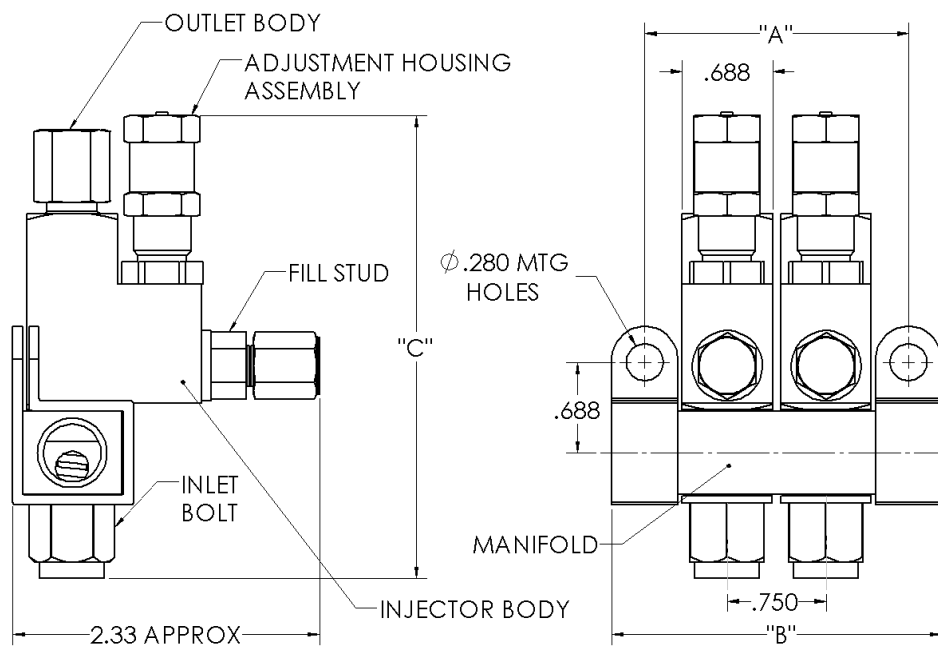


## LSL-32M SERVICE INSTRUCTIONS

### SAFETY INSTRUCTIONS:

DO NOT EXCEED MAXIMUM WORKING PRESSURE OF INJECTOR SYSTEM. SYSTEMS SHOULD NOT BE IN OPERATION WHILE CONDUCTING ANY ASSEMBLY OR DISASSEMBLY OF COMPONENTS.

### LSL-32M MODELS



**LSL-32M DIMENSIONS & MOUNTING INFORMATION**

DESCRIPTION	DIMENSIONS			
	A	B	C	SUPPLY PORTS
1 BANK MANIFOLD	1.250"	1.750"	3.500"	1/4—18 NPSF
2 BANK MANIFOLD	2.000"	2.500"		
3 BANK MANIFOLD	2.750"	3.250"		
4 BANK MANIFOLD	3.500"	4.000"		
6 BANK MANIFOLD	4.250"	4.750"		
7 BANK MANIFOLD	5.000"	5.500"		
8 BANK MANIFOLD	5.750"	6.250"		
9 BANK MANIFOLD	6.500"	7.000"		
10 BANK MANIFOLD	7.250"	7.750"		

## LSL-32M SERVICE INSTRUCTIONS

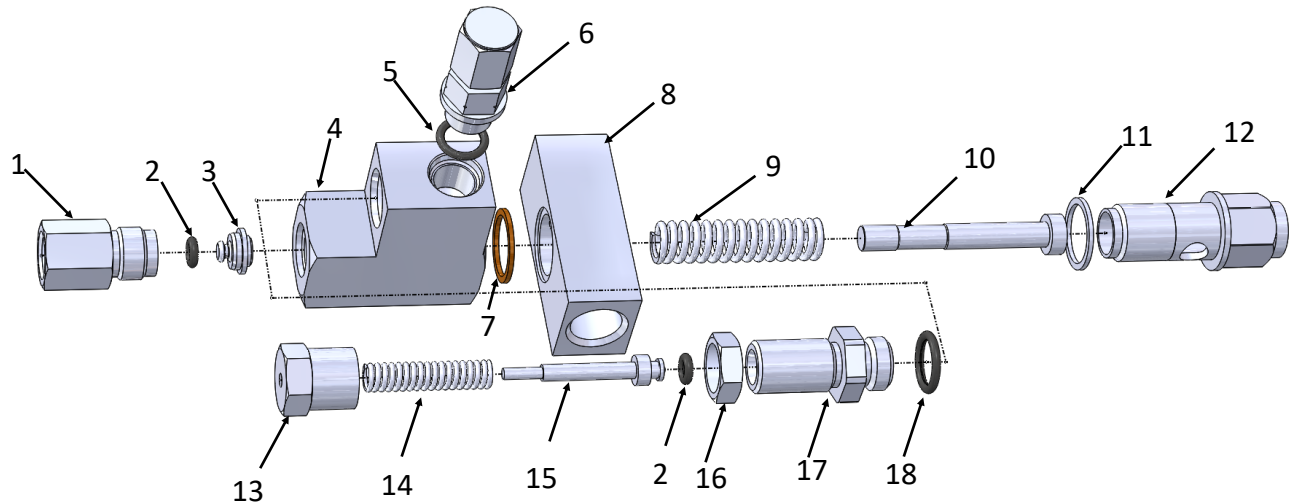
### INSTALLATION INSTRUCTIONS:

1. COMPACT SYSTEM TO MINIMIZE FEED LINE LENGTH
  2. INJECTORS ARE ADJUSTABLE AND SHOULD BE PLACED IN EASY AND SAFE SERVICING AREAS.
  3. SECURELY MOUNT INJECTORS TO FLAT SURFACES
  4. PREFILLING OF INJECTOR MANIFOLD ASSEMBLIES, FEED LINES AND INJECTION POINT LINES WILL ELIMINATE UNWANTED FLUID OR AIR IN SYSTEM.
  5. CONNECT SUPPLY LINES TO MANIFOLDS
  6. PRELIMINARY LUBE CYCLES SHOULD BE CONDUCTED WITH INJECTORS AT MAXIMUM OUTPUT. VISUALLY VERIFYING OUTPUT AND CYCLE INDICATOR PINS CYCLE AT FULL STROKE.
  7. ADJUST OUTPUT PER REQUIRED SPECIFICATIONS OF LUBE POINTS. ( SEE ADJUSTING OUTPUT VOLUME)
  8. CONNECT OUTPUT FEED LINES TO INJECTION POINTS
- 

### WARNING

TO PREVENT RUPTURING AND LEAKS DUE TO OVER-PRESSURIZING, ONLY USE LINES AND FITTINGS THAT MEET OR EXCEED THREE PRESSURE RATING OF INJECTORS.

**LSL-32M SERVICE PARTS**



**DISASSEMBLY INSTRUCTIONS**

**STEP 1:** Remove outlet body from top of injector body. Remove its contents, outlet check body and -006 o-ring.

**STEP 2:** Remove adjustment cap from adjustment body. Remove its contents, adjustment spring, piston and -006 o-ring. Unthread adjustment body from injector body and remove -012 viton o-ring.

**STEP 3:** Remove inlet bolt from bottom of injector body. Remove its contents, pressure piston, pressure spring and carbon steel washer.

**REASSEMBLY INSTRUCTIONS**

**STEP 1:** Clean all injector components and inspect for wear. Replace parts and generously lube O-rings and components.

**STEP 2:** Install measuring chamber piston with -006 o-ring into adjustment body followed by measuring chamber spring, lock nut and cap. Place -012 o-ring on adjustment body and thread into injector body.

**STEP 3:** Install check outlet body with -006 o-ring into top port of injector body followed by outlet body and torque to 20-25 ft/lbs

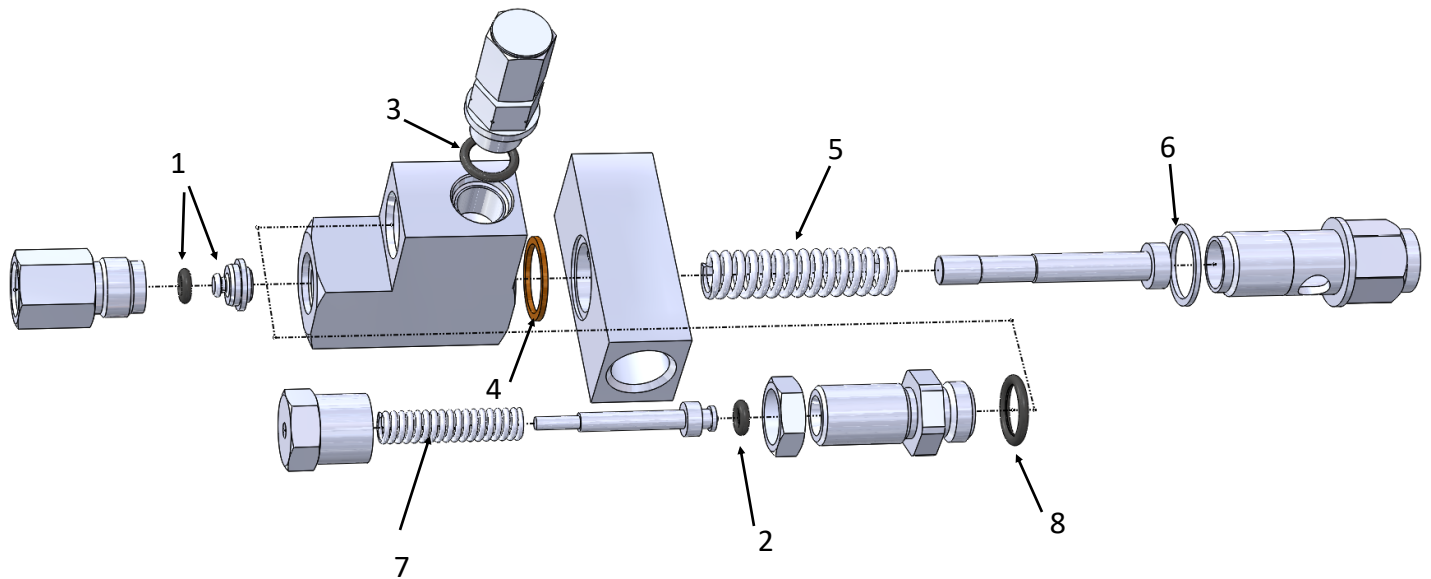
**STEP 4:** Place carbon steel washer over inlet bolt. Install pressure piston into inlet bolt followed by pressure spring.

**STEP 5:** Install copper washer to upper manifold counterbore. Align bottom of injector body with the copper washer. Align inlet bot with pressure spring and piston into bottom of manifold and torque to 25-30 ft/lbs

ITEM	DESCRIPTION	QTY
1	OUTLET BODY (VARIOUS TYPES)	1
2	-006 VITON O-RING	2
3	OUTLET CHECK BODY	1
4	INJECTOR BODY	1
5	-903 VITON O-RING	1
6	FILL STUD AND CAP	1
7	COPPER WASHER	2
8	MANIFOLD	1
9	PRESSURE SPRING	1

ITEM	DESCRIPTION	QTY
10	INJECTOR PISTON	1
11	CARBON STEEL WASHER	2
12	INLET BOLT	1
13	ADJUSTMENT CAP	1
14	MEASURING CHAMBER SPRING	1
15	MEASURING CHAMBER PISTON	1
16	LOCK NUT	1
17	ADJUSTMENT BODY	1
18	-012 VITON O-RING	1

**LSL-32M REBUILD KITS**



<b>MASTER REBUILD KIT NO. LSL-32MRK</b>			
ITEM	PART NO.	DESCRIPTION	QTY
1	LSL32-007A	OUTLET CHECK BODY W/-006 VITON O-RING	1
2	12661-0007	-006 VITON O-RING	1
3	12661-0103	-903 VITON O-RING	1
4	LSL32-009-CPR	COPPER WASHER	1
5	LSL32-004	PRESSURE SPRING	1
6	LSL32-009-000	CARBON STEEL ZINC PLATED WASHER	1
7	LSL32-005	ADJUSTMENT CHAMBER SPRING	1
8	12661-0008	-012 VITON O-RING	1
9	LSL32-016	VINYL CAP (NOT SHOWN)	1

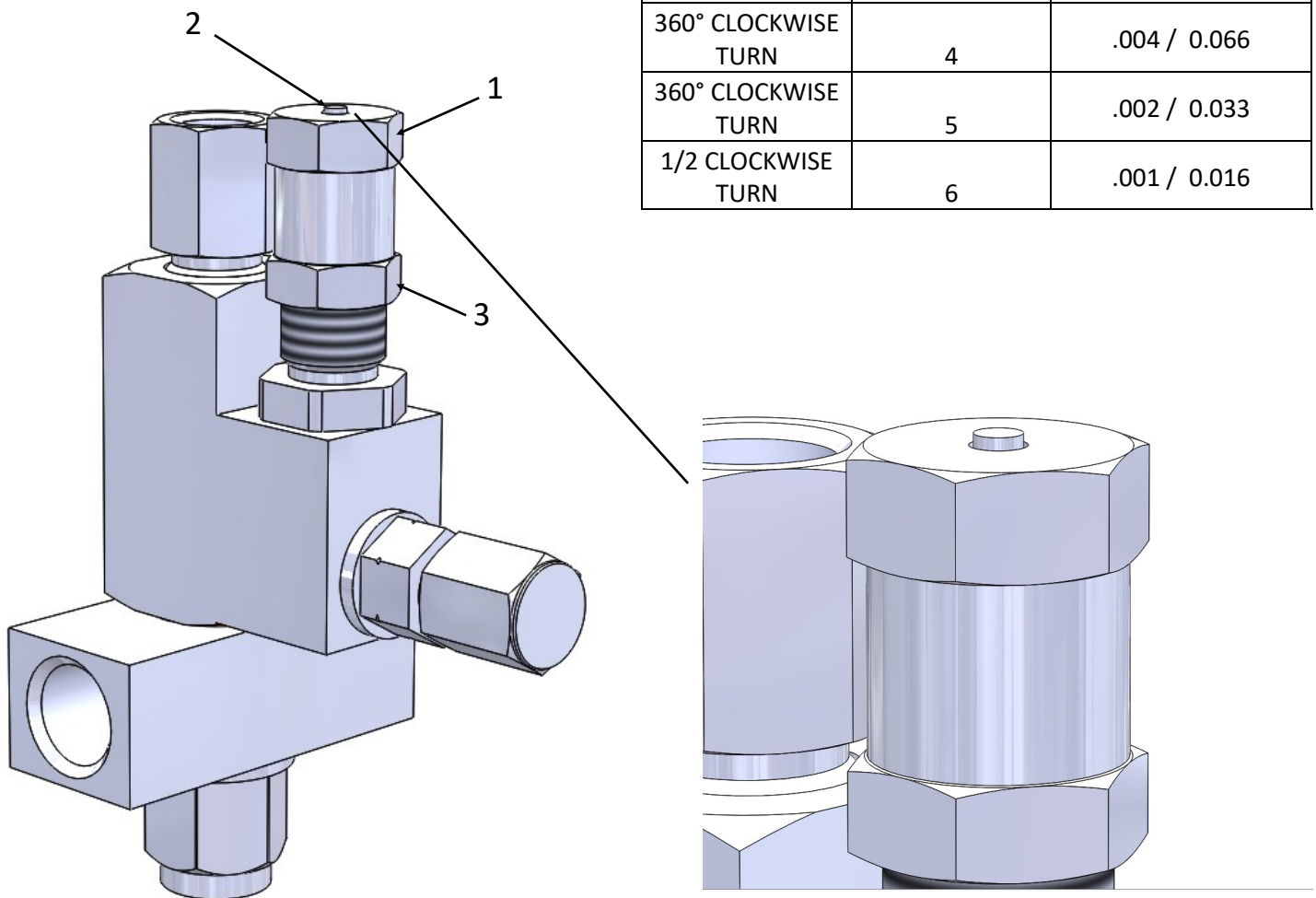
<b>SEAL KIT NO. LSL32-SK</b>			
ITEM	PART NO.	DESCRIPTION	QTY
1	LSL32-007A	OUTLET CHECK BODY W/-006 VITON O-RING	1
2	12661-0007	-006 VITON O-RING	1
3	12661-0103	-903 VITON O-RING	1
4	LSL32-009-CPR	COPPER WASHER	1
6	LSL32-009-000	CARBON STEEL ZINC PLATED WASHER	1
8	12661-0008	-012 VITON O-RING	1
9	LSL32-016	VINYL CAP (NOT SHOWN)	1

## LSL-32M SERVICE INSTRUCTIONS

### ADJUSTING OUTPUT VOLUME:

1. MAXIMUM OUTPUT : SET ADJUSTMENT CAP ( 1 ) SO IT IS BELOW THE END OF THE INDICATOR PIN ( 2 ) APPROX. 0.030" (FACTORY SETTING) SEE BELOW
2. TO REDUCE OUTPUT: LOOSEN LOCK NUT ( 3 ), TURN ADJUSTMENT CAP COUNTER CLOCKWISE (SEE LSL-32M VOLUME ADJUSTMENT TABLE)

LSL-32M VOLUME ADJUSTMENT TABLE		
DESCRIPTION	ADJUSTMENT TURNS	VOLUME cu. In. / cc
MAX OUTPUT	0	.012 / 0.197
360° CLOCKWISE TURN	1	.010 / 0.180
360° CLOCKWISE TURN	2	.008 / 0.131
360° CLOCKWISE TURN	3	.006 / 0.098
360° CLOCKWISE TURN	4	.004 / 0.066
360° CLOCKWISE TURN	5	.002 / 0.033
1/2 CLOCKWISE TURN	6	.001 / 0.016

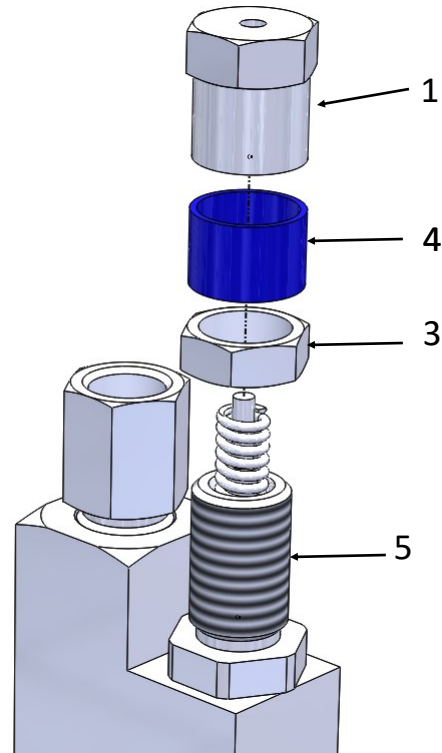






**LSL-32M SERVICE INSTRUCTIONS**

**SPECTRUM ADJUSTMENT SLEEVES**

**SPECTRUM SLEEVE INSTALL INSTRUCTIONS:**

1. REMOVE ADJUSTMENT CAP (1) AND LOCK NUT (3) .
2. PLACE DESIRED OUTPUT RATIO SPECTRUM SLEEVE (4) OVER ADJUSTMENT BODY (5)
3. REINSTALL ADJUSTMENT LOCK NUT(3) FOLLOWED BY SPECTRUM SLEEVE (4) THEN ADJUSTMENT CAP AND TIGHTEN LOCK NUT SECURELY



STANDARD PACK: 5 EACH			
MODEL NUMBER (5 PACK)	OUTPUT CU IN / (CC)	RATIO FROM MAXIMUM OUTPUT	SLEEVE COLOR
LSL-32-ADJ025	.003 / 0.049	25%	
LSL-32-ADJ050	.006 / 0.098	50%	
LSL-32-ADJ075	.009 / 0.147	75%	
LSL-32-ADJ100	.012 / 0.197	100%	

## LSL-32M SERVICE INSTRUCTIONS

### CROSSPORTING: LSL-32-CPK-A1-303 KIT ( 1/4" TUBE OUTLET)

**STEP 1:** Remove outlet bodies (A)

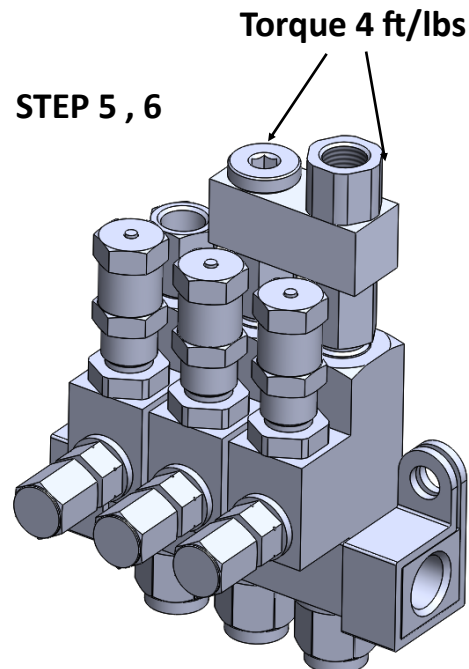
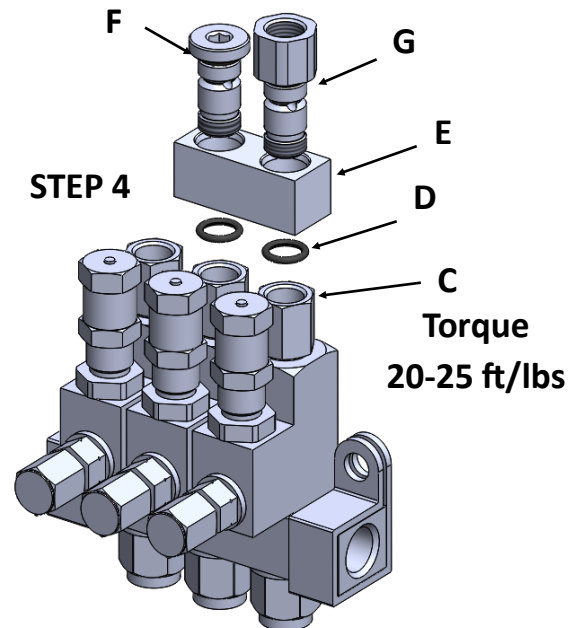
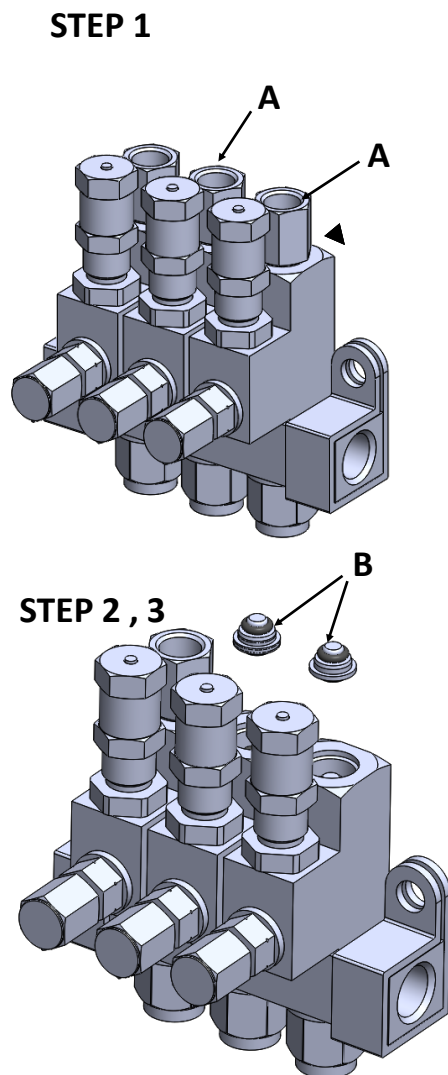
**STEP 2:** Remove check valve assembly (B) and discard.

**STEP 3:** Install new check assemblies (B) included in kit with -006 oring facing upward.

**STEP 4:** Install and torque new outlet bodies (C) to 20-25 tf/lbs (240-300 in/lbs) followed by orings (D) , manifold (E) , plug bolt (F) and outlet bolt (G). Install outlet bolt (G) on side that outlet is desired.

**STEP 5:** Torque plug bolt and outlet bolt to 4 ft/lbs (48 in/lbs)

**STEP 6:** Install outlet tubing.



## LSL-32M SERVICE INSTRUCTIONS

### CROSSPORTING: LSL-32-CPK-A2-303 KIT ( 1/8" TUBE OUTLET)

**STEP 1:** Remove outlet bodies (A)

**STEP 2:** Remove check valve assembly (B) and discard.

**STEP 3:** Install new check assemblies (B) included in kit with -006 oring facing upward.

**STEP 4:** Install and torque new outlet bodies (C) to 20-25 tf/lbs (240-300 in/lbs) followed by orings (D), manifold (E), plug bolt (F) and outlet bolt (G). Install outlet bolt (G) on side that outlet is desired.

**STEP 5:** Torque plug bolt and outlet bolt to 4 ft/lbs (48 in/lbs)

**STEP 6:** Install outlet tubing.

