



SMALL FLOW AIRMATE PRESSURE REDUCING VALVES AND AIR LOADERS CLASSES A-2, AG-2, AF-2, AFG-2, ETC.

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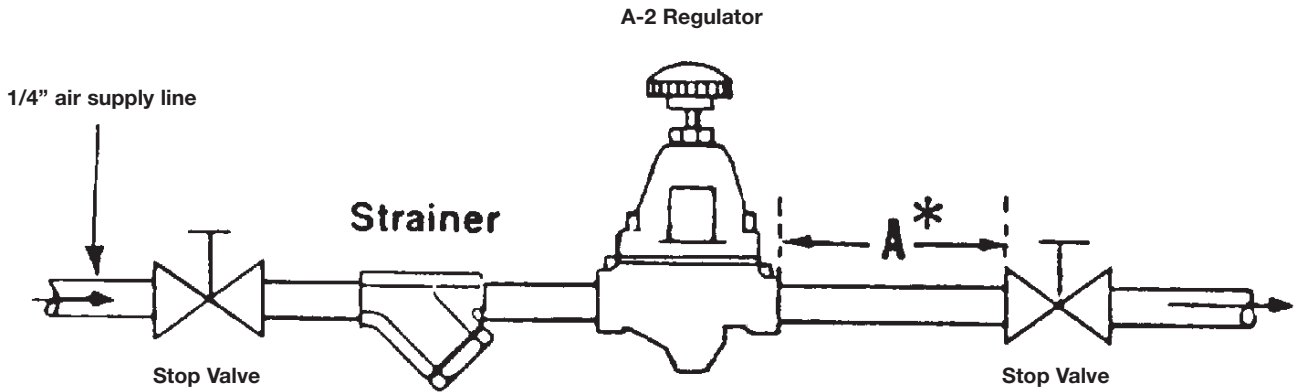


FIG. 1 — INSTALLATION DETAIL

SECTION I — INSTALLATION

Install as shown in Fig. 1. Use non-corrosive fittings and piping throughout. Use fine wire mesh or poromet filter screen.

Note: Strainer, shown for Class A-2 Types, is not necessary for Filter Type Classes, AF-2.

* *When used with air motors or pulsating equipment, line "A" should be of a sufficient length and diameter to provide a reservoir. On close coupled installations install small reservoir.*

SECTION II — OPERATION

1. Open inlet supply valve to regulator.

Note: Supply pressure should be at least 5 PSIG above maximum controlled pressure desired.

2. Open outlet stop valve partially.

3. Turn handwheel (1) clockwise to start flow through regulator. Adjust for desired controlled pressure.** Tighten locknut (2). Open outlet to stop valve fully.

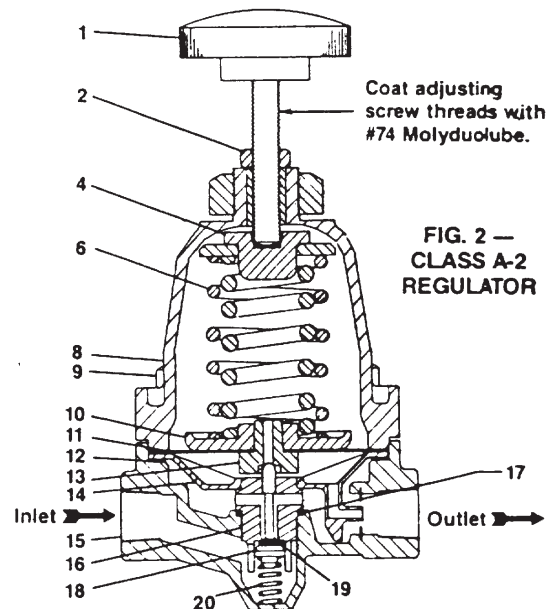
** *Turn handwheel clockwise to increase controlled pressure; counterclockwise to decrease.*

SECTION III — MAINTENANCE

Dismantling

1. Shut-off air supply. Loosen locknut (2). Relieve all adjusting spring compression.

2. Disassemble adjusting spring case (8), top spring seat (4), adjusting spring(s) (6) and nozzle-diaphragm assembly from main body.
3. Grasp internal rib of aspirator plate (14) (marked "Lift Here") and lift out of main body. Remove gasket (12).
4. Unscrew valve seat (16) with "O" Ring (17) from main body. Lift out main valve (18), with "O" Ring (19), and main valve spring (20).



Cleaning or Replacing Parts

Examine and clean all parts. Use an approved detergent (non-injurious to synthetic materials) for cleaning. Blow out all ports and main body with air. Replace any badly worn or damaged parts.

Diaphragm Replacement

Disassemble nozzle disc assembly consisting of diaphragm disc (10), diaphragm (11) and nozzle (13). Nozzle snaps out of diaphragm disc by finger pressure on diaphragm disc side. Reassemble parts (with curve of disc away from diaphragm). Snap nozzle into place in diaphragm disc.

Integral Filter Types — Class AF-2, etc.

In integral filter types remove filter case (26) from main body. Remove filter (23) and filter support disc (25).

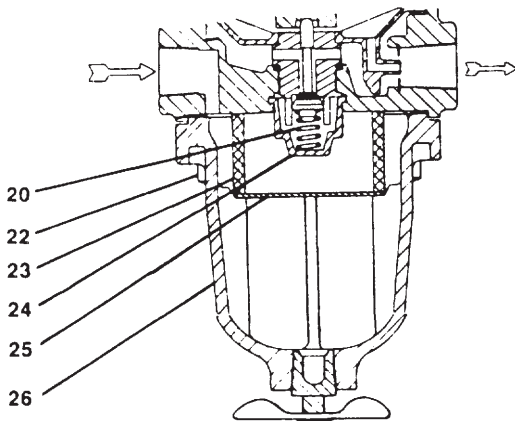


FIG. 3

PARTIAL ASSEMBLY OF AF-2 TYPE SHOWING ADDITIONAL PARTS IN FILTER ASSEMBLY.
All other parts (except main body) are the same as in A-2 Classes.

NOTE: Removal of valve spring retainer (24) in integral Filter Types is unnecessary unless it is to be replaced. To remove, squeeze sidewalls together to clear groove in main body, then pull. To insert new part, squeeze sidewalls together sufficiently for shoulders to pass through body opening and into groove.

Reassembling

1. Place main valve spring (20) in main body (15). Place "O" Ring (17) in recess of body. Assemble main valve (18), with "O" Ring (19), in valve seat (16). Screw valve seat into main body threads until seating face contacts main body and tighten.
2. Place gasket (12) in recess of main body (15).

Insert aspirator plate (14) with aspirator tube in outlet orifice. Snap aspirator plate in place with finger pressure. Place nozzle-diaphragm assembly in main body with diaphragm disc (10) upward. Place adjusting spring(s) (6) and top spring seat (4) on diaphragm disc. Position spring case (8) with handwheel (1) on main body. Insert screws (9) and tighten.

Integral Filter Types — Class AF-2, etc.

In integral filter types, place spring (20) into valve spring retainer (24), see figure 3, place filter support disc (25) and filter (23) in filter case (26). Assemble gasket (12) and filter case to main body. Insert screws (22) and tighten.

3. Readjust regulator as described under "OPERATION".

MAINTENANCE OF LOADING PANELS

Classes P-2, PF-2, etc.

Disconnect tubing at "A". Remove handwheel "B". Take off locknut "C". Remove valve from panel. Follow Maintenance instructions Section III.

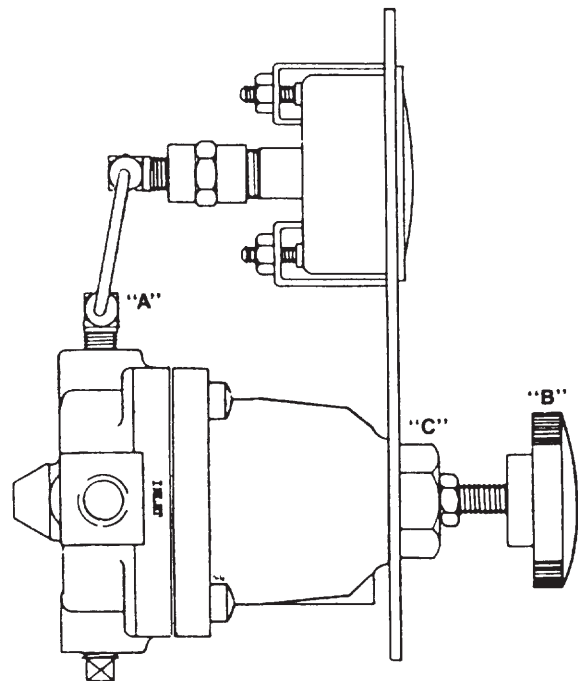
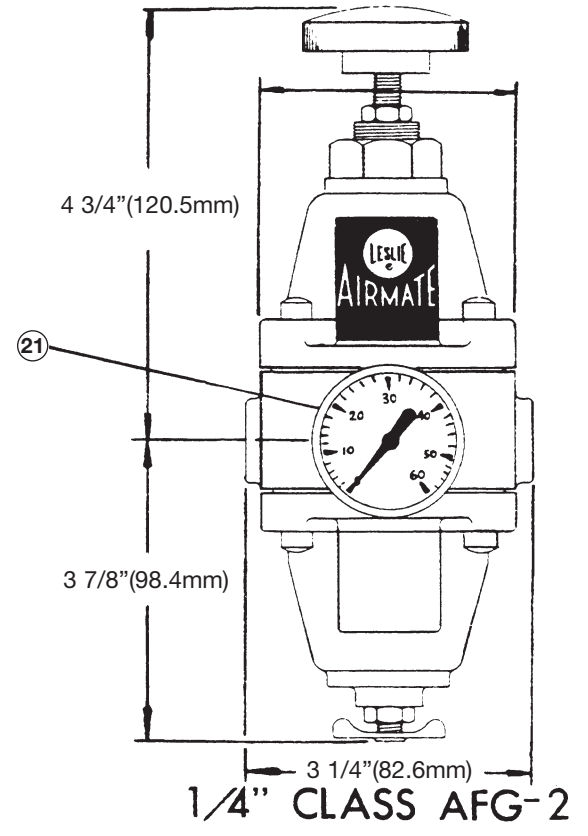
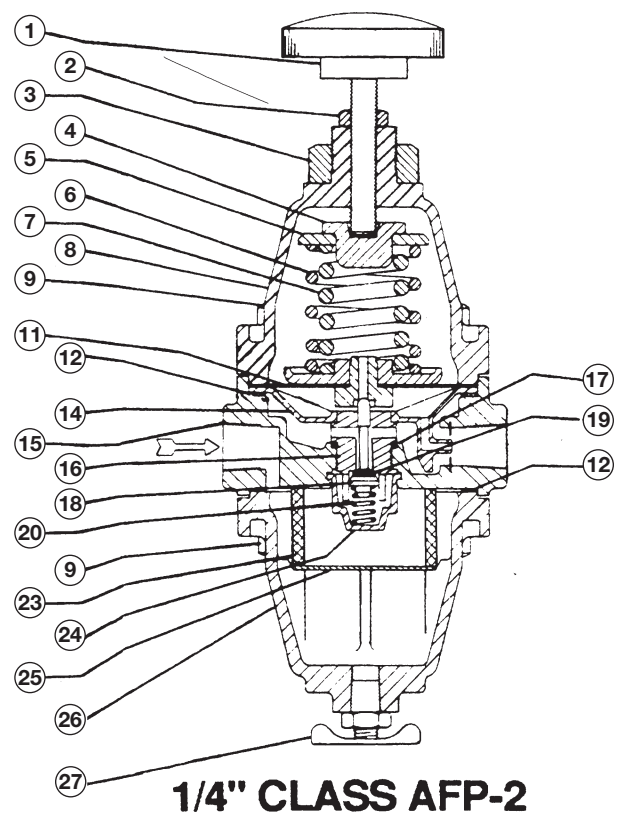
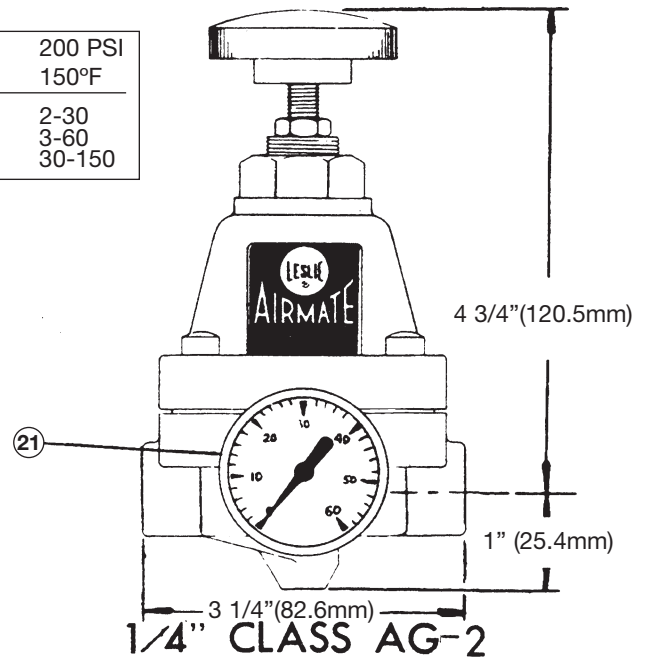
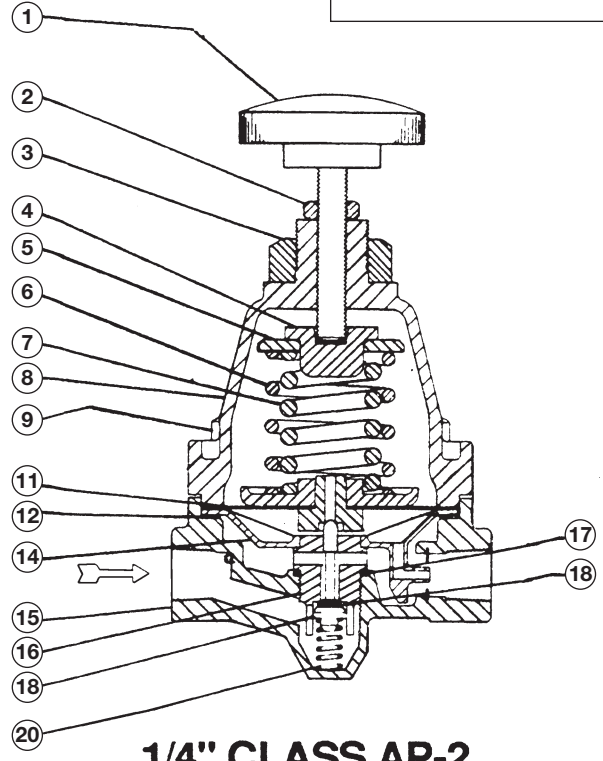


FIG. 4 — CLASS P-2 PANEL LOADER

MAX. INLET PRESSURE	200 PSI
MAX. TEMPERATURE	150°F
RANGE PSI	2-30 3-60 30-150



AIRMATE - REG. U.S. PAT. OFF.

LESLIE **LESLIE CONTROLS, INC.**
TAMPA, FLORIDA 33637

**LESLIE - AIRMATE
LOADERS AND PANELS**

DATE	APP'D.	D'W'N	DWG NO.	30/1.4.1 ALT 11
10-23-92				

SUPERSEDES DRAWING NO. RV-19180 F, ALT. 2

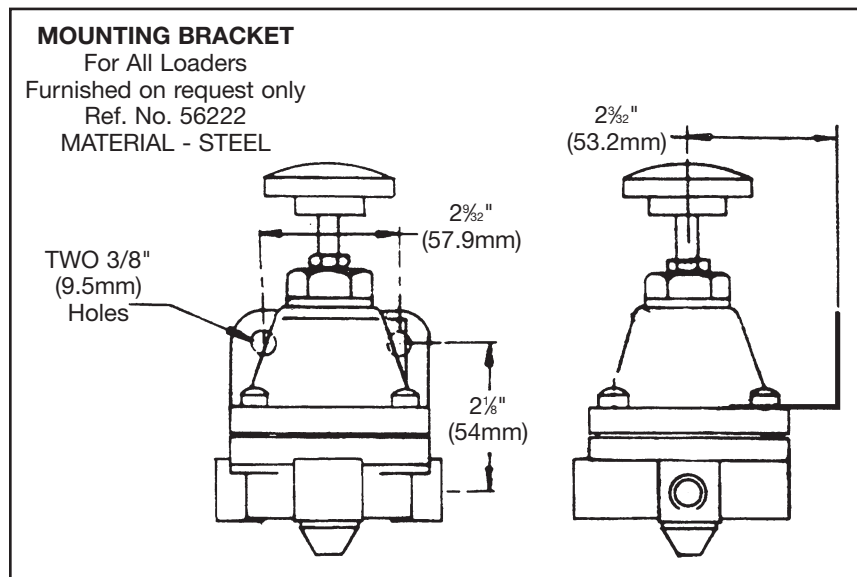
WHEN ORDERING PARTS PLEASE GIVE CLASS, PART NAME AND PART REFERENCE NUMBER FROM TABLE BELOW. USE PART NUMBER ONLY TO LOCATE PART ON DRAWING. (See Page 1 for Drawing)

PART NO.	PART NAME	MATERIAL	QTY PER UNIT	REFERENCE NUMBERS			
				AP-2	AG-2 & AP2	AF-2	AFG-2 & AFF-2
1	Handwheel, Complete	Phenolic & Steel	1	52680	52680	52690	52680
2	Nut	Steel, Cad. Plated	1	24772	24772	24772	24772
3	Lock Nut	Steel, Cad. Plated	1	11689	11689	11689	11689
4	Top Spring Seat	Steel, Cad. Plated	1	20571	20571	20571	20571
5	Spring Seat Plate, Range 30-150 only	Aluminum	1	59514	59514	59514	59514
6	Adj. Spring Outer, Range 30-150 only	.219 Wire Diam. (Note 4)	1	53362	53362	53362	53362
7	Adj. Spring, Range 2-30 only	.135 Wire Diam. (Note 4)	1	57791	57791	57791	57791
7	Adj. Spring, Range 3-60 only	.117 Wire Diam. (Note 4)	1	33974	33974	33974	33974
7	Adj. Spring, Range 30-150 only	.148 Wire Diam. (Note 4)	1	54484	54484	54484	54484
8	Adj. Spring Case Complete	Aluminum	1	52665	52665	52665	52665
9	Screw, Phillips Head	Steel, Cad. Plated	Note 7	58661	58661	58661	58661
11	Diaphragm Complete (Note 8)	Synthetic Rubber & Celcon	1	58659	58659	58659	58659
12	Gasket	Synthetic Rubber	Note 1	52992	52992	52992	52992
14	Pilot Plate	Celcon	1	52899	52899	52899	52899
15	Main Body Range 3-60 (Note 2)	Aluminum	1	54494	54495	54498	54499
15	Main Body Range 2-30 (Note 2)	Aluminum	1	54496	54497	54500	54501
15	Main Body Range 30-150	Aluminum	1	52664	52694	52671	52696
16	Valve Seat	Aluminum	1	52676	52676	52676	52676
17	O-Ring Valve Seat	Synthetic Rubber	1	51162-94	51162-94	51162-94	51162-94
18	Main Valve Complete (Note 3)	Celcon	1	54488	54488	54488	54488
19	O-Ring	Buna-N	1	54458-94	54458-94	54458-94	54458-94
20	Main Valve Spring	Music Wire, Cad. Plated	1	52706	52706	52706	52706
21	Gage, 3-60 Range AG-2 & AFG-2 (Note 9)	Steel Case, Clearlok Crystal	1	—	54557	—	54557
21	Gage, 2-30 Range AG-2 & AFG-2 (Note 9)	Steel Case, Clearlok Crystal	1	—	58087	—	58087
21	Gage, 30-150 Range AG2 & AFG-2 (Note 9)	Steel Case, Clearlok Crystal	1	—	54558	—	54558
21A	Pipe Plug (Note 5)	Nylon	Note 6	—	53030	—	53030
23	Filter, 5 Micron	Resin Impreg. Cellulose	1	—	—	52936	52936
24	Valve Spring Retainer	Celcon	1	—	—	52922	52922
25	Filter Support Disc	Stainless Steel	1	—	—	52990	52990
26	Filter Case	Aluminum	1	—	—	52921	52921
27	Drain Lock	Brass	1	—	—	58269	58269

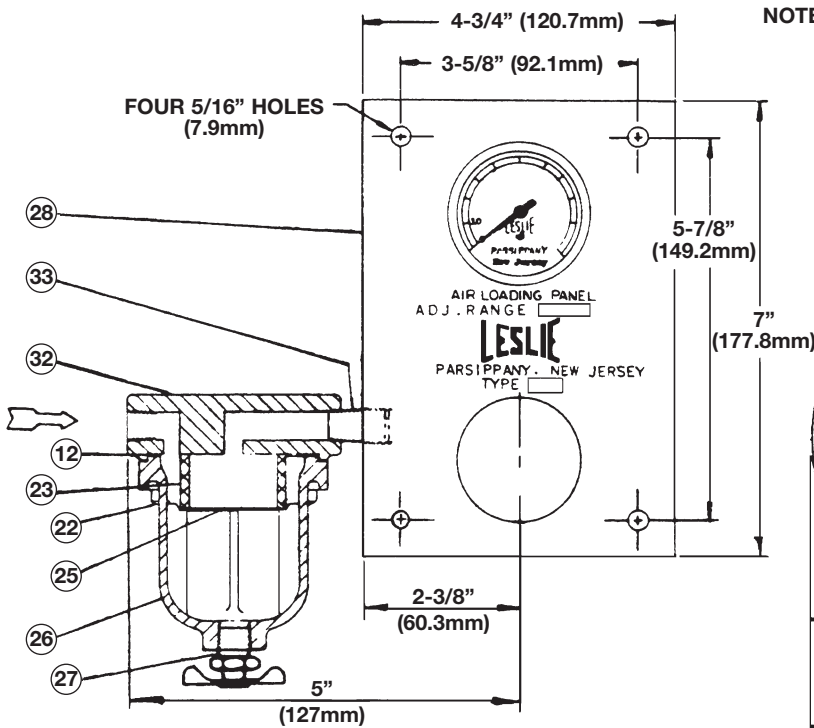
Please specify Range when ordering.

- Note 1 - Quantity one (1) for AP-2 and Quantity two (2) for AFP-2.
- Note 2 - Main Body is furnished complete with variable Pilot.
- Note 3 - Main Valve furnished with complete O-Ring Part No. 19.
- Note 4 - Material is Spring Steel, Cadmium Plated.
- Note 5 - Not shown on drawing, used on Reverse side of Body when Gage is specified for Class AG-2 and AFG-2 only.
- Note 6 - Quantity one (1) for AG-2 and AFG-2 Classes and Quantity two (2) for AP-2 and AFP-2 Classes.
- Note 7 - Quantity four (4) for AP-2 and AG-2 Classes and Quantity eight (8) for AFP-2 and AFG-2 Classes.
- Note 8 - Diaphragm Complete includes Diaphragm, Diaphragm Disc and Nozzle.
- Note 9 - Gages are dual calibrated for Metric & Std.

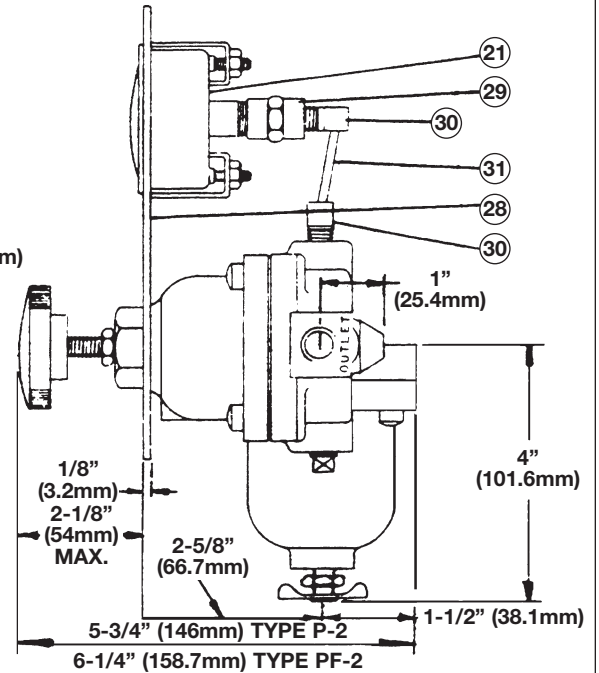
PATENTED



NET WEIGHT - 2.5 lbs. (1.1 kg)



NOTE: OPENING REQUIRED FOR MOUNTING OF PANEL
5-5/8" (142.9mm) High X 6-3/8" (162mm) Wide
See FIGURE A next page.



TYPE PF PANEL WITH FILTER / TYPE P PANEL WITHOUT FILTER

PATENTED

TYPE	AIR LOADER RANGE	GAGE CALIBRATION	AIR LOADER
P-2	2-30	0-30	AP-2(2-30)
PF-2			
P-2	3-60	0-60	AP-2(3-60)
PF-2			
P-2	30-150	0-160	AP-2(30-150)
PF-2			
30 PP-1 & PPF-1	2-300-30	AP-2(-30)	
60 PP-1 & PPF-1	3-60	0-60	AP-2(3-60)
150 PP-1 & PPF-1	30-150	0-160	AP-2(30-150)

SPARE PARTS KITS

NO. 011 9113 03

FOR AP-2, AG-2, P-2 2-30 RANGE
AND 30 PP-1 AND 30 PPF-1 PANELS

NO. 011 9113 01

FOR AP-2, AG-2, P-2, PF-2 3-60 & 30-150 RANGES
AND 60 & 150 PP-1 AND 60-150 PPF-1 PANELS

NO. 011 9113 02

FOR FILTER ONLY

SPARE PARTS ARE FURNISHED IN KITS IN QUANTITIES SHOWN IN TABLE BELOW

PART NO.	PARTS NAME	KIT REF. NO.	011911301		011911303		011911302	
			QTY.	REF. NO.	QTY.	REF. NO.	QTY.	REF. NO.
11	Diaphragm Compl.	Note 8	2	58659	2	58659	—	—
12	Gasket		2	52992	2	52992	10	52992
14	Pilot Plate		1	52899	1	52899	—	—
16	Valve Seat		2	52676	2	52676	—	—
17	O-Ring, Valve Seat		2	51162-94	2	51162-94	—	—
18	Main Valve Complete	Note 3	2	54488	2	54488	—	—
20	Main Valve Spring		2	52706	2	52706	—	—
23	Filter		—	—	—	—	10	52936

NOTE 3 - Main Valve is furnished complete with O-Ring, Part No. 19.

NOTE 8 - Diaphragm complete includes Diaphragm, Diaphragm Disc and Nozzle.

SEE PG. 4 & 5 FOR AIRMATE LOADERS

WHEN ORDERING PARTS, PLEASE GIVE PART NAME AND PART REFERENCE NUMBER FROM TABLE BELOW
 USE PART NUMBER ONLY TO LOCATE PART ON DRAWING

PART NO.	PART NAME	MATERIAL	QTY PER UNIT	REFERENCE NUMBERS			
				P-2	PF-2	PP-1	PPF-1
12	GASKET (Note 10)	Synthetic Rubber	1	--	52992	--	52992
21	Gage, 0 - 30	Steel, Plastic Crystal	Note 9	38546	38546	54070	54070
21	Gage, 0 - 60	Steel, Plastic Crystal	Note 9	35647	35647	54071	54071
21	Gage, 0 - 160	Steel, Plastic Crystal	1	53583	53583	54072	54072
22	Screw (Note 10)	Steel, Cad. Plated	4	--	52993	--	52990
23	Filter (Note 10)	Resin Impreg. Cellulose	1	--	52936	--	52936
25	Filter Support Disc (Note 10)	Stainless Steel	1	--	52990	--	52990
26	Filter Case (Note 10)	Aluminum	1	--	52921	--	52921
27	Drain Cock (Note 10)	Brass	1	--	58269	--	58269
28	Panel	Aluminum	1	35634	35634	54068	54068
29	Female Coupling	Brass	1	35646	35646	35646	35646
30	Male Elbow	Brass	2	34911	34911	34911	34911
31	Tubing	Copper	1	54833	53367	53368	53368
32	Cover (Note 10)	Cast Aluminum	1	--	54751	--	54751
33	Nipple (Note 10)	Brass	1	--	49474	--	49474

Please Specify Range When Ordering

NOTE 9 - Quantity one (1) for P-2 and PF-2. Quantity two (2) for PP-1 and PPF-1.
 NOTE 10 - For Types PF-2 & PPF-1 only.

MAX. INLET PRESSURE - 200 PSI
 MAX. TEMPERATURE - 150° F

NOTE:
 OPENING REQUIRED FOR MOUNTING OF PANEL
 5-5/8" (142.9mm) High X 6-3/8" (162mm) Wide
 See FIGURE A.

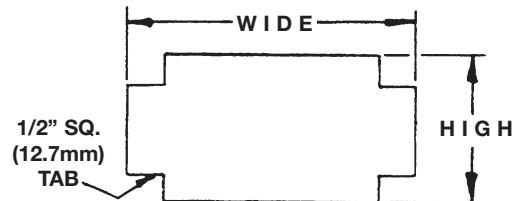
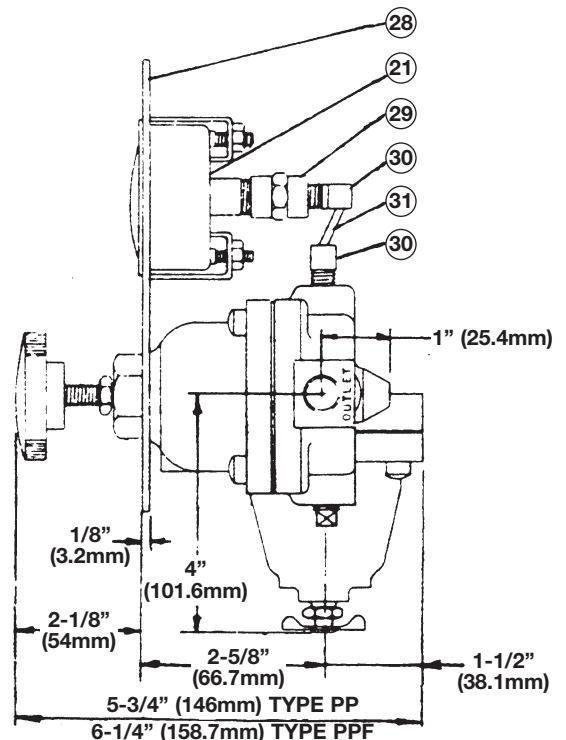
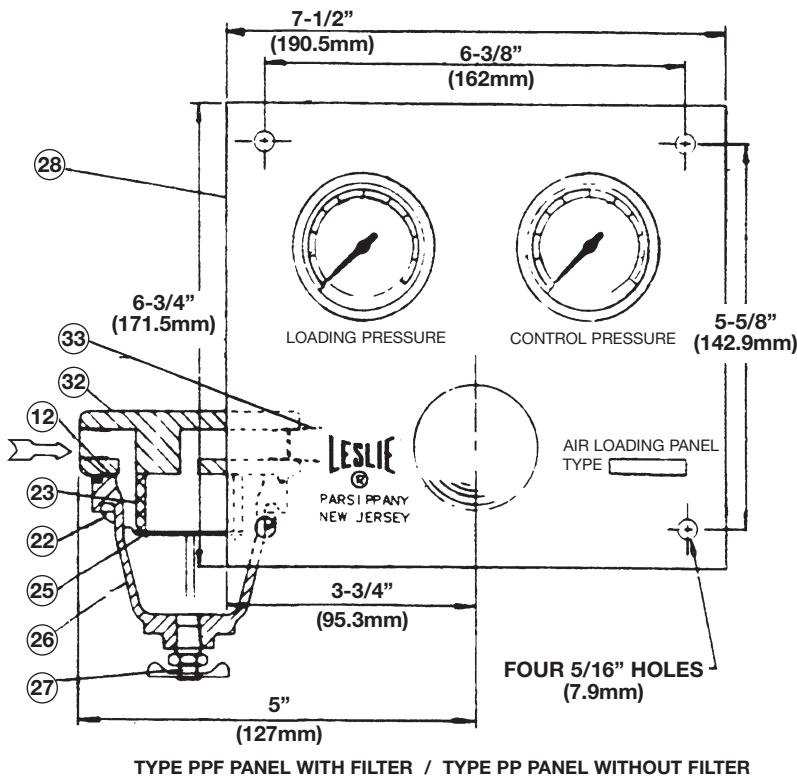


FIGURE A



30/1.4.1



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