Instructions

ToughTek® F340e Portable Fireproofing Pump

3A6393H

EN

Electric sprayer for water-based cementitious fireproofing material.
For professional use only.

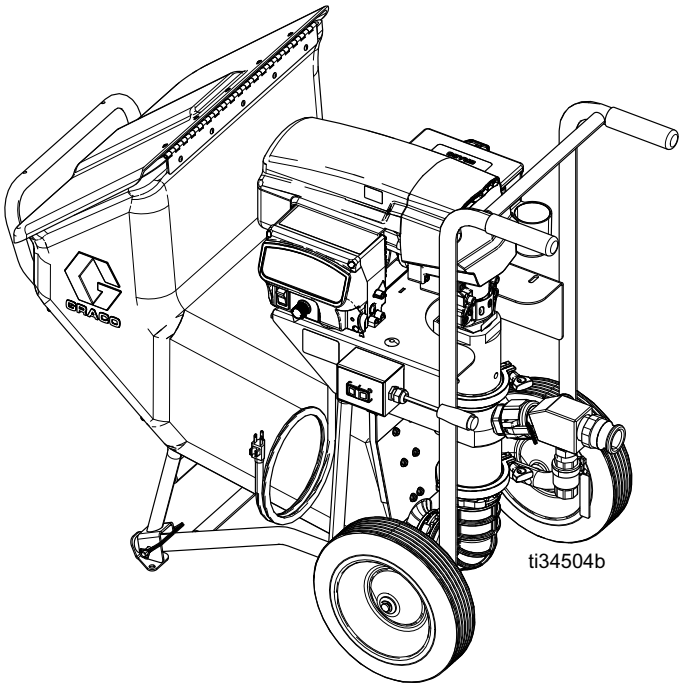
Not approved for use in explosive atmospheres or hazardous locations.

600 psi (4.13 MPa, 41.3 bar)
Maximum Fluid Working Pressure

See page 3 for model information and approvals.

Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Save these instructions.



PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

Models

Bare Model	Electric Requirements	Approvals	Country	Includes Compressor*
25B502	120 V, 15 A, 50/60 Hz, 1 Phase		North America	
25B552				
25B558	120 V, 15 A, 50/60 Hz, 1 Phase	CE	United Kingdom	
25B506	230 V, 10 A, 50/60 Hz, 1 Phase	CE	Europe, Asia, Australia	
25B556				

** Models with an air compressor require an additional dedicated 15 A circuit (120 V systems) or 8.5 A circuit (230 V systems).*

† *All 230 V pumps include a Europe adapter and Australia adapter cord set.*

Related Manuals

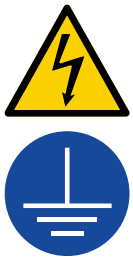
Manuals are available at www.graco.com

Manual in English	Description
3A3244	Pole Spray Applicator 24Y619
3A3112	ToughTek 340e Remote Switch Control Box Kit 17G554
3A3998	Compressor Manual
3A5637	ToughTek Camlock Mortar Hose
3A4554	ToughTek Mortar Coupling Hose

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.

⚠ WARNING



ELECTRIC SHOCK HAZARD

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power cord before servicing equipment.
- Connect only to grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.
- Wait five minutes after disconnecting power cord before servicing.

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:

- Use equipment only in well-ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).
- Ground all equipment in the work area. See **Grounding** instructions.
- Never spray or flush solvent at high pressure.
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Use only grounded hoses.
- Hold applicator firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.
- **Stop operation immediately** if static sparking occurs or you feel a shock**.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

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.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.

SUCTION HAZARD

Misuse can cause death or serious injury.

- Never place hands near the pump fluid inlet when pump is operating or pressurized.

⚠ WARNING

SKIN INJECTION HAZARD

High-pressure fluid from applicator, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

- Do not point applicator at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Specifications** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

⚠ WARNING

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.

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.

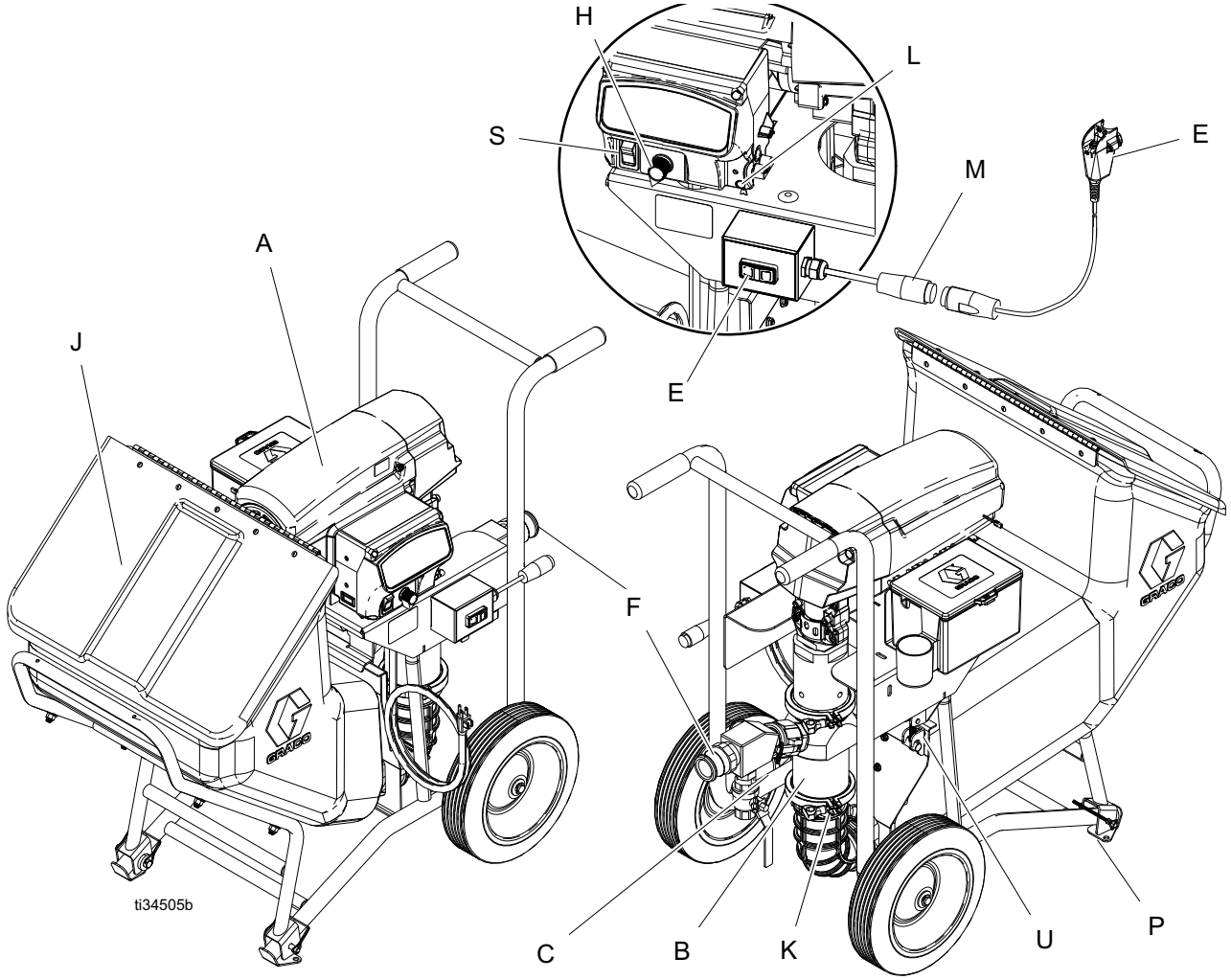
PERSONAL PROTECTIVE EQUIPMENT

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

Overview

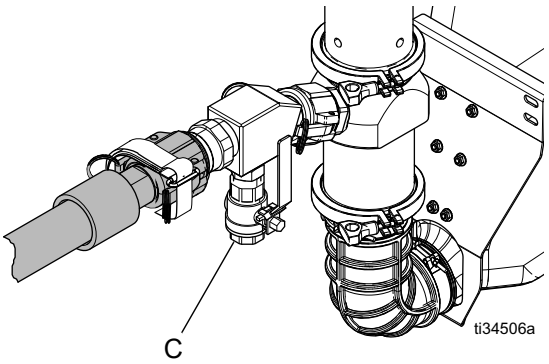


Ref.	Description
A	Electric Motor
B	Pump Lower
C	Fluid Drain/Purge Valve
E	Remote Control Switch
F	Fluid Outlet
H	Flow Adjustment Knob
J	Hopper
K	Over-Center Latch
L	Control Board Status Light
M	Remote Switch Connector
P	Hopper Pin
S	Motor Power Switch
U	Hopper Latch

Fluid Drain/Purge Valve

To avoid injury from splashing fluid, never open a cam-lock hose or applicator fitting while there is pressure in the fluid line. Follow the **Pressure Relief Procedure** on page 18.

Open the drain/purge valve (C) to relieve pressure if pump or hose pack-out occurs, or to relieve pressure inside the hose. Close valve when spraying.

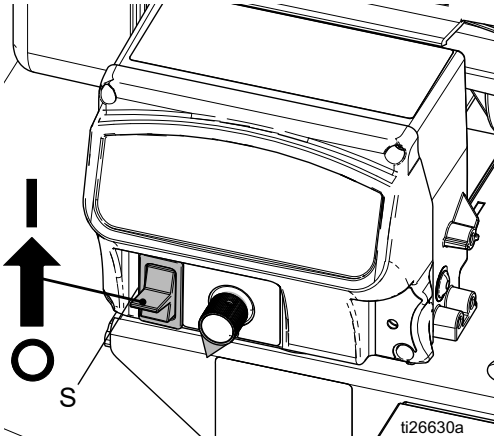


NOTICE

To prevent material hardening in fluid drain/purge valve, flush the valve after every time it is used. Follow the **Flush** procedure on page 12.

Motor Power Switch

The motor power switch (S) must be in the ON position for the sprayer to pump material.

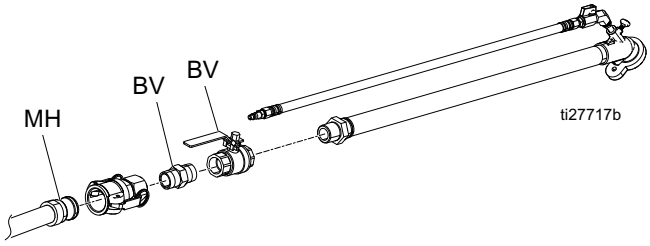


Motor Power Switch Settings:

OFF	Power is disconnected. The motor will not run.
ON	The motor will run continuously at a speed determined by the flow adjustment knob.

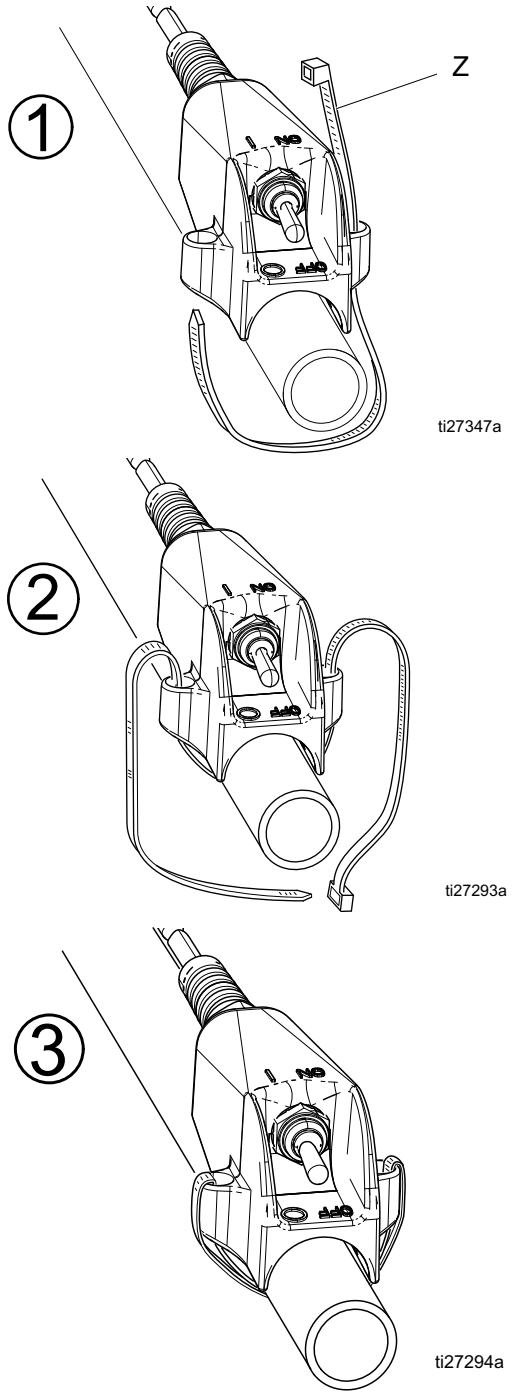
Applicator Ball Valve (17J703)

Additional accessory kit that can be installed on the end of the 1 in. ID, 25 ft material hose (88) directly between the pole spray applicator pipe handle and adapter fitting. The applicator ball valve (1, 2) can be used to stop material flow, but only after the pump has been stopped first. Do NOT use the valve to stall the pump.

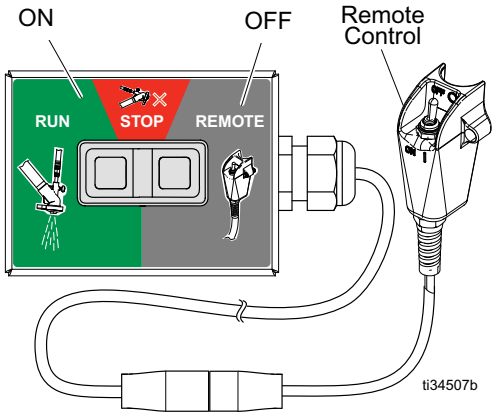


Install the Remote Switch

NOTE: Refer to the illustration below to install the remote switch to the hose or pole spray applicator with a zip-tie (Z). The remote switch will fit on hoses/applicators sized 0.75 in. up to 1.25 in.



Pump Control Settings



Pump Control Setting	Description
ON	The motor will run continuously at the speed determined by the flow adjustment knob (H).
OFF	The motor will not run. There is still power to the unit.
Remote Control	The “Remote Control” setting allows the user to control ON/OFF functionality of the pump through the remote toggle switch. When the remote toggle switch is installed and the pump control settings are set to “Remote Control”, the toggle switch can be used to turn the pump ON and OFF (see descriptions above).

Grounding

The equipment must be grounded to reduce the risk of static sparking and electric shock. Electric or static sparking can cause fumes to ignite or explode. Improper grounding can cause electric shock. Grounding provides an escape wire for the electric current.

Ground the sprayer by plugging it into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the power cord provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.

Extension Cords

- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm^2) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

NOTE: Certain GFCI outlets have been known to trip while using this product. GFCI outlets have a range of sensitivities. Motor controllers can cause false trips of GFCI outlets. If you experience issues while using this product, switch to a different GFCI model.

Power Requirements

Model	Required Power Source	Power Cord Connectors	Supplied Local Adapters
200–240 VAC, 1 phase, 50/60 Hz	One separate, dedicated circuits rated at minimum of 10 A each	 One IEC 3-20 C20 Plugs	 Euro CEE7 (Europe)  AS/NZS (Australia)
100–120 VAC, 50/60 Hz	One separate dedicated circuits rated at minimum of 15 A each	 One NEMA 5–15A Plug	

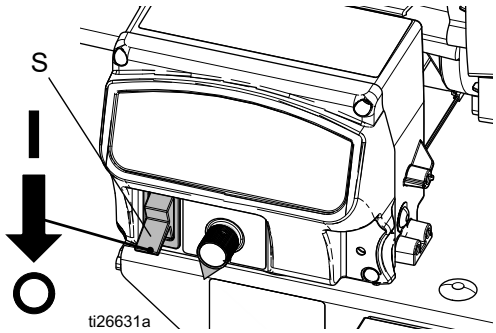
NOTE: Models with an air compressor require an additional dedicated 15 A circuit (120 V systems) or 8.5 A circuit (230 V systems).

Operation

Setup

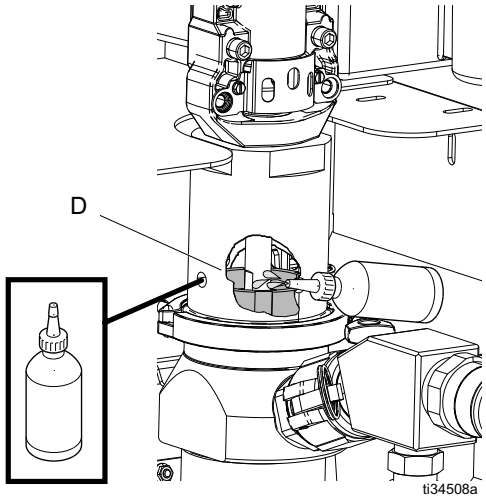
To avoid tipping over, make sure the cart is on a flat and level surface. Failure to do so could result in injury or equipment damage.

1. Turn the motor power switch (S) to OFF.



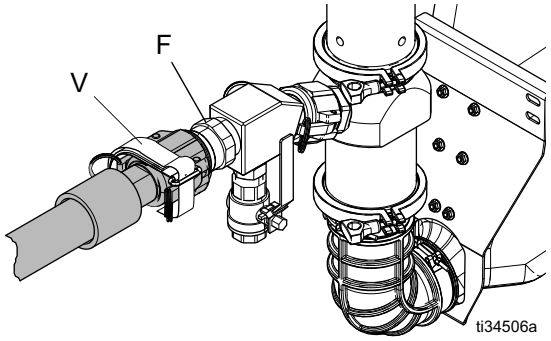
2. Ground sprayer (see **Grounding**, page 10). Plug the power cord into a dedicated 15 amp, 120 V circuit (or a 10 amp, 230 V circuit, depending on model).

3. Check Throat Seal Liquid (TSL) level in packing nut (D). Fill 1/2 full with TSL.



4. Connect air supply to applicator.

5. Attach hose to applicator fluid inlet and pump fluid outlet (F), then secure Velcro straps (V) around the cam lock fitting.



6. Flush the system with water before using (see **Flush** on page 12).

Flush

NOTICE

Failure to flush prior to material curing in the system will result in damage to system and may require replacement of all system parts in contact with the material.

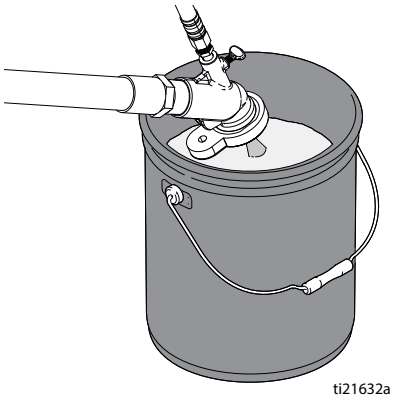
NOTICE

If the fluid/drain purge valve has been used to relieve pressure, the valve must be flushed to prevent material hardening in fluid/drain purge valve. If that is not sufficient, remove, disassemble, and clean the valve then reinstall.

- Flush if the materials in the system are about to reach their cure time.
- Flush any time the flow rate starts to decrease as this is a sign that material is starting to thicken and cure.
- Always flush the system at least twice, draining all water between flushes then replacing with clean water.
- Flush using water only.

1. Relieve pressure (see **Pressure Relief Procedure** on page 18).
2. Remove applicator tip and retainer.

3. Place applicator outlet in a waste container. The waste container must be large enough to hold all dispensed material.



4. Turn motor power switch (S) on.
5. Turn adjustment knob (H) clockwise slowly to increase pressure, until a steady stream flows from applicator.
6. When the material level in the hopper is within a few inches of the material inlet at the bottom:
   a. Scrape the material down the sides of the hopper.
   b. Fill the hopper with water as the material runs out and continue dispensing.
7. Keep the hopper filled with water while dispensing.

   NOTE: Be prepared to decrease the flow adjustment knob (H) when the material exiting the hose changes to water.
8. When water begins to exit the applicator outlet, turn the motor power switch (S) to OFF to stop dispensing.
9. Place applicator in the system hopper with the outlet pointing down to enable fluid circulation.

10. Circulate clean water:
    a. Fill the system hopper with clean water.
    b. Use a scrub brush to scrub the walls of the hopper.
    c. Turn the motor power switch (S) to ON to begin circulating water.
    d. While pumping, open the fluid drain/purge valve. Allow the water to flush out any material to prevent material hardening in the valve. Once the water appears clean, close the fluid drain/purge valve.
    e. Turn the motor power switch (S) to OFF.
    f. Place applicator outlet in a waste container.
    g. Turn the motor power switch (S) to ON to dispense into a waste container.
    h. Dispense into a waste container until hopper is almost empty then turn the motor power switch (S) to OFF.
    i. Repeat this entire “Circulate clean water” step one more time to ensure system is thoroughly flushed.
11. Remove the remaining material with a hose clean-out ball. See for a list of available clean-out balls and appropriate hose sizes to use with them.
    a. Remove the applicator from the end of the hose and place the hose outlet back in the waste container.
    b. Remove the hose inlet from the pump outlet and place a hose clean-out ball within the hose inlet. The ball must be wetted down before inserting.
    c. Reattach the hose to the pump outlet and turn the motor power switch (S) to ON to resume flushing the hose.
    d. The hose clean-out ball will be pushed out of the hose after several minutes. Once the ball is pushed through the hose, turn the motor power switch (S) to OFF and repeat the entire process listed in step 10 one time to ensure the system is thoroughly flushed.

NOTICE
Material left on the throat seal can dry out and damage the seal. Always stop the pump at the bottom of the stroke to avoid damage to the throat seal.

12. Turn compressed air on to blow out any material that may have back-flowed into the air lines while flushing (this will prevent air line pack out).
13. After performing the previous step at least twice, drain remaining water from system:
    a. Place a drain pan beneath pump lower inlet connection.
    b. Detach pump from hopper (see **Hopper Removal** on page 19).
    c. Use a screwdriver to lift the pump lower inlet ball. This will drain the remaining material from the pump lower. When the pump stops draining, release the pump lower inlet ball.
    d. Reattach pump to hopper.
    e. Starting at the pump, raise the hose bundle above your head and slowly move towards the applicator. As you move towards the applicator, the remaining fluid in the hose will drain from the applicator into the bucket.
14. Dispose of all waste material in accordance with local rules and regulations. See manufacturer’s SDS for additional information.

Mix the Material

Always follow the material manufacturer’s instructions for the material being sprayed. Material must be thoroughly mixed to a smooth consistency before loading it in the hopper.

Managing Material After Mixing:

- Pay close attention to the work life of the material being used.
- Only mix the material kits as needed. Do not let mixed material sit longer than necessary.
- Scrape material down the sides of the hopper as the hopper material level lowers. Do not let older material cure on the walls.
- To ensure that all material in the hopper is used while fresh, occasionally wait until the hopper is almost empty before refilling.

Prime with Material

NOTICE

To prevent material curing in system, never load material into a dry system. Loading material into a dry system will cause the material to stick to internal components and cure, causing damage and requiring replacement of those parts.

The applicator nozzle or tip must be removed during priming. Always push out any remaining water into a waste container before circulating material. Always circulate clean material back into the hopper for a few minutes before beginning to spray.

1. Follow the **Mix the Material** procedure on page 13.
2. Turn the flow adjustment knob (H) counterclockwise until it stops.
3. Remove tip from applicator.
4. Fill the clean hopper with material to be sprayed.
5. Place hose outlet in a 5 gallon waste container.

NOTICE

To prevent damage to pump seals caused by cavitation, run the pump slowly until the system is primed.

6. Turn the motor power switch (S) to ON.
7. Turn the flow adjustment knob (H) clockwise slowly to increase pressure, until water is purged out and a steady stream of material flows from applicator.
8. To stop dispensing, turn adjustment knob counterclockwise until it stops.
9. Place the hose outlet into the hopper.
10. Recirculate a few gallons of material to be sure the material is flowing properly.
11. Turn the flow adjustment knob (H) counterclockwise to stop the pump.
12. Install the applicator without a tip onto the hose and pump material until material has been pushed out of the applicator, then stop the pump.
13. Install a tip onto applicator (see your applicator manual). The system is now primed and ready to spray.

Spray

Prevent Pack-out

To avoid “packing out” the pump or hose:

- Use the lowest pressure and largest nozzle size that provides an acceptable spray pattern. This will also result in seals and wear parts lasting much longer.
- Do not use any more fluid hose than is necessary.
- Use an applicator with a rubber tip retainer that will blow off if it plugs.

Before Starting or Stopping Material Flow

Always have the atomizing air turned on at the applicator before and after spraying fluid (see your applicator manual).

NOTE: If the applicator ball valve kit (17J703) has been installed, do NOT use the valve to stall the pump. The pump must be stopped first before the ball valve can be closed.

Sprayer Performance

NOTE: The check valve (45) helps to improve pump performance with highly compressible gypsum based materials. For high density, Portland cement based materials, the check valve (45) can be replaced with 1–1/2 NPT Nipple Fitting (121441) to reduce pressure drop and improve performance.

Spraying

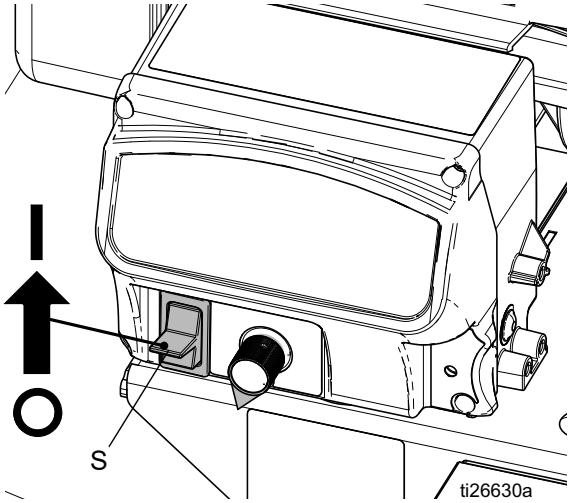
1. Follow the **Mix the Material** procedure on page 13.
2. Follow the **Prime with Material** procedure on page 14.

NOTICE

Do not allow pump to run without material in the hopper. It can cause damage to the pump seals.

Failure to flush prior to material curing in the system will result in damage to system and may require replacement of all system parts in contact with the material.

3. Turn on atomizing air and adjust the air needle valve on the applicator (see your applicator manual).
4. Turn the motor power switch (S) to ON.

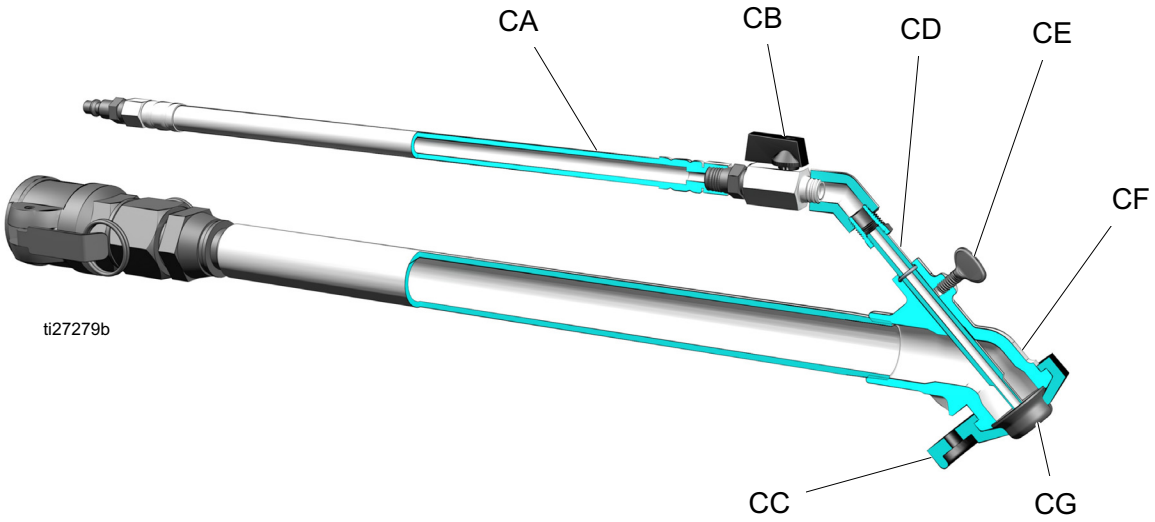


5. Turn flow adjustment knob (H) until desired flow is reached. Turn clockwise to increase flow, counterclockwise to decrease flow.
6. If the system is approaching its cure time or the system will be idle for enough time for material to begin curing in the system, flush the system. Follow the **Flush** procedure on page 12.

NOTICE

Failure to flush prior to material beginning to cure in the system will result in damage to system and may require replacement of all parts in contact with the material.

Spray Adjustments (Pole Spray Applicator)



Ref.	Description
CA	Air Assist Air Line
CB	Air Assist Shutoff Ball Valve
CC	Rubber Tip Retainer
CD	Air Needle (adjustable position)
CE	Air Needle Retaining Screw
CF	Fluid Housing
CG	Tip (Nozzle)

NOTE: See the Pole Spray Applicator manual for model information.

General Adjustments

The spray pattern can be adjusted by changing:

- Tip (CG) size
- Air flow, use air ball valve (CB)
- Air Needle (CD) position

Adjust Air Flow: Adjust the air assist shutoff ball valve (CB) for the minimum air flow necessary for a good pattern. Air bleeds from the applicator nozzle (CG) whenever the applicator air assist shutoff ball valve (CB) is open. Close the valve to stop the air flow, if desired. Otherwise, the air valve can stay open during priming. Air must be on prior to fluid flow.

Adjust Air Needle (CD) Position: Make sure the air needle (CD) is slightly behind the tip (CG). The general rule for setting the air needle position is that the air needle should be the same distance back from the tip as the size of the orifice. For example, if you have a 1/2 in. tip installed, the air needle should be approximately 1/2 in. behind the tip.

NOTE: Installing the needle too far forward can restrict or completely block material flow. This can result in the retainer (CC) blowing off. Installing the needle too far back can raise the pressure behind the fluid enough to blow the retainer (CC) off and can cause dripping.

Air Flow Valve Adjustment

To decrease air flow, turn valve knob clockwise. To increase air flow, turn valve knob counterclockwise.

Check material and thin as needed to maintain the proper consistency. The material may thicken as it sits and could slow down application or affect the spray pattern.

Flush and dry applicator thoroughly at the end of each use. Tips and retainers must be cleaned by hand.

Material Flow Adjustment

For a lighter spray pattern, adjust the air needle closer to the fluid nozzle and/or reduce the fluid flow.

For a heavier spray pattern, adjust the air needle farther back from the fluid tip and/or increase the fluid flow.

NOTE: Withdrawing the needle too far can force air pressure back into the fluid hose, which can slow material flow.

Spray Techniques

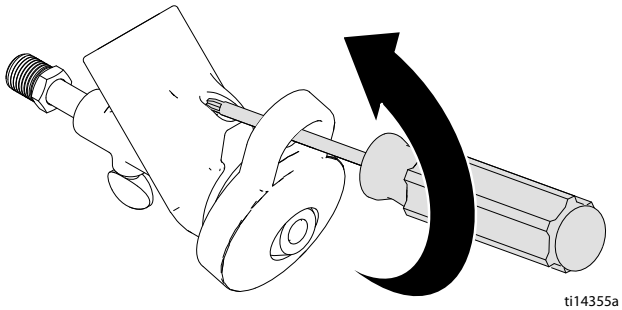
1. Test the spray pattern on cardboard. Hold the applicator 6 – 18 in. (150 – 450 cm) away from the surface. Use this spraying distance for most applications.
2. Adjust fluid flow until material flow is adequate.
3. Adjust the applicator air ball valve to achieve a uniform round spray pattern.
4. Consider the size of aggregate in the material and the coarseness of the spray pattern. Larger nozzles allow heavier patterns.
5. Overlap each stroke 50%. A circular overlapping pattern may give the best results.

When spraying small confined areas use the air ball valve and air needle position to make fine adjustments without adjusting the pump.

Higher pressures may cause excessive wear on the fluid pump. Select a fluid tip large enough to spray at low pressure. Some materials will pack-out at higher pressures.

Installing Nozzle Retaining Cap

1. Place rubber tip retainer (CC) over top lip of applicator housing.
2. Insert screwdriver through hole in tab of rubber tip retainer.
3. Push screwdriver head against notch on applicator tip and pry rubber tip retainer over the tip (CG), spray shield (if being used), and lip until it snaps into place.



4. Turn the rubber retainer back and forth to be sure it is fully seated.

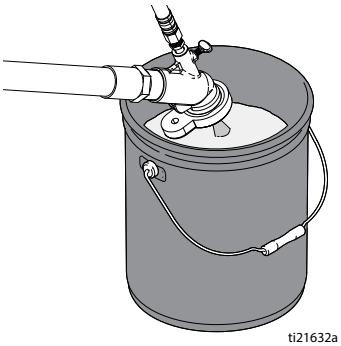
NOTE: The rubber gasket in the cam and groove inlet fitting and the rubber nozzle retainer should be hand cleaned and dried after each use.

Pressure Relief Procedure

Follow the Pressure Relief Procedure whenever you see this symbol.

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

1. Turn the flow adjustment knob (H) counterclockwise until it stops.
2. Turn the motor power switch (S) off.
3. Remove the applicator tip and tip retainer, and hold the applicator firmly against a pail.



ti21632a

To avoid injury from splashing fluid, never open a cam-lock hose or applicator fitting while there is pressure in the fluid line.

4. If the applicator ball valve kit (17J703) has been installed, open the ball valve.
5. If you suspect the applicator tip or hose is completely clogged, or that pressure has not been fully relieved after following the previous steps, slowly open the fluid drain/purge valve (C) at the pump outlet and drain material into a waste pail.

Clearing a Clogged Hose

1. Follow the **Pressure Relief Procedure,** page 18.
2. If you suspect there is a clog in the hose, disconnect the hose at the connection farthest from the pump. Continue to disconnect the hose back toward the pump (upstream) until the hose with the clog is reached.
3. To clear a clogged hose:
   a. Disconnect the clogged hose from the pump if not done already.
   b. Use a rope or a strap to secure the clogged hose to a permanent, stationary column.
   c. Use a water hose to clear the clogged or dried material from the material hose. Do not use a hammer on the hose, or insert any potential projectiles (such as sticks, rebar, etc) into the hose end.

NOTICE

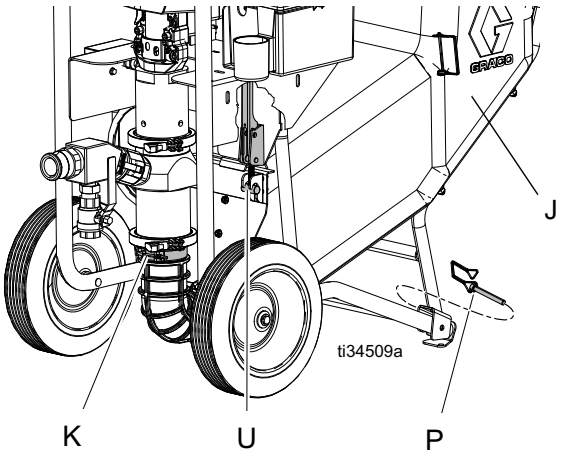
To prevent material hardening in fluid drain/purge valve, flush the valve after every use.

Hopper Removal

To help prevent injury from suction, never place hands near the pump fluid inlet when pump is operating or when hopper is removed.

The hopper assembly allows easy detachment of the hopper from the pump. To remove the hopper from the pump, perform the following steps:

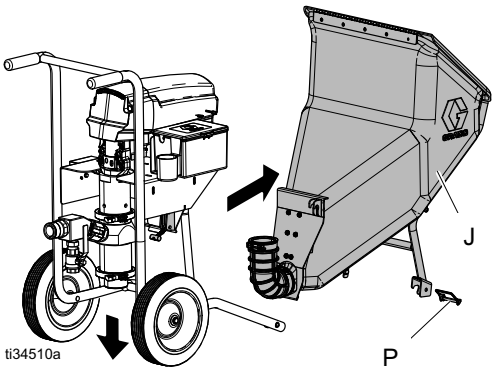
1. Follow the **Pressure Relief Procedure** on page 18.
2. Open the over-center latch (K) to loosen the clamp between the hopper elbow and the lower.



3. Remove the locking pin and pull down the hopper latch (U) on the hopper plate.

   NOTE: If needed, push down on the hopper elbow to completely disengage from the pump lower.

4. Remove the two hopper pins (P) from the front legs of the cart.
5. Lift up on the handle and pull the hopper (J) away from the sprayer.



NOTE: If the hopper elbow needs to be thoroughly cleaned, rotate the second knob (K) to loosen the clamp between the elbow and the hopper. Remove and clean the elbow.

NOTE: To re-install the hopper, follow the steps above in reverse order.

Shutdown

To avoid injury from splashing fluid, never open a cam-lock hose or applicator fitting while there is pressure in the fluid line.

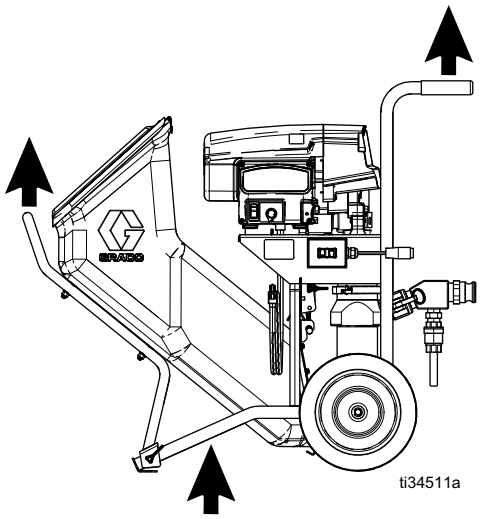
NOTICE

To prevent rust, never leave water or water-based fluid in the pump overnight.

1. To shutdown, follow the **Flush** procedure on page 12.
2. Turn the motor power switch (S) to OFF.

Lifting Instructions

When lifting the unit, only lift at the points indicated by the arrows shown in the illustration.



Maintenance

1. Follow the **Flush** procedure on page 12.
2. Clean the hopper with a scrub pad. Clean the outside of the sprayer with a cloth and water.
3. Check hoses, tubes, and couplings for wear or damage. Tighten all fluid connections before each use.
4. Check and replace cam-lock gaskets as needed.

Water Exposure

NOTICE
Exposing the motor and/or control to water can cause damage and possible motor failure. Do not store the pump outside. Do not spray water directly into the motor fan.

Preventative Maintenance

The operating conditions of your particular system determine how often maintenance is required. Establish a preventative maintenance schedule by recording when and what kind of maintenance is needed, and then determine a regular schedule for checking your system.

DAILY: Check hose for wear and damage, and inspect fluid lines for leaks.

DAILY: Check fluid drain/purge valve for proper operation.

DAILY: Check level of Throat Seal Liquid (TSL) in displacement pump packing nut/wet cup. Fill nut 1/2 full with TSL. Maintain TSL level to help prevent material buildup on piston rod and premature wear of packings and pump corrosion.

Corrosion Protection

NOTICE
To prevent rust, never leave water or water-based fluid in the pump overnight.

NOTICE
Material left on the throat seal can dry out and damage the seal. Always stop the pump at the bottom of the stroke to avoid damage to the throat seal.

Always flush the pump before the fluid dries on the displacement rod. First, flush with water, then with oil. Relieve the pressure, but leave the oil in the pump to protect the parts from corrosion.

Troubleshooting

1. Follow the **Pressure Relief Procedure** on page 18.
2. Check all possible problems, causes, and solutions listed below before disassembling the pump.

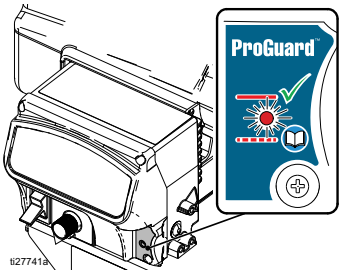
   NOTE: For troubleshooting and repair questions, contact your distributor.

Mechanical/Fluid Flow

Problem	Cause	Solution
Displacement pump operates, but output is low on upstroke	Piston ball check not seating properly	Service piston ball check
	Piston packings worn or damaged	Replace packings
Displacement pump operates, but output is low on down stroke and/or on both strokes	Piston packings worn or damaged	Tighten packing nut or replace packing
	Outlet check valve not seating properly	Clean check valve
	Intake valve ball check not seating properly	Service intake valve ball check
	Rubber elbow air leak	Tighten clamps
	Fluid hose on the applicator is obstructed	Clean the fluid hose on the applicator
Material leaks and runs over the side of the wet cup	Loose wet cup	Tighten wet cup enough to stop leakage
	Throat packings worn or damaged	Replace packings
Fluid delivery is low	Applicator tip is dirty or clogged	Clean or replace
	Clamps on hopper elbow are loose	Tighten clamps on hopper elbow
	Large pressure drop in fluid hose	Reduce length or increase diameter
Electric motor does not operate	Power switch is not ON	Turn the power switch ON
	Tripped circuit breaker	Check circuit breaker at power source. Reset motor switch.
Sprayer does not operate	Fluid hose or applicator obstructed	Clean hose or application
	Dried fluid on displacement rod or inlet ball	Clean rod. Always stop pump at bottom of stroke; keep wet cup filled with TSL. Be sure the inlet ball moves freely.
Erratic accelerated speed	Material supply exhausted, clogged suction	Refill hopper and prime pump
	Open or worn piston valve or packings	Clear piston valve; replace packings
	Open or worn intake valve	Clear or service intake valve
Cycles or fails to hold pressure at stall	Worn check balls, seats, or piston packing	Service lower

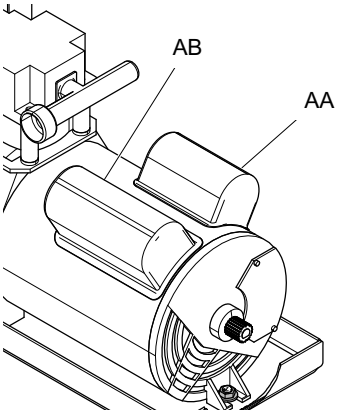
Problem	Cause	Solution
Poor finish or irregular spray pattern	Inadequate atomizing air pressure	Adjust air needle valve on applicator (see your applicator manual)
	Dirty, worn, or damaged spray applicator	Service spray applicator (see your applicator manual)
Motor powered but nothing comes out of hose	Pump is packed out with dry or cured material	Disassemble and Clean the pump
	Hose is packed out with dry or Reverse hose and try to push out bad material cured material	Reverse hose and try to push out bad material
		Some materials may need only 1 in. inner diameter fluid line all the way to the applicator
	Outlet check valve installed backwards	Install the outlet check valve in the proper orientation
Material is too thick to push through the hose without packing out	Hose is too restrictive	Thin and mix material thoroughly to a lower viscosity
		Use a pump system priming fluid (slime). Wet out the system.
		Use a larger diameter hose

Electrical

Problem	Cause	Solution
Control board status light blinks 4 times repeatedly 	The control board is detecting multiple voltage surges	Check voltage supply to the sprayer: 1. Turn the motor power switch (S) to OFF and unplug the sprayer. 2. Locate a good voltage supply to prevent damage to electronics.
Control board status light blinks 5 times repeatedly	Check for line obstruction or pack out. Motor is powered but not able to turn.	Remove obstruction and cycle power off and on. If the problem continues, contact your local distributor
	Outlet check valve installed backwards	Install the outlet check valve in the proper orientation
Control board status light blinks 6 times repeatedly	The motor is overheating	Allow the sprayer to cool. If the sprayer runs when cool, correct the cause of overheating. Keep the sprayer in a cooler location with good ventilation. Make sure the motor air intake is not blocked. If the sprayer still does not run, contact your local distributor.
Control board status light blinks 8 times repeatedly	Incoming voltage is too low for sprayer operation	Check voltage supply to the sprayer: 1. Turn the motor power switch (S) to OFF and unplug the sprayer. 2. Remove other equipment that uses the same circuit. 3. Locate a good voltage supply to avoid damage to electronics.
Control board status light blinks 10 times repeatedly	The control board is overheating	1. Make sure the motor air intake is not blocked. 2. Make sure the fan has not failed. 3. Make sure the control board is properly connected to the back plate and that conductive thermal paste is used on power components. 4. Replace the control board. 5. Replace the motor.
Control board status light blinks 12 times repeatedly	Excessive current protection is enabled	Cycle the power on and off.

Problem	Cause	Solution
Control board status light blinks 15 times repeatedly	Connections above the motor may are loose or damaged	1. Turn the motor power switch (S) to OFF and unplug the sprayer. 2. Remove the motor shroud. 3. Disconnect the motor control and inspect for damage at the connectors. 4. Reconnect the motor control. 5. Turn the motor power switch (S) to ON. If the blinking code continues, replace the motor.
Control board status light blinks 16 times repeatedly	Check the connections. Check for water in sensor. Control is not receiving motor position sensor signal.	1. Turn power OFF. 2. Remove the motor shroud. 3. Disconnect the motor control and inspect for damage at the connectors. 4. Inspect the sensor for water. If the sensor is wet, let it dry for 24 hours. 5. Re-install the sensor, motor control connections, and shroud. 6. Turn power ON. If the problem continues, replace the motor.
Control board status light blinks 17 times repeatedly	The sprayer is plugged into the wrong voltage	1. Set the motor power switch (S) to OFF and unplug the sprayer. 2. Locate a good voltage supply to avoid damage to electronics.
Repeated tripping of incoming power supply circuit	Circuit uses a ground fault circuit interrupter (GFCI)	Certain 120 V GFCI outlets have been known to trip while using this product. GFCI outlets have a range of sensitivities. Motor controllers can cause false trips of GFCI outlets. If a GFCI circuit has tripped, connect to an outlet with a different GFCI model.

Air Compressor

Problem	Cause	Solution
Motor does not start	No power to the motor	Check the circuit breakers
Motor trips the circuit breakers. Motor hums but does not rotate.	The starting switch failed	1. Disconnect the air compressor from electrical power. 2. Open the motor electrical cover to access the terminals. 3. Measure the resistance between terminal 4 and terminal 5 while no power is applied to the motor. 4. If the resistance between terminal 4 and terminal 5 is greater than 2 ohms, replace the motor.
	The starting capacitor failed	1. Disconnect the air compressor from electrical power. 2. Open the motor electrical cover to access the terminals. 3. Remove one wire from the capacitor to isolate the capacitor from the other circuitry. 4. Measure the capacitance between the terminals on each capacitor. The smaller capacitor (AA, the starting capacitor) should measure: • 120 V model: 400–480 µF • 230 V model: 124–149 µF The larger capacitor (AB, the running capacitor) should measure 37.6–42.4 µF.  If either capacitor is outside the capacitance range, replace the faulty capacitor.
Motor runs for a short time before turning off	The motor is overheating	Clean the air compressor motor and the intake air filter.
Poor motor performance	The compressor is worn	Replace the air compressor piston, seals, and sleeve. Use the air compressor rebuild kit 287330 (120 V systems) or 287331 (230 V systems).

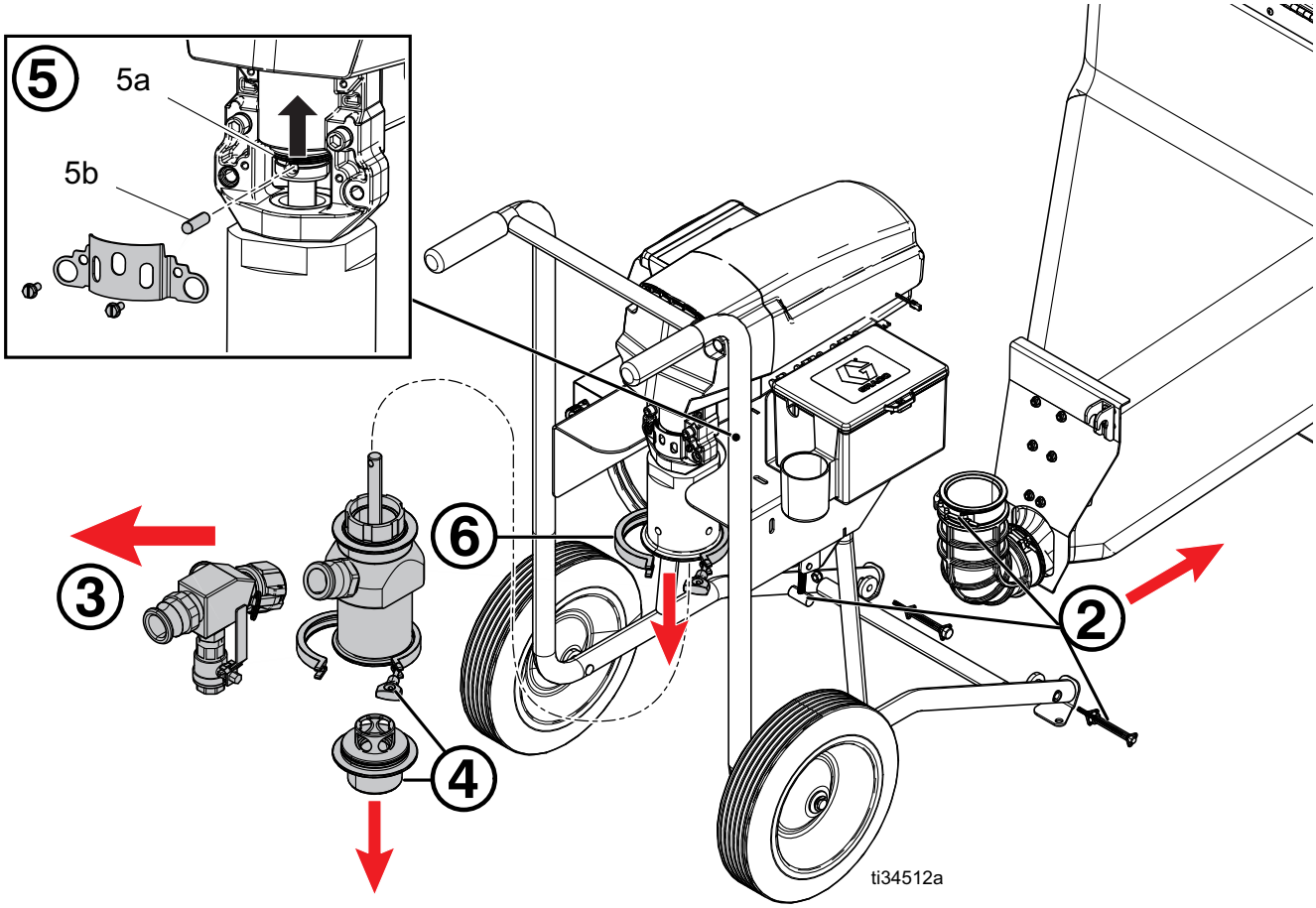
Repair

Perform the procedure below to replace the entire pump lower with a new or different pump lower.

1. Follow the **Pressure Relief Procedure** on page 18, and unplug the power cable.
2. Disconnect the material hose from the pump outlet and remove the hopper (see **Hopper Removal** on page 19).
3. Remove the outlet manifold assembly from the pump lower.
4. Remove the bottom tool-less clamp and inlet check valve assembly from the pump lower.
5. Push up the retaining spring (5a) and push out the pump pin (5b). The pump pin can be pushed out towards the back side of the pump towards the motor and hopper for easier disassembly.
6. Remove the top tool-less clamp while securely supporting the pump lower housing. Once the clamp is removed, the pump lower will drop.

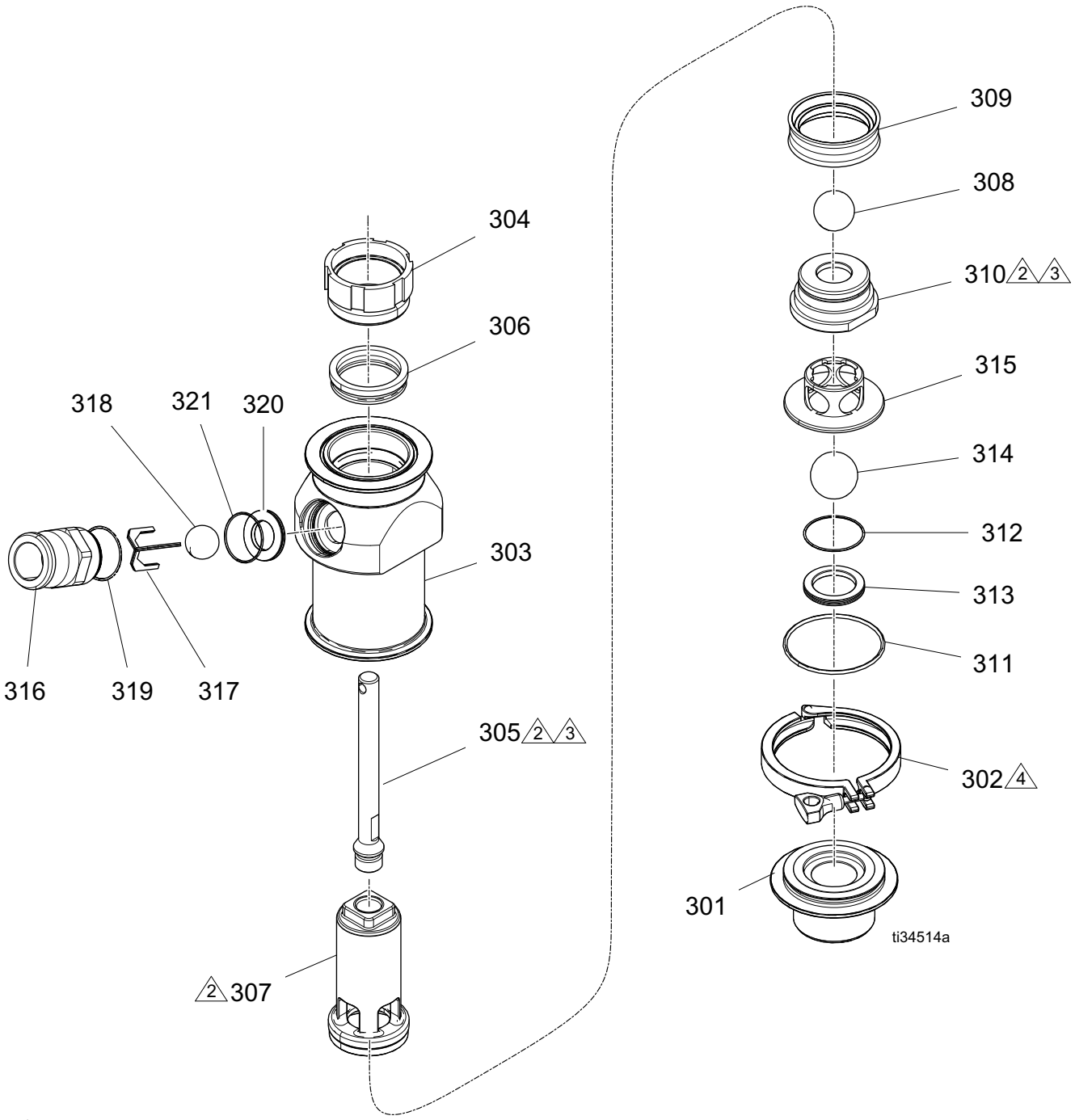
NOTICE

The pump lower must be supported during removal. Failure to do so may cause the pump to drop and damage may occur.



Replace Pump Components

Remove the pump lower (25E464) before replacing any pump components (see **Repair** on page 26). For a list of available pump lower kits, see the list on the following page.



2 *Apply thread locker sealant to threads.*

3 *Torque to 100 +/-10 ft-lb (135.5 +/- 1.55 N•m). Do not torque 305, 307, and 310 together at one time. Torque each thread individually.*

4 *Tighten knob on clamp 302 on full thread after hand tight.*

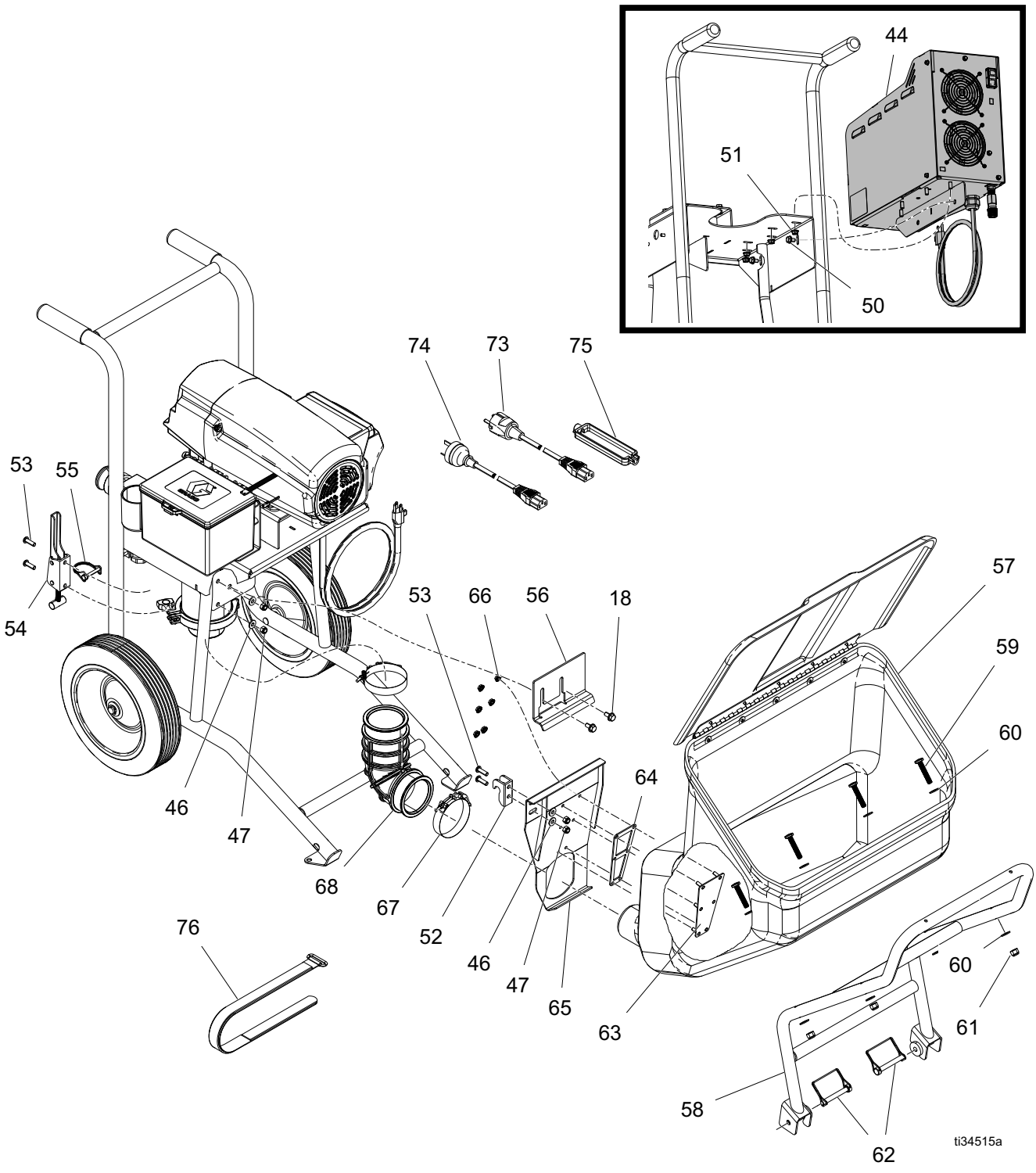
Parts List

Ref.	Part	Description	Qty.
301	17W614	HOUSING, inlet	1
302	510490	CLAMP, 4 in. tri-clamp 13 mhhm	1
303	17W615	HOUSING, cylinder, outlet	1
304	17W616	NUT, packing, F800	1
305‡	17Y654	ROD, extension, F340	1
306†	16W492	BEARING, seal (3-pack)	1
307‡	17W618	ROD, displacement, piston	1
308†	253030	BALL, metallic, 1.5 in. dia. (3-pack)	1
309†	16W491	PACKING, cup (3-pack)	1
310	17W619	PISTON, retainer	1
311†	289189	O-RING, buna, 3.48 in. dia.	1
312†	17V181	O-RING, buna, 2.11 in. dia.	1
313†	17W620	SEAT, inlet, lapped	1
314†	16W494	BALL, sst, 1.75 in. dia. (3-pack)	1
315	17W621	STOP, cage, inlet	1
316	17W622	HOUSING, outlet, camlock	1
317	17J712	RETAINER, ball, assy, welded	1
318†	16W493	BALL, metallic, 1.25 in. dia. (3 pack)	1
319†	105756	PACKING, o-ring	1
320†	17V179	SEAT, outlet, F800	1
321†	16V410	PACKING, o-ring	1

Symbol	Kit	Description	Included in Kit: Ref. (Qty.)
†	17W623	F340 Pump Lower Repair Kit	306 (1), 308 (1), 309 (1), 311 (1), 312 (1), 313 (1), 314 (1), 318 (1), 319 (1), 320 (1), 321 (1)
‡	25P015	F340 Pump Rod Kit	305 (1), 307 (1)

Parts

F340e Systems

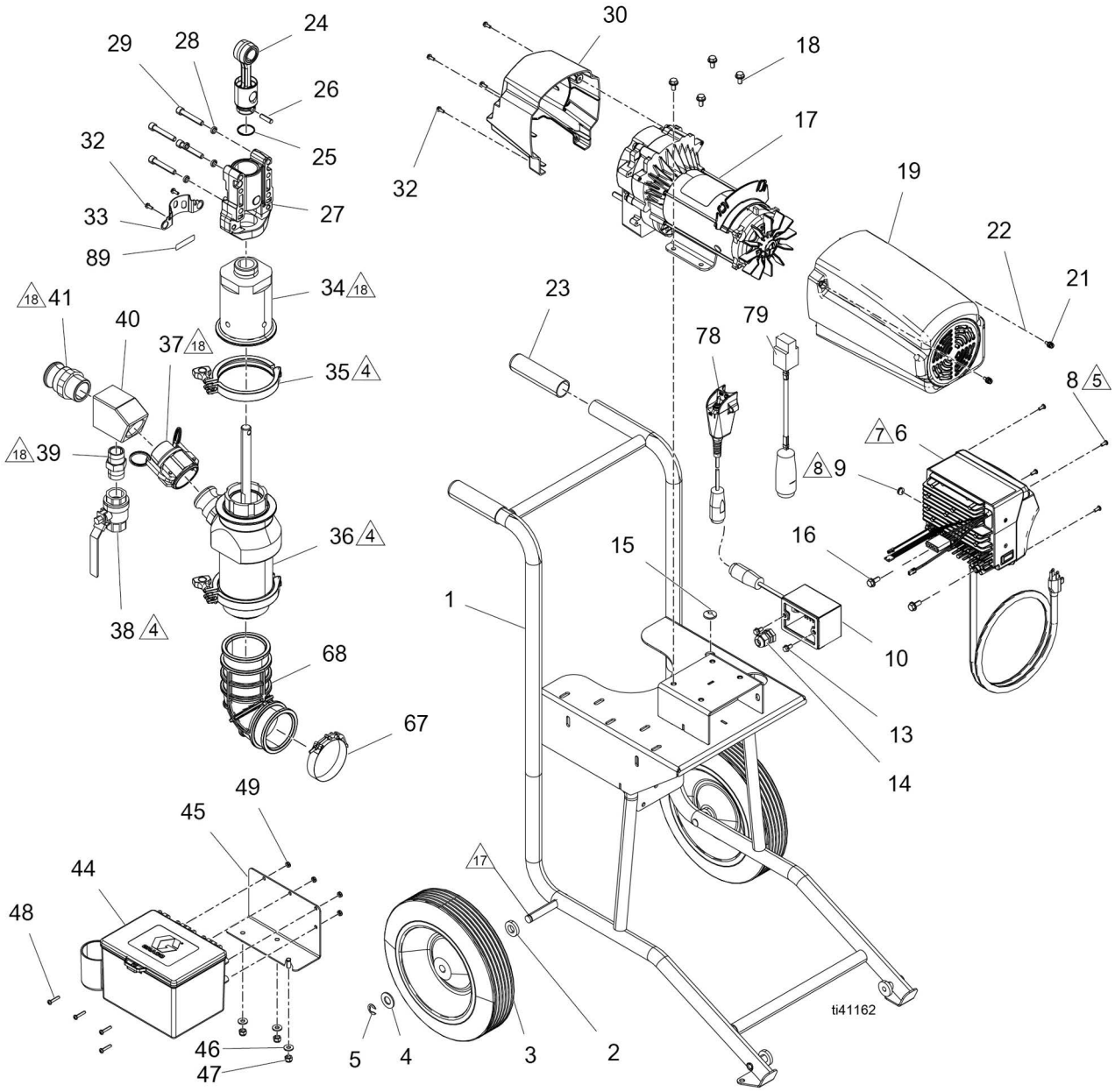


Parts List

Ref.	Part	Description	Quantity				
			25B558	25B556	25B552	25B506	25B502
18	111800	SCREW, cap, hex hd	6	6	6	6	6
44	- - - - -	TOOL BOX	1			1	1
	25A931	COMPRESSOR, F340e, 240V		1			
	25A930	COMPRESSOR, F340e, 120V			1		
46	100527	WASHER, plain	7	4	4	7	7
47	111040	NUT, lock, insert, nylock, 5/16	7	4	4	7	7
50	111801	SCREW, cap, hex hd		2	2		
51	110996	NUT, hex, flange head		4	4		
52	17K925	HOOK, latch	1	1	1	1	1
53	125112	SCREW, cap, btn hd, 5/16 x 1	4	4	4	4	4
54	17G751	LATCH, adjustable	1	1	1	1	1
55	17H025	PIN, 1/4 in. X 1-3/8 in.	1	1	1	1	1
56	17J812	BRACKET, stop, adjustable, 340e	1	1	1	1	1
57	17J707	HOPPER, F340e, with cover	1	1	1	1	1
58	25R710	BRACKET, 340e, painted, hopper	1	1	1	1	1
59	128623	SCREW, button head	4	4	4	4	4
60	100731	WASHER	8	8	8	8	8
61	101566	NUT, lock	4	4	4	4	4
62	17G368	PIN, 3/8	2	2	2	2	2
63†	- - - - -	PLATE, mount, threaded stud, F340e	1	1	1	1	1
64†	17J457	GASKET, hopper mount, F340e	1	1	1	1	1
65†	- - - - -	BRACKET, stop, hopper, 340e, weldment	1	1	1	1	1
66†	115942	NUT, hex, flange head	6	6	6	6	6
67	17W633	CLAMP, over-center, 3 in.	2	2	2	2	2
68	17Y655	BOOT, elbow, rubber, long	1	1	1	1	1
73	242001	CORD SET, adapter, Europe		1		1	
74	242005	CORD SET, adapter, Australia		1		1	
75	195551	RETAINER, plug, adapter		1		1	
76	114271	STRAP, retaining	2	2	2	2	2

Symbol	Kit	Description	Included in Kit: Ref. (Qty.)
†	17J708	Stop Brackets Kit	63 (1), 64 (1), 65 (1), 66 (6)

F340e (continued)



4 *Orient the pump components as shown.*

5 *Torque to 40-45 in-lb (4.5-5.0 N•m).*

7 *Install the harness from switch box (10) into connector J6 before securing the cover. Install table tie (72) on the harness inside module (6) neat grommet (6).*

8 *Cut grommet (9) through on one side before installing the harness from switch box (10) then install into module (6).*

17 *Apply lubricant to axles of cart before assembling wheel components.*

18 *Apply sealant and tape to threads.*

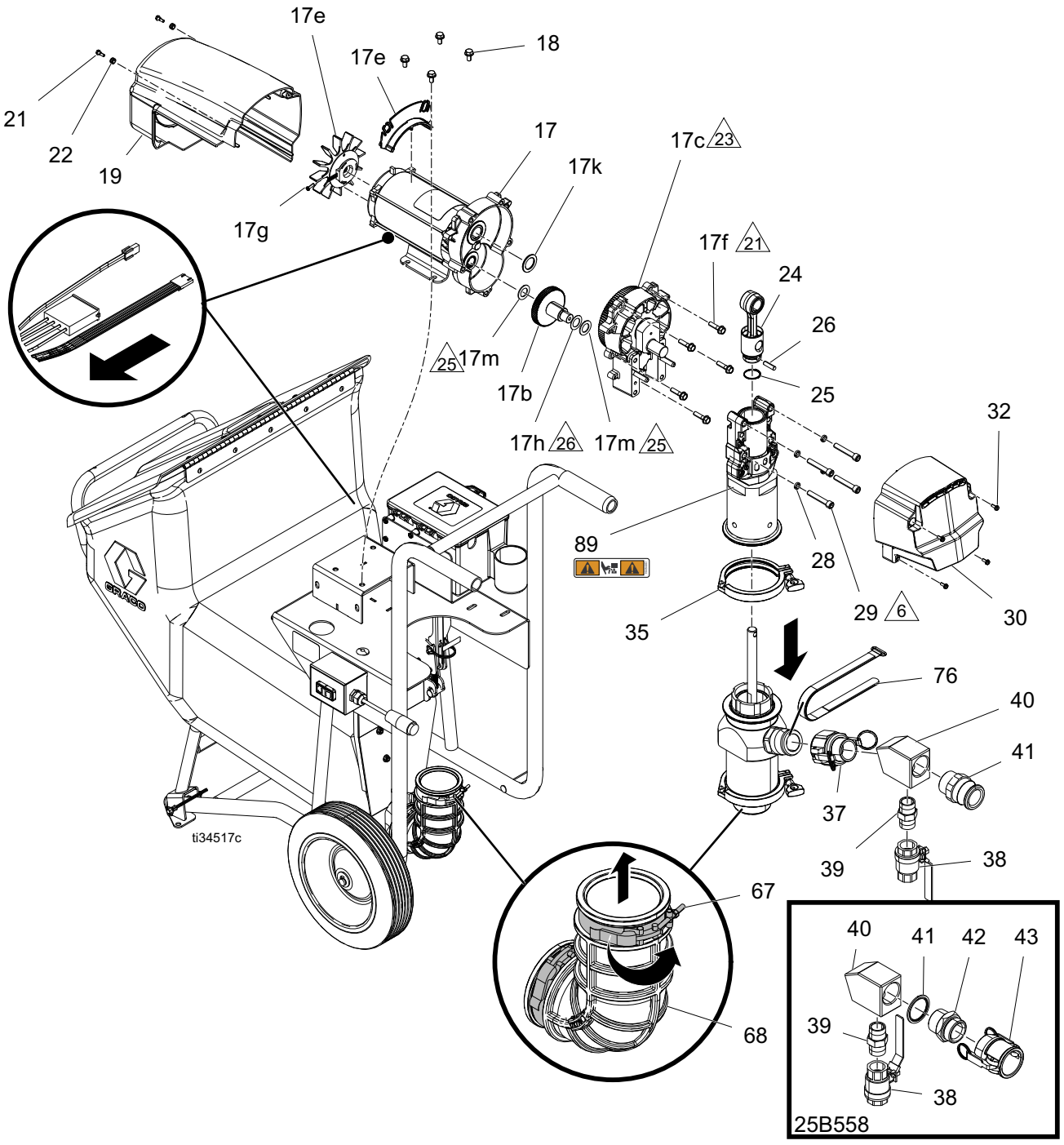
20 *See manual 3A3112 for individual components.*

Parts List

Ref.	Part	Description	Quantity				
			25B558	25B556	25B552	25B506	25B502
2	191824	WASHER, space	2	2	2	2	2
3	17J706	WHEEL, semi pneumatic (includes washers and retaining ring)	2	2	2	2	2
4	111841	WASHER, plain 5/8	2	2	2	2	2
5	101242	RING, retaining, ext.	2	2	2	2	2
6	25E465	MODULE, 340e, 120V, motor control			1		1
	25E466	MODULE, 340e, 230V, motor control		1		1	
	25E467	MODULE, 340e, 120V, UK, motor control	1				
8	16V095	SCREW, mach, pnh, torx, self tapping	4	4	4	4	4
9	128597	GROMMET, 3/16 id x 9/16 od	1	1	1	1	1
10	17G554	KIT, remote switch, control box	1	1	1	1	1
13	113161	SCREW, flange, hex hd	2	2	2	2	2
14	114421	BUSHING, strain relief	1	1	1	1	1
15	128596	GROMMET, 5/16 id x 1 od	1	1	1	1	1
16	117791	SCREW, cap, tri lobe	2	2	2	2	2
17	17J711	MOTOR, 340e, pump	1	1	1	1	1
18	111800	SCREW, cap, hex hd	6	6	6	6	6
19	- - - - -	SHIELD, motor, painted	1	1	1	1	1
21	119250	SCREW, shoulder	2	2	2	2	2
22	276980	GROMMET, cover	2	2	2	2	2
23	119975	GRIP, vinyl, gray (1.25 in.)	2	2	2	2	2
24	287395	ROD, connecting (5900)	1	1	1	1	1
25	119778	SPRING, retaining	1	1	1	1	1
26	183210	PIN, str, hdls	1	1	1	1	1
27	287502	HOUSING, bearing (5900)	1	1	1	1	1
28	106115	WASHER, lock (hi-collar)	4	4	4	4	4
29	114666	SCREW, cap, socket head	4	4	4	4	4
30	- - - - -	COVER, front, plastic, painted	1	1	1	1	1
32	118444	SCREW, mach, slot hex wash hd	6	6	6	6	6
33	16X770	SHIELD, pump rod	1	1	1	1	1
34	17Y657	ADAPTER, pump, F340	1	1	1	1	1
35	510490	CLAMP, 4 in. tri-clamp 13 mhhm	1	1	1	1	1
36	25E464	LOWER, pump, F340	1	1	1	1	1
37	128758	FITTING, 1.50 cmlk f x 1.50 NPT m	1	1	1	1	1
38	127232	VALVE, ball, 1000 psi, 1 in.	1	1	1	1	1
39	17G388	FITTING, hose, 1-11 1/2 NPT	1	1	1	1	1
40	17Y656	MANIFOLD, outlet, F340	1	1	1	1	1
41	- - - - -	FITTING, nipple, 1.5 bspp x 1.5 npt	1	1		1	
	128473	FITTING, 1.50 cmlk m x 1.50 npt m			1		1
44	- - - - -	TOOL BOX	1			1	1
	25A931	COMPRESSOR, F340e, 240V		1			
	25A930	COMPRESSOR, F340e, 120V			1		

Ref.	Part	Description	Quantity				
			25B558	25B556	25B552	25B506	25B502
45	17J200	BRACKET, F340e, mounting	1			1	1
46	100527	WASHER, plain	7	4	4	7	7
47	111040	NUT, lock, insert, nylock, 5/16	7	4	4	7	7
48	107251	SCREW, mach, pnh	4			4	4
49	113505	NUT, keps, hex hd	4			4	4
67	17W633	CLAMP, over-center, 3 in.	2	2	2	2	2
68	17Y655	BOOT, elbow, rubber, long	1	1	1	1	1
75	195551	RETAINER, plug, adapter		1		1	
78	17W604	KIT, remote switch	1	1	1	1	1
79	17Y417	ADAPTER, cord, remote switch (adapt twist lock remote switch to new control box)					

Driver and Motor



6 *Torque to 25 +/- 5 ft-lb (33.9 +/- 6.7 N•m).*

21 *Torque to 190-210 in-lb (21-24 N•m).*

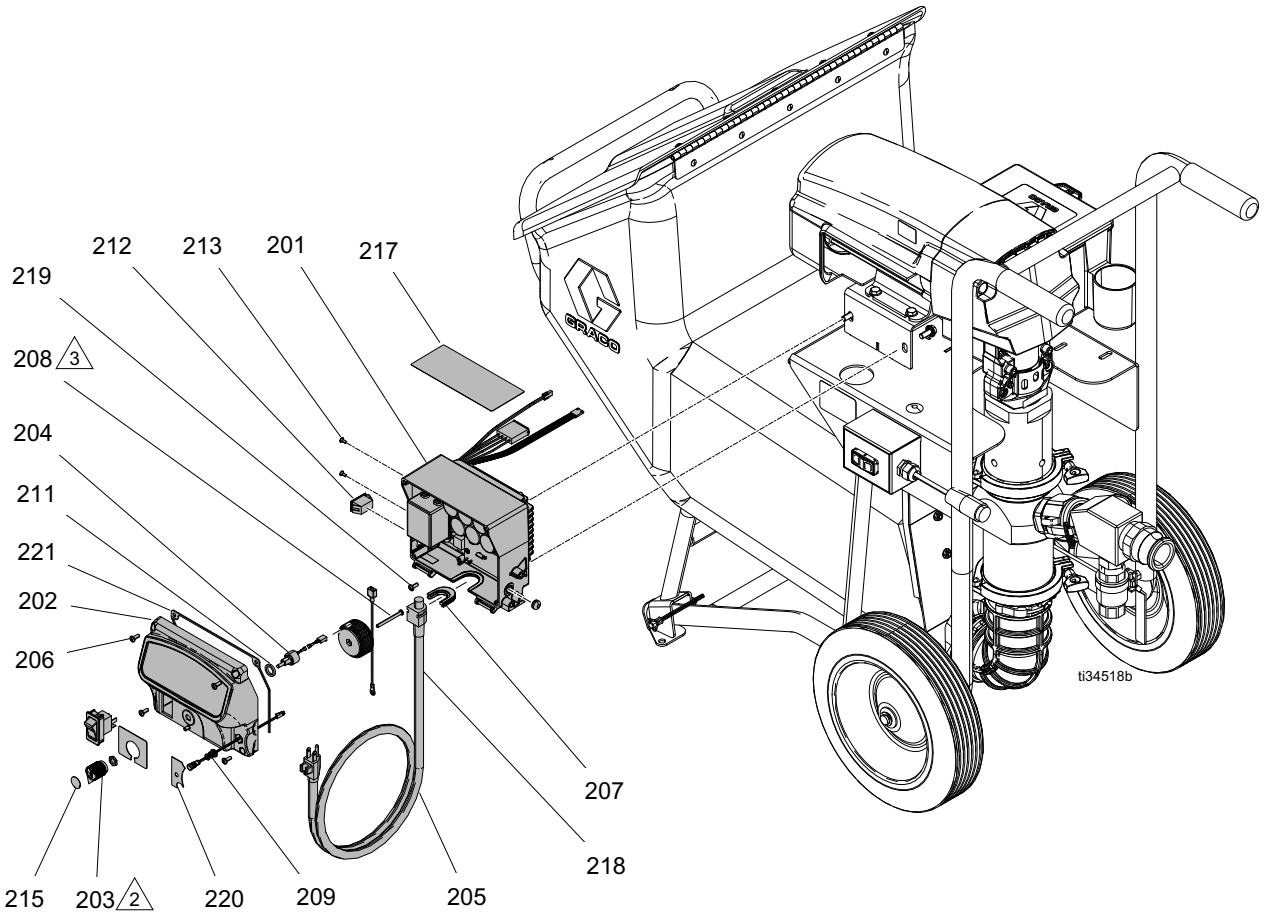
23 *Apply lubricant to all teeth.*

Parts List

Ref.	Part	Description	Qty.
17	17J711	MOTOR, 340e, pump	1
17b	- - - - -	GEAR, combination, 1595	1
17c	- - - - -	HOUSING, drive, Mark VII	1
17d	15D088	FAN, motor	1
17e	278075	BRACKET, wire	1
17f	15C753	SCREW, mach, hex wash hd	1
17g	115477	SCREW, mach, torx pan hd	1
17h	114699	WASHER, thrust	1
17m	116192	WASHER, thrust	1
17k	114672	WASHER, thrust	1
18	111800	SCREW, cap, hex hd	6
19	- - - - -	SHIELD, motor, painted	1
21	119250	SCREW, shoulder	2
22	276980	GROMMET, cover	2
24	287395	ROD, connecting (5900)	1
25	119778	SPRING, retaining	1
26	183210	PIN, str, hdls	1
28	106115	WASHER, lock (hi-collar)	4
29	114666	SCREW, cap, socket head	4
30	- - - - -	COVER, front, plastic, painted	1
32	118444	SCREW, mach, slot hex wash hd	6
35	510490	CLAMP, 4 in. tri-clamp 13 mhhm	1
67	17W633	CLAMP, over-center, 3 in.	2
68	17Y655	BOOT, elbow, rubber, long	1
76	114271	STRAP, retaining	2
89▲	192840	LABEL, warning	1

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

Control Box



Parts List

Ref.	Part	Description	Qty.
201	- - - - -	CONTROL, board, 50 amp	1
202	- - - - -	COVER, control, ultra, std	1
203	116167	KNOB, potentiometer	1
204	256219	POTENTIOMETER, assembly	1
205	15H064	CORD, power	1
206	15D527	SWITCH, rocker, 240V	1
207	16T547	ADAPTER, cord	1
208	- - - - -	COIL, filter	1
209	16Z019	HARNESS, wiring, with light	1
211	15C973	GASKET	1

Ref.	Part	Description	Qty.
212	16T483	PLUG, hole, switch	1
213	- - - - -	PLUG, nylon	2
215	- - - - -	LABEL	1
216	16Y786	LABEL, control, elec, std	1
217▲	16T784	LABEL, warning, EN/FR/ES	1
218	16U215	SCREW, phillips, pan hd, plastite	1
219	114391	SCREW, grounding	1
220	- - - - -	LABEL, control, 340e, proguard	1
221	- - - - -	GASKET, housing, motor, control, 340e	1

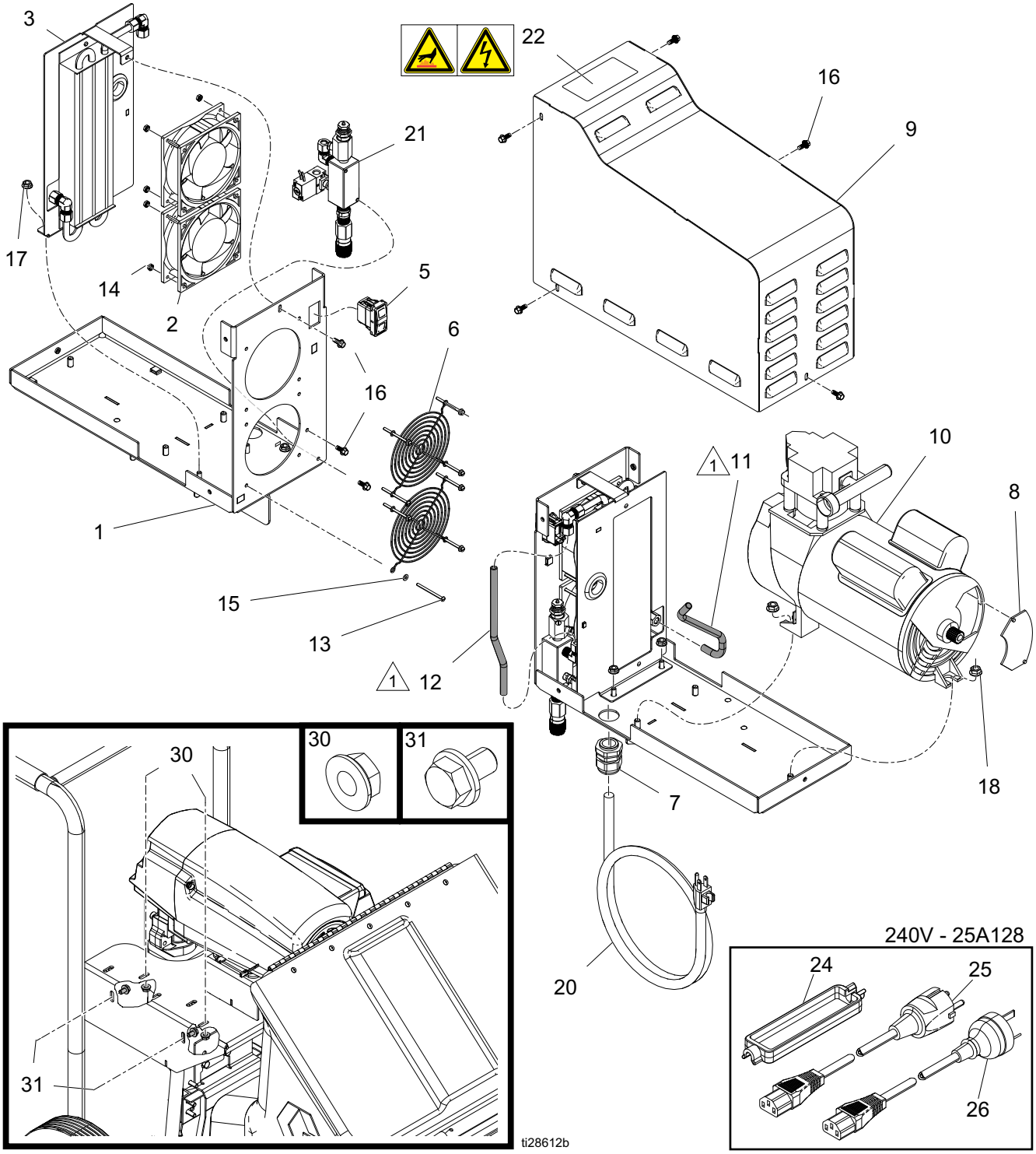
2 Torque to 10-15 in-lb (1.1-1.7 N•m). *3 Torque to 30-35 in-lb (3.3-3.9 N•m).*

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

***NOTE:** All Control Box Parts listed above are included in both the 120V Motor Control Module Kit (25E465) and 230V Motor Control Module Kit (25E466).*

Compressor

Kit 25A930 - 120 VAC Compressor Kit
Kit 25A931 - 240 VAC Compressor Kit



1 *Tighten fittings one full turn past hand tight.*

Compressor Kit Parts List

Ref.	Part	Description	Qty.
1	- - - - -	TRAY, weldment, compressor	1
2	24K985	FAN, cooling, 120 V, E10 (Kit 25A930)	2
	24K986	FAN, cooling, 240 V (Kit 25A931)	2
3	25E572	COOLER, assembled, F340e	1
4	125871	TIE, cable, 7.50 in.	7
5	- - - - -	SWITCH, rocker, 2-position	1
6	115836	GUARD, finger	2
7	116171	BUSHING, strain relief	1
8	119381	COVER, terminal	1
9	- - - - -	COVER, weldment, compressor	1
10	25E570	COMPRESSOR, air (6 cfm) 120 V (Kit 25A930)	1
	25E571	COMPRESSOR, air (8 cfm) 240 V (Kit 25A931)	1
11	- - - - -	TUBE, compressor	1
12	- - - - -	TUBE, air, cooler	1
13	117723	SCREW, mach, x rec, panhd	8
14	127278	NUT, keps, hex	8
15	151395	WASHER, flat	8
16	- - - - -	SCREW, flge, serrated, 10-24 x 0.5	8
17	115942	NUT, hex, flange head	2
18	110996	NUT, hex, flange head	3
19	- - - - -	HARNESS, F340E, compressor	1
20	- - - - -	CORD, 120V, compressor	1
	- - - - -	CORD, 240V, compressor	1
21	17L426	MANIFOLD, F340e, 120V	1
	17L427	MANIFOLD, F340e, 230V	1
22▲	15J075	LABEL, safety, hot surface and energized	1
24	195551	RETAINER, plug, adapter (Kit 25A931)	1
25	242001	CORD SET, adapter, Europe (Kit 25A931)	1
26	242001	CORD SET, adapter, Europe (Kit 25A931)	1
30	110996	NUT	4
31	111801	SCREW	2
32	113500	ADHESIVE	1

Use compressor rebuild kit 287330 (120 V), or 287331 (230 V) to replace the piston, seals, and sleeve.

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

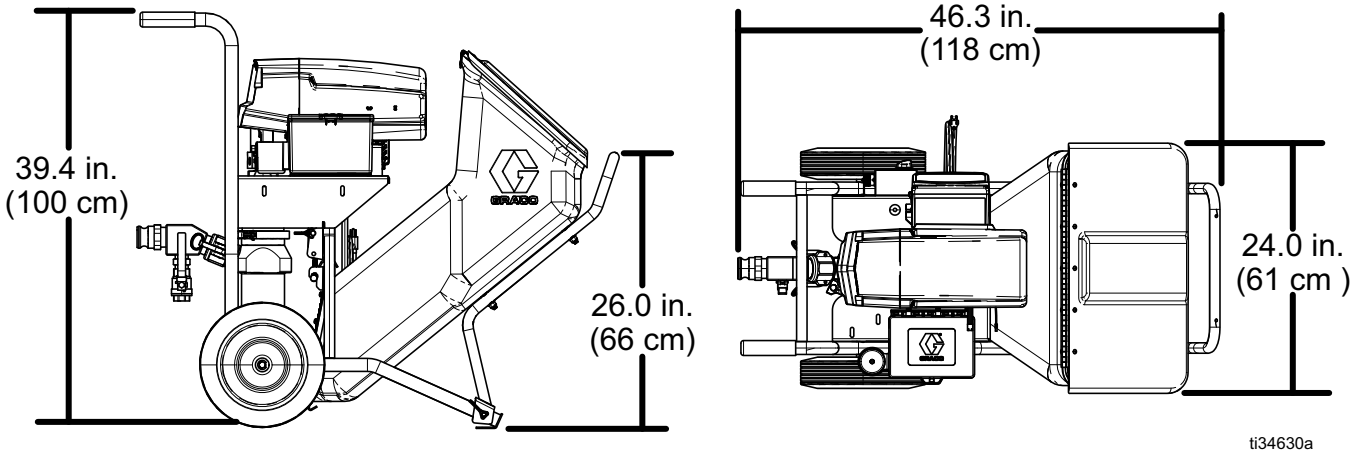
Replacement Parts and Accessories

Air Hose Kits (for applicator)	
24Y391	Air Hose, 1/2 in. ID, 50 ft (15 m), m x f, 1/4 quick disconnect fittings
24Y392	Air hose, 3/8 in. ID, 50 ft (15 m) m x f, 1/4 quick disconnect fittings
24Y393	Air hose, 3/8 in. ID, 25 ft (7.5 m) m x f, quick disconnect fittings
Accessories	
123888	45 degree, m x f, 1 in. npt fitting (attach on applicator before fluid housing for added spray angles)
17G554	Kit, remote switch control box, 340e
17W829	Kit, remote switch, extension cord (100 ft)
114271	Strap, retaining
240296	Kit, retaining straps, 4-pack
17W604	Kit, remote switch (switch and attached 100 ft cable)
17J703	Kit, applicator, ball valve (applicator)
248515	Kit, clean out, sponge ball, 1.18 in. diameter (30 mm) 5-pack (for use on 1 in. hoses)
25A227	Kit, clean out, sponge ball, 1.57 in. diameter (40 mm) 5-pack (for use on 1.38 in. hoses)
17G930	Kit, clean out, sponge ball, 2.36 in. diameter (60 mm) 5-pack (for use on 2.0 in. hoses)

Repair Parts

Lower Assembly	
17W623	Kit, repair, pump, rebuild
510490	Kit, lower, clamp (cylinder clamp)
16W492	Kit, repair, 3-pack, seal, throat (throat seal)
25E464	Kit, pump, lower, F340e, (complete assembled F340e pump lower)
Piston	
16W491	Kit, repair, 3-pack, seal, piston (piston packing cup)
Rubber Elbow	
17Y655	Kit, inlet, elbow (rubber elbow)
17W633	Kit, elbow, band clamp (rubber elbow clamp)
Hopper	
17J707	Kit, 340e, hopper with cover (hopper and cover)
17J709	Kit, 340e, hopper, bracket (hopper bracket)
17J812	Kit, 340e, stop, bracket (adjustable stop bracket)
17J710	Kit, 340e, adjustable latch (adjustable latch)
17J708	Kit, 340e, stop, brackets (hopper stop brackets)
Motor and Driver	
25E465	Kit, 340e, MCM, 120V (120V motor control module)
25E466	Kit, 340e, MCM, 120V, UK (120V UK motor control module)
25E567	Kit, 340e, MCM, 230V (230V motor control module)
17J711	Kit 340e, motor
17J704	Kit, 340e, front cover
287282	Kit, repair, shield, motor
17J705	Kit, 340e, tool box
Compressor Rebuild Kits	
287330	Kit, service, compressor, 120V
287331	Kit, service, compressor, 240V

Dimensions



Technical Specifications

ToughTek F340e		
	US	**Metric**
Maximum Fluid Working Pressure	600 psi	4.1 MPa, 41 Bar
Stroke Length	2.25 in.	57 mm
Maximum pump speed (Do not exceed maximum recommended speed of fluid pump to prevent premature pump wear)	150 cycles per minute	
Weight (dry)	205 lb	93 kg
Weight (with compressor)	261 lb	118 kg
Wetted Parts	Stainless steel, plated steel, carbide, urethane, PTFE, UHMWPE, LLDPE, aluminum, solvent-resistant o-rings	
Inlet/Outlet Sizes		
Fluid Inlet Size	3 in.	
Fluid Outlet Size	1.5 in. npt(f) with 1.5 in. male camlock	
Hose Requirements		
Minimum Pressure	600 psi	4.1 MPa, 41 Bar
Minimum Hose Diameter	1.0 in.	2.5 cm
Minimum Hose Length	25 ft	7.6 m
Power Requirements		
100–120 VAC Models	1 phase, 50/60 Hz	
200–240 VAC Models	1 phase, 50/60 Hz	
NOTE: Models with an air compressor require an additional dedicated 15 A circuit (120 V systems) or 8.5 A circuit (230 V systems).		
Noise Level		
Sound Power	90.4 dBa*	
Sound Pressure	80.5 dBa*	
*per ISO 3744; measured at 3.1 ft		
Operating Ambient Temperature Range		
Temperature	32° F to 120° F	4° C to 49° C

California Proposition 65

CALIFORNIA RESIDENTS

⚠ **WARNING:** Cancer and reproductive harm – 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.

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