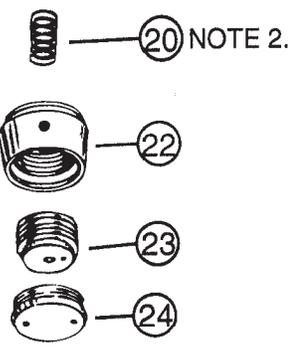
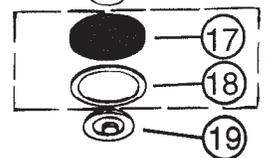
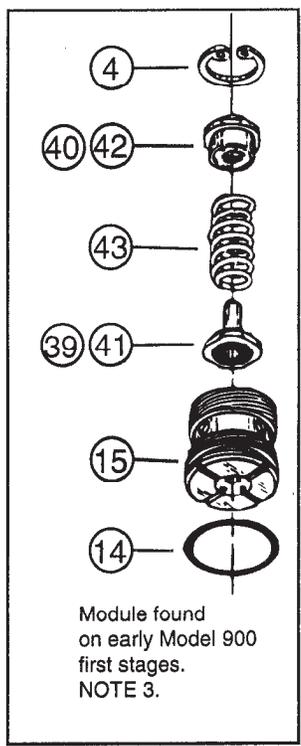
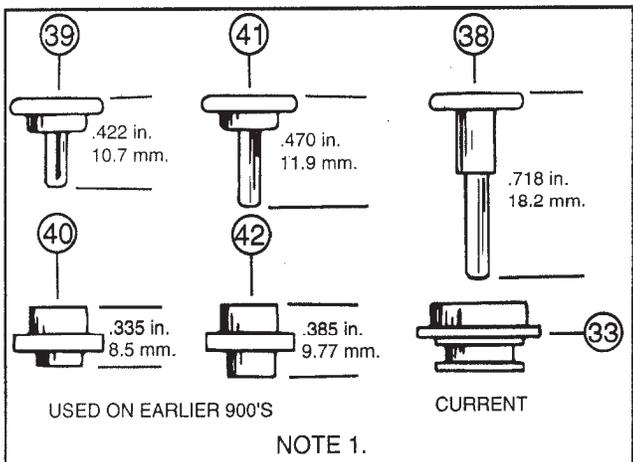
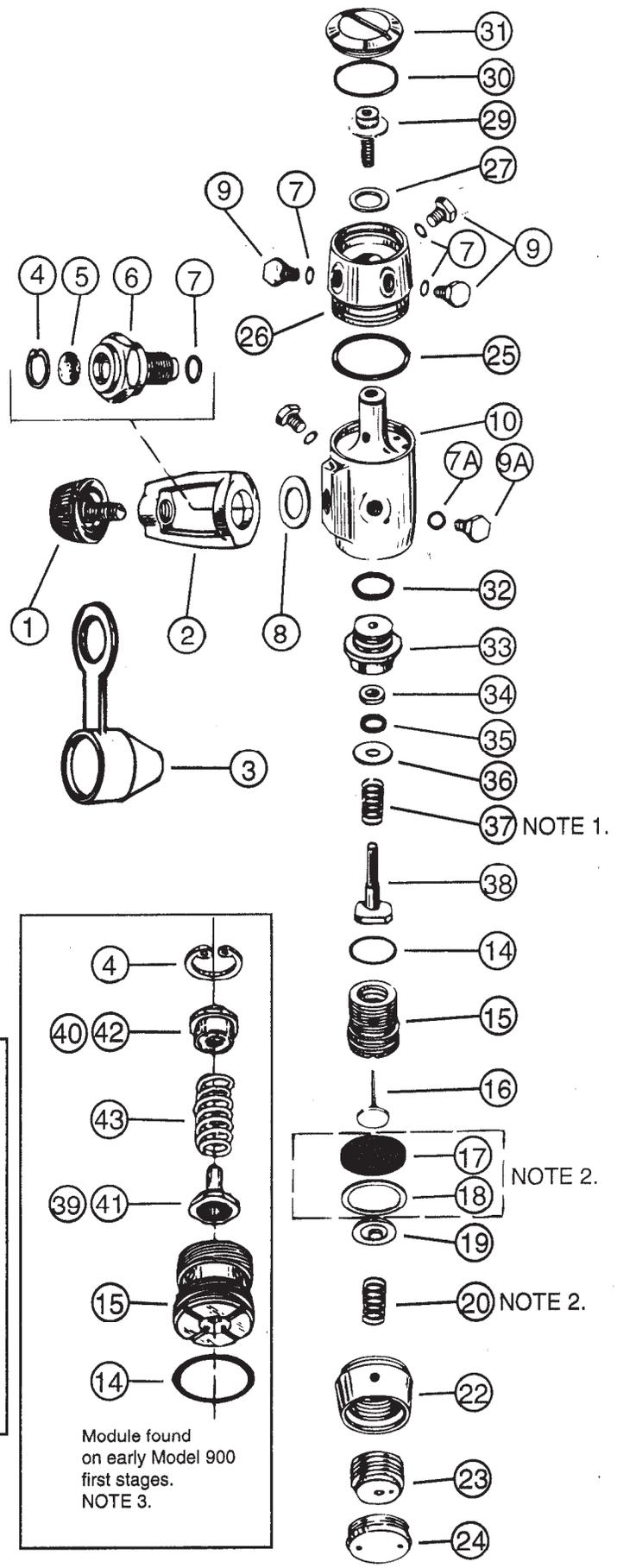


#	QTY	PART #	KEY	DESCRIPTION
1	1	0102-11		YOKE SCREW
1A	1	0103-77		YOKE SCREW
2	1	0390-08		YOKE
3	1	0510-42		DUST CAP
4	1	0250-10	①②	RETAINING RING
5	1	0110-00	①②	FILTER
6	1	0150-14		YOKE NUT
7	5	0060-01	①②	O-RING
7A	5	0060-43	①②	O-RING
8	1	0120-09	①	WASHER
9	4	0410-05		L.P. PLUG
9A	5	0410-20		H.P. PLUG
10	1	0030-38		BODY
14	1	0060-11	①②	O-RING
15	1	0180-26		H.P. MODULE
16	1	0100-46		SEAT & PUSH ROD ASSM.
17	1	0050-12	①	H.P. DIAPHRAGM
18	1	0120-65		WASHER
19	1	0160-00		SPRING PAD
20	1	0040-53	①	SPRING
22	1	0180-31		CUP
23	1	0200-03		ADJUSTMENT SCREW
24	1	0410-08		PLUG
25	1	0060-15	①②	O-RING
26	1	0030-29		SWIVEL
27	1	0120-12	①	WASHER
29	1	0101-67		WASHER/SCREW ASSM.
30	1	0060-13	①②	O-RING
31	1	0410-06		PLUG
32	1	0060-82	①②	O-RING
33	1	0180-29		BALANCE CHAMBER
34	1	0090-03	①②	BACKUP RING
35	1	0060-16	①②	O-RING
36	1	0120-19		WASHER
37	1	0040-24		SPRING
38	1	0100-12	①	H.P. SEAT (CURRENT)
39	1	0102-26		H.P. SEAT
40	1	0100-21		BALANCE CHAMBER ASSM.
41	1	0100-15		H.P. SEAT
42	1	0101-16		BALANCE CHAMBER ASSM.
43	1	0040-07		SPRING
		1186-00		AER KIT (OPTIONAL)



PACER XL950, 950A, 950H & 900
FIRST STAGE

9/93

First Stage
Regulators

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KEY
① Included in annual overhaul kit #9680-08
② Included in annual service kit #9680-15

PACER XL950, 950A, 950H & 900 FIRST STAGE

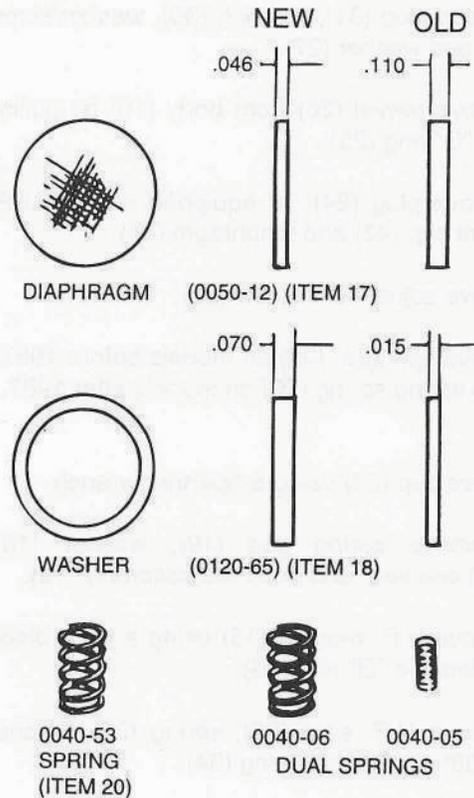
Important Notes

NOTE 1. Item (37) can only be used with current seat assembly (33) and (38). Spring (43) must be used with items (39, 40, 41, 42) and was part of Module found on earlier 900 First Stages. (See note 3).

NOTE 2. Items (17) and (18) must be used together as a unit. Furthermore, they can only be used with item (20) spring. NOTE: Early versions of 950 First Stages used dual springs as well as a thin washer. (Refer to view below). These dual springs cannot be used with the new thinner diaphragm (17) and washer (18) and must be changed to a single spring (20).

NOTE 3. Early 900 First Stages used module as shown. This concept utilized items (39, 40, or 41, 42) along with spring (43). Components where they are encapsulated in module (15) with the use of retaining ring (4).

Items (39, 40, or 41, 42 & 43) are not interchangeable with items (38, 33 & 37). As a rule replace all parts with parts identical to the original parts removed from the regulator being serviced.



REPAIR PROCEDURE	PAGE	PACER XL950, 950A, 950H & 900 FIRST STAGE		
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Disassembly:

Step 1: Remove hose and any accessory hose(s) and plug(s) (9) from first stage assembly. "O" rings (7) are now accessible.

Step 2: Remove yoke nut (6), yoke (2), washer (8), and yoke screw (1) from body (10). "O" ring (7A) is now accessible. NOTE: Place yoke nut (6) into vise. Hold across hex flats.

Step 3: Remove retaining ring (4) and filter (5) from yoke nut (6). Use internal retaining ring pliers.

Step 4: Remove plug (31), "O" ring (30), washer/screw assembly (29) and washer (27).

Step 5: Remove swivel (26) from body (10) by pulling free. Remove "O" ring (25).

Step 6: Remove plug (24). If equipped as an "AER" remove ambient cap (43) and diaphragm (44).

Step 7: Remove adjustment screw (23).

Step 8: Remove spring(s) (20) on models before 1987. Remove single spring spring (20) on models after 1987. See NOTE 2.

Step 9: Remove cup (22) using a Spanner wrench.

Step 10: Remove spring pad (19), washer (18), diaphragm (17) and seat and push rod assembly (16).

Step 11: Remove H.P. module (15) using a wide blade screwdriver. Remove "O" ring (14).

Step 12: Remove H.P. seat (38), spring (37), washer (36), "O" ring (35) and back-up ring (34).

Step 13: Remove bushing (33). NOTE: In earlier models, the H.P. seat (38 or 41), spring (37) and balance chamber (40 or 42) are contained in the H.P. module (15) by a retaining ring. Disassemble the earlier models as follows: (a) Remove the retaining ring. CAUTION: There will be spring pressure when the retaining ring is removed. Hold thumb over the retaining ring during this operation to avoid losing parts. (b) Remove balance chamber, spring, and H.P. seat from the H.P. module chamber.

Assembly:

Step 1: Replace "O" ring (32) on bushing (33) after

inspecting and lubricating.

Step 2: Put bushing (33) into body (10).

Step 3: Replace backup ring (34), "O" ring (35) and washer (36) in bushing (33).

Step 4: Replace spring (37) and H.P. seat (38). NOTE: In earlier models, the H.P. seat (39 or 41), spring (37) and balance chamber (40 or 42) are contained in the H.P. module (15) by a retaining ring. Assemble these as follows: (a) Place H.P. seat (39 or 41), spring (43) and balance chamber (40 or 42) in the H.P. module (15). (b) Lay retaining ring with sharp edge up on balance chamber. Using a pencil or dowel placed on the center of the balance chamber, push parts down into module. Using retaining ring pliers, install the retaining ring in groove inside of module. CAUTION: Be sure ring is securely in place.

Step 5: Inspect, lubricate and install "O" ring (14) on H.P. module. Replace H.P. module in body (10). Use a wide blade screwdriver to screw module into body until it bottoms out. Caution must be used to assure center alignment of H.P. seat and H.P. module.

Step 6: Replace seat and push rod assembly (16), diaphragm (17), washer (18) and spring pad (19) into body (10).

Step 7: Replace cup (22) using a Spanner wrench to tighten snugly. Do not over tighten.

Step 8: Replace springs (20 & 21).

Step 9: Replace adjustment screw (23). Tighten the adjustment screw only two full turns.

Step 10: Replace swivel (26) after inspecting, lubricating, and remounting "O" ring (25). Position swivel body (10) and push together until a distinct "snap" is heard.

Step 11: replace washer (27) and washer /screw assembly (29). Tighten with 3/16" Allen wrench. Place less than on drop of Blue Loc-Tite ® #242 on threads of washer/screw assembly before installing.

Step 12: Replace filter (5) rough side out and retaining ring (4) into yoke nut (6). Retaining ring's sharp edge must face out and ring must be firmly seated in groove.

Step 13: Inspect and lubricate "O" ring (7A) and place on yoke nut (6).

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Step 14: Replace yoke nut (6) into hole on yoke (2). Place washer (8) over threaded section. Insert yoke nut into body (10) and tighten with wrench snugly. Do not over tighten. NOTE: Place less than one drop of Blue Loc-Tite® #242 on threads before installing.

Step 15: Replace yoke screw (1).

Step 16: Replace second stage hose, plus other accessories, and plugs (9) after inspecting, lubricating and remounting "O" rings (7).

Step 17: To adjust intermediate pressure, mount regulator on air source. Install pressure setting gauge (Model GPS) between hose and valve seat located on the second stage assembly. Turn on air supply. To increase intermediate pressure, turn adjustment screw (23) clockwise. To decrease intermediate pressure, turn adjustment screw counter-clockwise. Intermediate pressure should be 140 PSIG with input pressure at 3000 PSIG. A small drop in pressure (no more than 6 PSIG) at low pressure input of 300 PSIG is permissible.

Step 18: Replace ambient cap on AER kit or plug (24) after final adjustment of intermediate pressure.

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