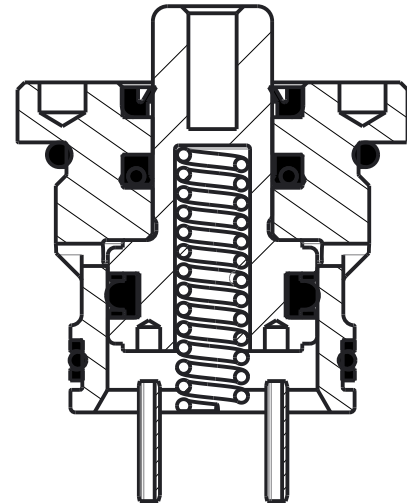
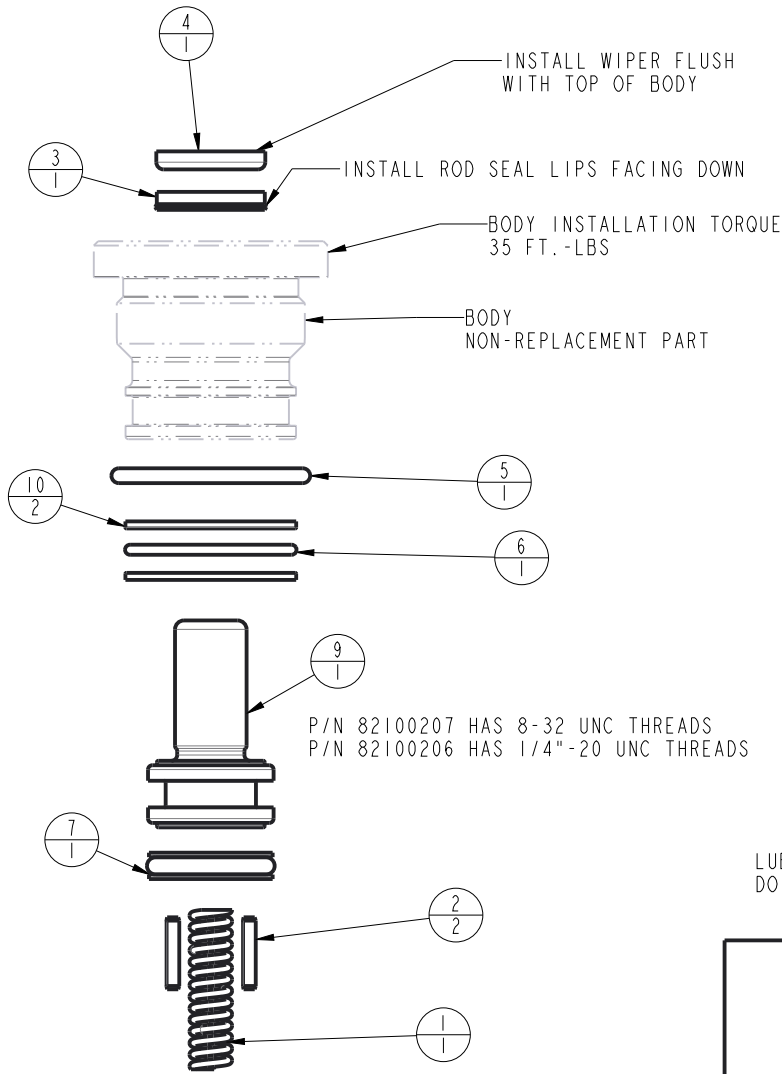


NO	QTY	PART NO	DESCRIPTION	21-0209-00	21-0209-01	STD SEAL KIT
1	1	23355012	SPRING, COMPRESSION	X	X	
2	2	23520003	PIN, SPRING, SLOTTED, 3/32 X 1/2, SST	X	X	
3	1	39010019	SEAL, LL, (1/2 X 1/8 X 1/8 X 3/4)	X	X	X
4	1	39012009	WIPER,PRESS-IN, (1/2)	X	X	X
5	1	39050095	O-RING, (-123)	X	X	X
6	1	39051110	O-RING, (-023)	X	X	X
7	1	39052047	SEAL,T, (5/8 X 1/8 X 7/8)	X	X	X
8	1	67010154	TAG, INSTALL, CYL, CM, THREAD-IN			X
9	1	82100206	PLUNGER,CYL,CM,PP,2900LB		X	
-	1	82100207	PLUNGER,CYL,CM,PP,2900LB	X		
10	2	39F54016	BU RING, (-023)	X	X	X
N/A	N/A	60210204	KIT, SEAL, CYL, CM, PP, 2900LB	N/A	N/A	NOTED
N/A	N/A	IS2101	INSTRUCTIONS, INSTALL, CYL, CM, THREADED	N/A	N/A	N/A

NOTE: ITEM 1 ONLY USED FOR SINGLE ACTING OPERATION



LUBRICATE ALL SEAL WITH CLEAN HYDRAULIC OIL. DO NOT USE SILICONE BASED LUBRICANTS

**PARTS LIST**



VEKTEK, INC.  
1334 E. SIXTH AVE. P.O. BOX 625  
EMPORIA, KS. 66801 U.S.A.

**PARTS LIST, CYL, CM, PP, 2900LB**

THREAD IN

SIZE A **PL2180**

REV A

A	2753	RELEASE	DKC	10/16/14
REV	IN ACCORDANCE WITH ECN	EFFECTIVE DATE	REVISED BY	DATE
DRW BY:	DKC	<b>DRAWING STATUS: Released</b>		
DATE:	9/25/14	PRODUCTION APPROVED FOR RELEASED STATUS ONLY		

ASSEMBLIES AFFECTED

21-0209-00

21-0209-01



# INSTALLATION INSTRUCTIONS CONTINUED

## Anti-Rotation Pins- Optional

-Anti-Rotation Pins are included with all cylinders

-Anti-Rotation Pins are only to resist normal rotational force from cylinder actuation. The pins are not intended to resist torque from other applications.

-The use of anti-rotation pins are not required.

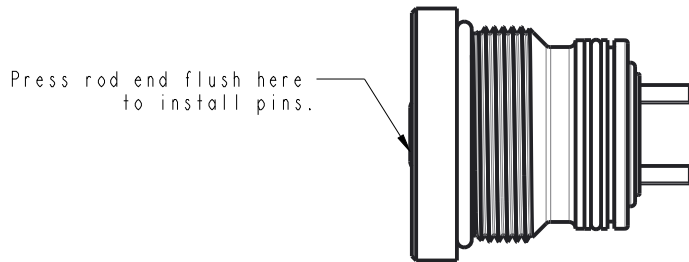
-Anti-Rotation Pins (included with each device) have sufficient length to fully engage in plunger as well as engage in the fixture greater than the total plunger stroke.

- Replacement anti-rotation pin part numbers are below for each size of cylinder.

MODEL NO.	PIN NO.
21-0206-XX	81-5905-09
21-0209-XX	23-5200-03
21-0210-XX	23-5200-04
21-0213-XX	23-5200-04
21-0216-XX	23-5200-05
21-0221-00	23-5200-05

## Installation of Anti-Rotation Pins- Optional

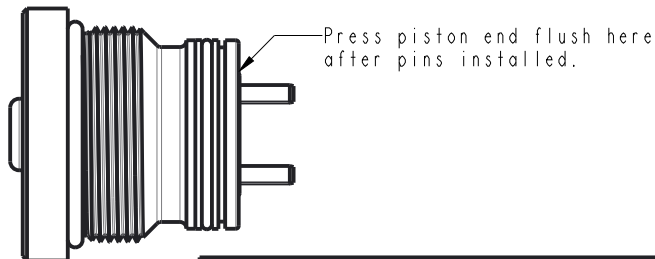
1. Press rod end of plunger flush with the end of the cylinder body. See view below. Care must be taken not to push the rod out of the rod seal. Piston seal may be exposed in certain cylinder models.



2. Press in the pins provided. Ensure pins start straight and are fully seated in the plunger. (An increase in resistance will be felt when pin is fully seated.)

NOTE: If piston seal was exposed during anti-rotation pin installation. Lubricate seal with non-silicone grease or clean hydraulic oil prior to reinstallation.

3. With both pins installed, carefully press piston end of the plunger flush with end of body. See view below.



4. Cylinder is ready for installation into fixture.

**INSTALLATION INSTRUCTIONS**



VEKTEK, INC.  
1334 E. SIXTH AVE. P.O. BOX 625  
EMPORIA, KS. 66801 U.S.A.

A	2753	RELEASE	DKC	10/1/14
REV	IN ACCORDANCE WITH ECN	EFFECTIVE DATE	REVISED BY	DATE
DRW BY:	DKC	<b>DRAWING STATUS: Released</b>		
DATE:	3/10/14	PRODUCTION APPROVED FOR RELEASED STATUS ONLY		

ASSEMBLIES AFFECTED  
21-0206-XX 21-0209-XX  
21-0210-XX 21-0213-XX  
21-0216-XX 21-0221-00

<b>INSTRUCTIONS, INSTALL, CYL, CM, THREADED</b>	
THREAD IN	
SIZE A	<b>IS2101</b>
REV A	

FORM FEG041-1S.AS1ZE, REV. B

SHEET 2 OF 3

# 1 2

## INSTALLATION INSTRUCTIONS CONTINUED

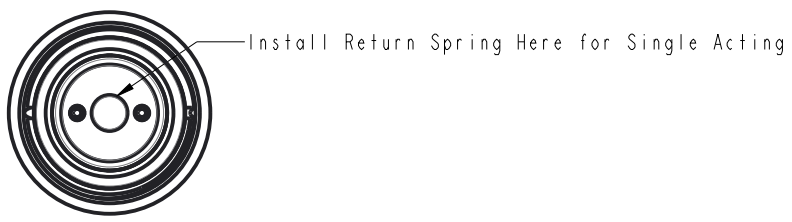
### Installation Notes

- It is recommended that all cavities be prepared using a ball hone such as a \*Flex-Hone™. This will prepare cavity for installation by deburring and rounding sharp edges to prevent seal damage.
- All seals should be lubricated with a non-silicone grease (recommended) or clean hydraulic oil prior to installation.
- Cylinder body threads should be lubricated prior to installation to permit proper torquing.
- For single acting operation of thread-in 21-02XX-XX cylinder, the included return spring is required. Refer to chart below for replacement return spring number.

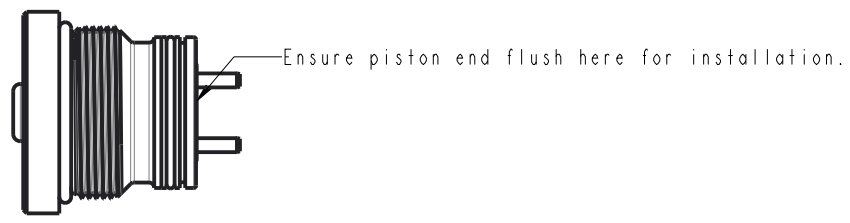
MODEL NO.	SPRING NO.
21-0206-XX	23-3550-11
21-0209-XX	23-3550-12
21-0210-XX	23-3550-12
21-0213-XX	23-3550-14
21-0216-XX	23-3550-15
21-0221-00	23-3550-16

### Installation

1. Lubricate all seals with non-silicone grease (recommended) or clean hydraulic oil.
2. If using cylinder as single acting, install included return spring in plunger cavity with a small amount of grease to hold it in place during installation. For double acting systems, no spring is necessary.



3. If using anti-rotate pins, ensure the piston end of plunger is flush with the open end of the body or slightly below. Piston seal should not be exposed. See view below.
  - a. Insert cylinder in to cavity. Apply slight downward pressure while rotating cylinder. This motion will align pins and start threads.



4. Torque cylinder using specifications below.

MODEL NO.	TORQUE (FT-LBS)
21-0206-XX	25
21-0209-XX	35
21-0210-XX	60
21-0213-XX	65
21-0216-XX	160
21-0221-00	200

<b>INSTALLATION INSTRUCTIONS</b>	VEKTEK, INC. 1334 E. SIXTH AVE. P.O. BOX 625 EMPORIA, KS. 66801 U.S.A.
ASSEMBLIES AFFECTED	<b>INSTRUCTIONS, INSTALL, CYL, CH, THREADED</b>
21-0206-XX 21-0209-XX 21-0210-XX 21-0213-XX 21-0216-XX 21-0221-00	THREAD IN
SIZE A	<div style="font-size: 2em; font-weight: bold; text-align: center;">IS2101</div> REV A
FORM FEG041-IS.AS1Z, REV. B	

A	2753	RELEASE	DKC	10/1/14
REV	IN ACCORDANCE WITH ECN	EFFECTIVE DATE	REVISED BY	DATE
DRW BY:	DKC	<b>DRAWING STATUS: Released</b>		
DATE:	3/10/14	PRODUCTION APPROVED FOR RELEASED STATUS ONLY		