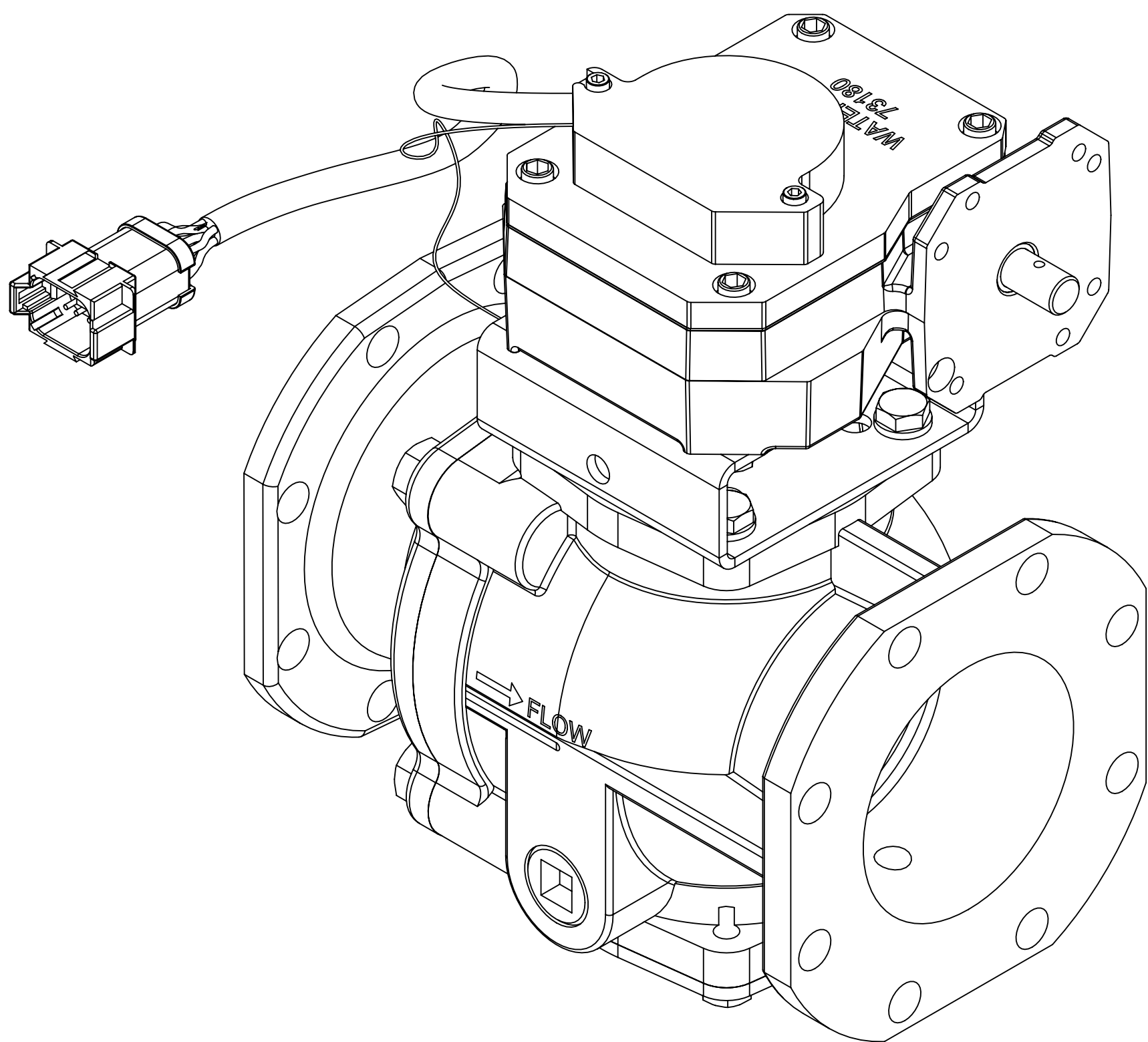
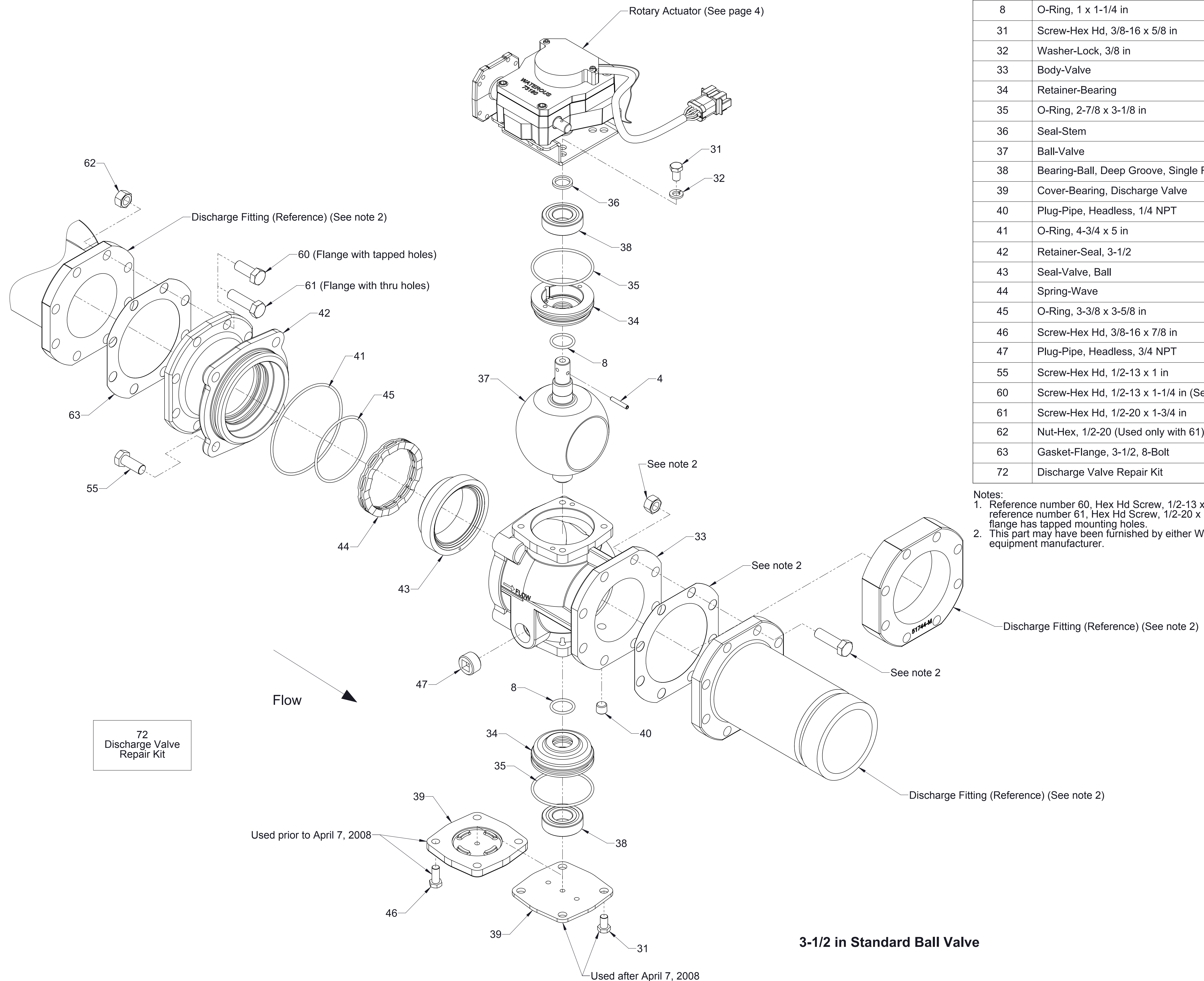


**3-1/2 in. Standard Discharge Valve Assembly with Manual Rotary Actuator**

**Service Parts List**

Components	See Page
3-1/2 in. Standard Ball Valve	2
Cables and Panel Components	3
Available Repair Subassemblies	4



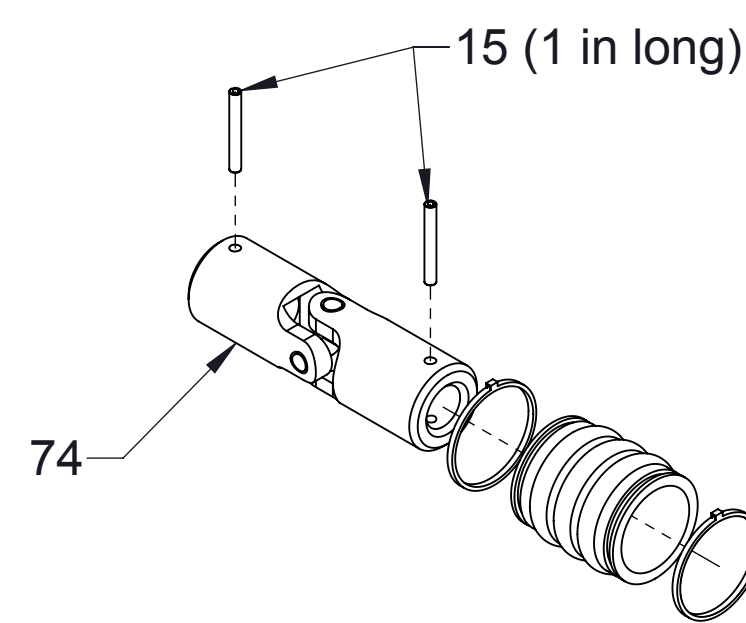
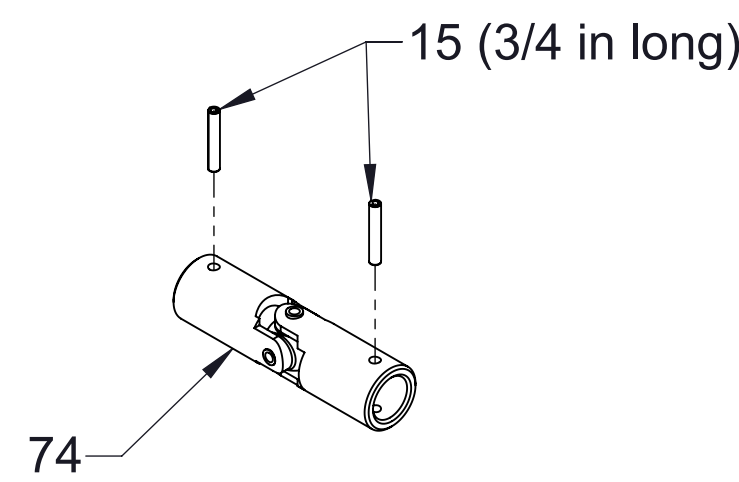


Ref No.	Description
4	Pin-Spring, 3/16 x 1-1/8 in
8	O-Ring, 1 x 1-1/4 in
31	Screw-Hex Hd, 3/8-16 x 5/8 in
32	Washer-Lock, 3/8 in
33	Body-Valve
34	Retainer-Bearing
35	O-Ring, 2-7/8 x 3-1/8 in
36	Seal-Stem
37	Ball-Valve
38	Bearing-Ball, Deep Groove, Single Row, Double Seal
39	Cover-Bearing, Discharge Valve
40	Plug-Pipe, Headless, 1/4 NPT
41	O-Ring, 4-3/4 x 5 in
42	Retainer-Seal, 3-1/2
43	Seal-Valve, Ball
44	Spring-Wave
45	O-Ring, 3-3/8 x 3-5/8 in
46	Screw-Hex Hd, 3/8-16 x 7/8 in
47	Plug-Pipe, Headless, 3/4 NPT
55	Screw-Hex Hd, 1/2-13 x 1 in
60	Screw-Hex Hd, 1/2-13 x 1-1/4 in (See note 1)
61	Screw-Hex Hd, 1/2-20 x 1-3/4 in
62	Nut-Hex, 1/2-20 (Used only with 61)
63	Gasket-Flange, 3-1/2, 8-Bolt
72	Discharge Valve Repair Kit

Notes:

- Reference number 60, Hex Hd Screw, 1/2-13 x 1-1/4 in. used instead of reference number 61, Hex Hd Screw, 1/2-20 x 1-3/4 in. when discharge flange has tapped mounting holes.
- This part may have been furnished by either Watrous or original equipment manufacturer.



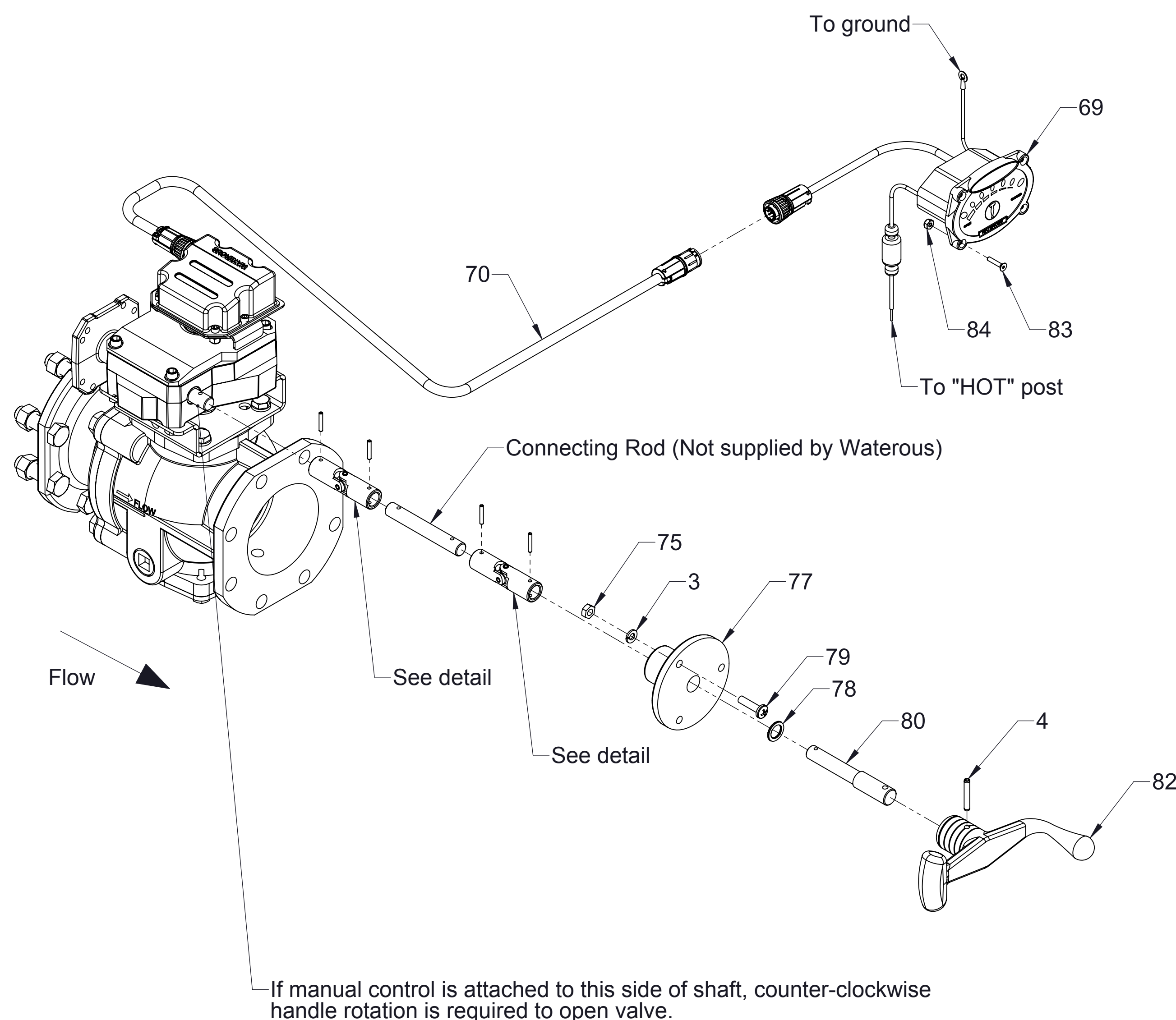


Standard Configuration

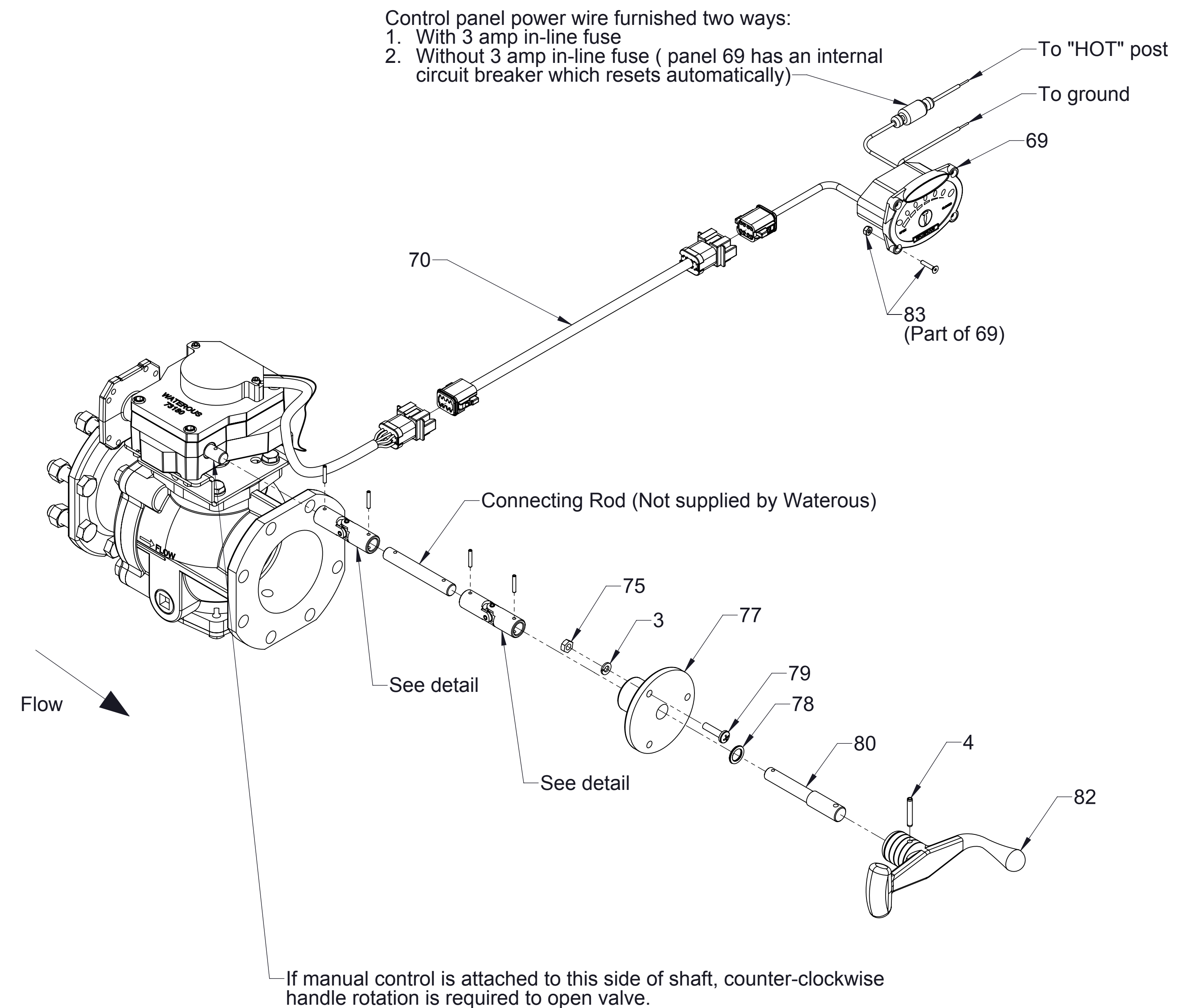
Optional Configuration with Sealing boot

U-Joint detail

Ref No.	Description	Ref No.	Description
3	Washer-Lock, 1/4 in	78	Bearing-Thrust
4	Pin-Spring, 3/16 x 1 1/4 in	79	Screw-Machine, Pan Hd, 1/4-20 x 1 in
15	Pin-Spirol, 1/8 x 3/4 in or 1/8 x 1 in	80	Shaft-Remote
69	LED Panel Wiring Assembly	82	Handle-Discharge Valve
70	Wire Assembly-Switch Extension	83	Screw-Machine, Flat Hd, Hex Soc, #6-32 x 3/4 in (Prior to November 6, 2006)
74	Joint-Universal	83	Control Panel Mounting Hardware (Includes (4) Socket Hd Screws, #6-32 x 3/4 and (4) Nylok Nuts, #6-32) (After November 6, 2006)
75	Nut-Hex, Machine, 1/4-20	84	Nut-Hex, Nylok, #6-32 (Prior to November 6, 2006)
77	Body-Remote	85	U-Joint boot (Includes cable ties)



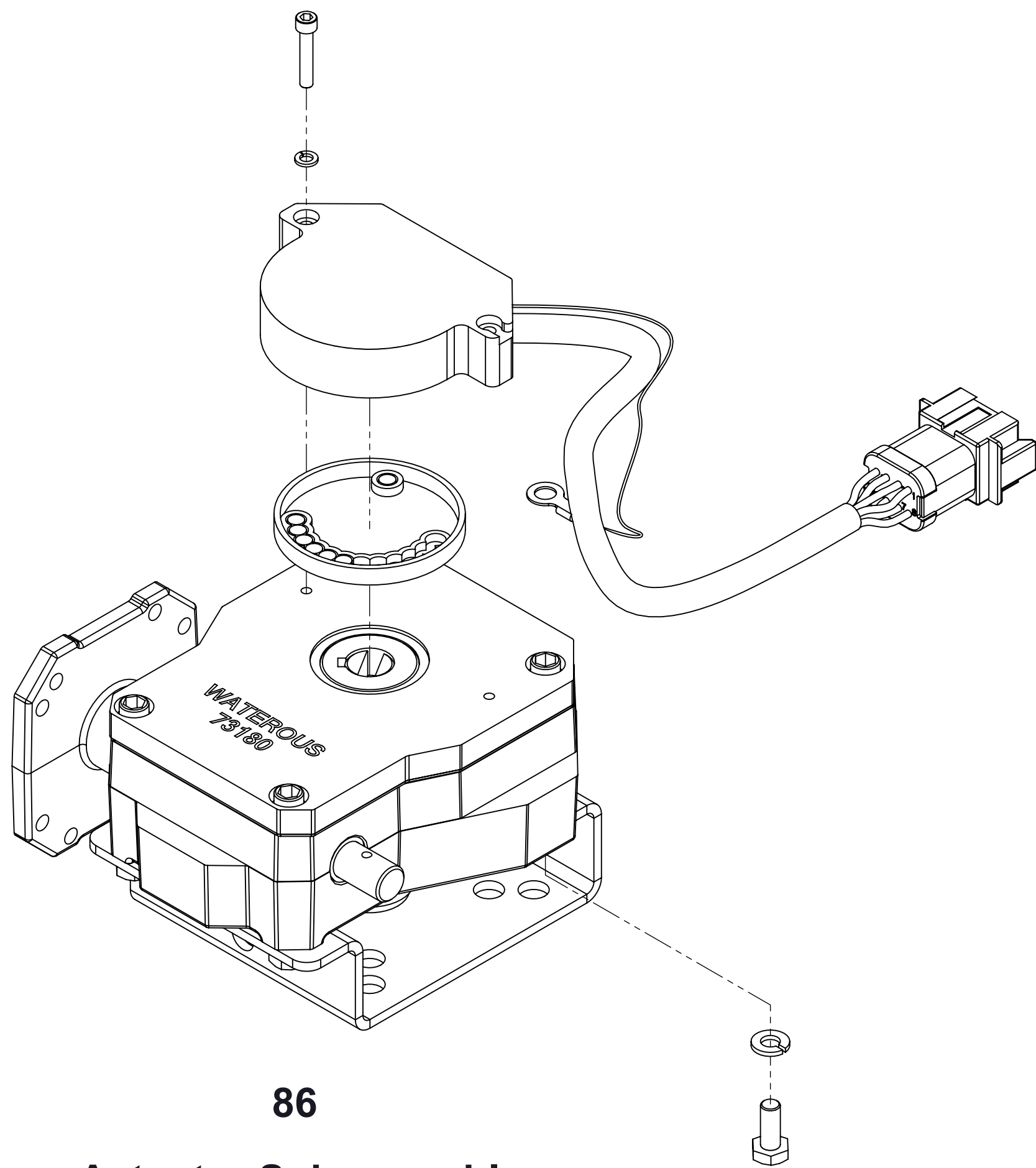
Valves built prior to November 6, 2006



Valves built after November 6, 2006

Cables and Panel Components

Ref No.	Description
53	Rotary Encoder Replacement kit
86	Actuator Subassembly
87	Valve and Actuator Subassembly

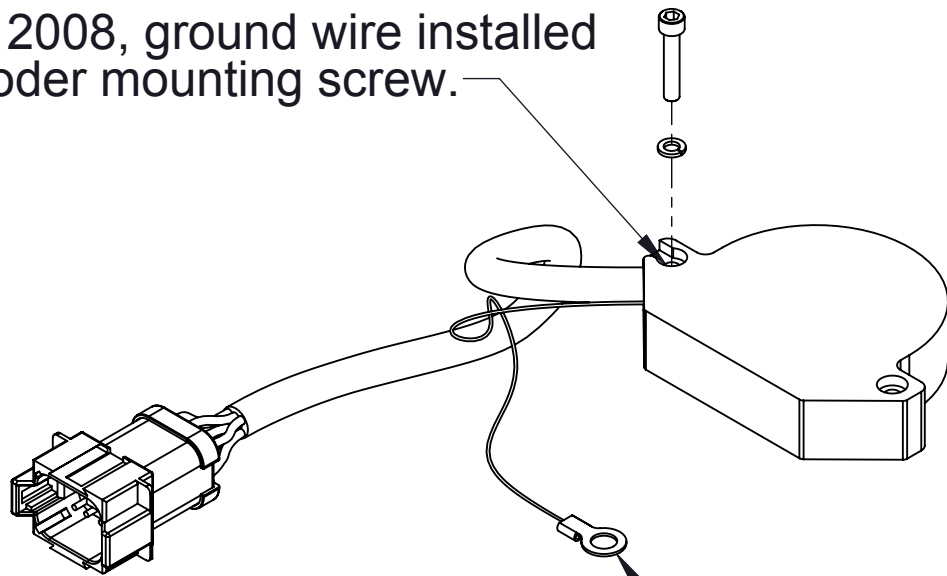


86  
Actuator Subassembly

53  
Rotary Encoder  
Replacement Kit

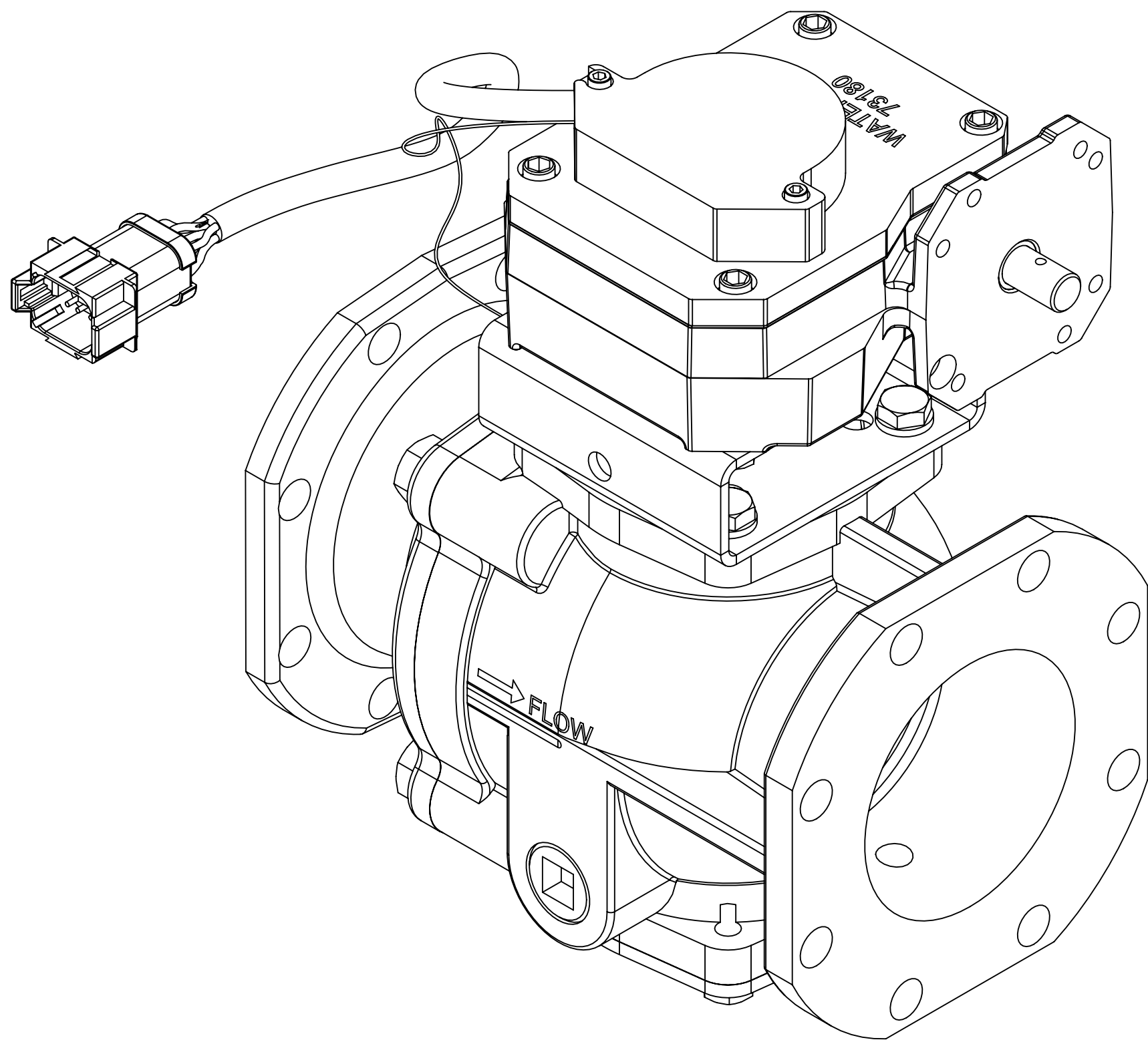
Encoder Details

Prior to January 7, 2008, ground wire installed under head of encoder mounting screw.

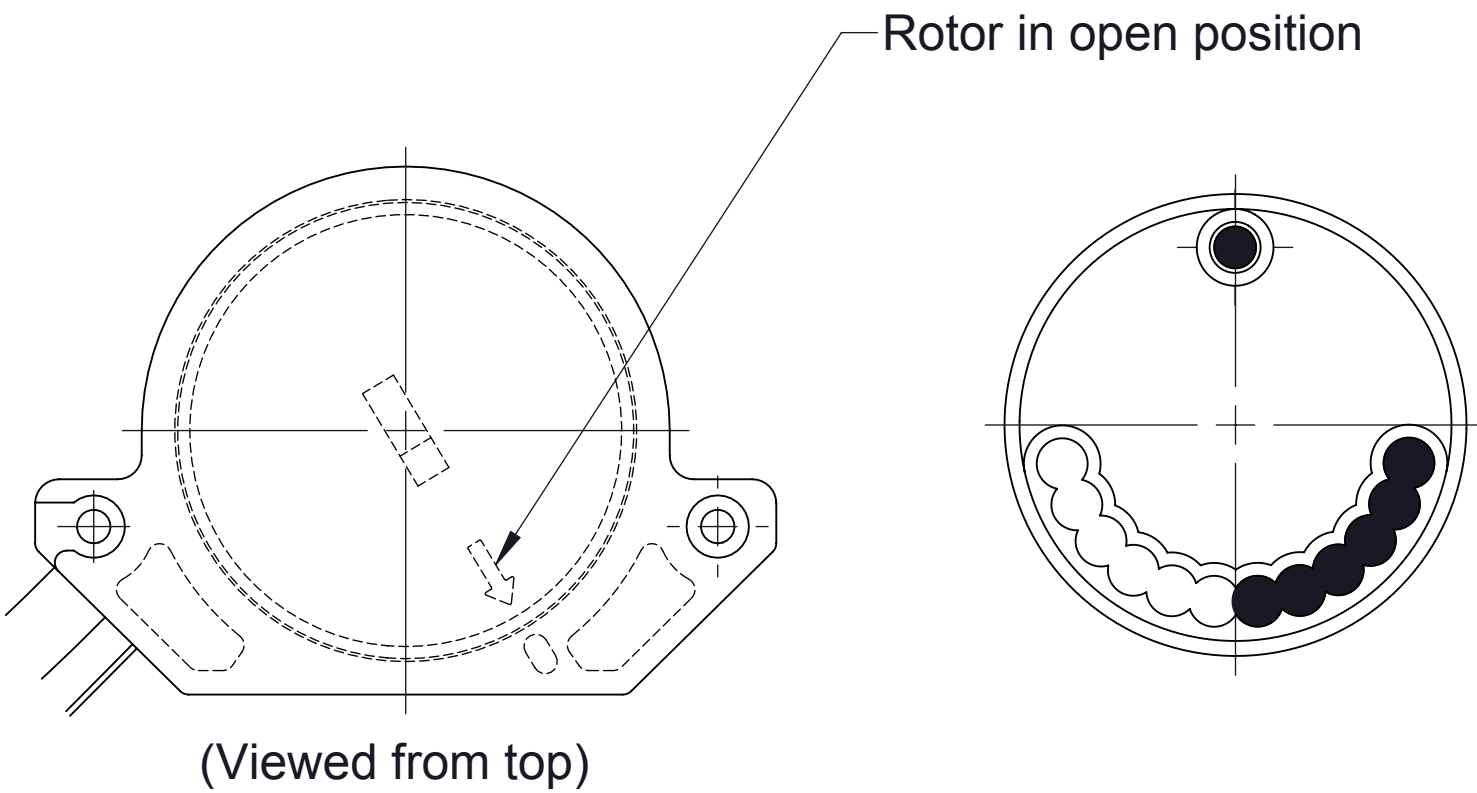


After January 7, 2008, ground wire installed under head of mounting bracket, see 120.

Encoder Ground Wire Detail



87  
Valve and Actuator Subassembly



Rotor Position

Rotor Magnet Positions