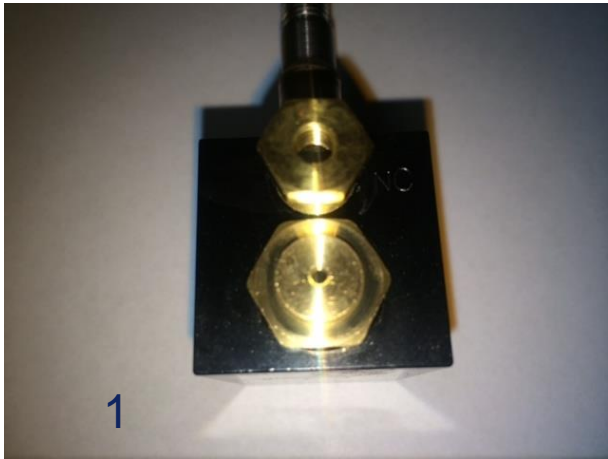


# *FABCO SOLENOID VALVE UPGRADE FIELD INSTRUCTIONS*

July 29, 2015

# INSTRUCTIONS :

1. See photos 1, 2, 3, 3A and 4



# INSTURCTIONS :

A. Make sure that hex of air fitting is parallel to valve body (see photo 1)

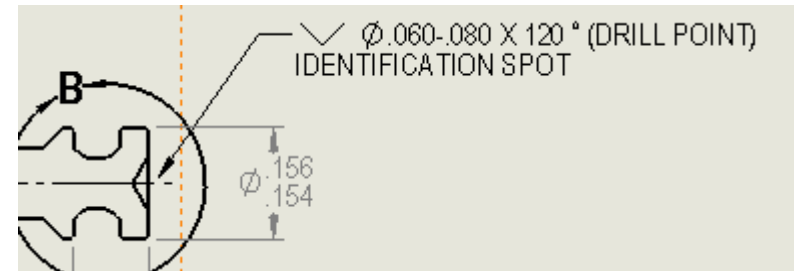


# INSTRUCTIONS :

B. Remove spring cap (part number 114-110) with 9/16" open end wrench (see photo 2)



Valves to be upgraded with new Titanium spool identified by silver look material and identifying drill spot at small end of part. The old aluminum spool has gold anodize appearance.



# INSTRUCTIONS :

- C. Inspect 'o'ring bumper on spring cap (see photo 3A). Cap "A" is good, cap "B" is bad.
- D. If bumper is damaged (cap "B") replace spring cap/bumper (P/N 114-110) .

Identify the bumper on the spring cap. If it is an oring bumper, regardless of condition, replace the entire cap with the cap that includes the "square-cut bumper". If bumper is this new type "square-cut", if it shows any damage or deteriorated glue the entire cap should be replaced.



# INSTRUCTIONS :

2. See photos 5 and 6

- A. Use Q-tip or other soft object to push out spool with seals from rear exhaust port.
- B. Never use a paper clip or other hard object that could potentially damage or scratch the internal sealing bores of the valve body

Wipe both bores of the valve body clean with a Q-tip. Then, using a clean Q-tip, apply MagnaLube-G grease (P/N MGL-4) into both bores.



# INSTRUCTIONS :

3. See photo 6

Remove and discard the existing spool in valve .

4. Install the upgraded spool and seals into valve bore.



6

Included in the kit is the upgraded spool assembly (part number FVS-497-T-904) with seals installed and the nylon washer (part number 104-160, *large* inside diameter) that fits into the spring pocket of the spool. Be certain the seals are well lubricated And install the spool into the valve body, then swab the large bore again with MagnaLube-G grease (P/N MGL-4)

# INSTRUCTIONS :

See photos 7, 8 and 9



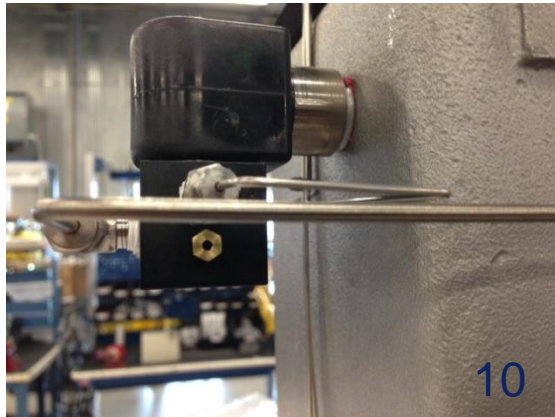
- A. Install nylon washer (part number 104-150) on the end of spring (part number S-104-HP) that fits into spring cap (part number 114-110). The Teflon washer should already be inserted inside spring cap in the kit.
- B. Install spring cap assembly into valve and tighten with 9/16" wrench

Apply the new model number label to valve body.  
(FVS-497-T).



# INSTRUCTIONS :

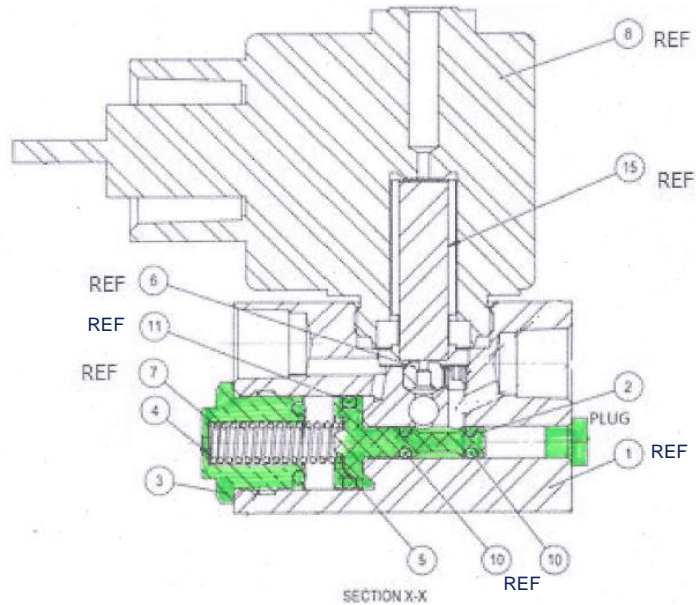
See photos 10



- A. Install small safety hex plug (10-32) P/N FVS-497-PLUG below port NO (normally opened port) as shown.
- B Use 1/4" wrench to tighten the plug but no need to over tight since the purpose for this plug was not to seal gas, but to keep the internal spool ( piston) to exist if broken preventing from loss of Helium.

# FABCO VALVE CUTOUT VIEW

## Upgrade components are in green



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	NOTES
1	1	FVS-497-10	VALVE BODY	REF
2	1	FVS-497-T-904	SPOOL & SEAL KIT	
3	1	114-110	SPRING CAP	
4	1	104-150	WASHER	
5	1	104-160	WASHER	
6	1	50-282	3/64 SEAT	REF
7	1	S-104-HP	SPRING	REF
8	1	OEWS3Z0002TCCP 120/60	CONDUIT SOLENOID OPERATOR	REF
9	1	FVS-497-PLUG	SAFETY HEX PLLUG	
10	2	2-003V	O'RING - VITON	REF
11	1	3-904V	O'RING - VITON	REF
12				
13	1	FVS-497-T	Label for new upgrade to Titanium spool	NOT SHOWN
15	1	3 WAY PLUNGER	PLUNGER	REF

# REFERENCE PART NUMBERS

Upgrade Kit p/n: **2-4-5001-999** (FVS-497-T-RBK)

will include:

- (1) Titanium Spool assy p/n: FVS-497-T-904
- (1) Grease lube p/n: MGL-4
- (1) Nylon washer with larger ID p/n: 104-160
- (1) Nylon washer with smaller ID p/n: 104-150
- (1) Vent plug p/n: FVS-497-plug
- (1) Spring cap p/n: 114-110
- (1) Label “FVS-497-T”

Valve complete p/n: **2-4-5000-218**

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