

## PowerFill™ 3.5 Standard Series, Pro Series, and XL Pro Series

3A8110D

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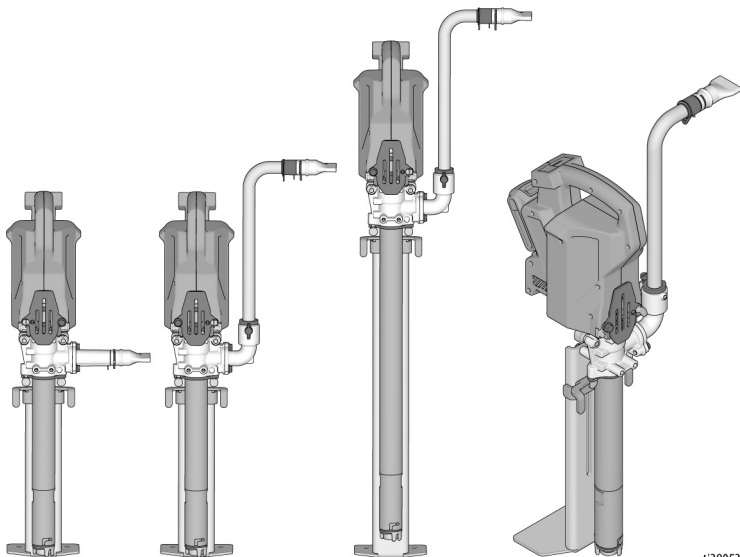
For portable dispensing of water-based and oil-based non-flammable materials.  
Not approved for use in explosive atmospheres or hazardous (classified) locations.  
For professional use only.

125 psi (0.86 MPa, 8.6 bar) Maximum Working Pressure



### Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Be familiar with the controls and the proper usage of the equipment. Save these instructions.



ti39053a







Use only genuine Graco replacement parts.  
The use of non-Graco replacement parts may void warranty.

 <p><b>SERVICE</b> Is every outcome every time</p>	<p><b>Questions?</b> Des questions? ¿Tiene preguntas?</p>		
	<p><b>844-241-9499</b> <a href="http://www.graco.com/techsupport">www.graco.com/techsupport</a></p>		

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## Models

Approval	Description	Part	Charger Voltage	Programmable Dosing	Accessories	
					BackSaver Fill Tube w/ Box Filler	Standard Outlet w/ Box Filler
 110474 Certified to CAN/CSA C22.2 No. 68 Conforms to UL 1450	PowerFill 3.5 Standard Series	26B417	120V			✓
	PowerFill 3.5 Pro Series	26B418	120V	✓	✓	
	PowerFill 3.5 XL Pro Series	26B419	120V	✓	✓	
	PowerFill 3.5 Standard Series	26B435	230V			✓
	PowerFill 3.5 Pro Series	26B436	230V	✓	✓	
	PowerFill 3.5 XL Pro Series	26B437	230V	✓	✓	
	PowerFill 3.5 Standard Series, UK	26B536	230V			✓
	PowerFill 3.5 Pro Series, UK	26B537	230V	✓	✓	
PowerFill 3.5 XL Pro Series, UK	26B538	230V	✓	✓		
	PowerFill 3.5 Standard Series	26B439	230V			✓
	PowerFill 3.5 Pro Series	26B440	230V	✓	✓	
	PowerFill 3.5 XL Pro Series	26B441	230V	✓	✓	
	PowerFill 3.5 Standard Series	26B442	230V			✓
	PowerFill 3.5 Pro Series	26B443	230V	✓	✓	
	PowerFill 3.5 XL Pro Series	26B444	230V	✓	✓	
	PowerFill 3.5 Standard Series, Japan	26B432	100V			✓
	PowerFill 3.5 Pro Series, Japan	26B433	100V	✓	✓	
	PowerFill 3.5 XL Pro Series, Japan	26B434	100V	✓	✓	
	PowerFill 3.5 Pro Series, Korea	26B742	230V	✓	✓	
	PowerFill 3.5 XL Pro Series, Korea	26B743	230V	✓	✓	

Maximum working pressure 125 psi (0.86 MPa, 8.6 bar).

### Compatible Batteries and Chargers

The PowerFill is compatible with DEWALT 18 Volt and 20 Volt MAX\* batteries and chargers.

\*Maximum initial battery voltage (measure without a workload) is 20 Volts. Nominal voltage is 18 Volts.

### Related DEWALT Manuals

Ref.	Description
N463494	Dewalt DCB118 Fast Charger Manual

# Important User Information

## Important User Information

### Thank You for Your Purchase!

Before using your pump read this Owners Manual for complete instructions on proper use and safety warnings.

Congratulations! You have purchased a high-quality pump made by Graco Inc. This pump is designed to provide superior performance with water-based and oil-based (mineral spirit-type) coatings. This user information is intended to help you understand the types of materials that can be used with your pump.

Please read the information on the material container label to determine if it can be used with your pump. Ask for a Safety Data Sheet (SDS) from your supplier. The container label and SDS will explain the contents of the material and the specific precautions related to it.

Paints, coatings and clean-up materials generally fit into one of the following **3 basic categories**:



**WATER-BASED:** The container label should indicate that the material can be cleaned up with soap and water. Your pump is compatible with this type of material. Your pump is **NOT** compatible with harsh cleaners such as chlorine bleach.







**OIL-BASED:** The container label should indicate that the material is **COMBUSTIBLE** and can be cleaned up with mineral spirits or non-flammable paint thinner. The SDS must indicate that the flash point of the material is above 100°F (38°C). Your pump is compatible with this type of material. Use oil-based material outdoors or in a well-ventilated indoor area with a flow of fresh air. See the safety warnings in this manual.



**FLAMMABLE:** This type of material contains flammable solvents such as xylene, toluene, naphtha, MEK, lacquer thinner, acetone, denatured alcohol, and turpentine. The container label should indicate that this material is **FLAMMABLE**. This type of material is **NOT** compatible with your pump and **CANNOT** be used.

## Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <b>WARNING</b>	
	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>Do not pump or clean with materials having flash points lower than 100° F (38° C). Use only non-flammable or water-based materials, or non-flammable paint thinners. For complete information about your material, request the Safety Data Sheets (SDSs) from the material distributor or retailer.</li> <li>Do not pump combustible materials near an open flame or sources of ignition such as cigarettes, motors, and electrical equipment.</li> <li>Verify that all containers and collection systems are grounded to prevent static discharge. Do not use pail liners unless they are anti-static or conductive.</li> <li>Do not use a paint or a solvent containing halogenated hydrocarbons.</li> <li>Do not pump combustible liquids in a confined area.</li> <li>Keep work area well-ventilated. Keep a good supply of fresh air moving through the area.</li> <li>Do not smoke in the work area or pump where sparks or flame is present.</li> <li>Do not operate light switches, engines, or similar spark producing products in the work area.</li> <li>Keep area clean and free of paint or solvent containers, rags, and other flammable materials.</li> <li>Know the contents of the paints and solvents being pumped. Read all Safety Data Sheets (SDSs) and container labels provided with the paints and solvents. Follow the paint and solvent manufacturer's safety instructions.</li> <li>Keep a working fire extinguisher in the work area.</li> </ul>
	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>Always wear appropriate gloves, eye protection, and a respirator or mask when dispensing.</li> <li>Do not operate or dispense near children. Keep children away from equipment at all times.</li> <li>Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.</li> <li>Stay alert and watch what you are doing.</li> <li>Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.</li> </ul>
	<p><b>PRESSURIZED EQUIPMENT HAZARD</b></p> <p>Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> <li>Follow the <b>Pressure Relief Procedure</b> if you suspect the outlet tube is clogged, and before cleaning, checking, or servicing equipment.</li> <li>Tighten all fluid connections before operating the equipment.</li> <li>Check tubes and couplings daily. Replace worn or damaged parts immediately.</li> </ul>

# Warnings

## **WARNING**



### **MOVING PARTS HAZARD**

Moving parts can pinch, cut or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Remove battery before cleaning, checking, or servicing equipment.



### **BATTERY AND CHARGER COMPATIBILITY HAZARD**

- Only use DEWALT brand 18V Max or 20V Max batteries and battery chargers with this tool.
- **READ ALL INSTRUCTIONS** included with this tool regarding the safety and usage of DEWALT batteries and battery chargers.



### **TOXIC FLUID OR FUMES HAZARD**

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read Safety Data Sheets (SDSs) to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.



### **PRESSURIZED ALUMINUM PARTS HAZARD**

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.



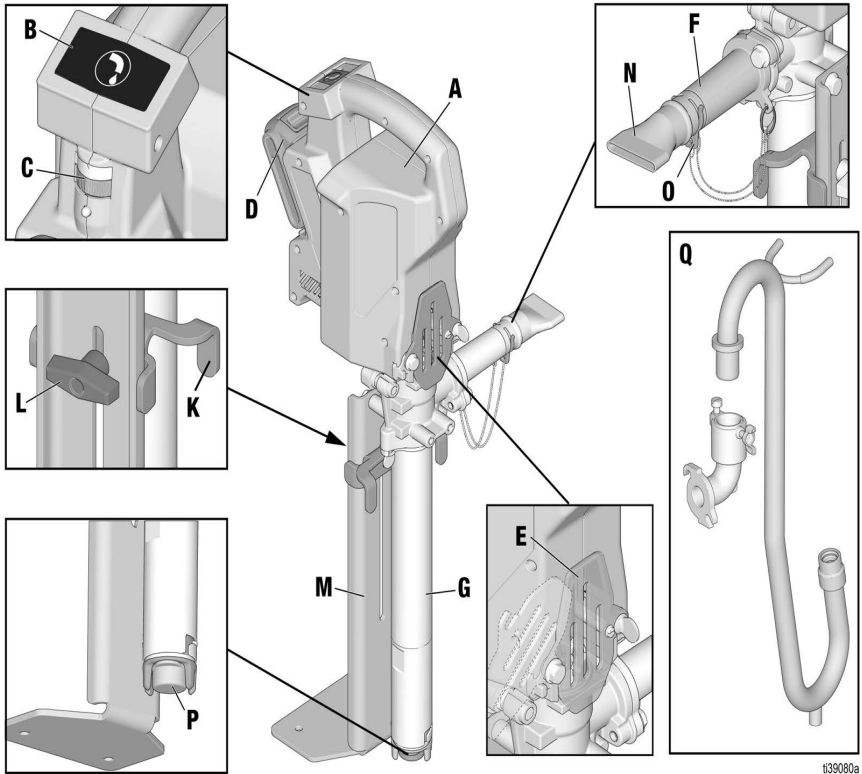
### **PERSONAL PROTECTIVE EQUIPMENT**

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

## Component Identification

### PowerFill 3.5 Standard Series



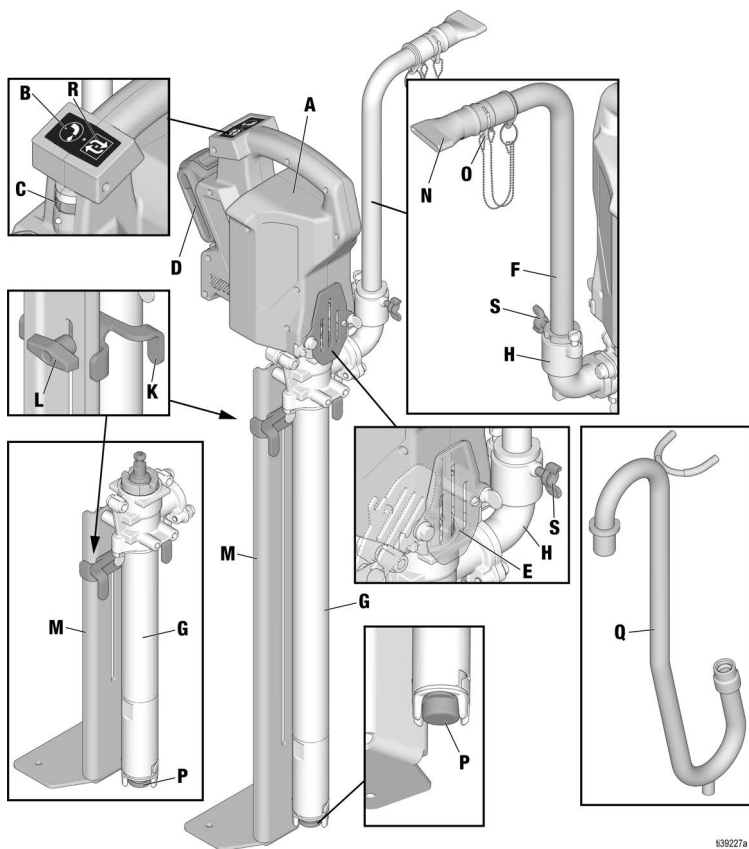
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A	Power Head
B	Dispense button
C	Speed control
D	Battery
E	ProConnect cover
F	Standard series outlet
G	Pump
K	Bucket stabilizer

L	Bucket stabilizer adjustment knob
M	Stabilizing foot bracket
N	Box filler nozzle
O	Retaining clip
P	Inlet filter
Q	Goose neck and pro series outlet (optional accessory)

# Component Identification

## PowerFill 3.5 Pro and XL Pro Series



639227a

A	Power Head
B	Dispense button
C	Speed control
D	Battery
E	ProConnect cover
F	14 in. Hi-Rise fill tube (23 in. High-Rise kit optional accessory)
G	Pump
H	Pro series outlet

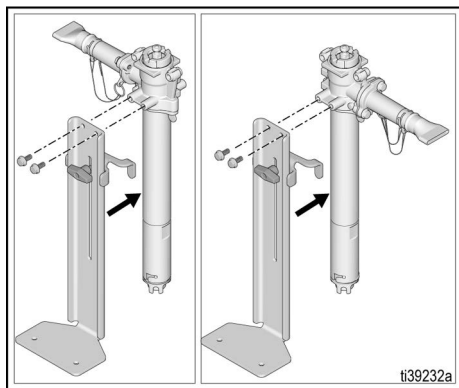
K	Bucket stabilizer
L	Bucket stabilizer adjustment knob
M	Stabilizing foot bracket
N	Box filler nozzle
O	Retaining clip
P	Inlet filter
Q	Goose-neck (optional accessory)
R	Program/repeat button
S	Locking tube wing bolt



# Setup

## Configuration

The PowerFill is capable of being set-up with the outlet on the left or right, depending on user preference.



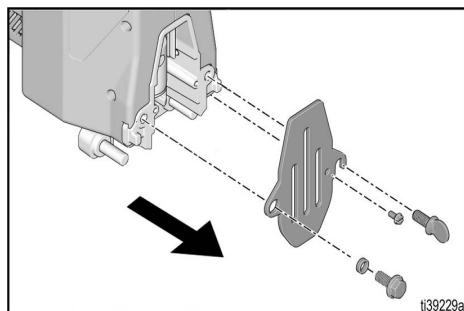
To change orientation, proceed with the following steps.

### ProConnect Cover Orientation

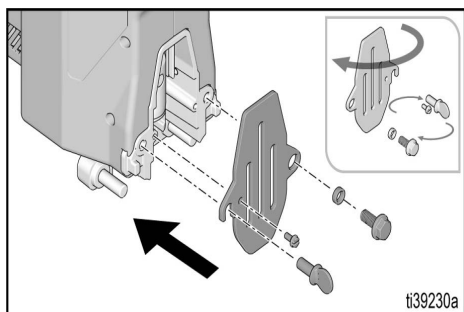
The ProConnect cover holds the pump in place and is a guard for the pump rod. To ensure Power Head is easy to remove and install, the ProConnect cover needs to swing away from outlet tube. To change the orientation of the ProConnect cover, follow the steps below.

1. Remove battery, see **Battery Installation and Removal**, page 15.
2. Disconnect Power Head from pump, if necessary. See **Power Head Removal**, page 25.

3. Using a 1/4 in. nut driver, remove the locking screw. Remove thumb screw. Using a 1/2 in. (or 13 mm) wrench, remove flanged bolt and spacer.



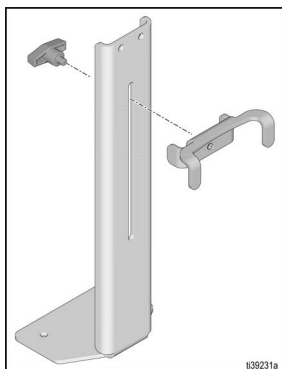
4. Flip ProConnect cover to rotate opposite way. Re-assemble flange bolt with spacer, locking screw, and thumb screw to secure.



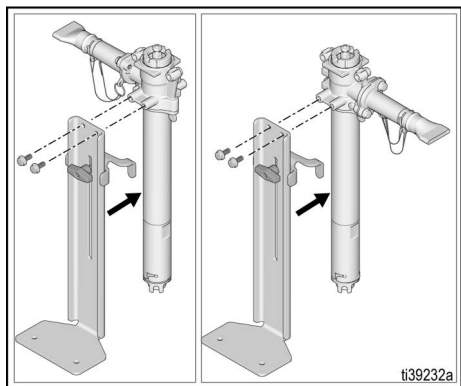
# Setup

## Foot Bracket and Bucket Stabilizer

1. Attach sliding bracket to foot stand with provided thumb screw.

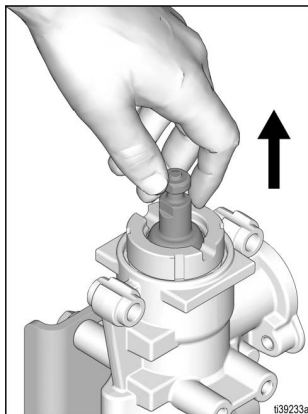


2. Using a 1/2 in. (or 13 mm) wrench, assemble 5/16 - 18 flange bolts, assemble foot bracket in desired orientation and torque to 18 ft.-lbs.

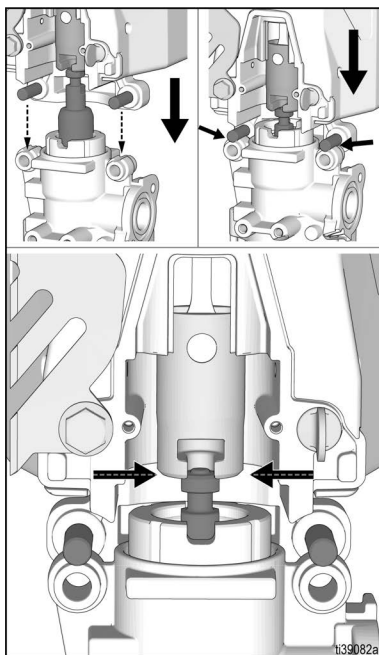


## Power Head

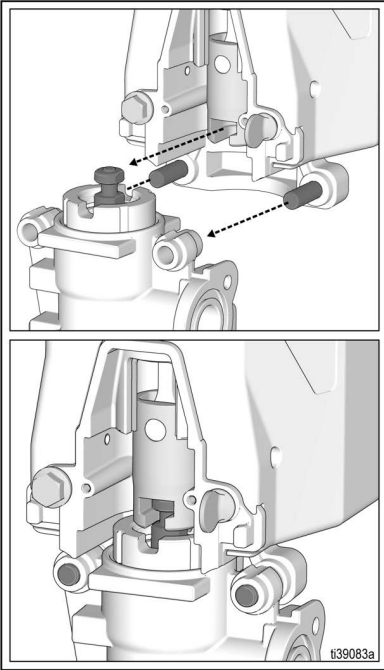
1. If necessary, pull piston upwards so slider will contact piston head.



2. Place slider on top of piston head.
3. Align piston head by slowly pressing piston downward with the Power Head until pins on Power Head rest atop the pump frame.

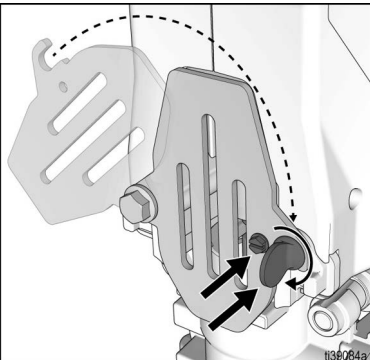


- Attach Power Head by inserting pins into the holes on the pump. Power Head should automatically align with piston head once step 3 is complete.



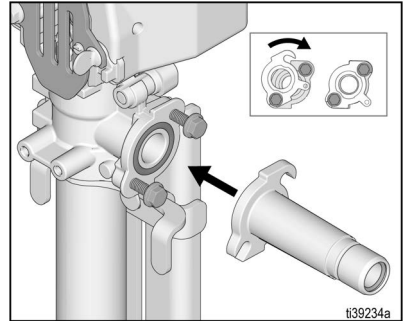
**NOTE:** Ensure piston is properly inserted into the Power Head prior to operation. Should piston not align into the Power Head, manually pull the piston up and re-align.

- Close ProConnect cover and tighten thumb screw to secure Power Head. Ensure locking screw is installed before operation.

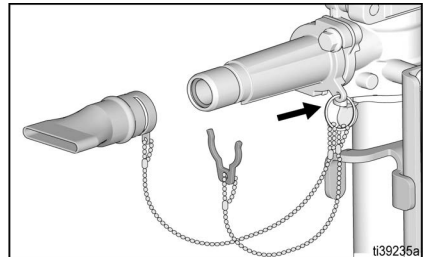


## Standard Series Outlet Assembly

- Assemble standard outlet to pump and using a 1/2 in. or 13 mm wrench, tighten flange head bolts.



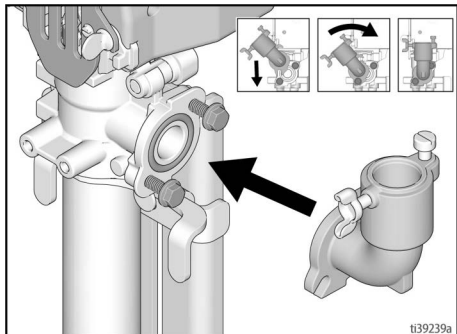
- Assemble ring to standard series outlet tab.



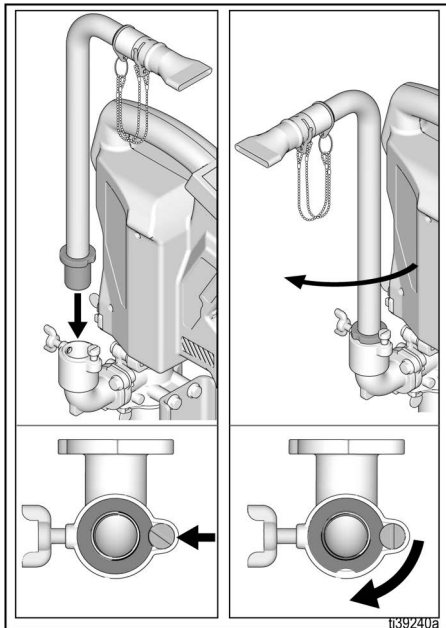
# Setup

## Pro Series Outlet Assembly

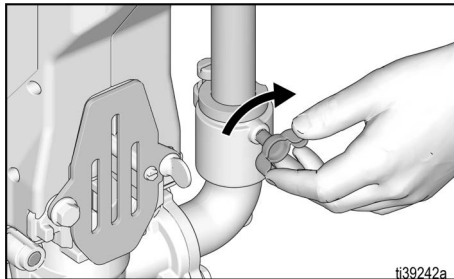
1. Assemble Pro Series outlet to pump and using a 1/2 in. or 13 mm wrench, tighten flange head bolts.



2. Assemble Hi-Rise fill tube assembly by aligning scallop on tube with bolt located on the outlet fitting and insert it into the outlet assembly. Lubricate with water or grease if necessary. Rotate tube to secure.

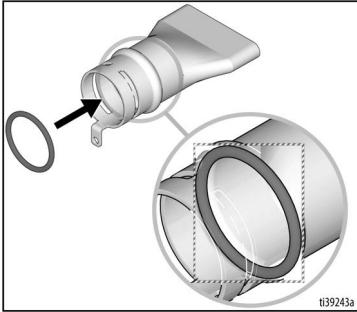


3. Hand tighten wing bolt to hold tube in desired location.

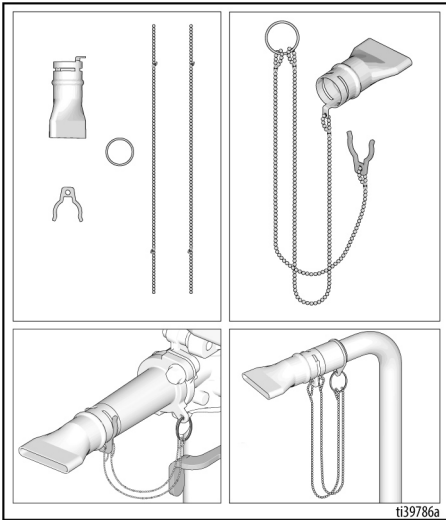


## Box Filler

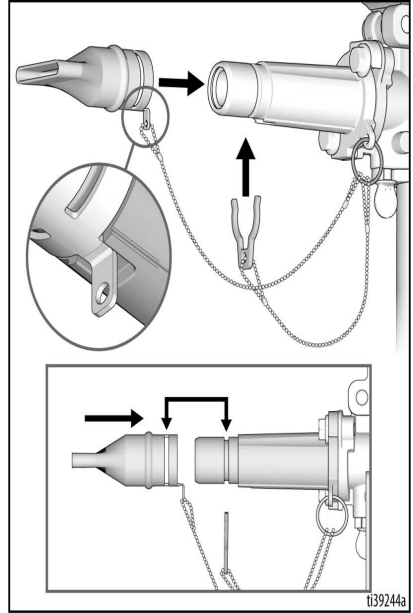
1. Ensure o-ring is in groove of box filling attachment.



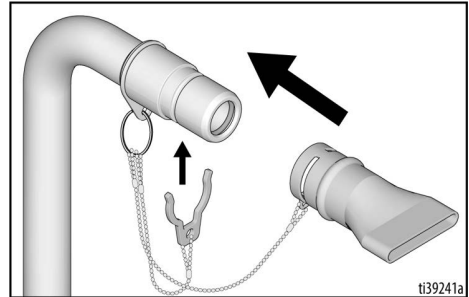
2. Assemble box filling attachment, lanyard, and retaining clip. Connect assembly to outlet tube or standard outlet.



3. Align anti-rotation tab on box filler with cutout on outlet fitting and push the box filler on until the slot and groove are aligned. If difficult to push on, lubricate parts with water or grease.



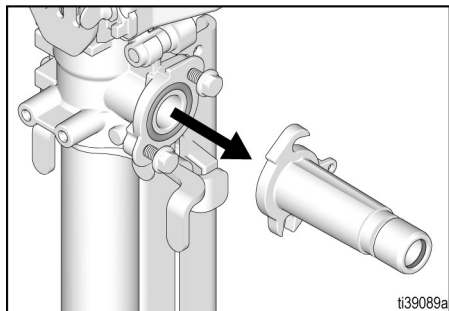
4. Insert retaining clip through groove to prevent box filling attachment from disconnecting during operation.



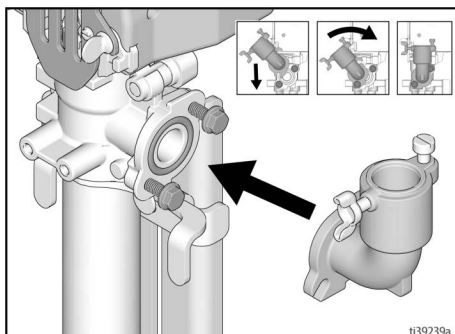
# Setup

## Goose Neck Assembly (Optional Accessory)

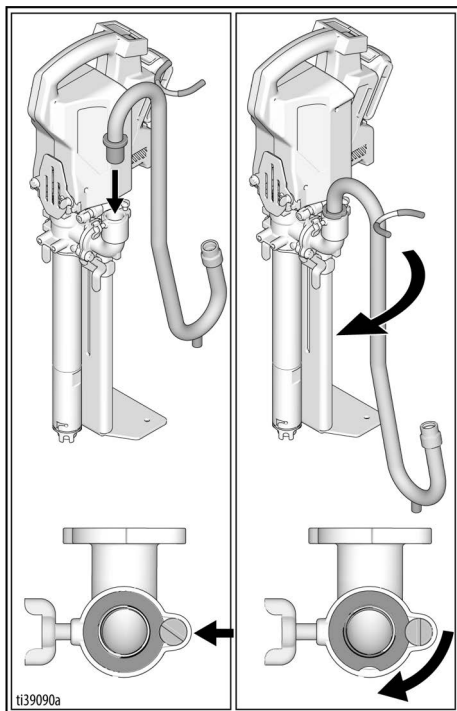
1. Remove standard series outlet, if necessary, by loosening flange bolts.



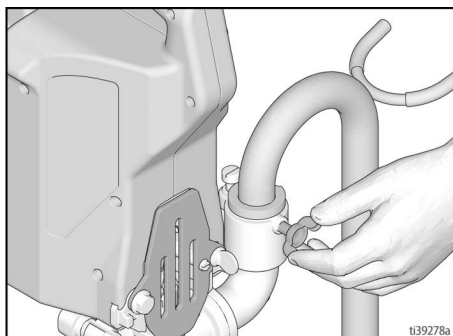
2. Attach Pro Series outlet.



3. Align scallop on goose neck with bolt located on the outlet fitting and insert it into the outlet assembly. Lubricate with water or grease if necessary. Rotate tube to secure.






4. Hand tighten wing bolt to hold goose-neck in desired location.



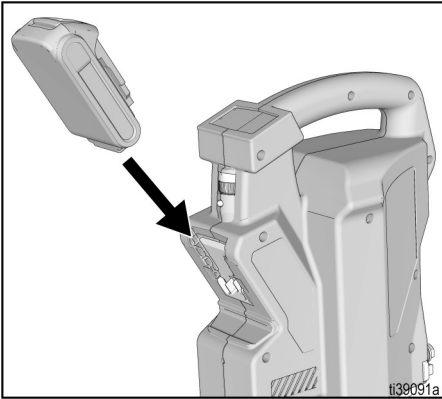
## Battery Installation and Removal

**Always start with a fully charged Battery. Do not splash or immerse Battery or charger in water. See Battery and charger information shipped with the pump.**

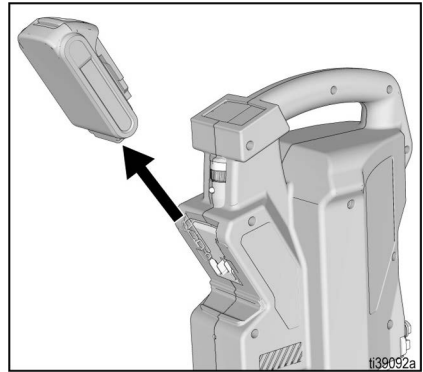
				
Replace and charge Battery only in a well-ventilated area and away from flammable or combustible materials.				

Remove and install Battery into the pump as follows:

1. To install, align battery into the grooves on unit and slide into place until it fully seats.



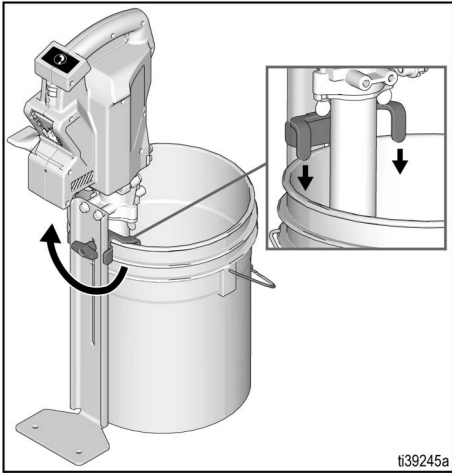
2. To remove, press button on the back of the battery and pull battery from unit.



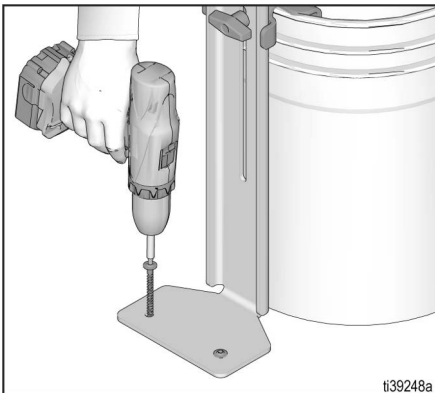
# Start Up

## Start Up

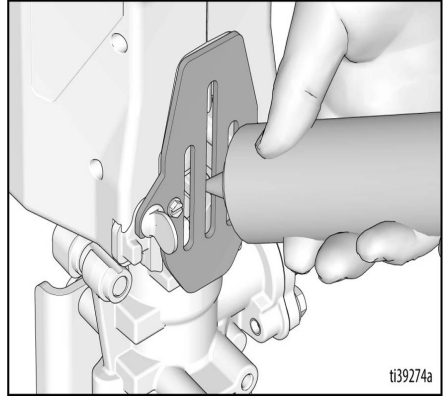
1. Prior to dispensing, mix material as necessary.
2. Insert pump into bucket of material and adjust the bucket stabilizing bracket to desired height.



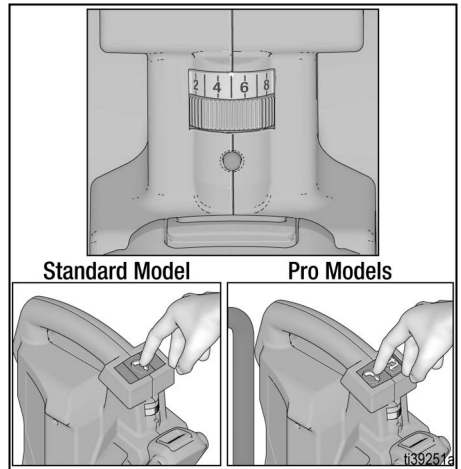
3. If desired, secure foot bracket to mounting surface to increase stability.



4. Apply Throat Seal Liquid (TSL) into pump throat.



5. Install battery on the Power Head, see **Battery Installation and Removal**, page 15.
6. Set speed control to setting 5 and press pump dispense button to prime the unit until material comes out of the outlet port (~5 seconds).







**NOTE:** If unit doesn't prime within 10 seconds of pumping, pour water into outlet to wet pump and repeat. If pump doesn't prime, refer to **Troubleshooting**, page 27.



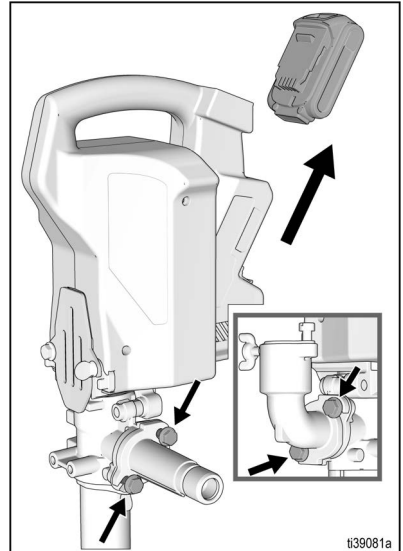
# Operation

## Pressure Relief Procedure

				
<p>To help prevent serious injury from pressurized fluid or splashed fluid, follow the Pressure Relief Procedure before pump is cleaned, and before equipment is serviced.</p>				

In normal use, the PowerFill automatically relieves pressure when the pump is switched off. If outlet tube becomes plugged pressure may be trapped in the pump. Follow the steps below to relieve trapped pressure.

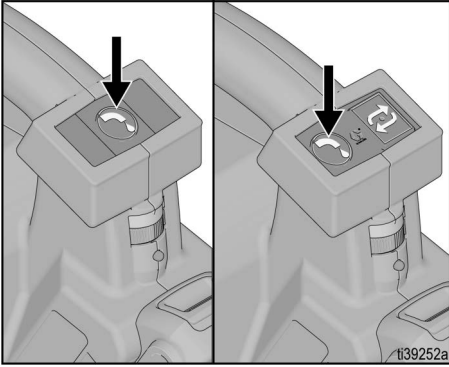
1. Remove battery from pump, see **Battery Installation and Removal**, page 15.
2. Slowly remove flange bolts shown below until pressure is relieved.



# Operation

## Using the Pump

1. Insert battery into Power Head, see **Battery Installation and Removal**, page 15.
2. To operate pump, press and hold dispense button. Releasing the dispense button will stop the pump.



3. The variable speed control allows users to select the pump speed for precise dispensing, depending on application.



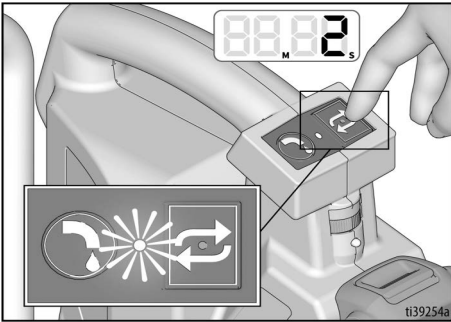
## Pro-Series Operation

### Programming the Pump

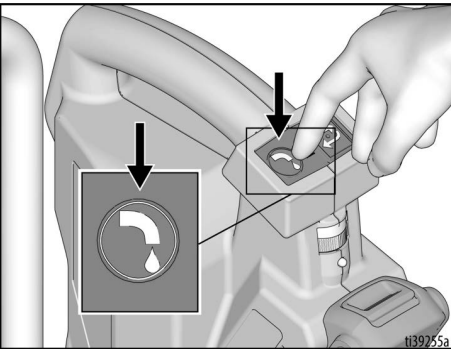
The Pro-Series features a program/repeat button that allows the user to program a volume of material they want to repeatedly dispense. After programming the unit, the pump will repeat that volume with a single press and release of the repeat button.

To program the pump, follow the steps below.

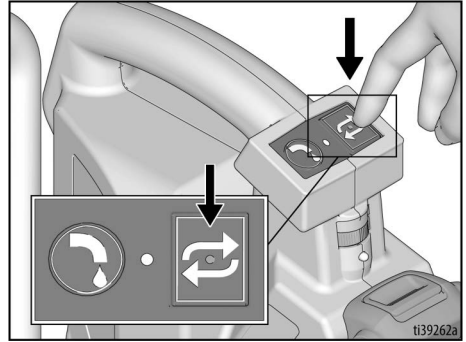
1. To enter program mode, press and hold down the repeat button for two seconds until the red LED light begins to blink.



2. While the LED light is blinking, press the dispense button until the desired amount of material is pumped. This can be one continuous press, or numerous presses of the dispense button.



3. While the LED light is still blinking, press and release the repeat button to set the program for that volume of material and to exit programming mode. This must be completed within 10 seconds of releasing the dispense button or it will not save the program.

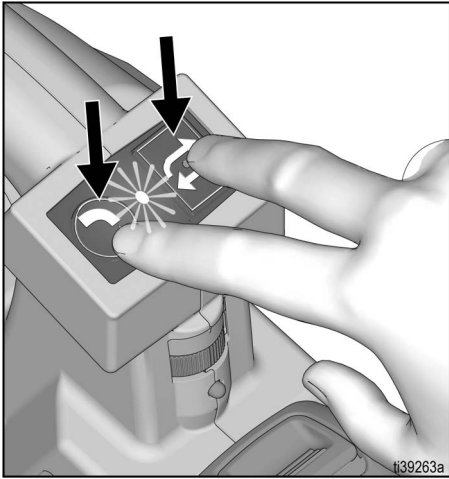


4. To pump the programmed volume, press and release the repeat button. If the button is held longer than two seconds, unit will revert back to programming mode.
5. If you want to interrupt the pumping, press any button and the unit will stop. The next press of the repeat button starts the program over.

## Continuous Run Mode

Continuous Run Mode is used for cleaning purposes to flush or recirculate water, or to transfer a large amount of material without having to hold the button down the entire time.

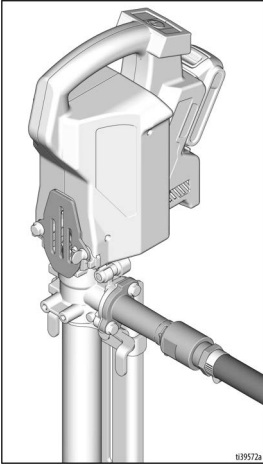
1. To make the unit continuously run, press and hold both buttons simultaneously for two seconds until the LED button begins to blink.



2. Release the buttons and the unit will continue to run until either button is pressed again, or when the battery runs out of power.

## Cleaning

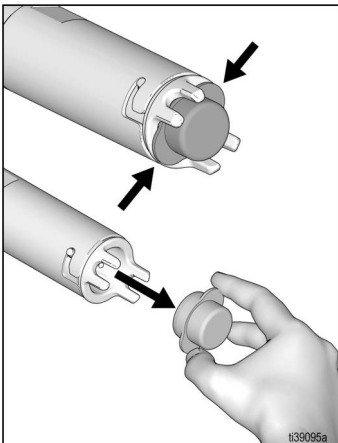
**NOTE:** Attach optional cleaning kit (P/N 18D167) and flush pump with water or compatible cleaning agent to remove any material or residue prior to removing any parts.



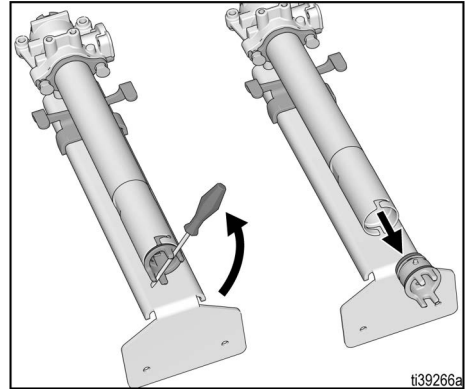
1. Remove Power Head, see **Power Head Removal**, page 25.

### Pump Disassembly

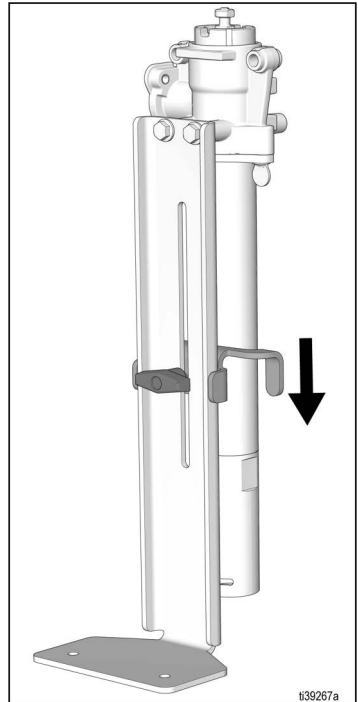
2. Remove filter by pinching tabs on filter and pulling. Rotate inlet housing and pull to remove housing. Clean inlet assembly in a bucket of water.



**NOTE:** If inlet housing is stuck, use a screwdriver or rod for leverage to assist in unscrewing the housing.

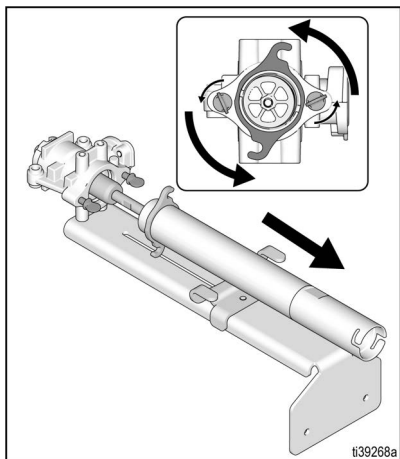


3. Lower the bucket stabilizer bracket.

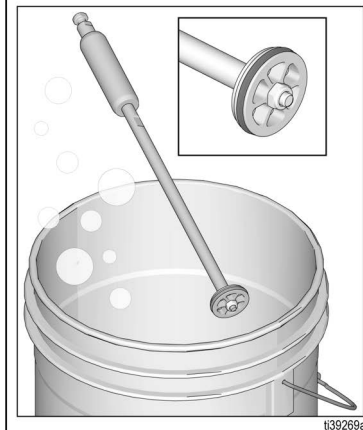
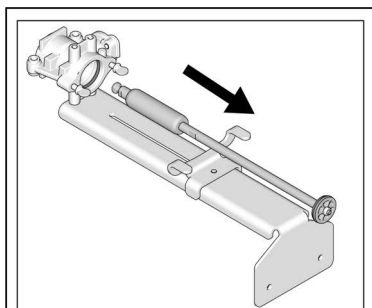


# Cleaning

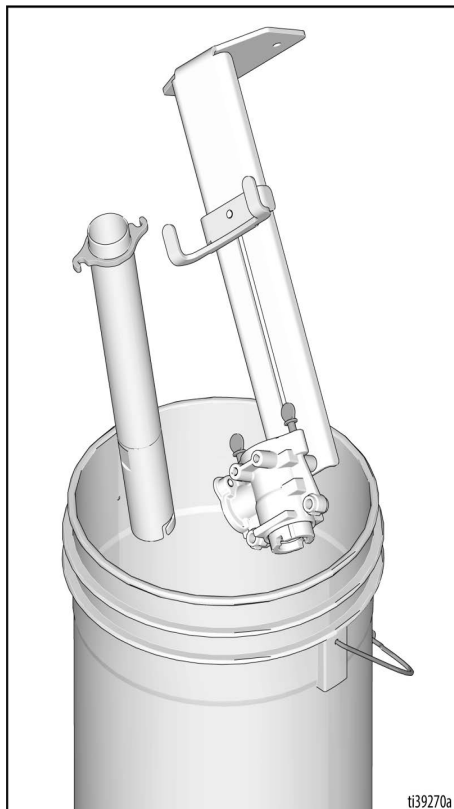
4. Loosen thumb screws at top of pump and rotate pump cylinder 90 degrees. Slide pump cylinder off of piston.



5. Remove piston and clean in a bucket of water. Inspect seals for any damage and replace if damaged.

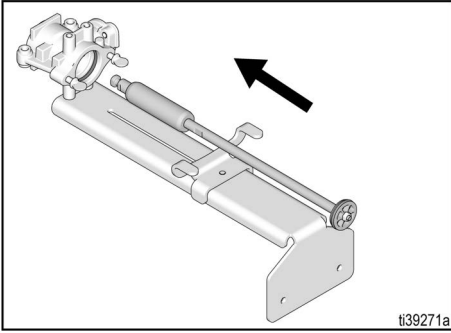


6. Clean out inside of pump housing and pump cylinder in bucket of water.

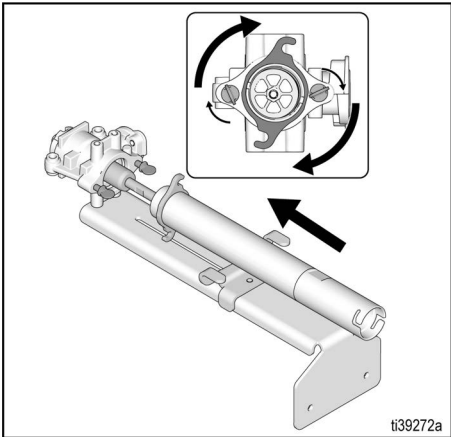


## Pump Re-assembly

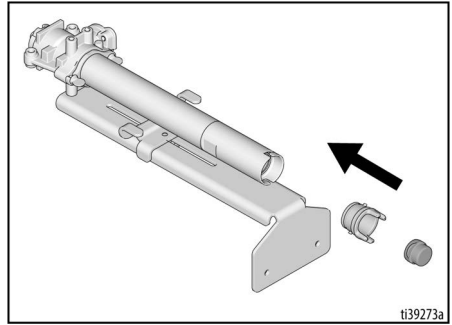
1. Carefully insert piston rod assembly into pump housing. Be careful not to damage the throat seal.



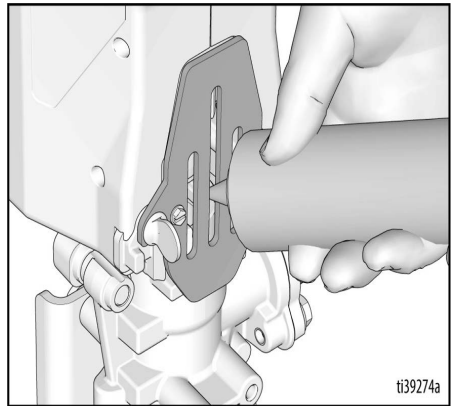
2. Slide cylinder onto piston, rotate onto thumb screws. Hand tighten thumb screws.



3. Re-assemble inlet housing and filter.



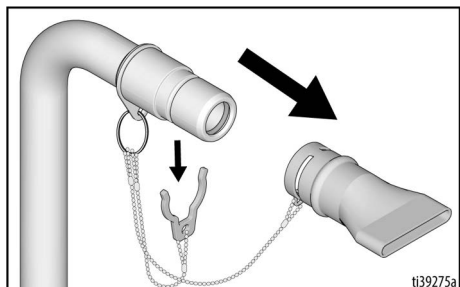
4. Re-assemble Power Head, see **Power Head Re-Assembly**, page 26.
5. Apply Throat Seal Liquid (TSL) into pump throat.



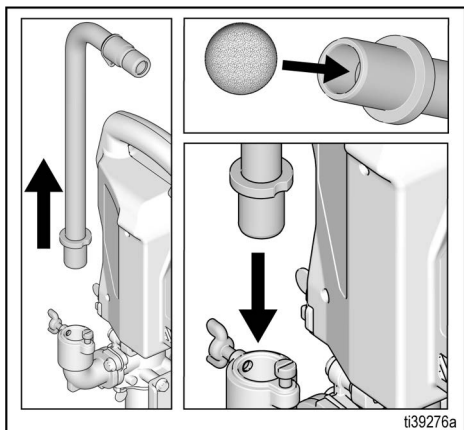
# Cleaning

## Cleaning Hi-Rise Filler Tube and Goose Neck Attachments

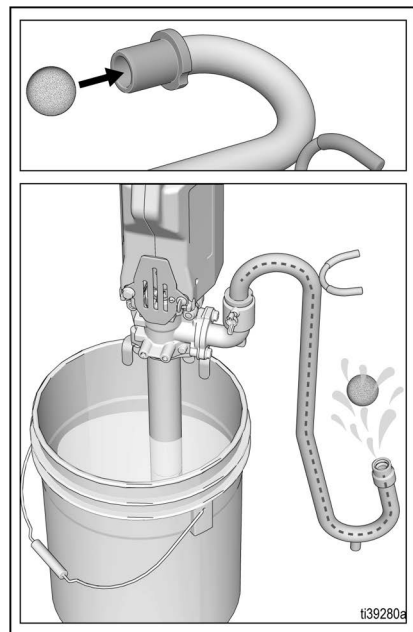
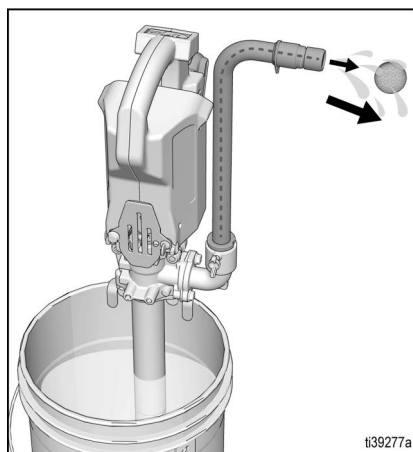
1. Remove box filler attachment from the Hi-Rise fill tube, if necessary.



2. Remove Hi-Rise fill tube or gooseneck from the pro outlet and insert orange cleaning ball into tube end and reassemble to the outlet port.



3. Put pump in bucket of water or cleaning solution and pump until the orange ball moves through the tube, cleaning the inside diameter.

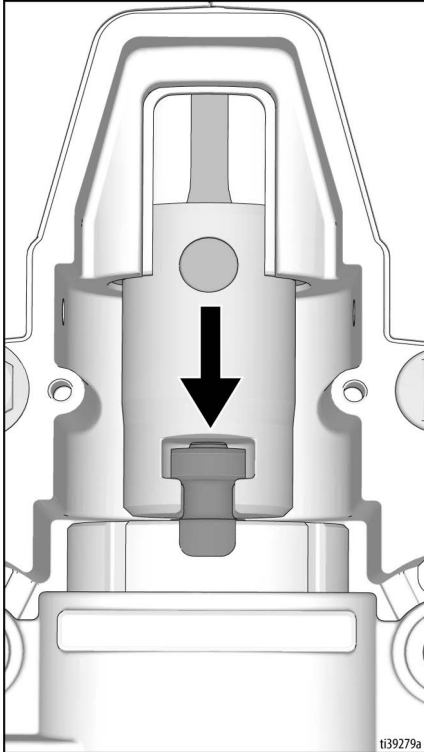




## Pro Connect Removal and Assembly

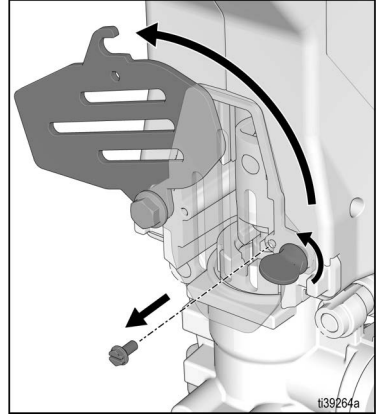
### Power Head Removal

1. Set speed control to Setting 1 and jog Power Head to position the piston and slider in the bottom dead center position. This step will make re-assembly easier.

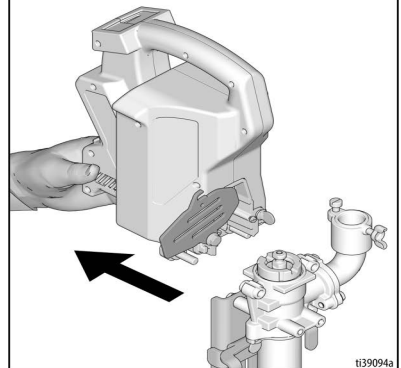
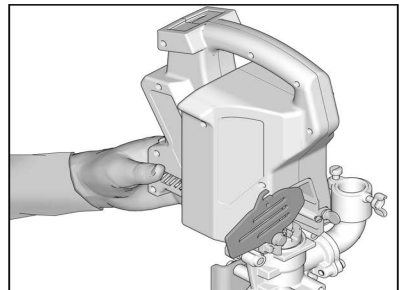


2. Remove battery, see **Battery Installation and Removal**, page 15.
3. Perform **Pressure Relief Procedure**, page 17.

4. Remove locking screw and loosen thumb screw. Rotate cover open.



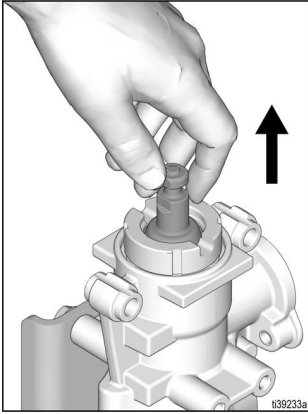
5. Grab Power Head by motor vents and pull the Power Head off the pump. Support Power Head with two hands, if necessary.



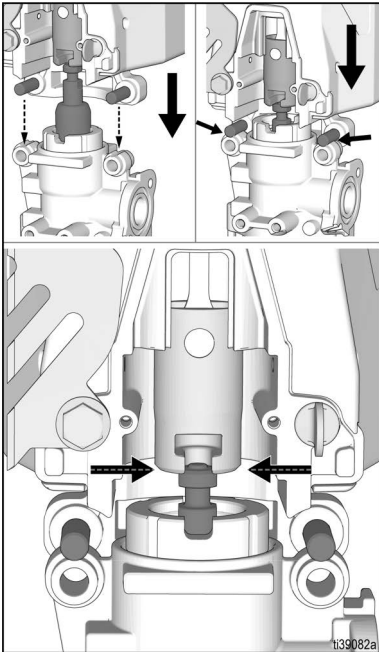
# Pro Connect Removal and Assembly

## Power Head Re-Assembly

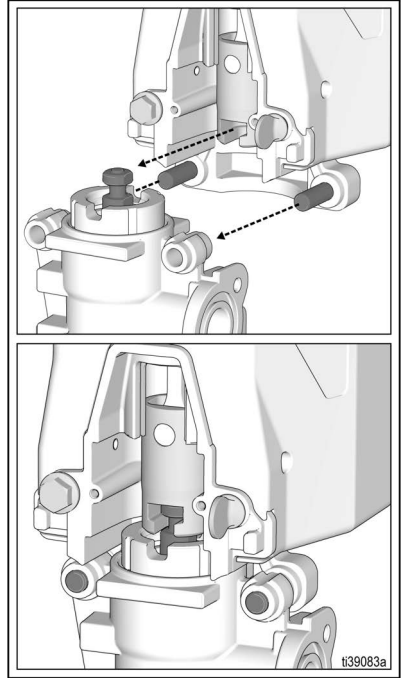
1. If necessary, pull piston upwards so slider will contact piston head.



2. Place slider on top of piston head.
3. Align piston head by slowly pressing piston downward with the Power Head until pins on Power Head rest atop the pump frame.

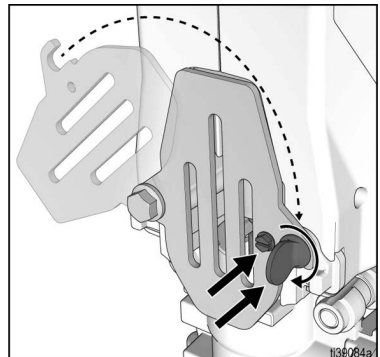


4. Attach Power Head by inserting pins into the proper holes on the pump. Power Head should automatically align with piston head once step 3 is complete.



**NOTE:** Ensure piston is properly inserted into the Power Head prior to operation. Should piston not align into the Power Head, manually pull the piston up and re-align.

5. Close cover and tighten thumb screw to secure Power Head. Ensure locking screw is installed before operation.



## Troubleshooting

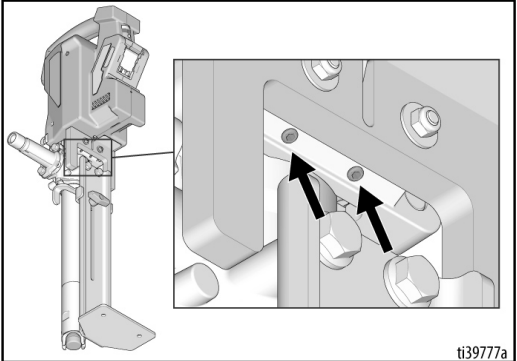


1. Remove battery before repairing pump.
2. Check all possible problems and causes before disassembling pump.

Problem	Cause	Solution
Unit stops running	Battery is not fully seated.	Re-insert battery, ensuring it is fully seated.
	Battery low on charge.	Replace battery with fully charged one.
	Plugged outlet tube.	Perform <b>Pressure Relief Procedure</b> , page 17, and clear all obstructions.
Equipment does not run	Diagnostic lights blink two times when dispensing button is pushed. Indicates incorrect voltage.	Replace battery with fully charged one. Battery has reached end of life. Replace battery.
	Diagnostic lights blink three times when dispensing button is pushed. Indicates battery temperature is too hot or cold.	Allow battery to cool down or warm up to room temperature.
	Diagnostic lights blink four times when dispensing button is pushed. Indicates locked rotor condition.	Perform <b>Pressure Relief Procedure</b> , page 17, and clean unit. Replace pump assembly and/or SmartControl Assembly.
	Diagnostic light does not blink dispensing button is pushed. Indicates battery is not installed or is damaged.	Install or replace battery. Check switch functionality, see <b>Testing the Switch Functionality</b> , page 30.
	Diagnostic light does not blink when dispensing button is pushed, and battery is confirmed to be good.	Replace SmartControl Assembly.
Leaking around pump rod	Failed throat seal.	Replace throat seal.
	Throat seal installed upside down.	
Fluid delivery is slow	Speed control is set to low.	Increase pump speed by increasing speed control. See, <b>Start Up</b> , page 16.
	Material is too thick.	Thin material or use a different material.

# Troubleshooting

Problem	Cause	Solution
Equipment runs with intermittent flow	Inlet filter is clogged.	Remove filter and clean.
	Inlet valve is stuck open.	Remove and clean inlet to allow for proper functionality
	Inlet is not installed or loose.	Check inlet and ensure it is fully installed.
	Damaged inlet flapper valve.	Remove inlet and check flapper valve for damage and replace if necessary.
	Faulty outlet flapper valve.	Remove cylinder or piston to check piston flapper valve for damage, or obstruction.
	Too thick of material.	Thin material or use a different material.
Equipment runs but no material comes out	Pump is not primed.	Pour some water down outlet to wet the seals.
		Ensure pump is assembled properly with throat seal, piston seal, and inlet housing installed.
	Piston isn't properly connected to ProConnect.	Ensure piston is properly assembled into slider, see <b>Pro Connect Removal and Assembly</b> , page 25.
	Pump is starting to get worn out.	Inspect seals and replace if necessary.
	Material is too thick.	Thin material or use a different material.
Material leaks around box filler	Internal o-ring failed or is missing.	Install or replace if necessary.
Hard to install and remove attachments to unit	O-rings dried out from joint compound/pumping fluid.	Lubricate o-rings, see <b>Box Filler</b> , page 13.
Power Head ProConnect won't go together	Piston and slider and pins are not properly aligned.	See ProConnect Operation, see <b>Pro Connect Removal and Assembly</b> , page 25.
	Pins or mating holes have contamination on them from dried material.	Clean parts, lubricate, and reassemble.
	Pins or holes are bent.	Try to straighten out pins or replace drive housing. See <b>Parts</b> , page 32.

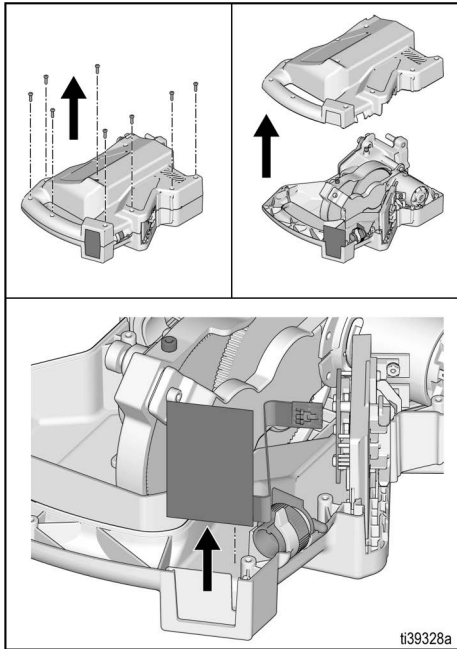
Problem	Cause	Solution
Power Head feels loose or rocks on the pump	Set screws located on the bottom of the Power Head may have become loose (see image below).	Tighten set screws carefully until the rocking has been removed (see image below).
	 <p>The diagram shows a 3D perspective view of the Power Head assembly on the left. A rectangular callout box on the right provides a magnified view of the bottom of the Power Head. Two black arrows point to the locations of the set screws that secure the assembly to the pump base. The callout also shows other fasteners like hex nuts and bolts.</p> <p>ti39777a</p>	

## Testing the Switch Functionality

Follow the steps below to test your switch functionality.

### To Open Unit - All Units

1. Remove battery, see **Battery Installation and Removal**, page 15.
2. Perform pressure relief procedure, see **Pressure Relief Procedure**, page 17.
3. Turn unit on its side and remove ten screws on clamshell.
4. Pull clamshell open and remove switch from slot in the clamshell. Pull switch free by disconnecting the connector on the end of the ribbon.



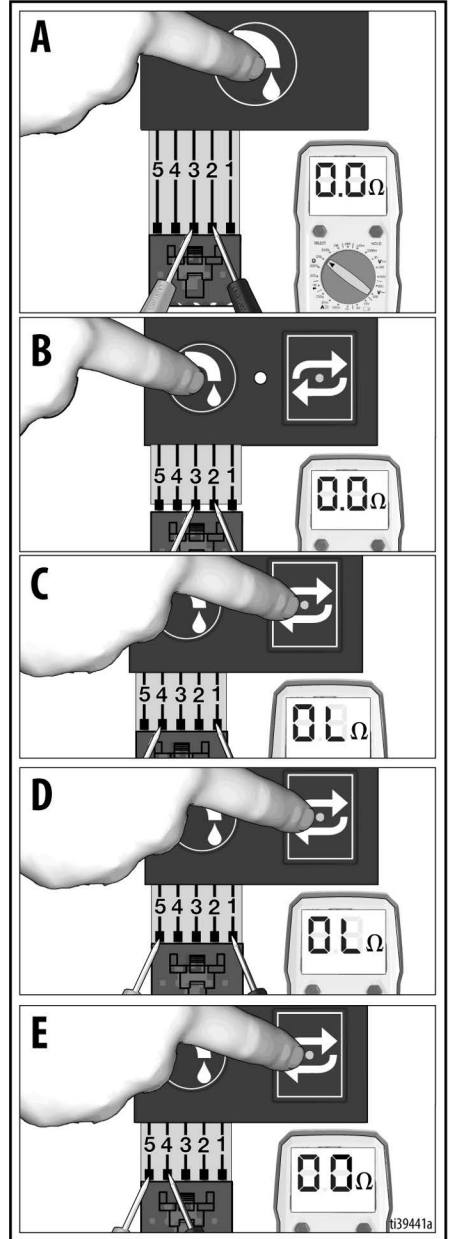
5. Once open, follow testing procedure on the following page.

## To Test Functionality - Standard Series

1. Using an Ohm meter, probe the ribbon lines 2 and 3 and press the dispense button. It should read ~0 ohms (Photo A).
2. If Ohm meter does not read ~0 ohms when pressing the dispense button, replace the switch.

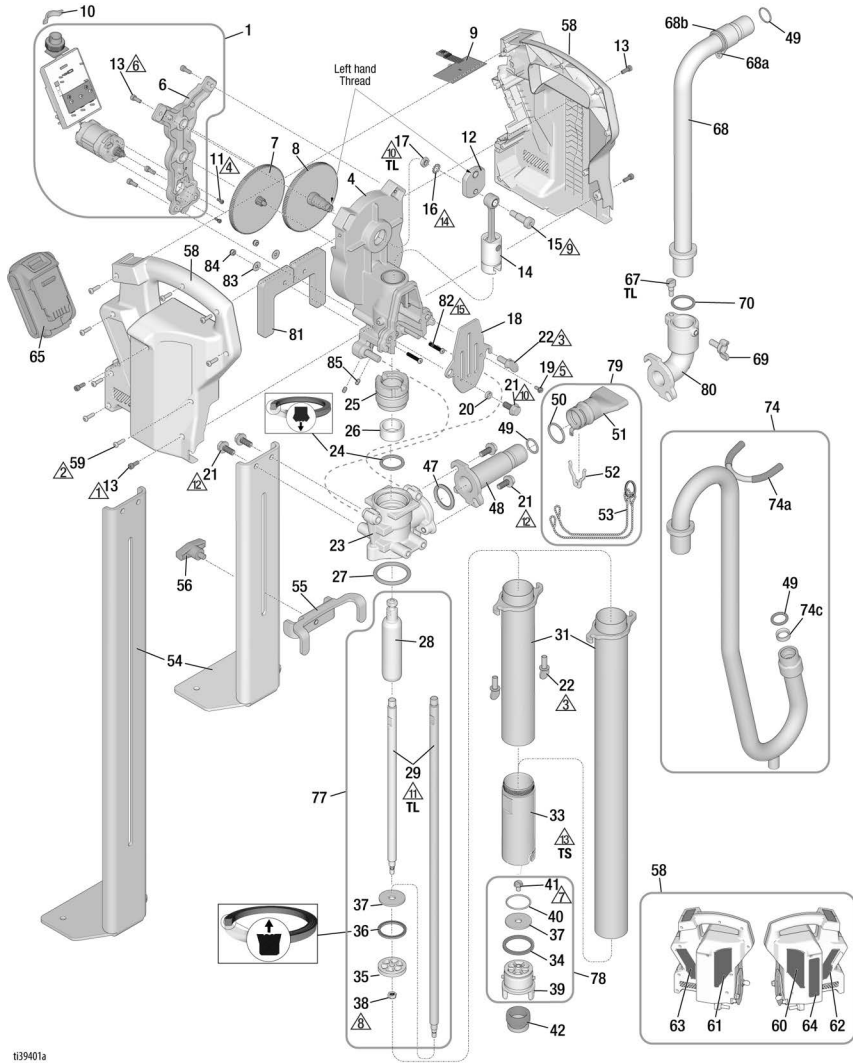
## To Test Functionality - Pro Series

1. Using an Ohm meter, probe the ribbon lines 2 and 3 and press the dispense button. It should read ~0 ohms (Photo B).
2. Probe ribbon lines 1 and 4 and press the Repeat button. It should read OL or MOhms (Photo C).
3. Probe ribbon lines 1 and 5 and press the Repeat button. It should read OL or MOhms (Photo D).
4. Probe ribbon lines 4 and 5 and press the Repeat button. It should read ~0 ohms (Photo E).
5. If Ohm meter does not read these values, replace switch assembly.



# Parts

## Parts PowerFill 3.5 Standard, Pro, and XL Pro



ti39401a

Ref.	Torque	Ref.	Torque	Ref.	Torque	Ref.	Torque
	3 in-lbs. (0.34 N•m)		24 in-lbs (2.71 N•m)		375 in-lbs (42 N•m)		34 ft-lbs(46 N•m)
	5 in-lbs (0.56 N•m)		30 in-lbs (3.4 N•m)		140 in-lbs (16 N•m)		100 in-lbs (11.3 N•m)
	10 in-lbs (1.13 N•m)		40 in-lbs (4.5 N•m)		15 ft-lbs (20 N•m)	TS	Thread Sealant
	20 in-lbs (2.26 N•m)		80 in-lbs (9 N•m)		18 ft-lbs (24 N•m)	TL	Medium Strength Thread lock



## PowerFill 3.5 Standard, Pro, and XL Pro Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	18F104	KIT, assembly, motor/smart control, <i>includes 6, 13</i>	1	41	133079	SCREW, mach, hex, washer hd.	1
4	18F110	HOUSING, drive, sub-assembly, <i>includes 18, 19, 20, 21, 22, 81, 82, 83, 84</i>	1	42	18D170	FILTER, inlet	1
6		HOUSING, motor, machined	1	47 *	133116	O-RING, packing, 321, BUNA-N	1
7	18F107	KIT, gear, stage one, sub-assembly	1	48	19B800	ADAPTER, outlet, standard, machined	1
8	18F108	KIT, gear, stage two, sub-assembly	1	49 *	155332	PACKING, O-ring	1
9		SWITCH, board	1	50 *	121110	PACKING, O-ring, BUNA-N, 122	1
	18F300	Standard Models 26B417, 26B435, 26B536, 26B439, 26B442, 26B432	1	51	19B953	ADAPTER, fill, box tool	1
	18F301	Pro Models 26B418, 26B419, 26B436, 26B437, 26B537, 26B538, 26B440, 26B441, 26B443, 26B444, 26B433, 26B434, 26B472, 26B473	1	52	133080	CLIP, retainer	1
10	17D843	SIGHTGLASS	1	53	18F096	CHAIN, ring, lanyard	1
11	16G740	SCREW, SHCS	3	54		BRACKET, foot	1
12	19B807	CRANK, drive, output	1	18C876		Models 26B417, 26B418, 26B435, 26B436, 26B536, 26B537, 26B439, 26B440, 26B442, 26B443, 26B432, 26B433, 26B472	1
13	133174	SCREW, cap, socket head	8	18C900		Models 26B419, 26B437, 26B538, 26B441, 26B444, 26B434, 26B473	1
14	18F109	KIT, rod, connection, sub-assembly	1	55	18C880	BRACKET, stabilizer	1
15	125027	SCREW, shoulder, socket head, M8	1	56	18C883	KNOB, tee, 5/16-18 x 3/8	1
16	133103	WASHER, lock, external tooth, M8	1	58		KIT, clamshell, <i>includes 60, 61, 62, 63, 64</i>	1
17	133104	NUT, hex, thin, M8 x 1.25	1	18F111		Standard Models 26B417, 26B435, 26B536, 26B439, 26B442, 26B432	1
18	19B810	COVER, pro connect, 2 PIN	1	18F112		Pro Models 26B418, 26B419, 26B436, 26B437, 26B537, 26B538, 26B440, 26B441, 26B443, 26B444, 26B433, 26B434, 26B472, 26B473	1
19	116431	SCREW, mach, hex wash hd.	1	59	119236	SCREW, machine, torx, pan head	8
20	133096	SPACER	1	60	18D095	LABEL, brand, Graco, right	1
21	118241	SCREW, cap, flange, hex hd.	5	61	18D096	LABEL, brand, Graco, left	1
22	132981	SCREW, thumb 5/16-18 UNC	3	62		LABEL, brand, right	1
23	19B798	HOUSING, pump, machined	1	18D145		Models 26B417, 26B435, 26B536, 26B439, 26B442, 26B432	1
24 †	18C888	SEAL, throat	1	18D097		Models 26B418, 26B419, 26B436, 26B437, 26B537, 26B538, 26B440, 26B441, 26B443, 26B444, 26B433, 26B434, 26B472, 26B473	1
25	18F102	NUT, packing, <i>includes 26</i>	1	63		LABEL, brand, left	1
26		WIPER, fiber, pump rod	1	18D144		Models 26B417, 26B435, 26B536, 26B439, 26B442, 26B432	1
27 *	133100	PACKING, O-ring, BUNA-N, -327, 70 DUR	1	18D098		Models 26B418, 26B419, 26B436, 26B437, 26B537, 26B538, 26B440, 26B441, 26B443, 26B444, 26B433, 26B434, 26B472, 26B473	1
28	18F099	ROD, throat, piston	1	64 ▲		LABEL, safety, warning	1
29		ROD, piston, extension	1	18D148		Models 26B417, 26B418, 26B419	1
	18C886	Models 26B417, 26B418, 26B435, 26B436, 26B536, 26B537, 26B439, 26B440, 26B442, 26B443, 26B432, 26B433, 26B472	1	20A539		Models 26B432, 26B433, 26B434	1
	18C898	Models 26B419, 26B437, 26B538, 26B441, 26B444, 26B434, 26B473	1	20A538		Models 26B435, 26B436, 26B437, 26B536, 26B537, 26B538	1
31		CYLINDER, pump, upper	1	20A540		Models 26B439, 26B440, 26B441, 26B442, 26B443, 26B444, 26B472, 26B473	1
	18F105	Models 26B417, 26B418, 26B435, 26B436, 26B536, 26B537, 26B439, 26B440, 26B442, 26B443, 26B432, 26B433, 26B472	1				
	18F106	Models 26B419, 26B437, 26B538, 26B441, 26B444, 26B434, 26B473	1				
33	18F098	CYLINDER, lower	1				
34 *	133017	O-RING, square	1				
35	18C891	PISTON, seal housing	1				
36 †	18C890	SEAL, piston	1				
37 †	18C889	VALVE, check flap	2				
38	133098	NUT, lock, 1/4-28 UNF	1				
39	19B946	HOUSING, inlet, assembly	1				
40 *	120818	PACKING, O-ring	1				

# Parts

Ref.	Part	Description	Qty.
65		BATTERY, serial, DEWALT, 20V	1
	17P474	Models 26B417, 26B418, 26B419	
	17P556	Models 26B432, 26B433, 26B434	
	17P557	Models 26B435, 26B439, 26B536, 26B436, 26B440, 26B537, 26B437, 26B441, 26B538	
	17P558	Models 26B442, 26B443, 26B444	
	17Y586	Models 26B472, 26B473	
66		CHARGER, DEWALT, 20V	1
	17P475	Models 26B417, 26B418, 26B419	
	17P559	Models 26B432, 26B433, 26B434	
	17P560	Models 26B435, 26B439, 26B536, 26B436, 26B440, 26B537, 26B437, 26B441, 26B538	
	17P561	Models 26B442, 26B443, 26B444	
	17Y587	Models 26B472, 26B473	
67	19B947	SCREW, clamping, adapter	1
68		TUBE, fill, <i>includes 68a, 68b</i>	1
	18D099	14 in.	
	18D100	23 in.	
68a		RING, retainer	1
68b		RING, retaining	1
69	133129	SCREW, wing 5/16-18	1
70	154662	O-RING	1
74		KIT, goose neck assembly, complete	1
	18D161	Models 26B417, 26B435, 26B536, 26B439, 26B442, 26B432, <i>includes 80, 67, 69, 70, 74a, 74c, 49, 21, 47</i>	
	18D086	Models 26B418, 26B436, 26B537, 26B440, 26B443, 26B433, 26B472	
	18D103	Models 26B419, 26B437, 26B538, 26B441, 26B444, 26B434, 26B473	
74a	133147	CAP, round, vinyl	2
74c	18E112	SPACER, tube, gooseneck	1
77		KIT, piston, assembly, <i>includes 28, 29, 35, 36, 37, 38, 24</i>	1
	18F100	Models 26B417, 26B418, 26B435, 26B436, 26B536, 26B537, 26B439, 26B440, 26B442, 26B443, 26B432, 26B433, 26B472	
	18F101	Models 26B419, 26B437, 26B538, 26B441, 26B444, 26B434, 26B473	
78	18F097	KIT, repair, inlet assembly, <i>includes 34, 37, 39, 40, 41</i>	1
79	18D169	KIT, assembly, box filler, <i>includes 50, 51, 52, 53</i>	1
80	19B799	ADAPTER, outlet	1
81	18E128	LEG, Powerfill 3.5	1
82	133298	SCREW, cap, socket hd.	2
83	112776	WASHER, plain	2
84	115483	NUT, lock	2

\* Included in 18F116, Complete O-Ring kit

† Included in 18F103, Pump seal kit

▲ Replacement safety labels, tags, and cards are available at no cost.

## Technical Specifications

	U.S.	Metric
Max Working Pressure	125 psi	0.86 MPa, 8.6bar
<b>PowerFill 3.5 Standard Dimensions, without outlet (with outlet)</b>		
Length	11.5 in. (11.5 in.)	29.2 cm (29.2 cm)
Width	6.2 in. (12 in.)	15.8 cm (30.5 cm)
Height	31.1 in. (31.1 in.)	79 cm (79 cm)
Weight	15 lb.	6.8 kg
<b>PowerFill 3.5 Pro Dimensions, without outlet (with outlet)</b>		
Length	11.5 in. (11.5 in.)	29.2 cm (29.2 cm)
Width	6.2 in. (14.7 in.)	15.8 cm (37.4 cm)
Height	31.1 in. (34.3 in.)	79 cm (87.2 cm)
Weight	17 lb.	7.7 kg
<b>PowerFill 3.5 XL Pro Dimensions, without outlet (with outlet)</b>		
Length	11.5 in. (11.5 in.)	29.2 cm (29.2 cm)
Width	6.2 in. (14.7 in.)	15.8 cm (37.4 cm)
Height	44 in. (47.2 in.)	111.8 cm (119.9 cm)
Weight	20 lb.	9.1 kg
Storage Temperature Range ♦*	32° to 113° F	0° to 45° C
Operating Temperature Range	40° to 90° F	4° to 32° C
Storage Humidity Range	0% to 95% relative humidity, non-condensing	
Sound Pressure Level	80 dBa	
Sound Power Level †	97.5 dBa Uncertainty K = 3 dBa	
Charger Power Source		
26B417, 26B418, 26B419, 26B432, 26B433, 26B434	100 – 120 Vac, 60 Hz, 15A, 1 Ø	
26B435, 26B436, 26B437, 26B536, 26B537, 26B538, 26B439, 26B440, 26B441, 26B442, 26B443, 26B444	230 Vac, 50 Hz, 16A, 1 Ø	
<b>Battery</b>		
Voltage (DC)	18 V and 20 V MAX* 2.0 Ahr Li-ion Compact Battery Pack DEWALT	
Materials of Construction		
Wetted materials on all models	Aluminum, stainless steel, Buna-N, and polyurethane	
Notes		
♦ <b>Pump damage can occur if material or water freezes in pump.</b>		
* Damage to plastic parts may result if impact occurs in low temperature conditions.		
† All readings were taken in priming mode at the assured operator position. Sound power levels were tested to ISO 3741 at 3.3 feet (1m).		
* Maximum initial Battery voltage (measured without a workload) is 20 volts. Nominal voltage is 18.		

## Recycling and Disposal

### End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Perform the **Pressure Relief Procedure**, page 17.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.


- Remove motors, batteries, circuit boards, and other electronic components. Recycle according to applicable regulations.
- Do not dispose of electronic components with household or commercial waste.



- Deliver remaining product to a recycling facility.

## California Proposition 65

### CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

## Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

**GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO.** These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

### **FOR GRACO CANADA CUSTOMERS**

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

## *Graco Information*

# Graco Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

For patent information, see [www.graco.com/patents](http://www.graco.com/patents).

**TO PLACE AN ORDER**, contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.



*All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.*

Original instructions. This manual contains English. MM3A8110

**Graco Headquarters:** Minneapolis

**International Offices:** Belgium, China, Japan, Korea

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