, 10-32xV2 In. lg	2	
			----*----		
-47	AN 822-3D	••••	ELBOW, Same as 5-44.....	REF	
-48	M 11172	•••	HANDLE.....	1	
			(ATTACHING PARTS)		
-49	COML	•••	SCREW, Mach, fil hd, slot, SST, 8-32 x 1/4 In. lg .	2	
49A	MS 35337-80	•••	LOCKWASHER, Split.....	2	
			----*----		
-50	P 21325	••	COVER ASSEMBLY, Valve.....	1	
-51	P 21304	•••	COVER, Scale error, plexiglass	1	
-52	Form-210	•••	CHART, Scale error, (paper).....	1	
-53	Form-211	•••	TABLES, Conversion, II (Nautical to Statute Miles)	1	
-53A	Form-212	•••	TABLES, Conversion, III (Statute to Nautical Miles)	1	
			(ATTACHING PARTS)		
-54	COML	•••	SCREW, Same as 4-9.....	REF	
			----*----		
-55	2600-3W	•••	STUD ASSEMBLY, Wing head (Mfr. code 71286).	1	
-56	P11296	•••	PLATE, Rate of Climb altimeter.....	2	
			(ATTACHING PARTS)		
-57	COML	•••	SCREW, Same as 4-17.....	REF	
			----*----		
-58	P 21090-2	•••	PLATE, Airspeed.....	2	
			(ATTACHING PARTS)		

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
-59	COML	...SCREW, SAME AS 4-17	REF	
-60	P 21090-4	...PLATE, MANF. PRESS	2	
		(ATTACHING PARTS)		
-61	COML	...SCREW, SAME AS 4-17	REF	
-62	P 21090-3	...PLATE, FUEL PRESSURE	2	
		(ATTACHING PARTS)		
-63	COML	...SCREW, SAME AS 4-17	REF	
-63A	M 41055	..PANEL, BLANK (SEE FIGURE 4-4)	REF	
5-	A 21326	..PANEL ASSEMBLY, (LOWER CONTROL)	1	
-64	P 11311	...PLATE, VACUUM DOWN-UP	1	
		(ATTACHING PARTS)		
-65	COML	...SCREW, SAME AS 4-17	REF	
-66	P11299	...PLATE, SPARE FUSE	1	
-67	P12392	...PLATE, FUSE, 4 AMP -NOT USED-	1	-2
		(ATTACHING PARTS)		
-68	COML	...SCREW, SAME AS 4-17	REF	
-69	313-3AG	...FUSE, 4 AMP, 125 V MFR. CODE 71400 (ONE SPARE)	2	
-70	HKP	...FUSEHOLDER, MFR. CODE 71400 (ONE SPARE)	2	
-71	P 11298-1	...PLATE, SWITCH, ON	1	
		(ATTACHING PARTS)		
-72	COML	...SCREW, SAME AS 4-17	REF	
-73	P 11298-2	...PLATE, OFF, SAME AS 5-5	REF	
		(ATTACHING PARTS)		
-74	COML	...SCREW, SAME AS 4-17	REF	
-75	MS 35059-22	...SWITCH ASSEMBLY, TOGGLE, MFR. CODE 15605	1	
-76	111-3830-01120-201	...LIGHT ASSEMBLY (MFR. CODE 72619)	1	
-77	MS 25237-327	....LAMP, INCANDESCENT, MFR. CODE 06247	1	
-78	P11310	...PLATE, PRESSURE, UP-DOWN	1	
		(ATTACHING PARTS)		
-79	COML	...SCREW, SAME AS 4-17	REF	
-80	B 2Mg2	...VALVE ASSEMBLY, (VACUUM-DOWN) FINE ST. PATTER	4	
		MFR. CODE 18034		
-81	AN 917-1D	...TEE, INT PIPE THD	3	
-82	AN 816-3D	...NIPPLE, FLARED TUBE AND PIPE THD	4	
-83	21369-5	...HOSE ASSEMBLY, 9 IN. LG, FROM 5-80 TO 5-42	2	
-84	B2Mg2	...VALVE ASSEMBLY, (VACUUM-UP) SAME AS 5-80	REF	
-85	AN 916-1D	...ELBOW, INT PIPE THD	2	
-86	AN 816-3D	...NIPPLE, SAME AS 5-82	REF	
5-		...TUBING ASSEMBLY, A1, 7 IN. LG(FROM VALVE TO		
		SOLENOID)	2	
-87	AN 818-3D	....NUT, COUPLING	6	
-88	AN 819-3D	....SLEEVE	6	
-89	WWT-789B	....TUBING, A1, ANOD, 1/8 IN. ID X 3/16 IN. OD X 6 IN. LG	2	
-90	B2 Mg2	...VALVE ASSEMBLY, SAME AS 5-80 (PRESSURE-UP)	REF	

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
-91	AN 916-1D	...ELBOW, SAME AS 5-85	REF	
-92	AN 816-3D	...UNION, SAME AS 5-82	REF	
5-		...TUBING ASSEMBLY, SAME AS 5-86	REF	
-93	AN 818-3D	....NUT, SAME AS 5-87	REF	
-94	AN 819-3D	....SLEEVE, SAME AS 5-88	REF	
-95	WWT 789B	....TUBING, A1, ANOD, SAME AS 5-89 (FROM VALVE TO SOLENOID)	REF	
-96	B2Mg2	...VALVE ASSEMBLY, SAME AS 5-80 (PRESSURE-DOWN)	REF	
-97	AN 917-1D	...TEE, SAME AS 5-81	REF	
-98	AN 816-3D	...UNION, SAME AS 5-82	REF	
-99	21369-5	...HOSE ASSEMBLY, SAME AS 5-83 9 IN. LG (FROM 5-96 TO 5-45)	REF	
-100	P 21323	...PANEL SUBASSEMBLY, BLANK (SEE FIGURE 4-28)	REF	
-101	P 21325	..BRACKET, VALVE	1	
-102	P 21090-1	...PLATE, POWER (ATTACHING PARTS)	1	
-103	COML	...SCREW, SAME AS 4-17	REF	
-104	P 21090-3	...PLATE, FUEL PRESSURE, SAME AS 5-62 (ATTACHING PARTS)	REF	
-105	COML	...SCREW, SAME AS 4-17	REF	
-106	P 21090-4	...PLATE, MANF. PRESS, SAME AS 5-60 (ATTACHING PARTS)	REF	
-107	COML	...SCREW, SAME AS 4-17	REF	
-108	P 21090-2	...PLATE, AIRSPEED, SAME AS 5-58 (ATTACHING PARTS)	REF	
-109	COML	...SCREW, SAME AS 4-17	REF	
-110	P 11296	...PLATE, RATE OF CLIMB AND ALTIMETER, SAME AS 5-56 (ATTACHING PARTS)	REF	
-111		...SCREW, SAME AS 4-17	REF	
-112	3K2	...FILTER, RF, LO-PASS, LINE (ATTACHING PARTS)	1	
-113	COML	...SCREW, MACH, PAN HD., 6-32 X 3/8 IN. LG	2	
-114	A 21789	...HARNESS, WIRING (ATTACHING PARTS)	1	
-115	COML	...SCREW, MACH, PAN HD, SLOT, STL, CD PL, 8-32 X 1/2 IN. LG		
-116	MS 35649-82	...NUT, PLAIN HEX	4	
-117	MS 3102-A18-1P	....CONNECTOR, RECEPTACLE	1	
-118	AN 3106A-10S-2S	....CONNECTOR, PLUG	1	
-119	AN 3057-3A	....CLAMP, CABLE	1	
5-	A 31183	..PANEL ASSEMBLY, VALVE MTG	1	
-120	P 11308	...PLATE, OPEN	5	
-121	P 11309	...PLATE, CLOSED	5	
-122	710-13-1/8D	...VALVE ASSEMBLY, 3 POSITION, SHORT MFR. CODE 86768 (ATTACHING PARTS)	3	

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
-123	COML	...SCREW, PAN HD, STL, CD PL, # 6-32 X 1/4 IN. LG	20	
-124	AN 822-3D	....ELBOW, 90°, SAME AS 5-44	REF	
-125	AN 913	....PIPE PLUG	1	
-126	21369-2	....HOSE ASSEMBLY, 6 IN. LG (FROM 5-122 TO 5-22)	1	
-127	21369-5	....HOSE ASSEMBLY, 9 IN. LG (FROM 5-122 TO 5-17)	1	
-128	311-222-1/8D	...VALVE ASSEMBLY, 3 POSITION, LONG MFR. CODE 86768 (ATTACHING PARTS)	2	
-129	COML	...SCREW, SAME AS 5-123	REF	
-130	AN 822-3D	....ELBOW, SAME AS 5-44	REF	
-131	AN 911-1D	...NIPPLE, 1/8 PIPE THDS	3	
-132	AN 816-3D	...NIPPLE, FLARED TUBE AND PIPE THDS	5	
-133	21369-1	...HOSE ASSEMBLY, 3 IN. LG (FROM TEE TO VALVE)	5	
-134	21369-5	...HOSE ASSEMBLY, 9 IN. LG (FROM VALVE TO ALTIMETER)	5	
-135	21369-3	...HOSE ASSEMBLY, 11-1/2 IN. LG (FROM SELECTOR VALVE TO TEE)	5	
-136	21369-7	...HOSE ASSEMBLY, 18 IN. LG (FROM TEE TO SELECTOR VALVE)	1	
-137	AVEN-4-2F	...COUPLING, QUICK DISCONNECT (MFR. CODE 78357)	4	
-138	710-13-1/8D	...VALVE ASSEMBLY, SAME AS 5-122 (ATTACHING PARTS)	REF	
-139	COML	...SCREW, SAME AS 5-123	REF	
-140	AN 822-3D	....ELBOW, SAME AS 5-44	REF	
-141	AN 816-3D	....NIPPLE	8	
-142	AN 815	....UNION, 1/4 TO 3/16, SAME AS 5-20 -NOT USED-	REF	
-143	21369-1	....HOSE ASSEMBLY, 3 IN. LG, SAME AS 5-133, (FROM VALVE TO TEE)	REF	
-144	AN 917-1D	....TEE, SAME AS 5-81 -NOT USED-	REF	
-145	21369-5	....HOSE ASSEMBLY, 9 IN. LG, SAME AS 5-134 (FROM AIR SPEED TO VALVE)	REF	
-146	21369-3	....HOSE ASSEMBLY, 11-1/2 IN. LG, SAME AS 5-135 (FROM SELECTOR VALVE TO TEE)	REF	
-147	21369-3	....HOSE ASSEMBLY, 11-1/2 IN. LG, SAME AS 5-135 (FROM TEE TO PRESSURE SWITCH)	REF	
-148	AVEN-4-2F	....COUPLING, QUICK DISCONNECT, SAME AS 5-137	REF	
-149	711-222-1/8D	...VALVE ASSEMBLY, 3 POSITION, LONG SAME AS 5-128 (ATTACHING PARTS)	REF	
-150	COML	...SCREW, SAME AS 5-123	REF	
-151	AN 822-3D	....ELBOW, SAME AS 5-44	REF	
-152	AN 816-3D	....NIPPLE, SAME AS 5-141	REF	
-153	21369-1	....HOSE ASSEMBLY, 3 IN. LG, SAME AS 5-133 (FROM VALVE TO TEE)	REF	
-154	AN 824-3D	....TEE	6	
-155	21369-5	....HOSE ASSEMBLY, 9 IN. LG, SAME AS 5-134 (FROM VALVE TO MANIFOLD PRESSURE)	REF	
-156	21369-3	....HOSE ASSEMBLY, 11-1/2 IN. LG, SAME AS 5-135 (FROM SELECTOR VALVE TO TEE)	REF	
-157	21369-3	....HOSE ASSEMBLY, 11-1/2 IN. LG, SAME AS 5-135 (FROM TEE TO PRESSURE SWITCH)	REF	

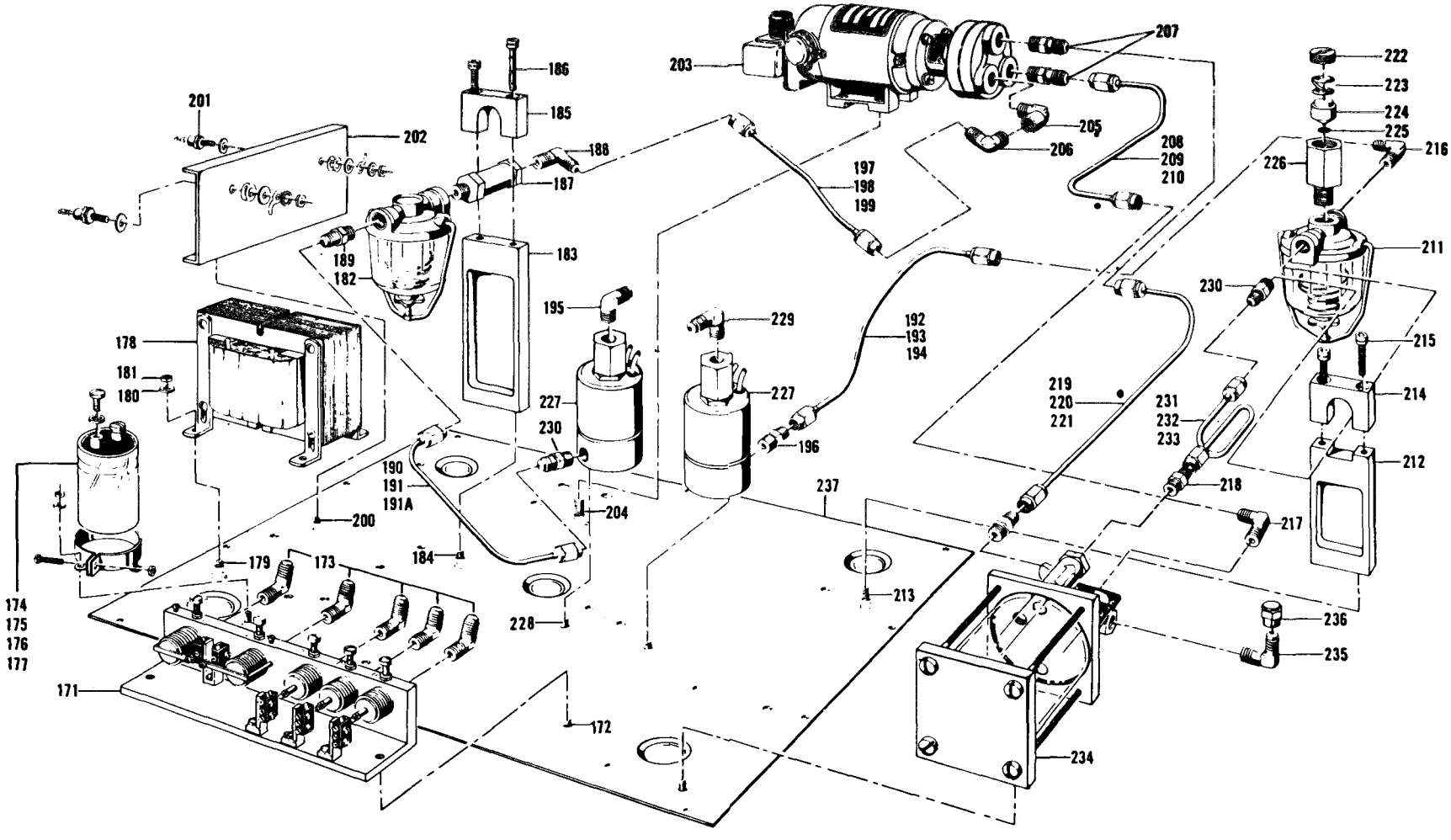


Figure 5. Tester Assembly (Sheet 2 of 2 Sheets)

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
-158	AVEN-4-2F	...COUPLING, QUICK DISCONNECT, SAME AS 5-137	REF	
-159	710-13-1/8D	...VALVE ASSEMBLY, 3 POSITION, SHORT SAME AS 5-122 (ATTACHING PARTS)	REF	
-160	COML	...SCREW, SAME AS 5-123	REF	
-161	AN 822-3D	....ELBOW, SAME AS 5-44	REF	
-162	AN 911-1D	....NIPPLE, PIPE THDS	1	
-163	AN 816-3D	....NIPPLE, SAME AS 5-141	REF	
-164	AN 824-3D	....TEE, SAME AS 5-154	REF	
-165	21369-1	....HOSE ASSEMBLY, 3 IN. LG, SAME AS 5-133 (FROM VALVE TO TEE)	REF	
-166	21369-5	....HOSE ASSEMBLY, 9 IN. LG, SAME AS 5-134 (FROM VALVE TO FUEL PRESSURE)	REF	
-167	21369-3	....HOSE ASSEMBLY, 11-1/2 IN. LG, SAME AS 5-135 (FROM SELECTOR VALVE TO TEE)	REF	
-168	21369-3	....HOSE ASSEMBLY, 11-1/2 IN. LG, SAME AS 5-135 (FROM TEE TO PRESSURE SWITCH)	REF	
-169	AVEN-4-2F	....COUPLING, QUICK DISCONNECT, SAME AS 5-137	REF	
-170	P 21322	....PANEL SUBASSEMBLY, BLANK (SEE FIGURE 4-7)	REF	
5-	A 31175	..BOTTOM PLATE ASSEMBLY	1	
-171	A 21301	...BELLOWS BLOCK ASSEMBLY (SEE FIGURE 6 FOR BREAKDOWN) (ATTACHING PARTS)	1	
-172	COML	...SCREW, MACH, PAN HD, SLOT, STL, CD PL, 8-32 NC X 1/4 LG	2	
-173	AN 823-3D	...ELBOW, 45°	8	
-174	CG 82U50 AL	...CAPACITOR, FIXED, 800 UF, 50 WVDC (MFR. CODE 37942) (ATTACHING PARTS)	1	
-175	VR 12	...CLAMP, MTG, W/HARDWARE	1	
-176	COML	...SCREW, MACH, FIL HD, SLOT, STL, CD PL, 6-32 NC X 1/4 IN. LG	12	
-177	COML	...NUT, HH, DC, STL CAD PLTD 6-32 NC X 7/16 THK X 3/8W	2	
-178	01-0003	...TRANSFORMER, STED DN. 115-22V (ATTACHING PARTS)	1	
-179	COML	...SCREW, MACH, FIL HD, SLOT, STL, CD PL 8-32 NC X 9/16 IN. LG	4	
-180	AN 960-8	...WASHER, FLAT	4	
-181	COML	...NUT, HH, STL, CD PL, 8-32 NC X 1/8 THK X 3/8 IN. W	4	
-182	KF-200	...FILTER, FUEL (MFR. CODE 75255 (ATTACHING PARTS)	1	
-183	M 11361	...BRACKET, SUMP/VACUUM	1	
-184	COML	...SCREW, SAME AS 5-176	REF	
-185	M 11332	...CLAMP, BRACKET	2	
-186	COML	...SCREW, CAP, SCH, SST, BLK OX, 10-24 NC X 1 IN. LG	4	
-187	481-1/8D	...VALVE, CHECK (MFR. CODE 86768)	2	
-188	AN 822-3D	...ELBOW, 90°, PIPE AND FLARED TUBE	6	

FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
-189	AN 816-3D	...NIPPLE, FLARED TUBE, PIPE THD, SAME AS 5-141	REF	
5-		...TUBING ASSEMBLY, 8-1/4 IN. LG (FROM FILTER TO SOLENOID)	1	
-190	AN 818-3D	....NUT, COUPLING, SAME AS 5-87	REF	
-191	AN 819-3D	....SLEEVE, COUPLING, SAME AS 5-88	REF	
-191A	WWT-789B	....TUBING, A1 ANOD, 8-1/4 IN. LG	1	
5-		...TUBING ASSEMBLY, A1, 8-1/4 IN. LG (FROM PUMP TO SOLENOID)	1	
-192	AN 818-3D	....NUT, COUPLING, SAME AS 5-87	REF	
-193	AN 819-3D	....SLEEVE, SAME AS 5-88	REF	
-194	WWT-789B	....TUBING, A1 ANOD 1/8 IN. ID X 3/16 IN. OD X 8-1/4 IN. LG	1	
-195	AN 822-3D	...ELBOW, SAME AS 5-44	REF	
5-		...TUBING ASSEMBLY, A1, 4-1/2 IN. LG (FROM CHECK VALVE TO PUMP)	1	
-196	AN 816-3D	...NIPPLE, SAME AS 5-141	REF	
-197	AN 819-3D	...SLEEVE, SAME AS 5-88	REF	
-198	WWT-789B	...TUBING, SAME AS 5-194 , 4-1/2	1	
-199	AN 818-3D	...NUT, CPL, SAME AS 5-87	REF	
5-	A 11177	...DIODE PLATE ASSEMBLY (ATTACHING PARTS)	1	
-200	COML	...SCREW, SAME AS 5-176	REF	
-201	1N253	....DIODE	2	
-202	M 11366	....PLATE	1	
-203	P 345C	...PUMP, MFR. CODE 64560 (ATTACHING PARTS)	1	
-204	COML	...SCREW, MACH, FIL HD, STL, CD PL, 1/4-28 NF X 1/4 IN. LG	4	
-205	AN 914-3D	...ELBOW, SAME AS 5-188 -NOT USED-	REF	
-206	AN 822-3D	...ELBOW, 90@,	1	
-207	AN 823-3D	...ELBOW, SAME AS 5-173	REF	
5-		...TUBING ASSEMBLY, A1, 5-1/2 IN. LG (FROM PUMP TO RESERVOIR)	1	
-208	AN 819-3D	....SLEEVE, SAME AS 5-88	REF	
-209	AN 818-3D	....NUT, COUPLING, SAME AS 5-87	REF	
-210	WWT-789	....TUBING, A1, ANOD, SAME AS 5-194, 5-1/2 IN. LG	1	
-211	KF-200	...FILTER, SAME AS 5-182, EXCEPT WITH RELIEF VALVE PORT (ATTACHING PORTS)	1	
-212	M 11362	...BRACKET, MTG	1	
-213	COML	...SCREW, SAME AS 5-176	REF	
-214	M 11332	...CLAMP, BRACKET, SAME AS 5-185	REF	
-215	COML	...SCREW, SAME AS 5-186	REF	
-216	AN 822-3D	...ELBOW, SAME AS 5-188	REF	
-217	AN 823-3D	...ELBOW, SAME AS 5-173	REF	
-218	AN 816-3D	...NIPPLE, SAME AS 5-141	REF	
5-		...TUBING ASSEMBLY, 8 IN. LG (FROM PUMP TO RESERVOIR)	1	
-219	AN 818-3D	....NUT, CPL, SAME AS 5-87	REF	

FIGURE & INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	NOMENCLATURE	UNITS PER ASSY.	USABLE ON CODE
-220	AN 819-3D	· · · ·	SLEEVE, Same as 5–88	REF	
-221	WWT-789b	· · · ·	TUBING, Al anod, 8 In. lg		
5-	12415	· · ·	VALVE ASSEMBLY, Overpressure	1	
-222	12412	· · · ·	CAP, Valve	1	
-223	P 1041	· · · ·	SPRING, Valve	1	
-224	12413	· · · ·	SEAT, Valve	1	
-225	GRC 513-4	· · · ·	"O"-RING	1	
-226	12414	· · · ·	BODY	1	
-227	V51DA-1125	· · ·	SOLENOID (Mfr. code 81978)	2	
			(ATTACHING PARTS)		
-228	COML	· · ·	SCREW, Mach, fil hd, slot, stl, cd pl, 10-32 NC x 1/4 In. lg	4	
			- - - - * - - - -		
-229	AN 822-3D	· · ·	ELBOW, Same as 5–44	REF	
-230	AN 816-3D	· · ·	NIPPLE, Same as 5–141	REF	
5-		· · ·	TUBING ASSEMBLY, Al anod, 7-1/2 In. lg (From filter to reservoir)		
-231	AN 818-3D	· · · ·	NUT, Cpl, Same as 5–87	REF	
-232	AN 819-3D	· · · ·	SLEEVE, Same as 5–88	REF	
-233	WWT-789b	· · · ·	TUBING, Al anod, 7-1/2 In. lg	1	
-234	A 21302	· · ·	RESERVOIR ASSEMBLY, (See figure 7 for breakdown)	1	
-235	AN 822-3D	· · ·	ELBOW, Same as 5–188	REF	
-236	AN 929-3D	· · ·	CAP, Tube	1	
-237	P 41061	· · ·	PLATE, Bottom, blank, (See figure 4–21)	REF	

Figure 6. Bellows Assembly

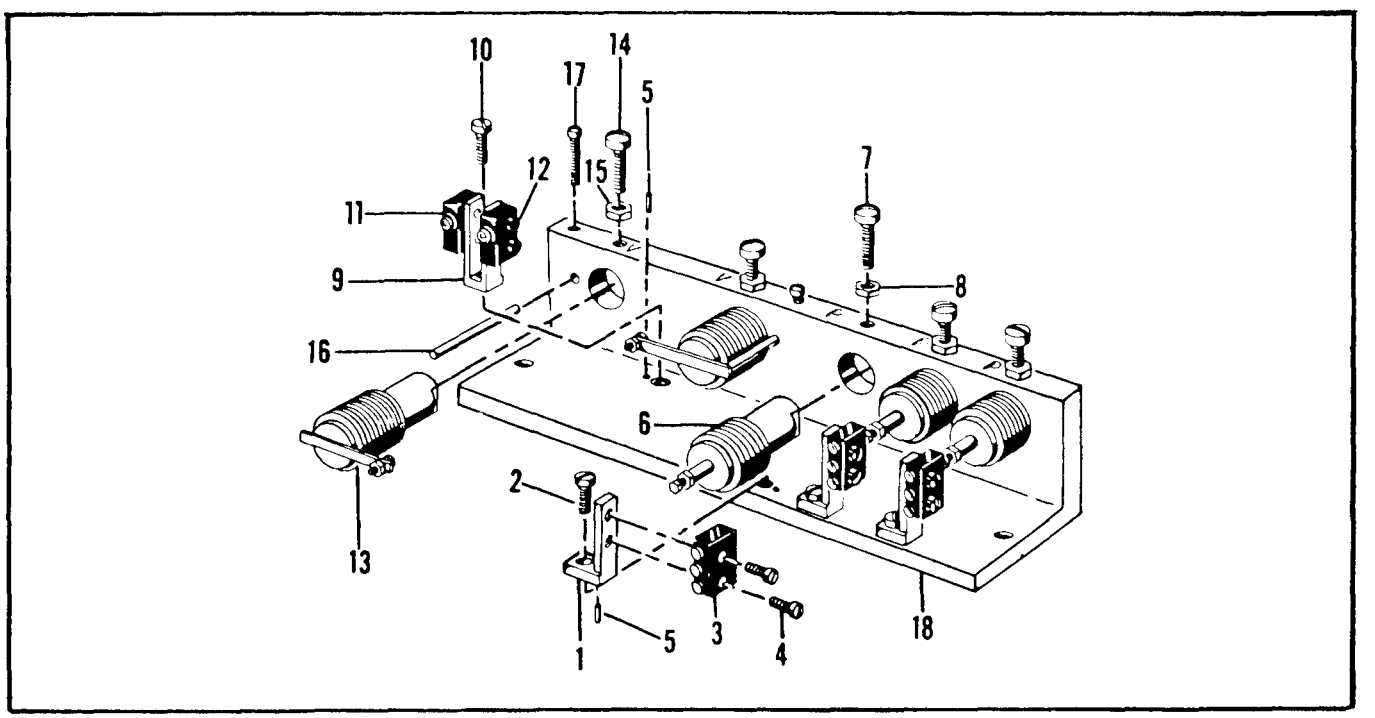


FIGURE & INDEX NO	PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
6-	A 21301	...BELLOWS ASSEMBLY	REF	
		SEE FIGURE 5-171 FOR NEXT HIGHER ASSEMBLY		
-1	M 11787	....BRACKET, MICROSWITCH, PRESS	3	
		(ATTACHING PARTS)		
-2	COML	....SCREW, MACH, FIL HD, SLOT, BRS 6-40 X 3/8 IN. LG	4	
-3	11SM401-1062	....SWITCH, MICRO, MFR. CODE 91929	5	
		(ATTACHING PARTS)		
-4	COML	....SCREW, MACH, FIL HD, SLOT, BRS 3-56 X 5/16 IN. LG	10	
-5	P 1119	....PIN, LOCATING	4	
-6	A 11806	....BELLOWS ASSEMBLY	3	
		(ATTACHING PARTS)		
-7	COML	....SCREW, MACH, PAN HD, SLOT, BRS 8-32 X 1/2 IN. LG	5	
-8	COML	....NUT, HH, DC, BRS, 8/32 X 1/8 THK X 11/32 IN. W	5	
-9	M 11786	....BRACKET, MICROSWITCH, VACUUM	1	
		(ATTACHING PARTS)		
-10	COML	....SCREW, SAME AS 6-2	REF	
-11	11SM401-1062	....SWITCH, MICRO, SAME AS 6-3	REF	
		(ATTACHING PARTS)		
-12	COML	....SCREW, SAME AS 6-4	REF	
-13	A 11805	....BELLOWS ASSEMBLY, VACUUM	2	
		(ATTACHING PARTS)		
-14	COML	....SCREW, SAME AS 6-7	REF	
-15	COML	....NUT, SAME AS 6-8	REF	
-16	M 11861	....STOP-VAC, BELLOWS	2	
		(ATTACHING PARTS)		
-17	COML	....SCREW, MACH, FIL HD, SLOT, BRS, 3-56 X 1/2 IN. LG	2	
-18	M 21293	....BLOCK, BELLOWS	1	

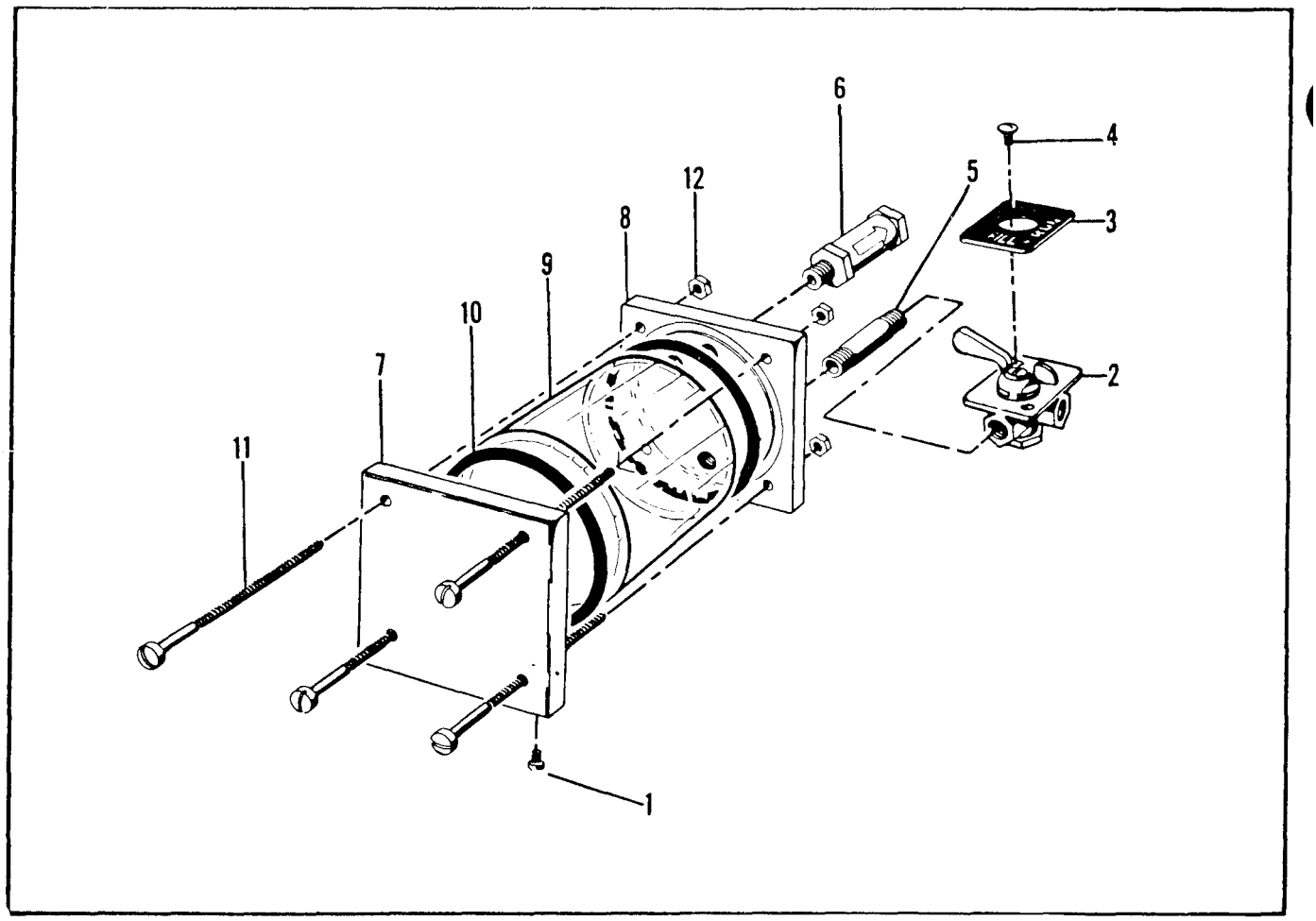


Figure 7. Reservoir Assembly

FIGURE & INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	NOMENCLATURE	UNITS PER ASSY.	USABLE ON CODE
7-	A 21302	. . .	RESERVOIR ASSEMBLY, ... See figure 5–234 for next higher assembly (ATTACHING PARTS)	REF	
-1	COML	. . .	SCREW, Same as 5–176	REF	
-2	710-13-1/8D	. . . .	VALVE ASS EM BLY, ... Same as 5–122 Modified	1	
-3	P 11300	. . . .	PLATE, Valve instructions . . . . . (ATTACHING PARTS)	1	
-4	COML	. . . .	SCREW, Mach, RH, slot, stl, cd pl, ... 6-32 NC x 1/4 In. lg	2	
			- - -*- - -		
-5	M 11190	. . . .	NIPPLE, 1/8 In. pipe	1	
-6	481-1/8D	. . . .	VALVE, Check (Mfr. code 86768)	1	
-7	M 11811	. . . .	PLATE, Front	1	
-8	M 11810	. . . .	PLATE, Back	1	
-9	P 11686	. . . .	GLASS TUBE (Body)	1	
-10	P 11685	. . . .	GASKET, Reservoir	2	
-11	COML	. . . . .	SCREW, Mach, RH, slot, brs, ... 1/4-20 NC x 4 In. lg	4	
-12	COML	. . . .	NUT, HH, brs, ... 1/4-20 x 3/16 thk x 7/16 In. w.	4	

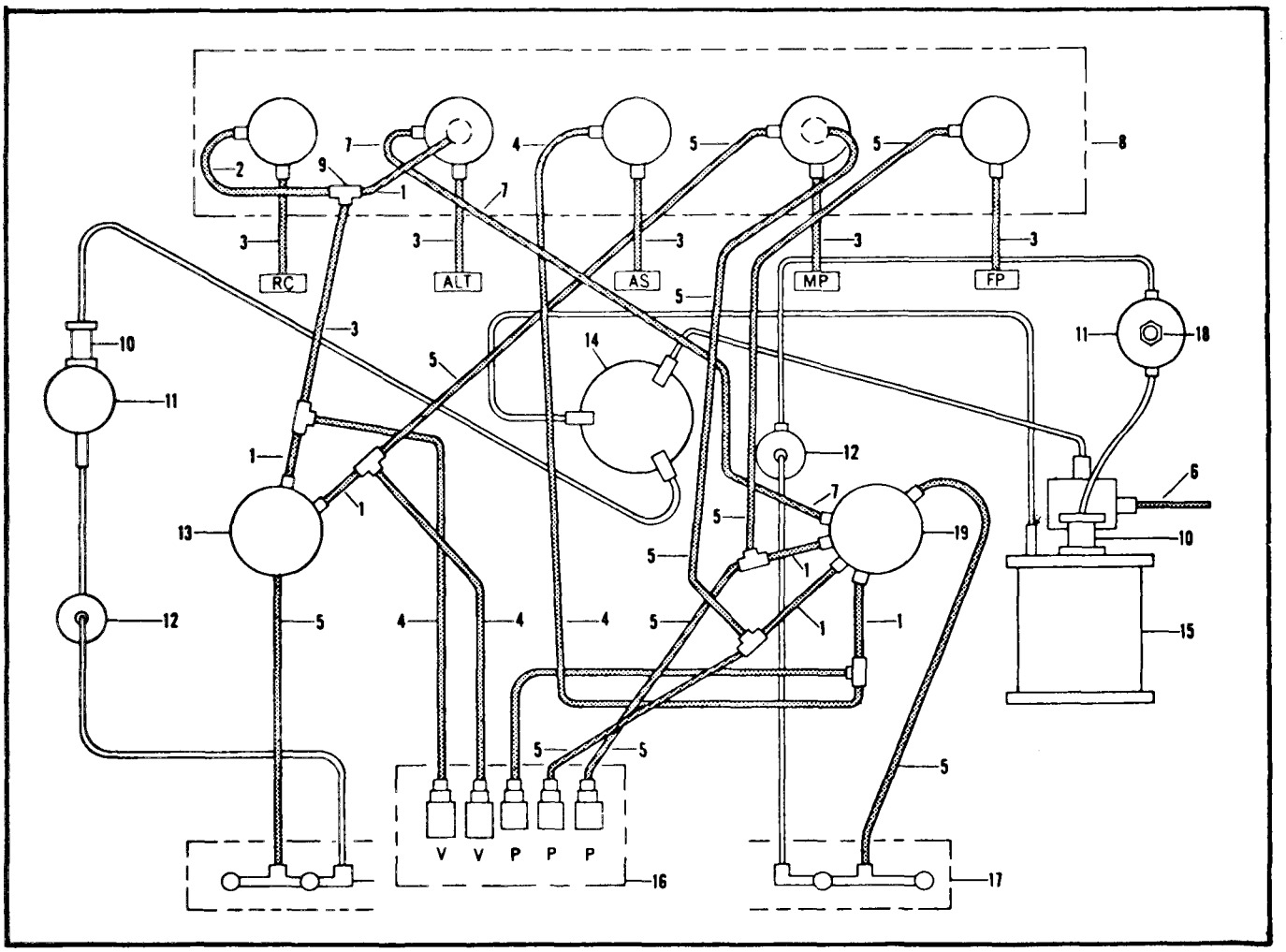


Figure 8. Vacuum & Pressure Line Diagram

ITEM NO.	PART NO.	NOMENCLATURE
1	21369-1	HOSE ASSEMBLY
2	21369-2	HOSE ASSEMBLY
3	21369-3	HOSE ASSEMBLY
4	21369-4	HOSE ASSEMBLY
5	21369-5	HOSE ASSEMBLY
6	21369-6	HOSE ASSEMBLY
7	21369-7	HOSE ASSEMBLY
8	A31183	INSTRUMENT PANEL
9	AN 824-3D	TEE, Flared Tube
10	481-1/8D	CHECK VALVE
11	KF 200	FILTER, Fuel
12	V51DA1125	SOLENOID
13	AL 5TSL	VALVE, Selector, Vacuum
14	P 345-C	PUMP
15	21302	RESERVOIR
16	21301	BELLOW BLOCK
17	A21326	CONTROL PANEL
18	12415	VALVE, Overpressure
19	82456-1	VALVE, Selector, Pressure

PART NO.	FIG. & INDEX NO.	QTY PER ART
AN 3057-3A	5-119	1
AN 6227-6	5-21	4
	5-31	
	5-36	
AN 737-TW-48	3-28	2
AN 814-4D	3-38	2
AN 816-3D	5-25	13
	5-82	
	5-86	
	5-92	
	5-98	
	5-141	
	5-152	
	5-163	
	5-189	
	5-196	
	5-218	
	5-230	
AN 816-4D	3-29	2
	3-40	
AN 818-3D	5-87	16
	5-93	
	5-190	
	5-192	
	5-199	
	5-209	
	5-219	
	5-231	
AN 822-3D	5-44	22
	5-47	
	5-124	
	5-130	
	5-140	
	5-151	
	5-161	
	5-188	
	5-195	
	5-229	
AN 822-4D	3-33	1
AN 823-3D	5-173	8
	5-207	
	5-217	
AN 91 1-1D	131	4
	162	
AN 913 -1 D	5-125	1
AN 914-3D	5-205	

PART NO.	FIG. & INDEX NO.	QTY PER ART
AN 916-1D	5-85	2
5-91		
AN 917-1D	5-81	2
	5-97	
AN 919-2D	5-20	4
5-30		
AN 924-4D	3-36	1
AN 960-8	5-180	1
AVEC 4-2F	3-41	1
AVEN 4-2F		4
	5-148	
	5-158	
	5-169	
AW 1815AB-01	5-137	1
AW 2825AC-02		1
A 11805	5-13	2
A 11806	5-6	3
A 21032	3-	1
A 21032-1	3-26	1
A 21301	5-171	1
6-		
A 21326	5-	1
A 21789	5-114	1
A 31033	3-	1
A 31175	5-	1
A 31180	4-12	1
A 31181	4-2	1
A 31183	5-	1
A 31187	1-1	1
A 31203-1	3-	1
A 31203-2	3-	1
A 31203-3	3-	1
A 31203-4	3-	1
A 50-MB-1A	5-22	1
GA41062	1-1	1
GRC 513-4	5-225	1
HC 205	2-1	2
HKP	5-70	2
KF 200	5-182	2
MILA 27229	5-22	1
MS 25237-327	5-77	1
MS 3057-10A	3-2	2
	3-8	
MS 3101A18-10A	3-18	1
MS 3102A 18-1 P	5-117	1
MS 3106A10S-2S	5-118	1
MS 3106A18-1S(c)	3-16	2
	3-21	

PART NO.	FIG. & INDEX NO.	QTY PER ART	PART NO.	FIG. & INDEX NO.	QTY PER ART
MS 3106A18-5S(C)	3-4	3	P 11309	5-121	5
	3-10		P 11310	5-78	1
	3-16		P 11311	5-64	1
MS 3106A20-4P	3-5	1	P 11685	7-10	2
MS 35337-80	5-50	2	P 11686	7-9	1
MS 35649-82	5-116	4	P 12392	5-67	
MS 35822-3A	2-5	6	P 19093	4-26	1
	4-3		P 19369	4-26	1
	4-6		P 21088	5-3	1
	4-8		P 21089	5-9	1
	4-25		P 21090-1	5-102	1
M 11172	5-48	1	P 21090-2	5-58	2
M 11181	7-7	1		5-108	
M 11190	7-5	1	P 21090-3	5-62	2
M 11192	3-32	1		5-104	
M 11332	5-185	2	P 21090-4	5-60	2
	5-214			5-106	
M 11361	5-183	1	P 21304	5-51	1
M 11362	5-212	1	P 21322	4-7	1
M 11366	5-202	1	P 21323	44-28	1
M 11786	6-9	1	P 21324	4-10	1
M 11787	6-1	3	P 21325	5-101	1
M 11810	7-8	1	P 31177	4-	1
M 11811	7-7	1	P 31180	4-12	1
M 11861	6-16	2	P 345C	5-203	1
M 11978	3-34	1	P 41056	4-1	1
M 21293	6-18	1	P 41061	4-21	1
M 21303	4-24	1	RC-60-MS	55-17	1
M 41055	4-4	1	AL5TSL	5-42	1
	5-63A		82456-1	5-45	1
P 1041	5-223	1	SA 41058	4-	1
P 11189	3-31	1	SKMT-300	2-3	3
P 1119	6-5	4	ST 52K8823-K6	5-75	1
P 11192	3-	1	S-40 KA	5-27	1
P 11294-1	5-7	1	V 51DA1125	5-227	2
P 11294-2	5-11	1	bWWT 789B (6"")"	5-89	8
P 11296	5-56	2	b(6"")"	5-95	
	5-110		b(8-1/4")	5-191	
P 11298-1	5-171	1	b(8-1/4")	5-194	
P 11298-2	5-5	2	b(4-1/2")	5-198	
	5-173		b(5-1/2")	5-210	
P 11299	5-66	1	b(8"")"	5-221	
P 11300	7-3	1	b(7-1/2"")"	5-233	
P 11301	5-15	1	01-003	5-178	1
P 11302	5-1	1	1N253	5-201	2
P 11303	4-	1	11SM401-1062	6-3	5
P 11304	5-13	1		6-11	
P 11308	5-120	5	111-3830-112	5-76	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
11722	4-18	1
12366-2	3-21	2
	3-22	
123664	3-23	1
12366	3-24	5
12412	5-222	1
12413	5-224	1
12414	5-226	1
18	3-3	5
	3-9	
	3-15	
	3-19	
CG 82U50A1	5-174	1
S-73505 KH	3-27	1
VR-3	5-175	1
2MG2	5-80	4
	5-84	
	5-90	
	5-96	
20	3-1	1
21304	5-	1
21333	2-4	1
21344	2-7	1
21369-1(3")	5-133	5
	5-143	
	5-153	
	5-165	
21369-2(6")	5-126	1
21369-3(11-1/2")	5-135	7
	5-146	
	5-147	
	5-156	
	5-157	
	5-167	
	5-168	
21369-5 (9")	5-83	8
	5-99	
	5-127	
	5-134	
	5-145	
	5-155	
	5-166	
21369-7(18")	5-136	1
24A	3-11	2
26	3-12	2
2600-3W	5-55	1
313-3AG	5-69	2
3K2	5-112	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
41058	5-	1
41059	1-2	1
41060	4-	1
41061	4-21	1
41062	1-	1
41133	5-	1
41134	1-2	1
41135	1-	1
481-1/8d	5-187	2
	7-6	
710-13-1/80	5-122	4
	5-138	
	5-159	
	7-2	
711-22-1/80	5-128	2
	5-149	
Lockwasher #8		2
Nut 1/4 x 20 x 20 x 7/16	7-12	4
Nut 4-40 x 3/32 x 1/4	4-20	4
Nut 6-32 x 7/64 x 3/8	5-177	2
Nut 6-32 x 7/64	5-19	18
	5-24	
	5-29	
Nut 6-32 x 7/64 x 5/16	4-23	10
Nut 8-32 x 1/8	6-8	5
x 11/32	6-15	
Nut 8-32 x V8 x 3/8	5-181	4
"0" Ring	5-21	5
	5-25	
	5-31	
	5-36	
Plug Coml	3-1	1
Screw 1/4-20 x 3/4	3-37	2
Screw 1/4-20 x 4	7-11	4
Screw 1/4-28 x 1/4	5-204	4
Screw 10-24 x 1	5-186	4
	5-215	
Screw 10-32 x 1/4	5-46	2
Screw 10-32 x 1/4	5-228	4
Screw 3-56 x 1/2	6-17	2

PART NO.	FIG. & INDEX NO.	QTY PER ART
SCREW 3-56 X 5/16	6-4	10
	6-12	
SCREW4-40 X 1/4	4-19	4
SCREW	5-123	20
#6-32 X 1/4	5-129	
	5-139	
	5-150	
	5-160	
SCREW TAPP	4-17	60
#2 X 1/8	4-27	
	5-2	
	5-4	
	5-6	
	5-8	
	5-10	
	5-12	
	5-14	
	5-16	
	5-57	
	5-59	
	5-61	
	5-63	
	5-65	
	5-68	
	5-72	
	5-74	
	5-79	
	5-103	
	5-105	
	5-107	
	5-109	
	5-111	
SCREW	4-9	20
#6-32 X 3/8	4-11	
	4-29	
	5-54	
SCREW 6-32 X 1	5-18	18
SCREW 6-32 X 1/4	5-176	12
(FIL HD)	5-184	
	5-200	
	5-213	
	7-1	
SCREW 6-32 X 1/4 (RH)	7-4	2
SCREW 6-40 X 3/8	6-2	4
	6-10	
SCREW 6-40 X 7/16	5-113	2
SCREW 8-32 X 1/2	5-115	4
SCREW 8-32 X 1/2	6-7	5
	6-14	
SCREW 8-32 X 1/4 (FIL HD)	5-49	2
SCREW 8-32 X 1/4 (PAN HD)	5-172	2
SCREW 8-32 X 9/16	5-179	4
WASHER, FLAT 29/64 X 3/4	3-35	1
SCREW 1/4-20 X 3/8	5-43	2

APPENDIX A

REFERENCES

A-1. Dictionaries of Terms and Abbreviations

AR 310-25	Dictionary of United States Army Terms
AR 310-50	Authorized Abbreviations and Brevity Codes

A-2. Publications Index

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms
DA PAM 738-751	Functional Users Manual for the Army Maintenance Management System - Aviation (Tamms-A)

A-3. Logistics and Storage

TM 55-1500-204-25/1	General Aircraft Maintenance Manual
TM 743-200-1	Storage and Materials Handling

A-4. Maintenance of Supplies and Equipment

AR 750-1	Army Materiel Maintenance Concepts and Policies
TM 43-0139	Painting Instructions for Field Use

A-5. Other Publications

TM 750-244-14	Procedures for the Destruction of Aviation Ground Support Equipment (FSC 4920) to Prevent Enemy Use
AR 420-90	Fire Prevention and Protection

A-6. Lubrication

MIL-H-5606	Hydraulic Fluid. Petroleum Base, Aircraft, Missile and Ordnance

A-7. Specifications

MIL-STD-12	Abbreviation for use on Drawings. Specification Standards and in Technical Documents
MIL-STD-15	Electrical Wiring Equipment Symbols for Ship Plans Part II
MIL-STD-17	Mechanical Symbols
H 4-1	Name to Code, Fed. Sup. Code for Mfg.
H 4-2	Code to Name, Fed. Sup. Code for Mfg.

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APPENDIX B
MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. General. The purpose of the maintenance allocation chart is to provide all activities with authorized maintenance functions to be performed at each level of maintenance.

B-2. Maintenance functions. Maintenance functions shall be limited to and defined as follows:

a. Adjust. Maintain within prescribed limits by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

b. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

c. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

d. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

e. Install. The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment/system.

f. Overhaul. That maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (e.g., DMWR) in pertinent technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

g. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipment/components.

h. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module/component/assembly, end item or system.

i. Replace. The act of substituting a serviceable like-type part, subassembly, module (component or assembly) in a manner to allow the proper functioning of an equipment/system.

j. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean, preserve, drain, paint, or to replenish fuel/1ubricants/hydraulic fluids or compressed air supplies.

k. Test. To verify serviceability and to detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

l. Symbols. The uppercase letter placed in the appropriate column indicates the lowest level at which that particular maintenance function is to be performed.

B-3. Explanation of format. Purpose and use of the format are as follows:

a. Column 1. Group number. Column 1 lists group numbers, the purpose of which is to match components, assemblies, subassemblies and modules with the next higher assembly.

b. Column 2. Functional group. Column 2 lists the next higher assembly group and the item names of components, assemblies, subassemblies and modules within the group for which maintenance is authorized.

c. Column 3. Maintenance function. Column 3 lists the twelve maintenance functions defined in B-2 above. Each maintenance function required for an item shall be specified by the symbol among those listed in d below which indicates the level responsible for the required maintenance.

d. Use of symbols. The following symbols shall be used to prescribe work function responsibility:

C - Operator/Crew
O - Organization
F - Direct Support
H - General Support
D - Depot

e. Column 4, tools and equipment. This column shall be used to specify, by code, those tools and test equipment required to perform the designated function.

f. Column 5, remarks. Self-explanatory.

MAINTENANCE ALLOCATION CHART
FOR

(AR 310-3)

(1) GROUP NO	(2) FUNCTIONAL GROUP	(3) MAINTENANCE FUNCTION											(4) TOOLS AND EQUIPMENT	(5) REMARKS
		INSPECT	TEST	SERVICE	ADJUST	ALIGN	CALIBRATE	INSTALL	REPLACE	REPAIR	OVERHAUL	REBUILD		
4008	Tester, Pitot and Static Sys	O	O	O	O		H			F	D			
08	Instruments	O	F				H		O	H	D			
09	Chassis Assembly													
	Pneumatic System	O		O					O	F				
	Electrical System	F	F						F	H				
	Motor and Pump Assembly	O		O					O	F	D			
0902	Accessories	O		O					O	F				

APPENDIX C

REPAIR PARTS AND SPECIAL TOOLS LIST
(Current as of 14 January 1976)

Section I. INTRODUCTION

C-1. Scope.

This appendix lists repair parts required for operation and performance of direct support maintenance of the Tester, Pitot and Static Systems.

C-2. General.

This Repair Parts and Special Tools List is divided into the following sections:

a. Section Il. Repair Parts List. A list of repair parts authorized for use in the performance of maintenance. Parts are listed in figure and item number sequence. Bulk materials are listed in NSN sequence.

b. Section Ill. Special Tools List. Not applicable.

c. Section IV. National Stock Number and Part Number Index. A list, in ascending numerical sequence, of all National stock numbers appearing in the listings, followed by a list, in alphanumeric sequence, of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

C-3. Explanation of Columns.

The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) *Figure Number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item Number.* The number used to identify each item called out in the illustration.

b. Source, Maintenance and Recoverability Codes (SMR).

(1) *Source Code.* Source codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code	*Definition*
P A	Item procured and stocked for anticipated or known usage.
P B	Item procured and stocked for insurance purpose because essentiality dictates that a minimum quantity be available in the supply systems.
P C	Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
M F	Item to be manufactured or fabricated at the direct support maintenance level
X B	Item is not procured or stocked. If not available through salvage, requisition.
X D	A support item that is not stocked. When required, item will be procured through normal supply channels.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XD and aircraft support items as restricted by AR 700-42.

(2) *Maintenance Code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest main-

tenance level authorized to remove, replace and use the support item. The maintenance code entered in the third position will indicate the following level of maintenance:

Code		*Application/Explanation*
F	- - -	Support item is removed, replaced, used at the direct support level.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

Code		*Application/Explanation*
D	- - -	The lowest maintenance level capable of complete repair of the support item is the depot level.
Z	- - -	N on reparable. No repair is authorized.

(3) *Recoverability Code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

code		*Definition*
Z	- - -	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
D	- - -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.

c. National Stock Number. Indicates the National stock number assigned to the item and will be used for requisitioning purposes.

d. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards and inspection requirements, to identify an item or range of items.

NOTE

When a stock numbered item is requisitioned, the repair part received may have a different part number than the part being replaced.

e. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc.

f. Description. Indicates the Federal item name and, if required, a minimum description to identify the item.

g. Unit of Measure (U/M). Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e. g., ea, in., pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned,

h. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable (e.g., shims, spacers, etc.).

C-4. Special Information.

b. Bulk materials required to manufacture items are listed in the Bulk Material Group of this appendix.

C-5. How to Locate Repair Parts.

a. When National Stock Number or Part Number is Unknown:

(1) *First.* Find the illustration covering the assembly to which the repair part belongs.

(2) *Second.* Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(3) *Third.* Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. When National Stock Number or Part Number is Known.

(1) *First.* Using the Index of National

Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in ascending NSN sequence followed by a list of part numbers in ascending alphanumeric sequence, cross-referenced to the illustration figure number and item number.

(2) Second. After finding the figure and item number, locate the figure and item number in the repair parts list.

C-6. Abbreviations.

Not applicable.

(1) ILLUSTRATION (a) FIG NO.	(1) ILLUSTRATION (b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
						SECTION II. REPAIR PARTS LIST		
						ACCESSORIES		
3		PBFZZ	4920-01-007-5201	A31203-1	98810	CABLE ASSEMBLY, SPECIAL PURPOSE: AC POWER, 8 IN. LG	EA	1
3		PBFZZ	4920-00-865-8064	38615	98810	CABLE ASSEMBLY, SPECIAL PURPOSE: 3 PHASE AC, 11 IN. LG	EA	1
3		PBFZZ	4920.01-011-8067	A31203-3	98810	CABLE ASSEMBLYSPECIAL PURPOSE: DC POWER 9 FT LG	EA	1
3		PBFZZ	4920-01-007-5203	A31203-4	98810	CABLE ASSEMBLY,SPECIAL PURPOSE: AC POWER, 9 FT,3 IN.LG	EA	1
3	22	XDFZZ		12366-2	98810	HOSE ASSEMBLY: 6 FT LG	EA	1
3	23	XDFZZ		12366	98810	HOSE ASSEMBLY: 5 FT LG	EA	1
3		XDFZZ		A21032	98810	HOSE ASSEMBLY, PITOT HEAD	EA	1
3	28	PBFZZ	4730-00-289-5894	AN737RM48	88044	CLAMP, HOSE	EA	1
3		XDFZZ		A21033	98810	CLAMP ASSEMBLY, STATIC PORT	EA	1
3	33	PBFZZ	4730-00-186-9961	MS20822-4D	96906	ELBOW, PIPE TO TUBE	EA	1
3	36	PBFZZ	5310-00-282-7823	MS24400D4	96906	NUT, PLAIN, HEXAGON	EA	1
3	38	PAFZZ	4730-00-925-4752	AN815-4D	88044	NIPPLE, TUBE	EA	1
3	39	PBFZZ	4730-00-812-5036	MS24399D3	96906	REDUCER, TUBE	EA	1
3	40	PBFZZ	4730-00-240-5905	AN816-4D	88044	ADAPTERSTRAIGHT, PIPE TO TUBE	EA	1
3	41	XDFZZ		AVEC4-2F	78357	COUPLING, QUICK DISCONNECT	EA	1
						TESTER ASSEMBLY		
5	17	PAFDD	6610-00-558-0480	MS28049-1	96906	INDICATOR,VERTICALVELOCITY	EA	1
5	20	PBFZZ	4710-00-812-5036	MS24399D3	96906	REDUCER,TUBE	EA	1
5	21	PCFZZ	5330-00-582-2133	MS28775-011	96906	PACKING,PREFORMED	EA	1
5	22	PAFDD	6610-00-935-4323	MILA27229	81349	ALTIMETER,PRESSURE	EA	1
5	27	PAFDD	6610-00-899-7445	MS28046T1	96906	INDICATOR INDICATED AIR SPEED	EA	1
5	30	PBFZZ	4730-00-812-5036	MS24399D3	96906	REDUCERTUBE	EA	1
5	31	PCFZZ	5330-00-582-2133	MS28775-011	96906	PACKING,PREFORMED	EA	1
5	32					DELETED		
5						DELETED		
5	37					DELETED		
5	40					DELETED		
5	41					DELETED		
5	55	PBFZZ	5325-00-298-7003	2600-3W	71286	STUD ASSEMBLYTURNLOCK FASTENER	EA	1
5		PBFZZ	5325-00-505-4798	212-12	71286	RECEPTACLE, TURNLOCK FASENER	EA	1
5		PBFZZ	5325-00-290-8028	40024	71286	STUD ASSEMBLY TURNLOCK FASTENER	EA	22
5		PBFZZ	5325-00-290-3976	244-16	71286	RECEPTACLE, TURNLOCK FASTENER	EA	22
5		PBFZZ	5325-00-282-2045	4002	71286	GROMMET	EA	23
5		PBFZZ	5365-00-598-1474	R4G	71286	RING, RETAINING	EA	23
5	75	PBFZZ	5930-00-655 1575	MS35059-22	96906	SWITCH, TOCGLE	EA	1
5	77	PAFZZ	6240-00-156-7836	MS25237-327	96906	LAMP, INCANDESCENT	EA	1
5	177	PBFZZ	5935-00-721-0490	MS3102R18-1P	96906	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
5	118	PBFZZ	5935-00-999-5072	MS3106R10S2S	96906	CONNECTOR, PLUG, ELECTRICAL	EA	1
5	122	XBFZZ		710-13-1-8D	86768	VALVE, LINEAR: SELECTOR	EA	1
5	128	PBFZZ	4820-00-085-1900	711-222-1-8D	86768	VALVE, PLUG: SELECTOR	EA	1

(1) ILLUSTRATION (A) FIG NO	(B) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
5	137	XDFZZ		AVEN4-2F	78357	COUPLING,QUICK DISCONNECT		EA	1
5	138	XBFZZ		710-13-1-8D	86768	VALVE,LINEAR: SELECTOR		EA	1
5	148	XDFZZ		AVEN4-2F	78357	COUPLING,QUICK DISCONNECT		EA	1
5	149	PBFZZ	4820-00-085-1900	711-222-1-8D	86768	VALVE,PLUG: SELECTOR		EA	1
5	158	XDFZZ		AVEN4-2F	78357	COUPLING,QUICK DISCONNECT		EA	1
5	159	XBFZZ		710-13-1-8D	86768	VALVE,LINEAR: SELECTOR		EA	1
5	169	XDFZZ		AVEN4-2F	78357	COUPLING,QUICK DISCONNECT		EA	1
5	178	XDFZZ		01-0003	98810	TRANSFORMER,STEP-DOWN		EA	1
5	187	XDFZZ		481-1-8D	86768	VALVE,CHECK		EA	1
						VACUUM AND PRESSURE LINES			
8	1	MFFZZ		SA21369-1	98810	HOSE ASSEMBLY: 3 IN. LG		EA	6
8	2	MFFZZ		SA21369-2	98810	HOSE ASSEMBLY: 10 IN. LG		EA	1
8	3	MFFZZ		SA21369-3	98810	HOSE ASSEMBLY: 11-1/2 IN. LG		EA	6
8	4	MFFZZ		SA21369-4	98810	HOSE ASSEMBLY: 12 IN. LG		EA	3
8	5	MFFZZ		SA21369-5	98810	HOSE ASSEMBLY: 15 IN. LG		EA	8
8	6	MFFZZ		SA21369-6	98810	HOSE ASSEMBLY: 15 IN. LG,W/ONLY ONE ADAPTER		EA	1
8	7	MFFZZ		SA21369-7	98810	HOSE ASSEMBLY: 18 IN. LG		EA	1
8	10	XDFZZ		481-1-8D	86768	VALVE,CHECK		EA	1
8	13	XDFZZ		AL5TSL	26665	VALVE,SELECTOR		EA	1
8	14	PBFZZ	4310-00-945-0197	P345C	64560	PUMP ASSEMBLY		EA	1
8	16			A21301	98810	BELLOWS BLOCK ASSEMBLY		EA	1
8	16	XBFZZ		A11806	98810	BELLOWS,TESTER,PRESSURE		EA	3
8	16	XBFZZ		A11805	98810	BELLOWS,TESTER,VACUUM		EA	2
8	18	PBFZZ	4820-00-152-1487	684-2-1-8D25	86768	VALVE,PRESSURE		EA	1
8	19	XDFZZ		82456-1	26665	VALVE,SELECTOR		EA	1
						BULK MATERIAL			
BULK		PCFZZ	4720-00-277-8982			HOSE,NONMETALLIC: RUBBER,3/16 IN.ID,7/16 IN.OD, 50 FT LG,MIL-H-5593,SIZE 3		FT	V
BULK		PAFZZ	4730-00-278-5688	MS27404-3D	96906	ADAPTER,STRAIGHT,TUBE TO HOSE: ALUMINUM, 3/8 IN.-24 NF,U/W 3/16 IN.ID HOSE		EA	V
						SECTION III. SPECIAL TOOLS LIST			
						(NOT APPLICABLE)			

SECTION V. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER	STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER
4310-00-945-0197	8	14	5325-00282-2045	5	
4720.00-277-8982	BULK		5325-00-290-3976	5	
4730-00-186-9961	3	33	5325-00-290-8028	5	
4730-00-240-5905	3	40	5325-00.298-7003	5	55
4730-00-278-5688	BULK		5325-00-505-4798	5	
4730-00-289-5894	3	28	5330-00-260-9311	5	
4730-00-812-5036	3	39	5330-00-582-2133	5	21
4730-00-812-5036	5	20	5330-00-582-2133	5	31
4730-00-812-5036	5	30			
5365-00-598-1474	5				
4730-00-9254752	3	38	5930-00-655-1575	5	75
4820-00-085-1900	5	128	5935-00-721-0490	5	117
4820-00-085-1900	5	149	5935-00-999-5072	5	118
4820-00-152-1487	8	18	6240-00-155-7836	5	77
4920-01-007-5201	3		6610-00-558-0480	5	17
4920-01-007-5202	3		6610-00-899-7445	5	27
4920-01-007-5203	3		6610-00-935-4323	5	22
4920-01-011-8067	3				
5310-00-282-7823	3	36			

SECTION IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

PART NUMBER	FSCM	FIG NUMBER	ITEM NUMBER	PART NUMBER	FSCM	FIG NUMBER	ITEM NUMBER
ALSTSL	26665	8	13	MS287754011	96906	5	21
AN6227-5	88044	5		MS28775-011	96906	5	31
AN737RM48	88044	3	28				
AN81540	88044	3	38	MS3102R181P	96906	5	117
AN816-40	88044	3	40	MS3106R10S2S	96906	5	118
AVEC4-2F	78357	3	41	MS35059-22	96906	5	75
AVEN4-2F	78357	5	137	P345C	64560	8	14
AVEN4.2F	78357	5	148	R4G	71286	5	
AVEN42F	78357	5	158	SA21369-1	98810	8	1
AVEN4-2F	78357	5	169	SA21369-2	98810	8	2
A11805	98810	8	16	SA21368&3	98810	8	3
A11806	98810	8	16	SA21369-4	98810	8	4
A21032	98810	3		SA2136-5	98810	8	5
A21033	98810	3		SA21369-6	98810	8	6
A21301	98810	8	16	SA21369-7	98810	8	7
A31203-1	98810	3		01-0003	98810	5	178
A31203-2	98810			40024	7126	5	
A31203-3	98810			4002M	712:6	5	
A31203-4	98810			12366-2	98810	3	22
MILA27229	81349	5	22	12366-4	98810	3	23
MS20822.4D	96906	3	33	212-12	71286	5	
MS24399D3	96906	3	39	244-16	71286	5	
MS24399D3	96906	5	20	2600-3W	71286	5	55
MS2439903	96906	5	30	481-180	86768	5	187
				481-1-SD	86768	8	10
MS2440004	96906	3	36	6842-1-80D25	86768	8	18
MS25237-327	96906	5	77	710-13-1-8D	86768	5	122
MS27404-3D	96906	BULK		710-13-1-80	86768	5	138
MS28046TI	96906	5	27	710-1-1-8D	86768	5	159
MS28049-1	96906	5	17	711-222-1-8D	86768	5	128
				711-222-1-8D	86768	5	149
				82456-1	26665	8	19

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