



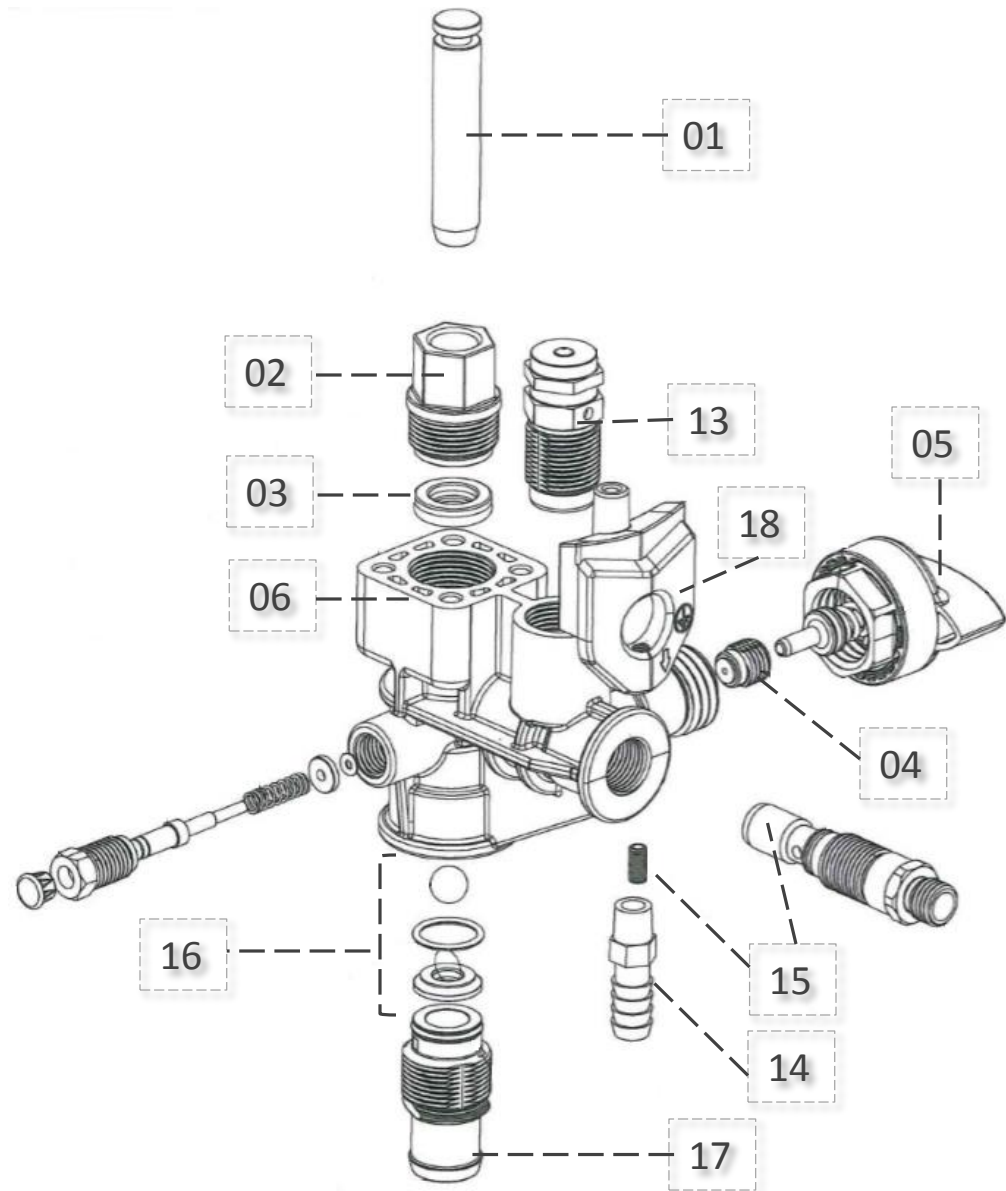
Control Pro 250 / 350

Universal Sprayer



















25th October, 2017

Fluid Section

	P/N	Part description
00	0 580 060	Fluid section assy.
01	0 580 032	Piston
02	0 580 077	Piston bushing
03	0 580 080	Piston seal
04	0 580 076	PRIME seat
05	0 580 063	PRIME switch
06	0 580 061	Fluid section housing
13	0 580 074	Transducer assy.
14	9 885 553	Fitting 1/8NPT Mx3/8
15	0 580 072A	Outlet valve
16	0 580 391	Repair kit for inlet valve
17	0 580 071A	Inlet valve housing
18	0 580 065	Ground plate



Tools Required

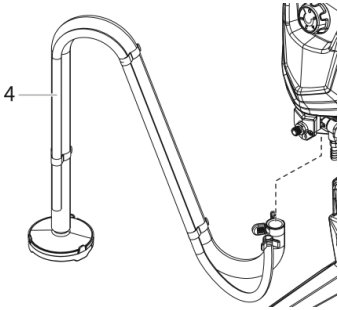

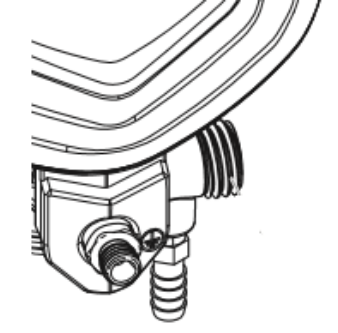

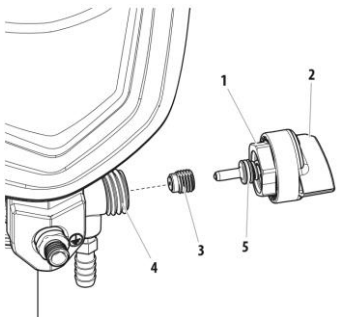

Description	Adjustable Spanner	Flat Spanner (16)	Flat Spanner (12)	Flat Spanner (11)	Allen Key 10mm	Allen Key 6mm	Allen Key 2,5mm	Torx Spanner 20mm	Phillips Screwdriver
Number	A	B	C	D	E	F	G	H	I
Tool	 	 	 	 	 	 	 	 	 



Content

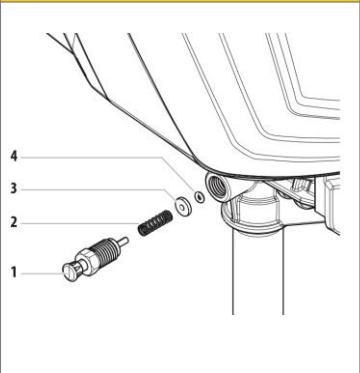

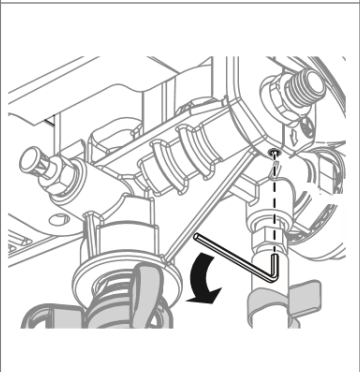

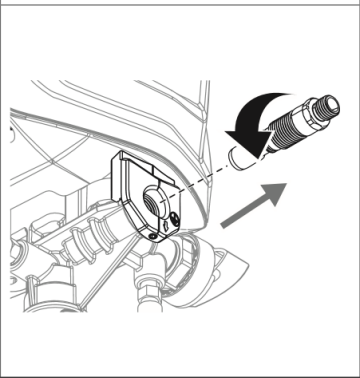

Action	Page
Disassembling the inlet valve	8
Assembling the inlet valve	17
Disassembling the outlet valve	7
Assembling the outlet valve	18
Disassembling the PRIME/SPRAY valve	6
Assembling the PRIME/SPRAY valve	16
Disassembling the pusher stem assy.	7
Assembling the pusher stem assy.	16 - 17
Disassembling the pressure dial assy.	9
Assembling the pressure dial assy.	14 - 15
Servicing the fluid section	9 - 11
Disassembling the motor / gears	
Assembling the motor / gears	
Replacing the transducer	
Electrical diagram	19

Disassembling ControlPro

Step	Drawing	Picture	Description
01			<p>Pull down both clamps at the hoses and remove suction and return tube</p>
02			<p>Unscrew hose fitting</p>
03			<p>Apply the adjustable Spanner to the nut (1) just behind the PRIME/SPRAY knob (2). Using the adjustable Spanner, unscrew PRIME/SPRAY valve assembly (1). With the 6 mm allen Spanner, remove the seat (3).</p>

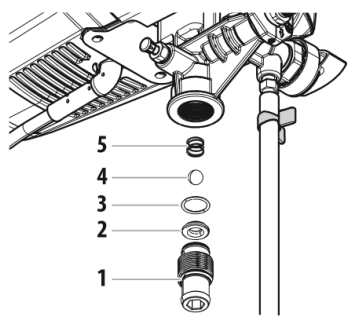

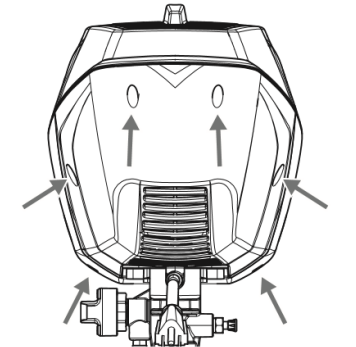
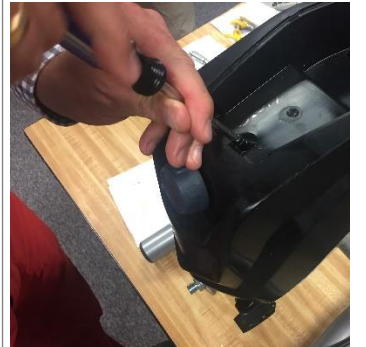
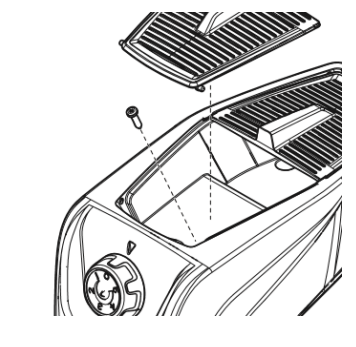



Disassembling ControlPro

Step	Drawing	Picture	Description
<p>04</p> <p>C</p>			<p>Using the 12 mm Spanner or deep socket, unscrew the pusher stem assembly (1). Make sure not to lose the spring (2). Remove the washer (3) and O-ring (4) from the housing. Inspect and remove any existing debris.</p>
<p>05</p> <p>(a)</p> <p>G</p>			<p>First remove the spray hose, then loosen the set screw (but do not remove) just underneath the outlet valve with a 2,5mm allen Spanner</p>
<p>06</p> <p>(b)</p> <p>B</p>			<p>Unscrew outlet valve from outlet valve housing using a adjustable Spanner.</p>

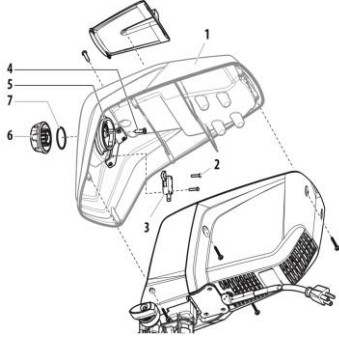
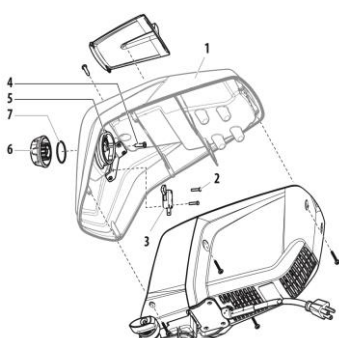
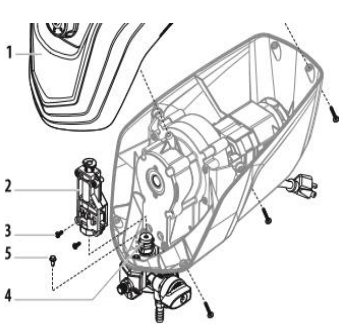
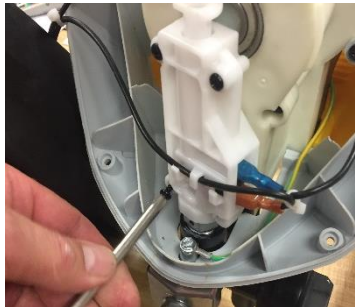


Disassembling ControlPro


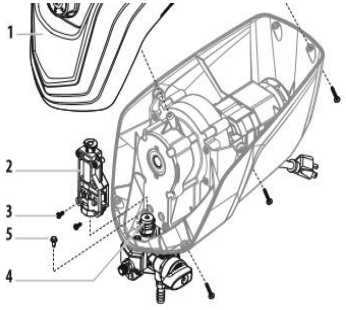
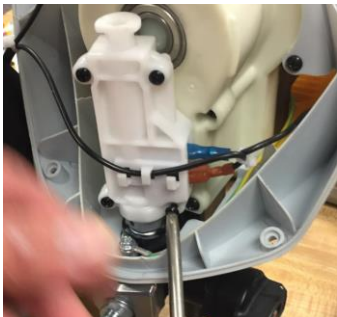

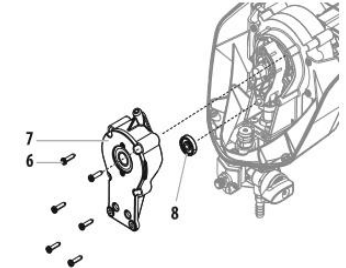

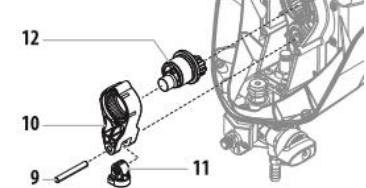

Step	Drawing	Picture	Description
<p>07</p> <p>E</p>	 <p>5 4 3 2 1</p>		<p>Place a Spanner on the flats of the inlet valve fitting (1), or insert a 10 mm Allen Key into the hex opening. Unscrew the inlet valve fitting from the sprayer. Remove the inlet valve seat (2), O-ring (3) inlet valve ball (4) and spring (5). Take care not to lose any removed parts.</p>
<p>08</p> <p>I</p>			<p>Remove the (4) T25 screws attaching the pump to the stand. If the pump is mounted to a metal stand or cart skip this step.</p>
<p>09</p> <p>I</p>			<p>Remove the front toolbox door. Remove the top shroud by removing the seven Philips head screws.</p>



Disassembling ControlPro

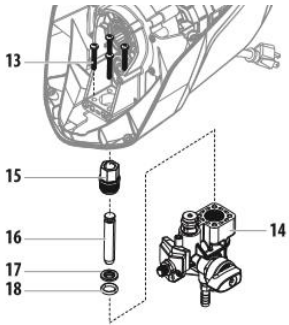
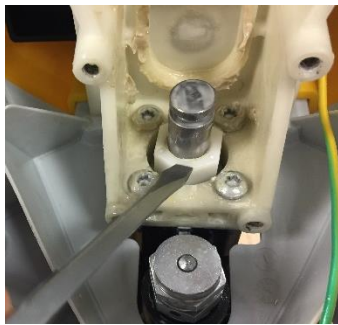
Step	Drawing	Picture	Description
<p>10</p> <p>I</p>			<p>Remove the two wires from the power switch once the shroud (1) is removed or carefully place the top shroud next to the pump in such a way that does not strain the power switch wires.</p> <p>Loosen and remove the two screws (2) that secure the power switch (3) to the shroud (1). Remove the power switch (3).</p>
<p>11</p> <p>I</p>			<p>With a Phillips screwdriver, remove the retaining screw (4) in the center of the pressure cam (5).</p> <p>Remove pressure dial (6) and O-ring (7).</p>
<p>12</p> <p>I</p>			<p>On the pressure switch assembly (2), remove the bottom two screws (3).</p>

Disassembling ControlPro

Step	Drawing	Picture	Description
<p>13</p> 			<p>With a small flat tip screwdriver separate the two halves of the pressure switch (2) around the transducer (4) just enough to pull it off the transducer. Remove the ground screw (5) from the outlet valve using a 1/4" hex drive.</p>
<p>14</p> 			<p>Remove the six Philips screws from the housing cover assembly (6). Remove the housing cover assembly (7). Remove the front plastic guide wheel (8).</p>
<p>15</p>			<p>Remove the pin (9) by gripping the end with a rag or towel. Remove the connecting rod (10). To aid removal, rotate the end of the motor fan to position the crank near top dead center. Remove the piston clip (11). Remove the eccentric assembly (12).</p>



Disassembling ControlPro

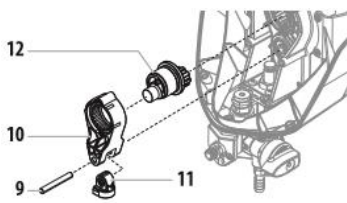

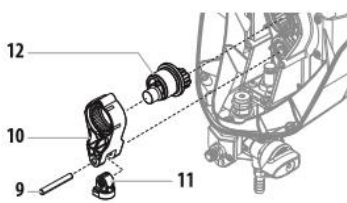
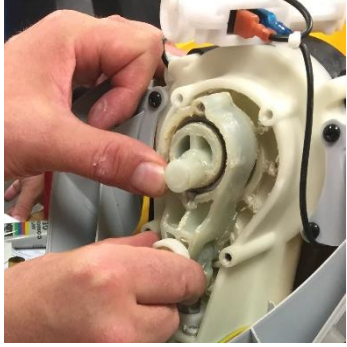
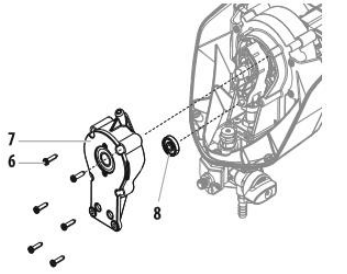

Step	Drawing	Picture	Description
16	 <p>The drawing shows an exploded view of the piston assembly. Part 13 is the main housing. Part 15 is the piston bushing. Part 16 is the piston. Part 17 is the seal. Part 18 is the O-ring. A callout box shows a detailed view of the piston assembly (16, 17, 18) being removed from the housing (14).</p>	 <p>A photograph showing the internal components of the ControlPro. A screwdriver is used to pry the piston assembly (16, 17, 18) out of the housing (14). The piston bushing (15) is visible.</p>	<p>Once the fluid section (14) is removed unscrew the piston bushing (15). Pull the piston (16) out and remove the seal (17) and O-ring (18).</p>

Assembling ControlPro

Step	Drawing	Picture	Description
01			<p>Screw the new seal/piston/bushing assembly (15-18) into the fluid section. The assembly should come pre-greased. If it is not greased, fill the gap between the bushing and piston with GR132 grease prior to assembly. Torque the bushing to 25-30 inch pounds.</p>
02			<p>Reinstall fluid section (14) with the four T25 fluid section screws (13). Torque to 40-50 inch pounds.</p> <p>Reinstall the eccentric (12) taking care to align the guide and slot for proper clocking.</p>
03			<p>Apply GR132 grease to the mating areas of the piston clip (11). Reinstall the piston clip (11) on top of the piston.</p> <p>Apply a film of grease to the two guide wheel tracks.</p>

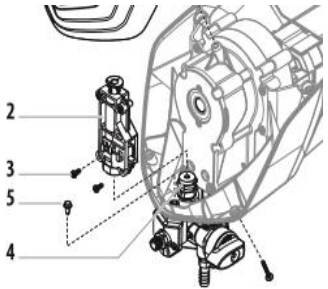

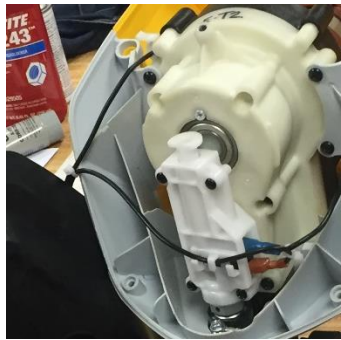
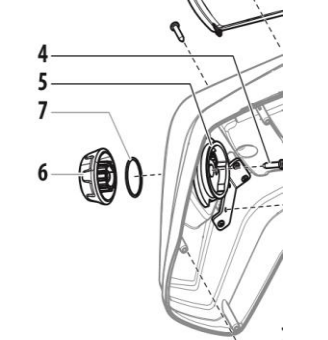



Assembling ControlPro

Step	Drawing	Picture	Description
04			<p>Reinstall the inner guide wheel near the top of the track. (The grease should hold the wheel in place temporarily.)</p> <p>Apply GR132 grease to the connecting rod assembly (10) mating areas. Reinstall the connecting rod assembly (10)</p>
05			<p>Using a small screwdriver or similar, pre-align the connecting rod assembly (10) with inner guide wheel.</p>
06			<p>Reinstall the pin (9) and ensure it is fully inserted.</p> <p>Apply GR132 grease to the guide wheel (8) mating areas. Reinstall the plastic guide wheel (8) onto the pin (9).</p> <p>Replace the housing cover assembly (7) and secure with the screws (6).</p>

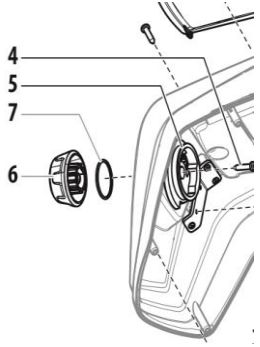

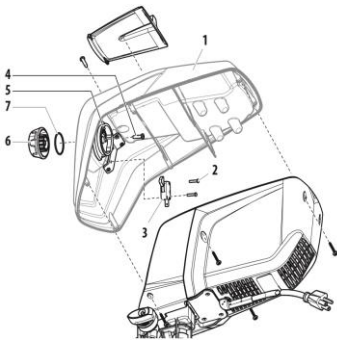

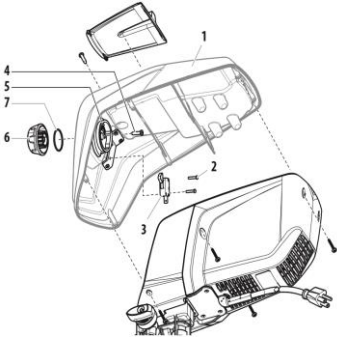



Assembling ControlPro

Step	Drawing	Picture	Description
07			<p>Reinstall the ground screw (5).</p> <p>Reinstall pressure switch (2) over the transducer (4) and tighten screws (3). Ensure the pressure switch (2) is positioned square with the front of the pump.</p>
08			<p>Reconnect the two wires to the power switch if they were disconnected. It doesn't make a difference which way the connectors go to the switch.</p>
09			<p>Lubricate the O-ring (7) with GR132 grease and replace into new pressure dial (6).</p> <p>Replace the pressure dial (6) onto the pressure cam (5).</p>

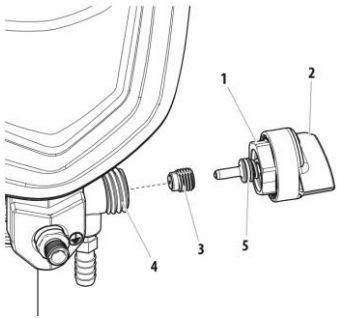

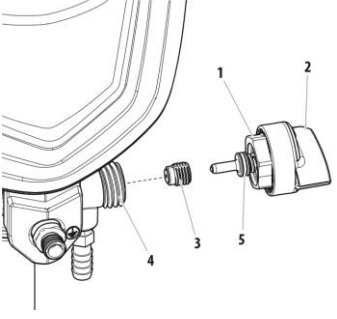

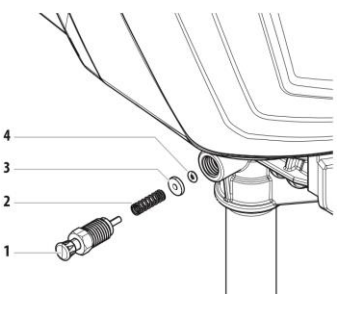



Assembling ControlPro

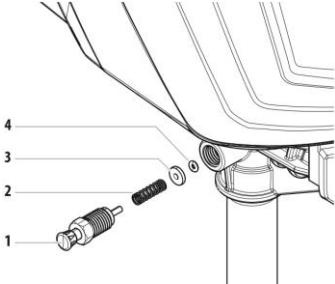
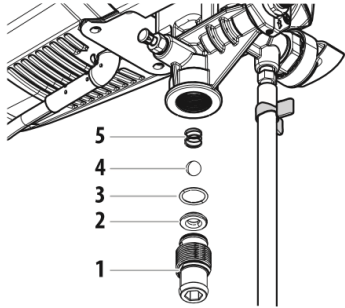
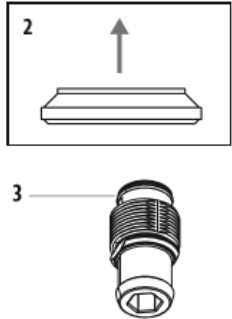
Step	Drawing	Picture	Description
10			<p>Apply GR132 grease to the threads of the retaining screw (4) and the pressure cam (5) mating surface. Reinstall retaining screw (4) in the center of the pressure cam and tighten.</p>
11			<p>Reinstall the power switch assembly (3) by securing it to the bracket inside the top shroud with the two screws (2).</p>
12			<p>If removed earlier, reinstall the two wires to the power switch on the housing. It does not matter which way the connectors go to the switch. Replace the top shroud (1) and the front toolbox door</p>



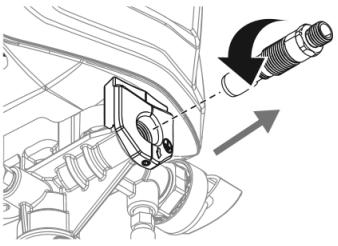
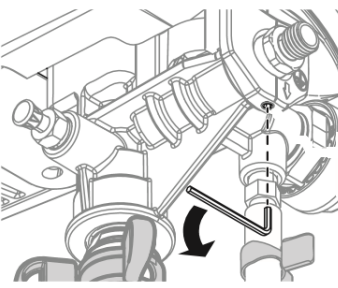
Assembling ControlPro

Step	Drawing	Picture	Description
13			<p>After inspecting and cleaning the housing (4) install new seat (3). Torque to 32-35 inch pounds. Before installing the PRIME/SPRAY valve, apply GR132 grease to ball/stem assembly o-ring (5).</p>
14			<p>Install new PRIME/SPRAY valve assembly. Torque to 53-88 inch pounds.</p>
15			<p>Apply GR132 grease to the washer (3) and O-ring (4). Reinstall the washer and O-ring.</p>

Assembling ControlPro

Step	Drawing	Picture	Description
16			<p>Apply GR132 grease to the new pusher stem assembly. Thread new pusher stem assembly to the unit. Torque to 12-16 inch pounds.</p>
17			<p>Visually inspect the removed parts, as well as the inside and outside of the inlet valve fitting. Inspect the inlet valve housing area where the inlet valve assembly was removed. Clean any paint residue in these places with the appropriate cleaning solution.</p>
18			<p>Lubricate the O-ring (3) on the inlet valve with petroleum jelly. Replace all parts back into the inlet valve housing in the reverse order of how they were removed. Note the correct orientation of the inlet valve seat (2). Replace inlet valve assembly by screwing it into the sprayer. Tighten with a Spanner.</p>

Assembling ControlPro

Step	Drawing	Picture	Description
19			<p>Remove any accumulated material inside outlet valve housing using appropriate solution for material being used.</p> <p>Pay particular attention to the ball and seat area at the end of the outlet valve (opposite the hose end). Remove any accumulated material.</p>
20			<p>Replace with new or cleaned outlet valve and tighten with Spanner. Do not over tighten. Torque to 90-110 in-lbs.</p> <p>Tighten the set screw to secure the outlet valve. Do not over tighten. Torque to 20-25 in-lbs.</p>



Electrical diagram

