Repair/Parts

ProMix® 2KE

Plural Component Proportioner

3A0870A

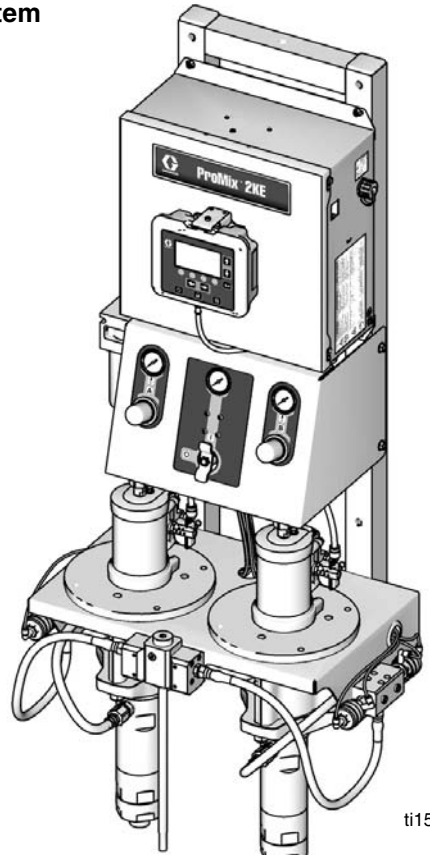
ENG

Self-contained, electronic plural component paint proportioner. For professional use only.

Important Safety Instructions
Read all warnings and instructions in this manual. Save these instructions.

See pages 3 and 4 for model information, including maximum working pressure and approvals.

Pump System



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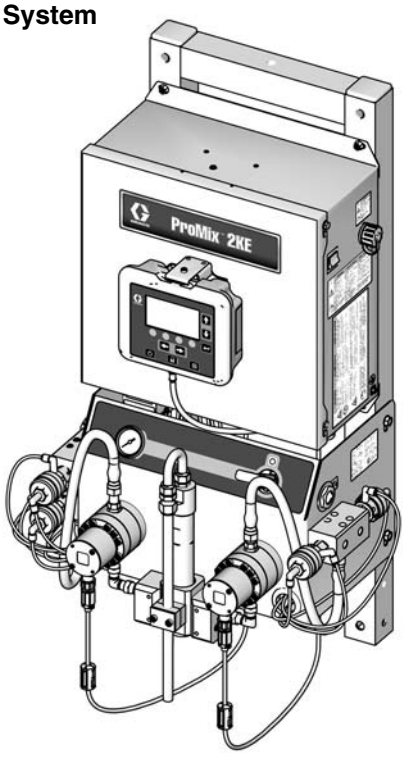
Meter System



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PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

Models

ProMix 2KE systems are not approved for use in hazardous locations unless the base model, all accessories, all kits, and all wiring meet local, state, and national codes.

Approved for Hazardous Location Class 1, Div 1, Group D (North America); Class 1, Zones 1 and 2 (Europe)					
Part No.	**Series**	**A and B Pumps/Meters**	**Maximum Working Pressure psi (MPa, bar)**	**USB Port**	**Approvals***
Pump Systems					
24F102	A	Merkur 3:1	300 (2.1, 21)		 **II 2 G** **Ex ia px IIA T3 Ta = 0°C to 54°C** **FM10 ATEX 0025 X**  **Intrinsically safe and purged equipment for** **Class I, Division 1, Group D, T3** **Ta = 0°C to 54°C**  **0359** See Special Conditions for Safe Use in **Warnings**, page 5.
24F103	A	Merkur 23:1	2300 (15.8, 158)		
24F104	A	Merkur 30:1	3000 (20.7, 207)		
24F105	A	Merkur 45:1	4500 (31.0, 310)		
24F106	A	Merkur Bellows 3:1	300 (2.1, 21)		
24F107	A	Merkur Bellows 23:1	2300 (15.8, 158)		
24F108	A	Merkur Bellows 35:1	3500 (24.1, 241)		
24F109	A	Merkur 3:1	300 (2.1, 21)	✔	
24F110	A	Merkur 23:1	2300 (15.8, 158)	✔	
24F111	A	Merkur 30:1	3000 (20.7, 207)	✔	
24F112	A	Merkur 45:1	4500 (31.0, 310)	✔	
24F113	A	Merkur Bellows 3:1	300 (2.1, 21)	✔	
24F114	A	Merkur Bellows 23:1	2300 (15.8, 158)	✔	
24F115	A	Merkur Bellows 35:1	3500 (24.1, 241)	✔	
Meter Systems					
24F084	A	G3000, 1 color/catalyst	3000 (27.58, 275.8)		
24F085	A	G3000, 3 colors/catalysts	3000 (27.58, 275.8)		
24F086	A	G3000, 1 color/catalyst	3000 (27.58, 275.8)	✔	
24F087	A	G3000, 3 colors/catalysts	3000 (27.58, 275.8)	✔	

* *ProMix 2KE hazardous location equipment manufactured in the United States, with serial number beginning with A or 01, has ATEX, FM, and CE approvals, as noted. Equipment manufactured in Belgium, with serial number beginning with M or 38, has ATEX and CE approvals, as noted.*

See page 4 for models approved for non-hazardous locations.

Models (continued)

Approved for Non-Hazardous Location					
Part No.	**Series**	**A and B Pumps/Meters**	**Maximum Working Pressure psi (MPa, bar)**	**USB Port**	**Approvals***
Pump Systems					FM C US APPROVED CE
24F088	A	Merkur 3:1	300 (2.1, 21)		
24F089	A	Merkur 23:1	2300 (15.8, 158)		
24F090	A	Merkur 30:1	3000 (20.7, 207)		
24F091	A	Merkur 45:1	4500 (31.0, 310)		
24F092	A	Merkur Bellows 3:1	300 (2.1, 21)		
24F093	A	Merkur Bellows 23:1	2300 (15.8, 158)		
24F094	A	Merkur Bellows 35:1	3500 (24.1, 241)		
24F095	A	Merkur 3:1	300 (2.1, 21)	✔	
24F096	A	Merkur 23:1	2300 (15.8, 158)	✔	
24F097	A	Merkur 30:1	3000 (20.7, 207)	✔	
24F098	A	Merkur 45:1	4500 (31.0, 310)	✔	
24F099	A	Merkur Bellows 3:1	300 (2.1, 21)	✔	
24F100	A	Merkur Bellows 23:1	2300 (15.8, 158)	✔	
24F101	A	Merkur Bellows 35:1	3500 (24.1, 241)	✔	
Meter Systems					
24F080	A	G3000, 1 color/catalyst	3000 (27.58, 275.8)		
24F081	A	G3000, 3 colors/catalysts	3000 (27.58, 275.8)		
24F082	A	G3000, 1 color/catalyst	3000 (27.58, 275.8)	✔	
24F083	A	G3000, 3 colors/catalysts	3000 (27.58, 275.8)	✔	

* *ProMix 2KE non-hazardous location equipment manufactured in the United States, with serial number beginning with A or 01, has FM and CE approvals. Equipment manufactured in Belgium, with serial number beginning with M or 38, has CE approval.*

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, 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




FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. 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 arc).
- 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.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

SPECIAL CONDITIONS FOR SAFE USE

The aluminum adapter plate may spark upon impact or contact with moving parts, which may cause fire or explosion. Take precautions to avoid such impact or contact.

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 at main switch before disconnecting any cables and before servicing equipment.
- Connect only to grounded power source.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

WARNING



INTRINSIC SAFETY

Intrinsically safe equipment that is installed improperly or connected to non-intrinsically safe equipment will create a hazardous condition and can cause fire, explosion, or electric shock. Follow local regulations and the following safety requirements.

- Only models with model numbers 24F084-24F087 and 24F102-24F115, utilizing the air-driven alternator, are approved for installation in a Hazardous (explosive atmosphere) Location. See **Models**, page 3.
- Be sure your installation complies with national, state, and local codes for the installation of electrical apparatus in a Class I, Group D, Division 1 (North America) or Class I, Zones 1 and 2 (Europe) Hazardous Location, including all of the local safety fire codes, NFPA 33, NEC 500 and 516, and OSHA 1910.107.
- To help prevent fire and explosion:
  - Do not install equipment approved only for a non-hazardous location in a hazardous location. See model ID label for the intrinsic safety rating of your model.
  - Do not substitute system components as this may impair intrinsic safety.
- Equipment that comes in contact with the intrinsically safe terminals must be rated for Intrinsic Safety. This includes DC voltage meters, ohmmeters, cables, and connections. Remove the unit from the hazardous area when troubleshooting.
- The equipment is intrinsically safe when no external electrical components are connected to it.
- Do not connect, download, or remove USB device unless unit is removed from the hazardous (explosive atmosphere) location.



SKIN INJECTION HAZARD

High-pressure fluid from gun, 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 spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Do not point gun 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.

WARNING

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 Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS 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.
- 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.

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

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 MSDSs 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.
- Always wear chemically impermeable gloves when spraying, dispensing, or cleaning equipment.

PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This 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.

Important Two-Component Material Information

Isocyanate Conditions

Spraying or dispensing materials containing isocyanates creates potentially harmful mists, vapors, and atomized particulates.

Read material manufacturer's warnings and material MSDS to know specific hazards and precautions related to isocyanates.

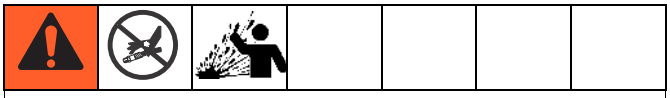
Prevent inhalation of isocyanate mists, vapors, and atomized particulates by providing sufficient ventilation in the work area. If sufficient ventilation is not available, a supplied-air respirator is required for everyone in the work area.

To prevent contact with isocyanates, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons, and goggles, is also required for everyone in the work area.

Material Self-ignition

Some materials may become self-igniting if applied too thickly. Read material manufacturer's warnings and material MSDS.

Keep Components A and B Separate



Cross-contamination can result in cured material in fluid lines which could cause serious injury or damage equipment. To prevent cross-contamination of the equipment's wetted parts, **never** interchange component A (resin) and component B (isocyanate) parts.

Moisture Sensitivity of Isocyanates

Isocyanates (ISO) are catalysts used in two component coatings. ISO will react with moisture (such as humidity) to form small, hard, abrasive crystals, which become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity. If used, this partially cured ISO will reduce performance and the life of all wetted parts.

NOTE: The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

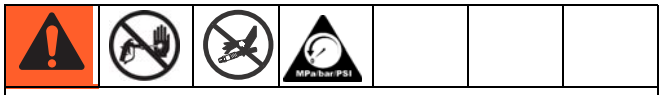
To prevent exposing ISO to moisture:

- Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. **Never** store ISO in an open container.
- Use moisture-proof hoses specifically designed for ISO, such as those supplied with your system.
- Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use.
- Never use solvent on one side if it has been contaminated from the other side.
- Always lubricate threaded parts with ISO pump oil or grease when reassembling.

Changing Materials

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Always clean the fluid inlet strainers after flushing.
- Check with your material manufacturer for chemical compatibility.

Pressure Relief Procedure



To reduce the risk of skin injection, relieve pressure when you stop spraying, before changing spray tips, and before cleaning, checking, or servicing equipment.

NOTE: The following procedure relieves all fluid and air pressure in the ProMix 2KE system.

Pump Systems

1. Press  on Run Mix Spray (Screen 2) or  from any screen to put the system in Standby.
2. Follow procedure for **Purging**, page 10.
3. Shut off air supply to A and B pumps and solvent supply pumps.
4. With the gun triggered, push the manual override on the A and B dose and purge valve solenoids to relieve pressure. See FIG. 1, page 11. Verify that fluid pressure is reduced to 0.
5. Reinstall the Control Box cover.

Meter Systems

1. Press  on Run Mix Spray (Screen 2) or  from any screen to put the system in Standby. Shut off the A1 (plus A2 and A3, if using multiple colors) and B fluid supply pumps/pressure pots.
2. Remove the Control Box cover.
3. With the gun triggered, push the manual override on the A and B dose valve solenoids to relieve pressure. See FIG. 1, page 11.
4. Follow **Purging** procedure on page 10.
5. Shut off the fluid supply to solvent valves A and B.
6. With the gun triggered, push the manual override on the A and B solvent valve solenoids to relieve solvent pressure. See FIG. 1. Verify that solvent pressure is reduced to 0.
7. Reinstall the Control Box cover.

Purging

Pump Systems

1. Press  on Run Mix Spray (Screen 2) or  from any screen.
2. Trigger the gun to relieve pressure.
3. If you are using a high pressure gun, engage the trigger lock. Remove spray tip and clean tip separately.
4. If using an electrostatic gun, shut off the electrostatics before flushing the gun.
5. Disconnect the component A and B fluid supplies at the pump inlets, and connect solvent supply lines.
6. Adjust the solvent fluid supply pressure. Use the lowest possible pressure to avoid splashing.
7. Remove the Control Box cover to access the solenoid valves. See FIG. 1.
8. Purge as follows:
   - Purge component A side. Press the manual override on the Dose Valve A solenoid valve and trigger the gun into a grounded metal pail.

     Purge component B side. Press the manual override on the Dose Valve B solenoid valve and trigger the gun into a grounded metal pail until clean solvent flows from the gun.

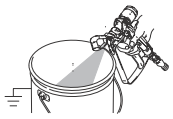
     Repeat to thoroughly clean the mix manifold.
9. Reinstall the Control Box cover.
10. Shut off the solvent fluid supply.
11. Disconnect the solvent supply lines and reconnect the component A and B fluid supplies.

NOTE: The system remains full of solvent.

Meter Systems

1. Press  on Run Mix Spray (Screen 2) or  from any screen.
2. Trigger the gun to relieve pressure.
3. If you are using a high pressure gun, engage the trigger lock. Remove spray tip and clean tip separately.
4. If using an electrostatic gun shut off the electrostatics before flushing the gun.
5. Set the solvent supply pressure regulator at a pressure high enough to completely purge the system in a reasonable amount of time but low enough to avoid splashing or an injection injury. Generally, a setting of 100 psi (0.7 MPa, 7 bar) is sufficient.
6. If using a gun flush box, place the gun into the box and close the lid.
7. Press  on Run Mix Spray (Screen 2). The purge sequence automatically starts.

   If the gun flush box is not used, trigger the gun into a grounded metal pail until the system returns to Standby mode.

   
8. If the system is not completely clean, repeat step 6.

   NOTE: If necessary, adjust purge sequence so only one cycle is required.
9. Trigger the gun to relieve pressure. Engage trigger lock.
10. If spray tip was removed, reinstall it.
11. Adjust the solvent supply regulator back to its normal operating pressure.

NOTE: The system remains full of solvent.

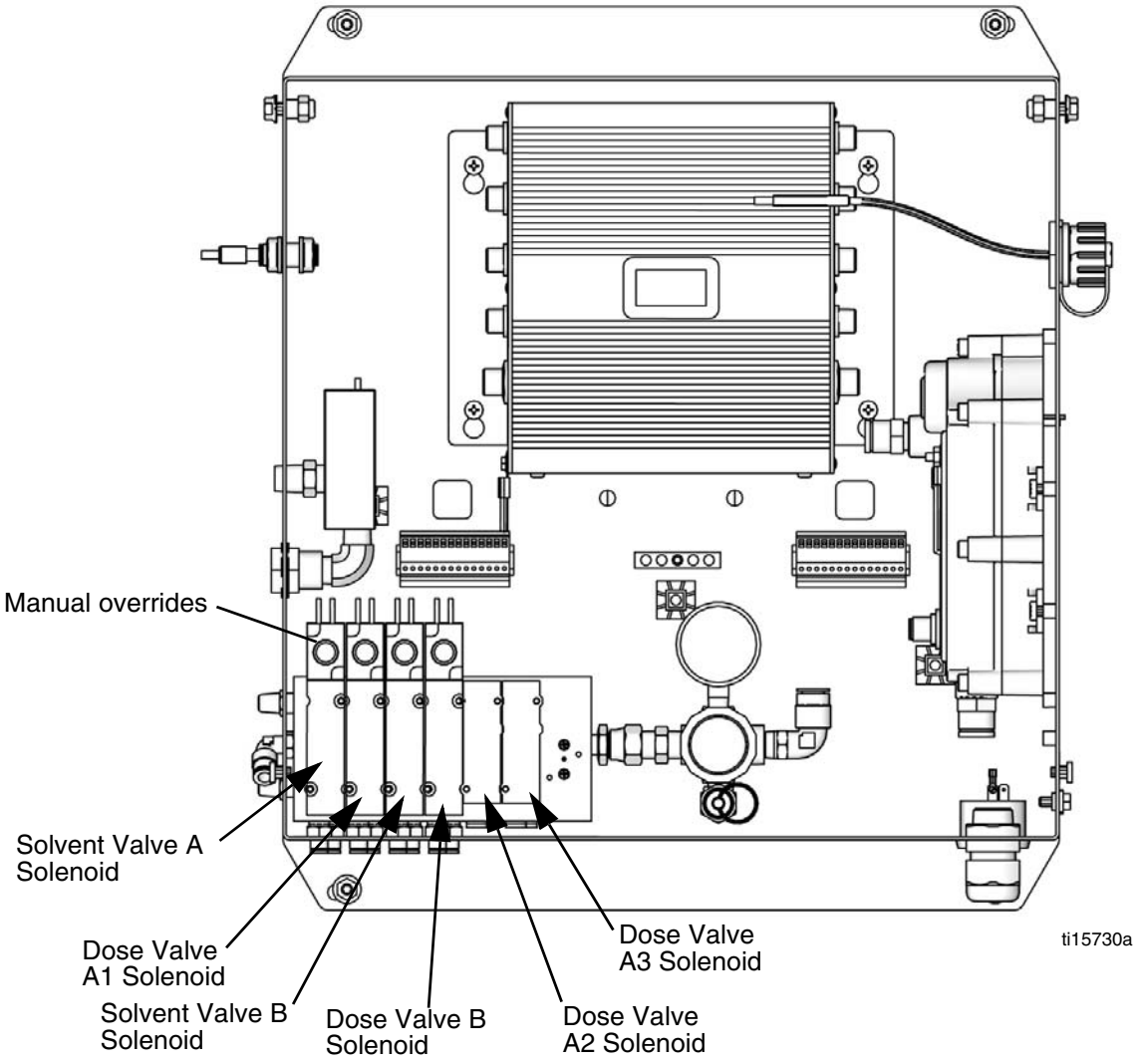


FIG. 1. Solenoid Valves in Control Box

Shutdown

1. Follow **Purging** on page 10.
2. Close main air shutoff valve on air supply line and on ProMix 2KE.
3. **Non-IS Systems:** Shut off ProMix 2KE power (0 position).

Service

Before Servicing

- To avoid electric shock, turn off power before servicing.
- Servicing the Control Box exposes you to high voltage. Shut off power at main circuit breaker before opening enclosure.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.
- Do not substitute system components as this may impair intrinsic safety.
- Read **Warnings**, page 5.

1. Follow **Pressure Relief Procedure**, page 9, if service time may exceed pot life time, before servicing fluid components, and before transporting equipment to a service area.
2. Close air shutoff valves.
3. **Non-IS Systems:** Shut off power (0 position).
4. If servicing Control Box, also shut off power at main circuit breaker.

Replace the Air Filter Element

Removing a pressurized air filter bowl could cause serious injury. Depressurize air line before servicing.

Pump systems have two air filters: the 5 micron air manifold filter (209) and the 40 micron pump air filter (206). Meter systems have only the 5 micron filter (209). Check filters daily and replace element(s) as needed. Order 15D909 (5 micron), 15D890 (40 micron), or 248433 (both 5 and 40 micron).

1. Close main air shutoff valve on air supply line and on system. Depressurize air line.
2. Remove the filter cover (A).
3. Unscrew the filter bowl (B).
4. Remove and replace element (209a).
5. Screw filter bowl (B) on securely. Install cover (A).

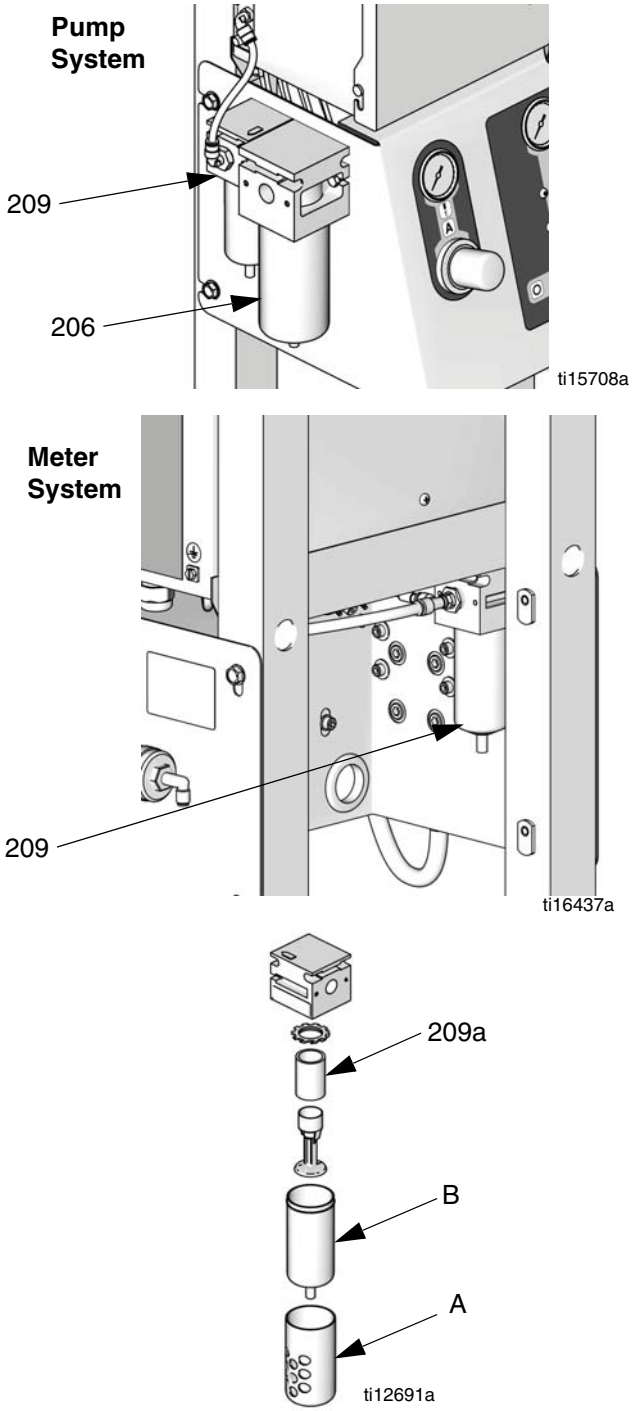


FIG. 2. Replace Air Filter Element(s)

Replace Solenoid Module

1. Follow **Before Servicing**, page 12. Disconnect main power.
2. Open Control Box.
3. Disconnect solenoid cable connectors from solenoids (306).
4. Disconnect air tubing from solenoid manifold (304).

NOTE: If you have an intrinsically safe model, you will need to remove the alternator air regulator from the solenoid module. See X, for removal instructions.

5. Remove two screws (305).
6. Remove and replace solenoid (306).
7. Reassemble screws and solenoid cable connectors.

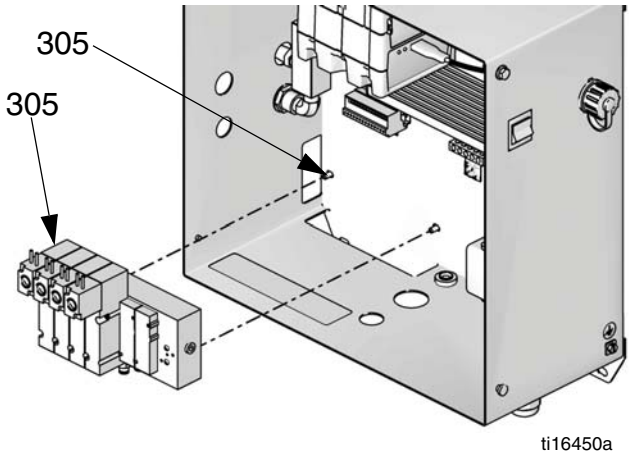


FIG. 3. Replace a Solenoid

Replace the Power Supply

Wall Power Supply and Filter

1. Follow **Before Servicing**, page 12. Disconnect main power.
2. Open Control Box.
3. Remove CAN cable.
4. Note position of power supply and filter input and output wires. Disconnect wires from power supply and filter.
5. Remove four screws (405) and remove power supply (401). If replacing filter, remove two screws (407) and the filter (403).
6. Install new power supply (401) and filter (403).
7. Reconnect input and output wires in positions noted in Step 4.
8. Close Control Box and restore power.

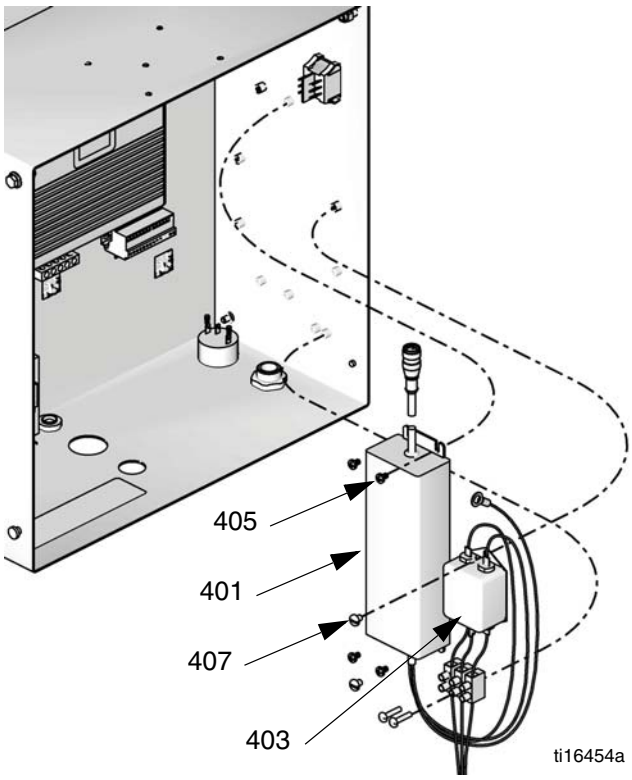


FIG. 4. Replace Wall Power Supply

Alternator Power Supply and Turbine

1. Follow **Before Servicing**, page 12. Disconnect main air.
2. Open Control Box.
3. Disconnect output power cable connections from alternator module and ground lead from Control Box.
4. Disconnect power supply cables from AFCM, USB, and Display Module.
5. Disconnect air regulator line and exhaust air line.
6. Remove four screws (509) from mounting to remove alternator from control box.

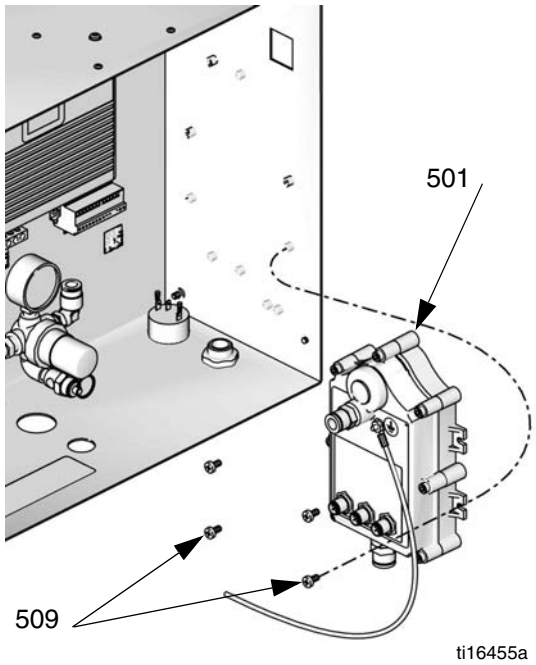


FIG. 5. Remove Alternator Module

7. Remove seven screws (501h) to separate alternator housings.
8. Replace turbine (501d) if necessary. Lightly lubricate turbine o-ring to ease alternator housing reassembly.
9. Follow steps in reverse order to reassemble alternator regulator assembly and to reconnect power cables and air lines.
10. Close Control Box and restore power.

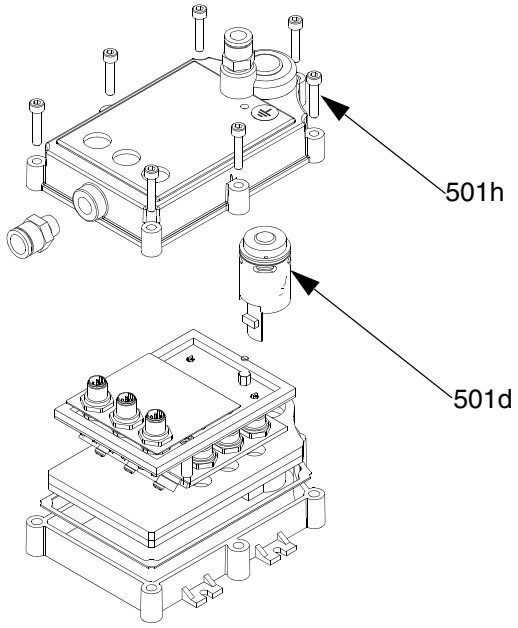


FIG. 6. Replace Alternator Module Turbine

Replace Alternator Regulator

1. Follow **Before Servicing**, page 12. Disconnect main air.
2. Open Control Box.
3. Disconnect supply air line from alternator assembly (505).
4. Loosen air regulator swivel fitting (506) and remove from solenoid module.
5. Repair or replace alternator regulator parts as necessary. See **Alternator Power Kit 16G353**, page 36, for repair parts. Replace air regulator swivel fitting (506).
6. Set regulator pressure, close Control Box, and restore power.

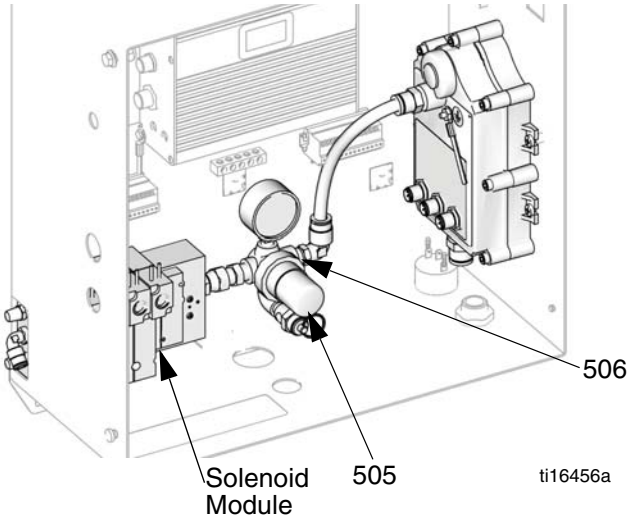
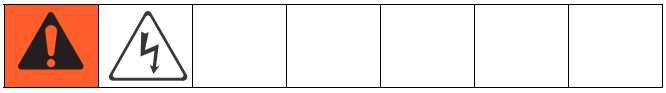


FIG. 7. Replace Alternator Regulator

Replace Advanced Fluid Control Module (AFCM)



1. Follow **Before Servicing**, page 12. Disconnect main power.
2. Open Control Box.
3. Remove all cables from AFCM (302). Take note of cable locations.
4. Loosen four mounting screws (303).
5. Slide AFCM up and out of keyhole slots.
6. Follow steps in reverse order to install a new AFCM.
7. Close Control Box and restore power.

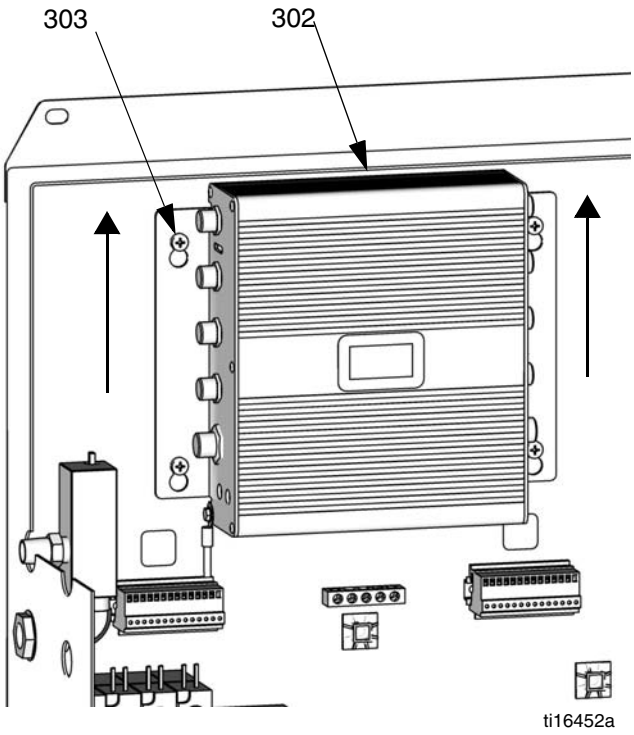


FIG. 8. Replace AFCM

Replace USB Module

1. Follow **Before Servicing**, page 12. Disconnect main power.
2. Open Control Box.
3. Disconnect CAN cable and USB cable from USB module (340).
4. Remove ground wire and screw (343) from top of Control Box.
5. Remove four mounting screws (341) from USB module and remove module.
6. Follow steps in reverse order to install a new USB module.
7. Close Control Box and restore power.

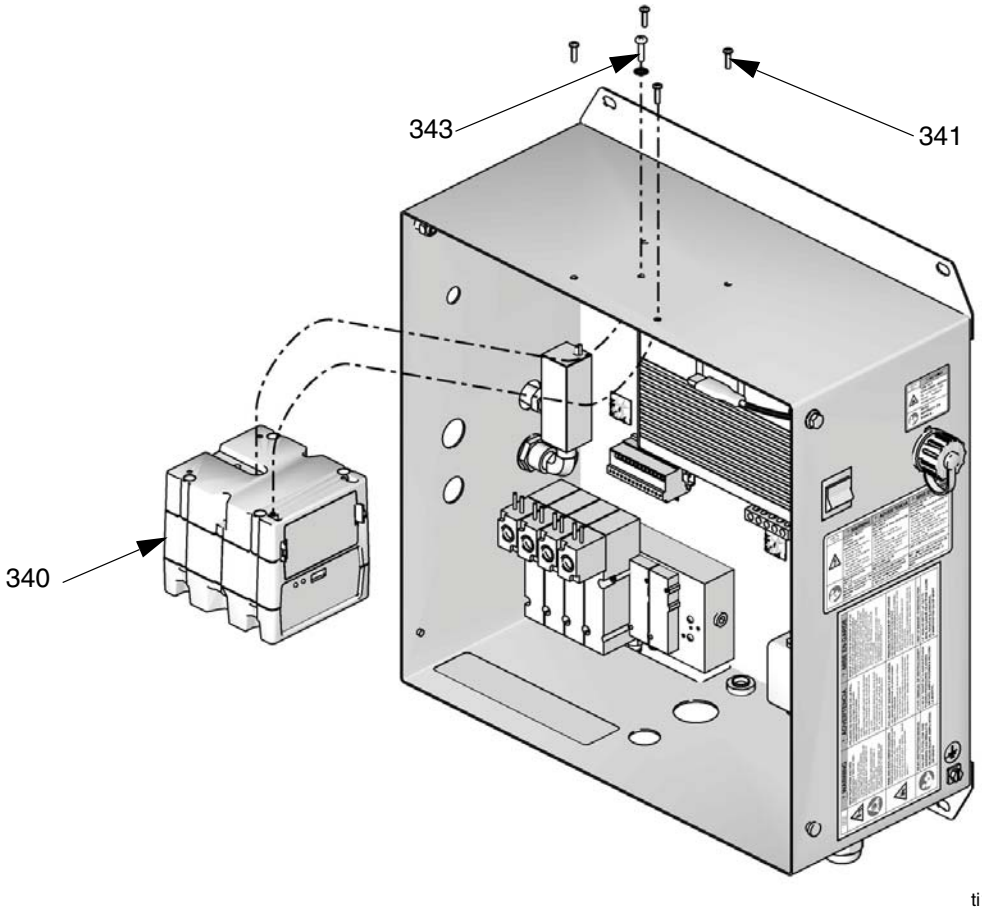
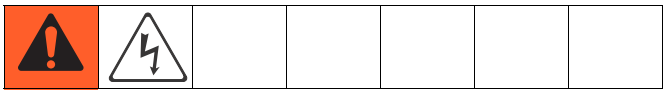


FIG. 9. Replace USB Module

Replace Alarm



1. Follow **Before Servicing**, page 12. Disconnect main power.
2. Open Control Box.
3. Disconnect alarm wires from alarm (311).
4. Unscrew alarm (311).
5. Screw in new alarm. Reconnect alarm wires.
6. Close Control Box and restore power.

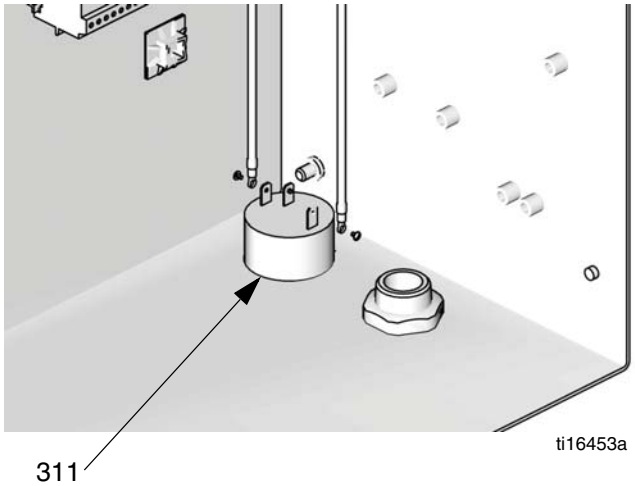


FIG. 10. Replace Alarm

Replace Display Module

1. Follow **Before Servicing**, page 12.
2. Lift the Display Module (63) out of the bracket (49).
3. Replace with a new Display Module.

Pump System Air Controls

Remove Air Control Assembly

1. Follow **Before Servicing**, page 12.
2. Disconnect air motor air lines, system air line, and solenoid air line.

NOTE: You may prefer to remove the A side air motor air line after you remove the assembly from the frame.

3. Loosen four screws (8) from sides of frame. Slide the assembly up and out to remove.
4. Follow steps in reverse order to reinstall air control assembly after repair.

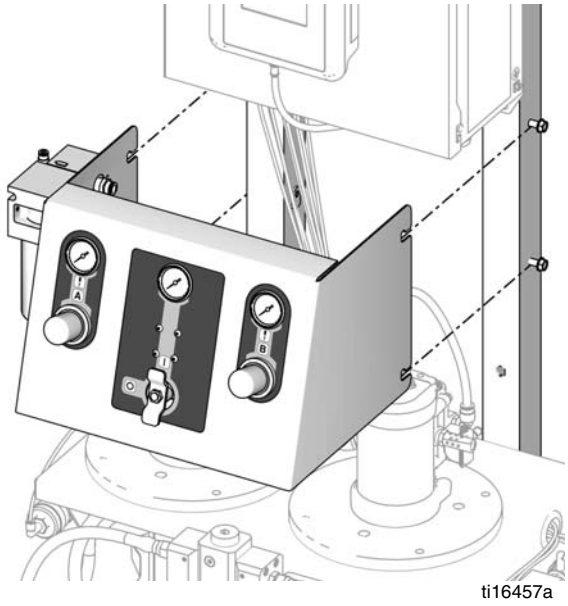


FIG. 11. Remove Air Control Assembly

Replace Pressure Gauge(s)

1. See **Remove Air Control Assembly**, page 18.
2. Disconnect air lines to gauges (203).
3. Remove mounting screws (203a).
4. Remove fittings (211) and gauges (203). Replace as needed.
5. Follow steps in reverse order to reassemble.

Replace Air Regulators

1. See **Remove Air Control Assembly**, page 18.
2. Remove regulator nut (205) and disconnect air lines running to regulator (204).
3. Remove regulator assembly and replace with new. See **Air Controls - Pump Systems**, page 30.
4. Follow steps in reverse order to reassemble.

Replace Manifold/Ball Valve/Safety Valve

1. See **Remove Air Control Assembly**, page 18.
2. Remove nut (202b) and handle (202a) from front of air control plate.
3. Remove four screws (222) from front of air control plate.
4. Disconnect all air lines.
5. Disconnect fittings (207, 212, 214, 215). Replace as necessary.
6. Disconnect ball valve (202) and safety valve (219). Replace parts as necessary, including manifold. See **Air Controls - Pump Systems**, page 30.
7. Follow steps in reverse order to reassemble.

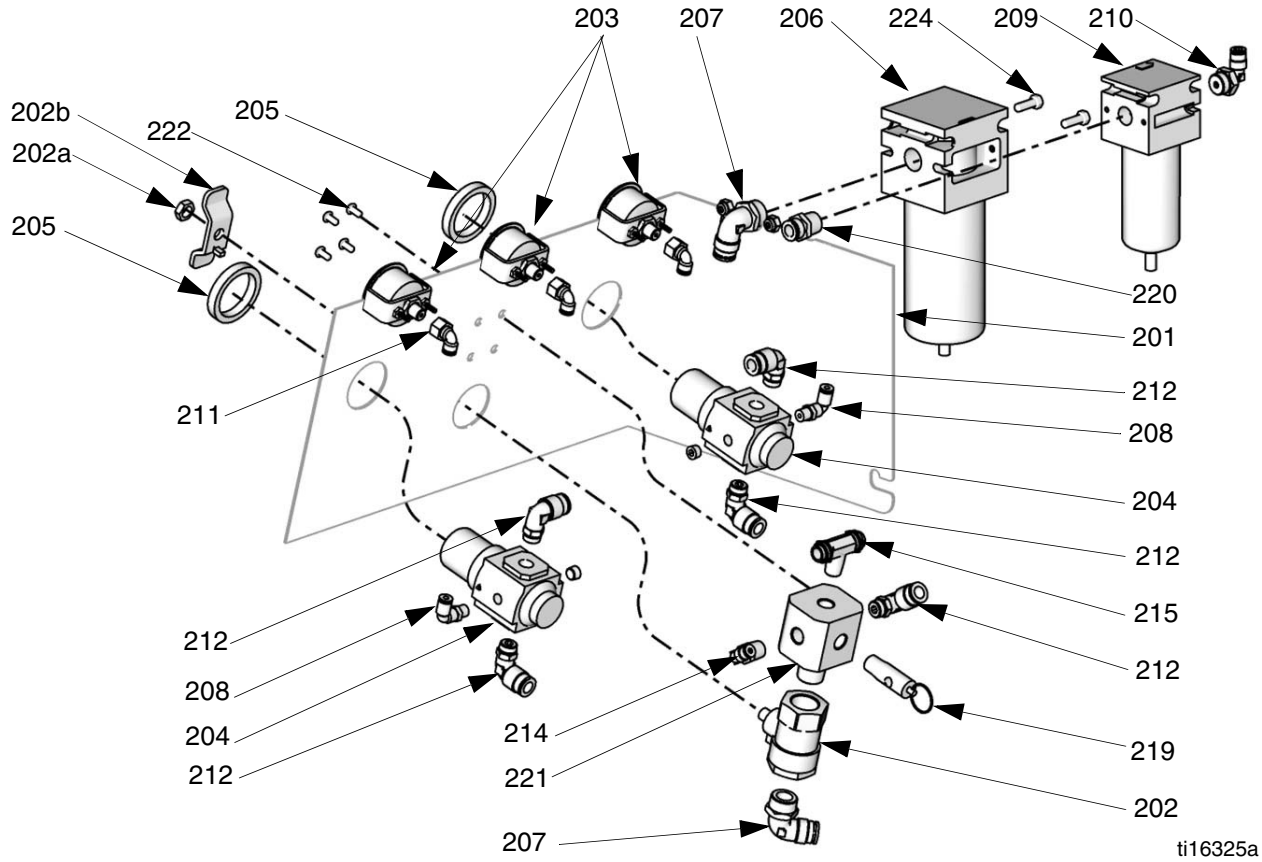


FIG. 12. Air Controls, Pump System

Meter System Air Controls

Remove Air/Fluid Panel

1. Follow **Before Servicing**, page 12.
2. Disconnect main air line and other air and fluid lines as necessary.
3. Remove four screws (8) from sides of frame.
4. Remove air/fluid panel assembly.
5. Follow steps in reverse order to reinstall assembly after repair.

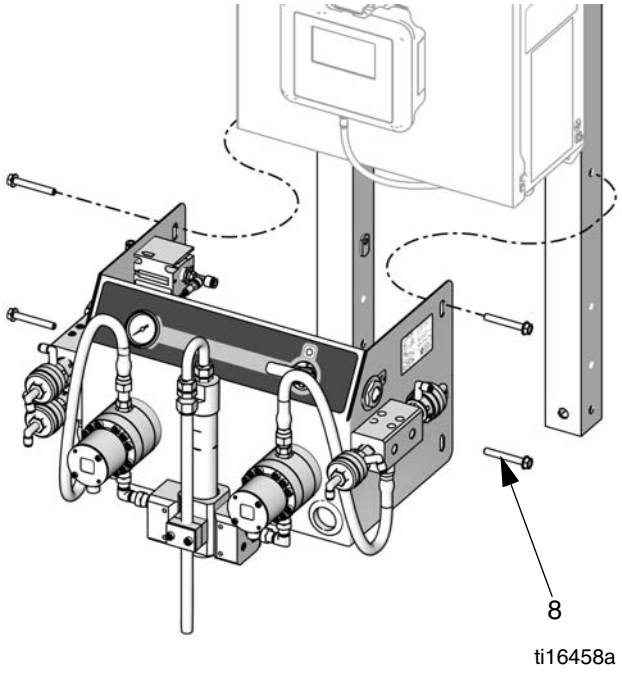


FIG. 13. Remove Air/Fluid Panel

Replace Ball Valve

1. See **Remove Air/Fluid Panel**, page 19.
2. Remove screw (106b) and washer (106c) from the handle on the front of the panel.
3. Remove fittings (113, 114, 121, 122) and ball valve (106).
4. Replace fittings and/or valve as needed.
5. Follow steps in reverse order to reassemble.

Replace Pressure Gauge(s)

1. See **Remove Air/Fluid Panel**, page 19.
2. Disconnect air line to gauge (105).
3. Remove mounting screws (105a).
4. Remove fitting (114) and gauge (105). Replace as needed.
5. Follow steps in reverse order to reassemble.

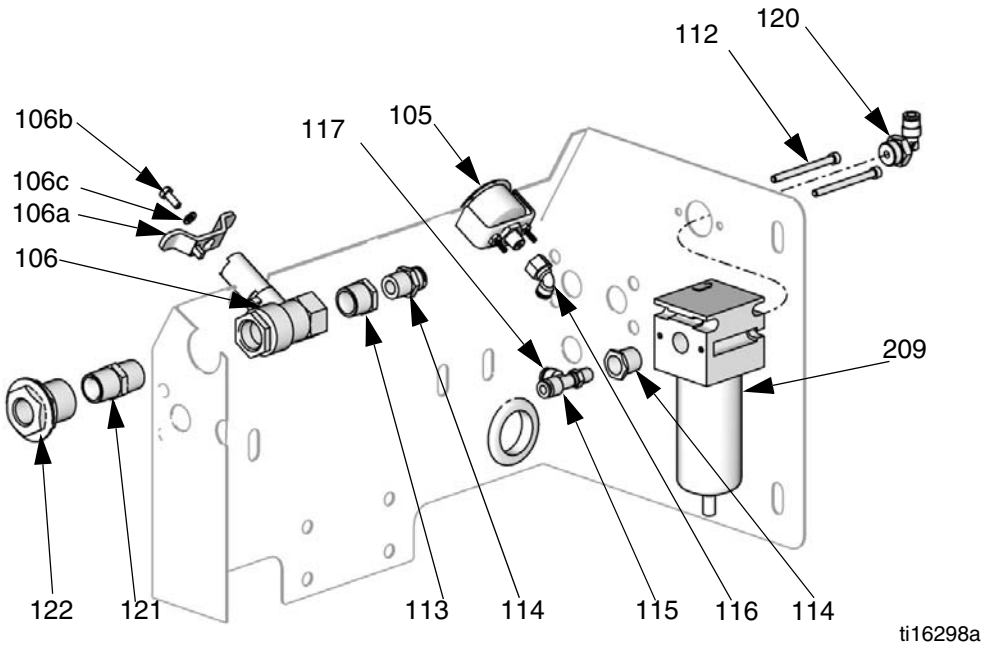


FIG. 14. Air Controls, Meter System

Fluid Controls

Remove Dosing Valve Stacks

1. Follow **Before Servicing**, page 12.
2. See **Remove Air/Fluid Panel**, page 19.
3. Disconnect all fluid lines from dosing valve stacks (4, 108 if 3-color system).
4. Remove four bolts (52) and washers (53) from inside the panel to remove 1-color valve stack (4). Repeat for 3-color valve stack (108), if present.
5. **3-Color System.** Remove four bolts (711) from top of valve stack. Separate the two manifolds (701 and 706).
6. **Replace Seat(s):** To replace a seat on a single valve, order Kit 16A560 (see page 39). Remove dosing valve (705) from manifold (701 or 706), then remove and replace seat (703) and o-rings (702 and 704).
7. **Service Dosing Valve:** Order Kit 15U933 (see page 39). Follow all instructions and warnings in manual 312782 to rebuild the dosing valve.
8. **Valve Manifold Rebuild:** For full service of your valve stack (1-color or 3-color), order Kit 24H254 (see page 39). Follow directions in next section.

Dosing Valve Manifold Rebuild

Order Kit 24H254 (see page 39). Use all parts in the kit.

1. Follow Steps 1 - 5 in **Remove Dosing Valve Stacks**, page 21.
2. Remove fitting (710) and o-ring (708).
3. Remove the dosing valve (705), then remove seat (703) and o-rings (702 and 704) from each side of each manifold (701, 706).
4. **3-Color Systems.** Remove the spacer (707) and o-rings (708 and 709) from between the two manifolds (706).
5. **3-Color Systems.** Install new o-ring (708) on fitting (710). Install fitting on bottom of 3-color manifold (701).
6. Install the small o-ring (702), the seat retainer (703) and the large o-ring (704) into the manifold, then install the valve (705). Torque to 35-40 ft-lb (47-54 N•m). Repeat for each valve.

NOTE: Relieve spring tension prior to installing the valve (705) into the manifold (701 or 706).

7. **3-Color Systems.** Install new o-ring (708) on the spacer (707). Install new o-ring (709) on the bottom of the 1-color manifold (706). Align manifolds (701 and 706). Install four screws (711). Torque to 8-10 ft-lb (11-14 N•m).
8. Use four bolts (52) and washers (53) to reattach the valve stacks (4, 108 if present).
9. Reconnect all fluid lines.

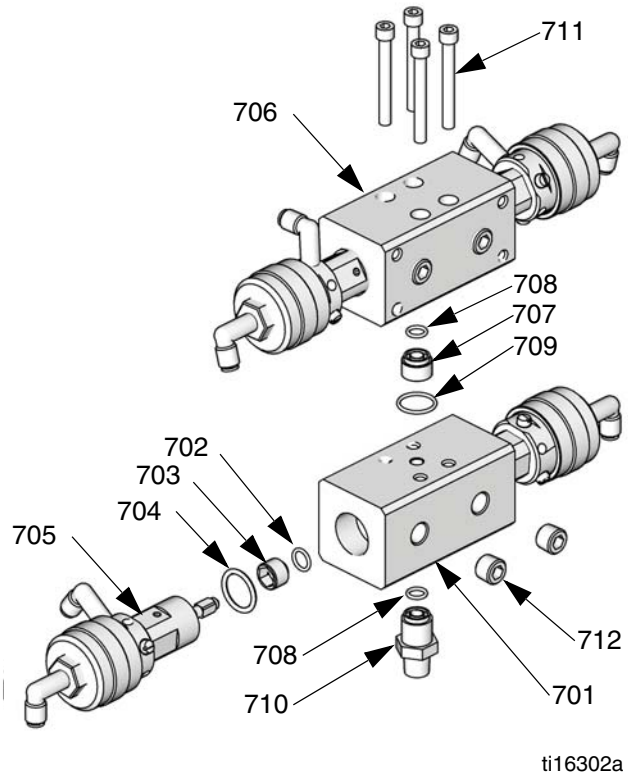
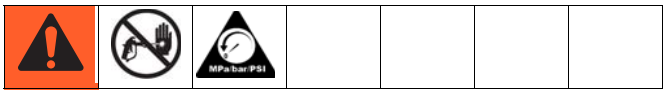


FIG. 15. Rebuild Dosing Valve Stacks

Repair Flow Meters



Coriolis Meter

1. Follow **Before Servicing**, page 12.
2. To remove and service the Coriolis meter, see manual 313599.

G3000 Meter

Removal

1. Follow **Before Servicing**, page 12.
2. Remove cable harness (118) and fluid lines.
3. Remove four screws (110) and washers (109) holding the meter (103) and the spacer (104) to the fluid plate (101).
4. Service meter as instructed in the meter manual 308778.

Installation

1. Secure meter (103) and spacer (104) to the fluid plate (101) with screws (110) and washers (109).
2. Connect cable harness (118) and fluid line.
3. Calibrate meter as instructed in the Operation manual.

Repair Mix Manifold.

1. Follow **Before Servicing**, page 12.
2. Disconnect fluid lines.
3. Holding onto the mix manifold (13), remove four screws (52) and washers (53) that hold the mix manifold (13) to the fluid plate (101, meter systems) or to the pump frame (pump systems). Remove the manifold.
4. Service mix manifold as instructed in Mix Manifold manual 312781.

Pump Assembly

Prior to service, remove the displacement pump first, then the air motor.

Remove the Displacement Pump

1. Follow **Pressure Relief Procedure**, page 9.
2. Disconnect the fluid hoses.
3. **Merkur Pumps:** Remove the tie rod shield (26). **Merkur Bellows Pumps:** Remove the coupler shield (79).
4. **Merkur Pumps:** Hold the flats of the air motor shaft with a wrench. Use another wrench to loosen the coupling nut (16).
   Merkur Bellows Pumps: Hold the coupling nut (16) with a wrench. Use another wrench to turn the motor shaft. To avoid damage to the bellows top cap and the D-shaped seal, **do not turn the coupling nut.**

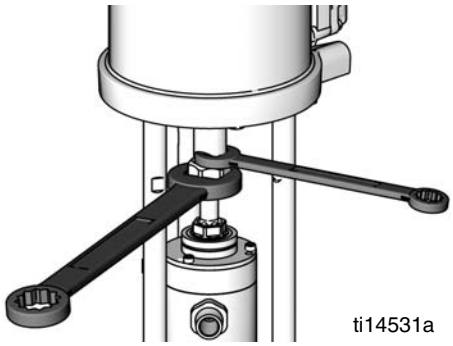


FIG. 16. Loosen the coupling nut

5. Lower the coupling nut (16) enough to remove the coupling collars (15), and then lift up the motor shaft and remove the coupling nut (16).

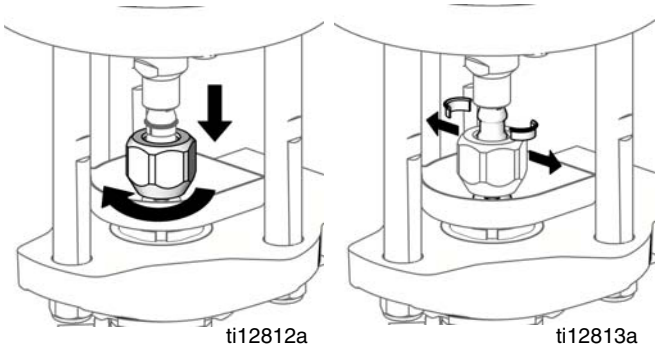


FIG. 17. Remove the coupling collars

6. **Merkur Pumps:** Pull up on the TSL reservoir (25) to remove.
7. Use a socket to remove the tie rod nuts (14).
8. Carefully remove the displacement pump, with the pump adapter attached.
9. Clamp the adapter plate in a vise to service the displacement pump.
10. See your displacement pump manual for service and parts information.

Remove the Air Motor

1. Follow **Pressure Relief Procedure**, page 9.
2. Follow **Remove the Displacement Pump**, page 23.
3. Disconnect air lines, the reed switch CAN cable, and the linear sensor cable.
4. Remove four screws (8) then remove the air control panel (3). See **Remove Air Control Assembly**, page 18.
5. Remove four mounting screws (49) and washers (48) from the under side of the pump frame.
6. **Systems with M02LH0 air motor (2.5 in.):** Remove three screws (49) and washers (48), then remove the adapter plate (17) from the bottom of the air motor.
7. Carefully lift the air motor up and out. Leave the tie rods and muffler attached or remove them, as you prefer.

Update Software

Remove proportioner from hazardous location before inserting, downloading, or removing the USB flash drive.

NOTICE

To avoid damaging circuit board, wear a grounding strap.

Update the Advanced Fluid Control Module

1. Turn off power to the system.
2. Remove two screws (302a), and then remove access cover (302b).
3. Insert and press token (T) firmly into slot.

NOTE: The token has no preferred orientation.

4. Turn on power.
5. The red indicator light (L) will flash until new software is completely loaded.
6. Turn off power.
7. Remove token.
8. Replace access cover (302b) and secure with two screws (302a).

NOTE:

- For proper operation, software versions of the Display Module, Advanced Fluid Control Module, and USB Module (if used) must match. If you update one, you must update the other(s). You may get a communications alarm (CA or CAU1) until all modules are updated.
- All data in the module will reset to factory default settings. Note all settings and user preferences before the upgrade, for ease of restoring them following the upgrade.

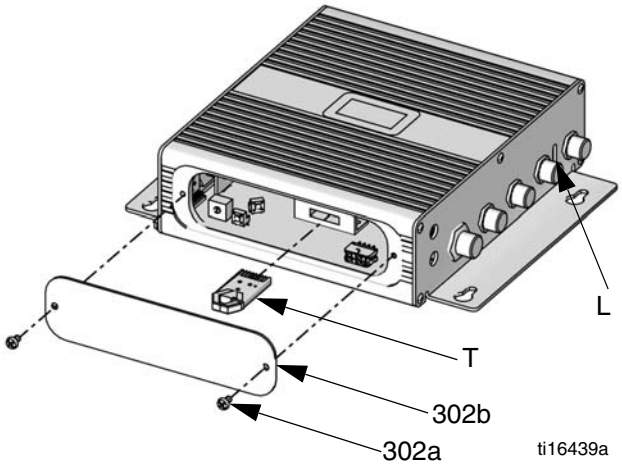


FIG. 18. Update Advanced Fluid Control Module

Update the Display Module

1. Turn off power to the system.
2. Remove Display Module (63).
3. Remove four screws (63a), then remove access cover (63b).
4. Insert and press token (T) firmly into slot.

NOTE: The token has no preferred orientation.

5. Turn on power.
6. The Graco screen displays. When the Run Mode screen displays, the software update is complete.
7. Turn off power.
8. Remove token.
9. Replace access cover (63b) and secure with four screws (63a).

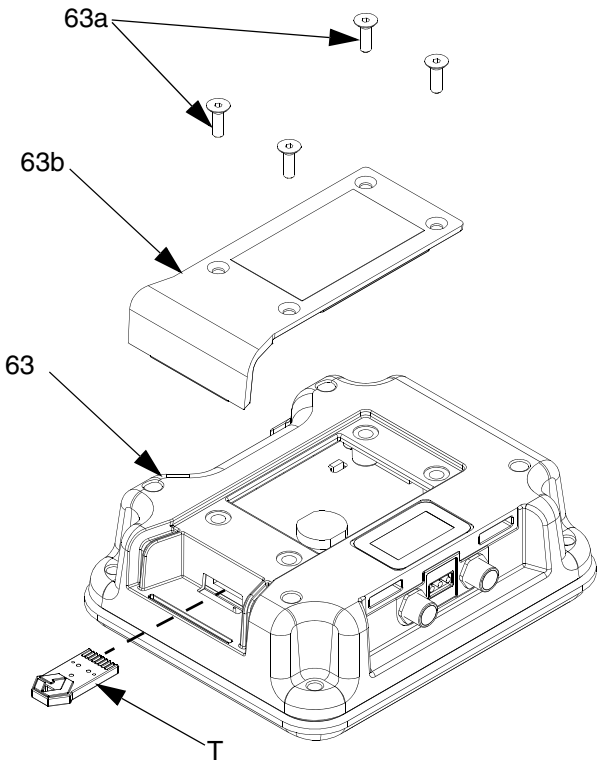


FIG. 19. Update the Display Module

Update USB Module

1. Turn off power to the system.
2. Remove the Display Module (63), then remove the cover from the Control Box (2).
3. Remove access cover from the USB Module (340).
4. Insert and press token (T) firmly into slot.

NOTE: The token has no preferred orientation.

5. Turn on power.
6. The red indicator light (L) will flash. Then the green and yellow indicator light will flash for about five minutes. New software is completely loaded after all indicator lights are off.
7. Turn off power.
8. Remove token (T).
9. Replace access cover.

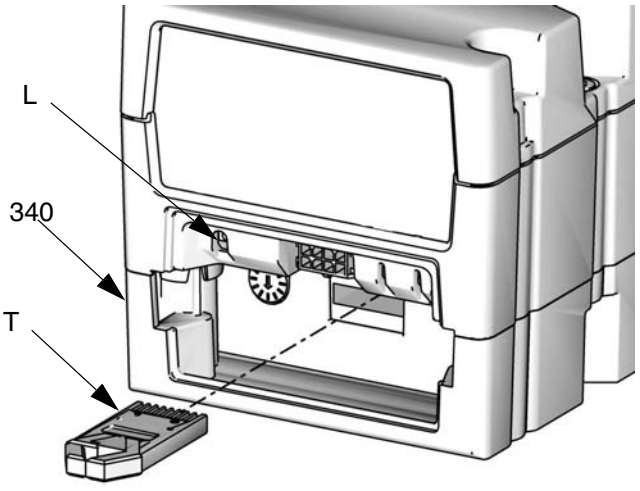
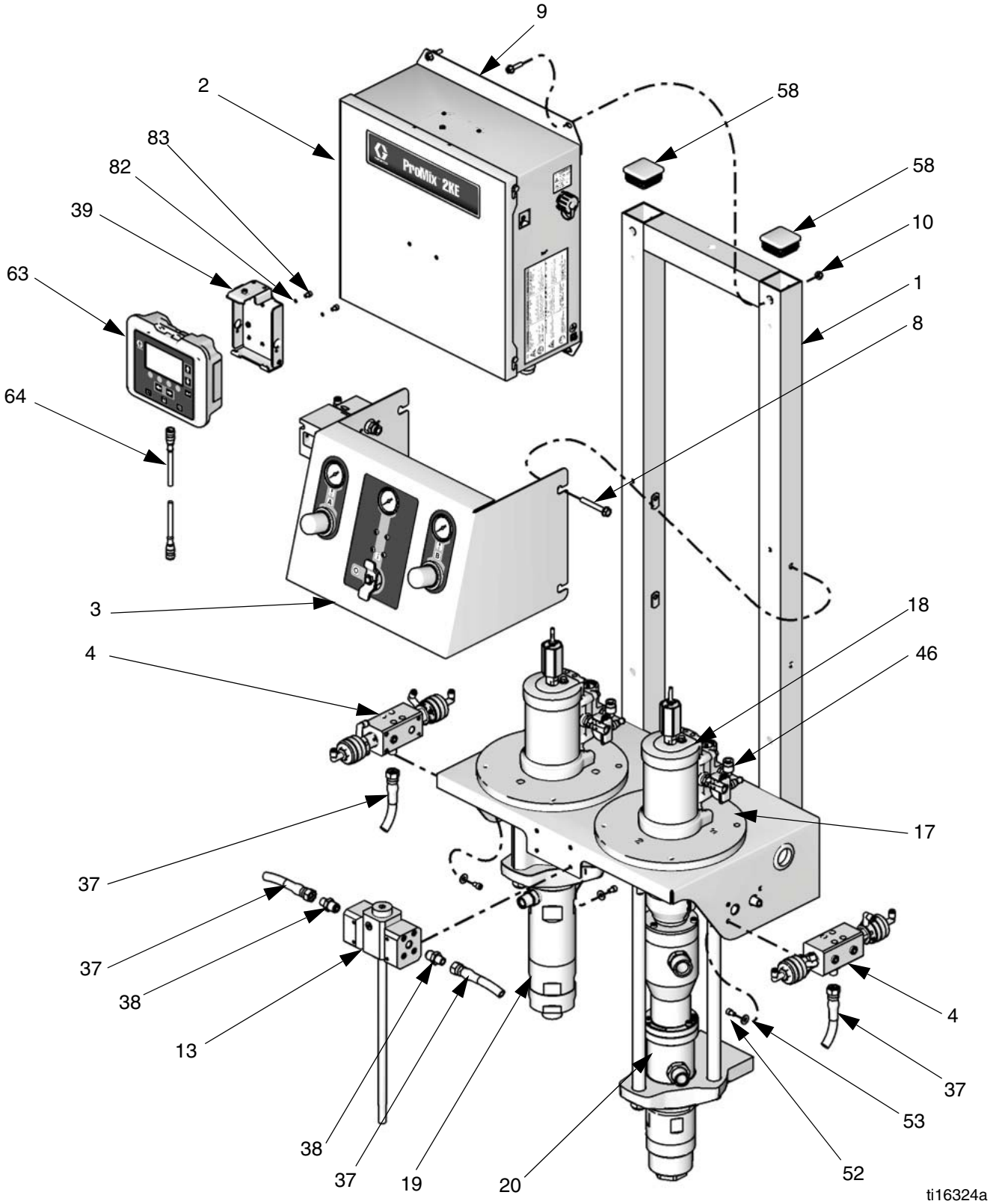
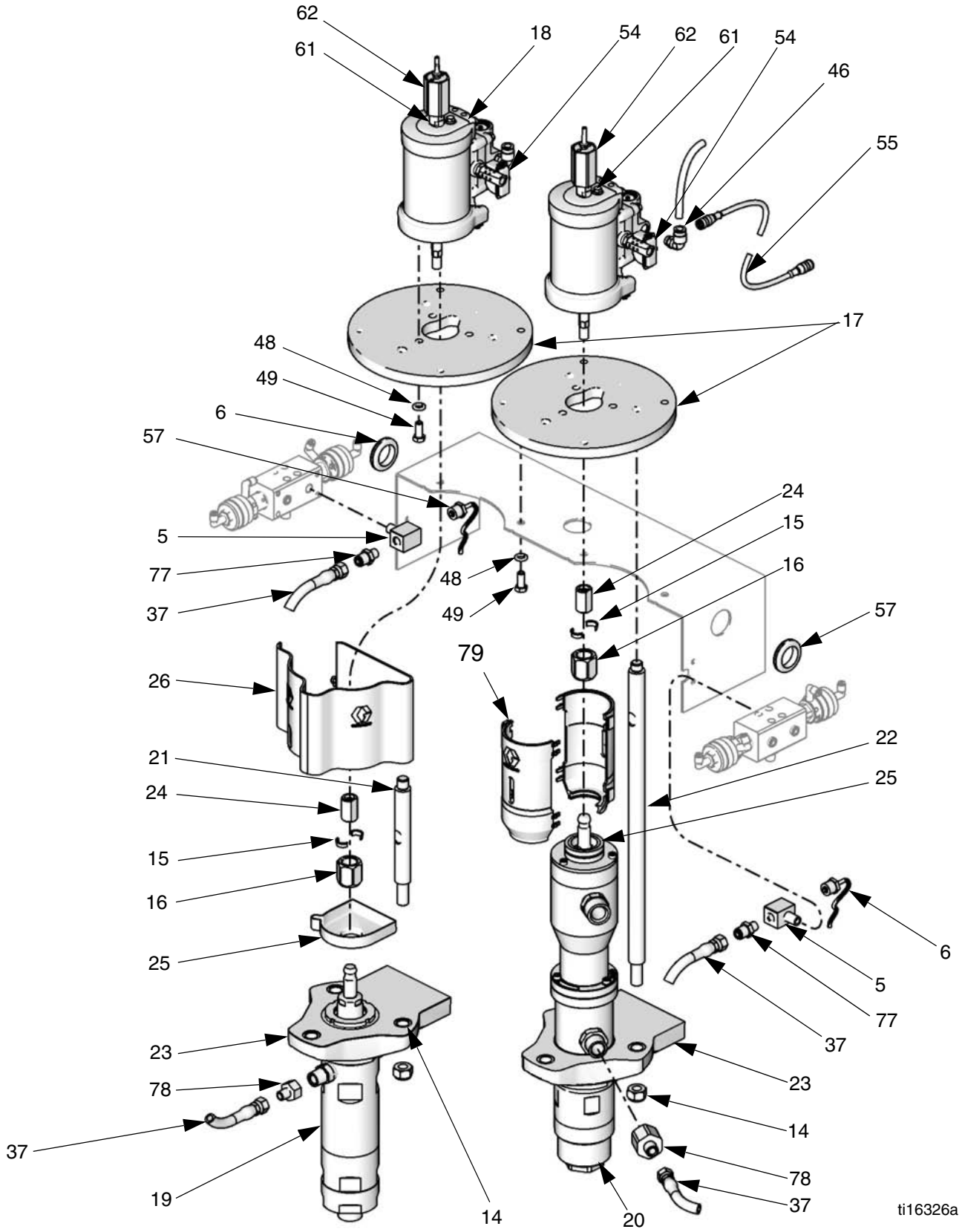


FIG. 20. Update the USB Module

Parts

Pump Systems

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ti16326a

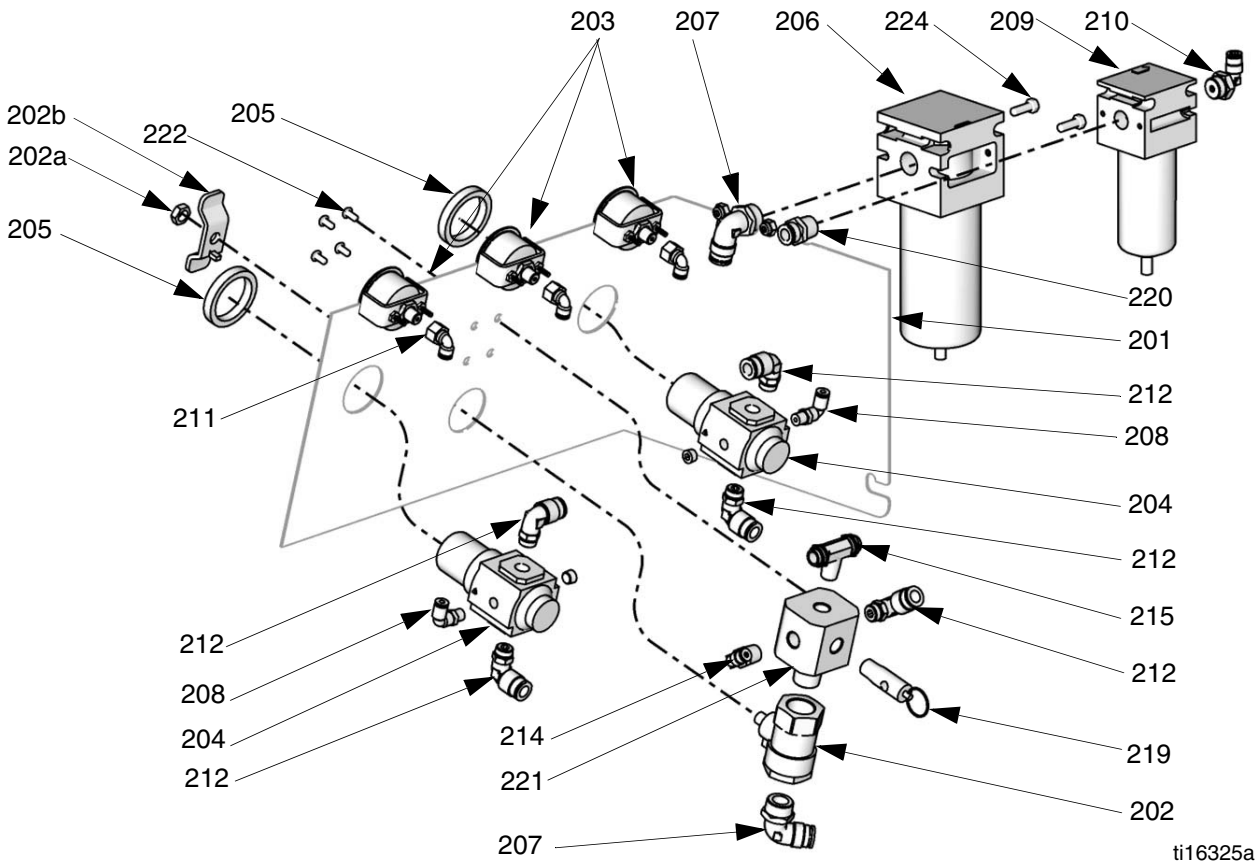
Models 24F088-24F101, Pump

Ref.	Part	Description	Qty.
1	-----	FRAME	1
2	-----	CONTROL, electrical	1
3	-----	CONTROL, air	1
4	-----	VALVE, stack, 1clr/1fl	2
5	16F164	FITTING, pressure sensor, fluid outlet	2
6	15M669	SENSOR, pressure, fluid outlet	2
8	111634	SCREW, machine, hex washer-head, 5/16-18, stainless steel	4
9	112547	SCREW, flange, hex head, 1/4-20	4
10	109478	NUT	4
13	262399	MANIFOLD, mix	1
14	15U606	NUT, lock, m16 x 2	6
15	184128	COLLAR, coupling	4
16	15T311	NUT, coupler	2
17	16F249	ADAPTER, plate	2
		Models with M02xxx air motor	
18		AIR MOTOR, Merkur, see manual 312796	2
	M02LH0	2.5 in. (M02xxx) with linear sensor	
	M12LN0	6.0 in. (M12xxx) with linear sensor	
	M18LN0	7.5 in. (M18xxx) with linear sensor	
19		DISPLACEMENT PUMP A	
	LW050A	Merkur, 50cc	2
	LW075A	Merkur, 75cc	
	LW100A	Merkur, 100cc	
	LW125A	Merkur, 125cc	
	LW150A	Merkur, 150cc	
20		DISPLACEMENT PUMP B	1
	LB100B	Merkur Bellows with u-cup, 100cc	
	LB150B	Merkur Bellows with u-cup, 150cc	
21	15M662	ROD, tie, pump A	3
22		ROD, tie, pump B	3
	15M662	Merkur pump	
	15U691	Merkur Bellows pump	
23	See Table	ADAPTER, displacement pump	1
24	16G463	COUPLING, adapter	2
25	See Table	RESERVOIR, tsl	1
26	277743	SHIELD, tie rod	1
37		HOSE, coupled, 1.8 ft	4
	110192		
	239083		
38	166421	FITTING, pipe	2
39	277853	BRACKET, mounting, display module	1
40▲	15X214	LABEL, warning, USB, not shown	1
45	105335	SCREW, machine, pan head, M4 x 0.7, for tie rod guard, not shown	1
46		ELBOW, air inlet	2
	None	M02xxx air motors	
	C38211	All other air motors	
47	15T632	KIT, Air Flow Switch, see page 40	1 or 2
48	100133	WASHER, lock	
		M02xxx air motors	14
		All other air motors	8
49	100680	SCREW, cap, hex hd	
		M02xxx air motors	14
		All other air motors	8
51	101970	PLUG, pipe, hdls, not shown	4
52	C19798	SCREW, cap, socket head	12
53	111591	WASHER, fan	12
54	24A032	SWITCH, reed assembly	2
55	16E917	CABLE, IS and reed	2
57	120685	GROMMET	3
58	115313	PLUG, tube	2
	-----	ADAPTER, linear sensor, see **Control Box**, page 33	2
62	-----	SENSOR, IS, linear, 2.5 in. assembly, see **Control Box**, page 33	2
63	16E883	MODULE, display	1
63a	113768	SCREW, access cover, not shown	4
63b	277463	COVER, access, not shown	1
64	123278	CABLE, CAN, IS, yel m std x f rev.	1
68▲	15W776	LABEL, warning, not shown	1
77	156971	FITTING, nipple, short	2
78		ADAPTER	2
	113032	M02xxx air motor	
	512351	All other air motors	
79	16C310	SHIELD, coupler	2
82	111307	WASHER, shipped loose, for Display Module	2
83	121224	SCREW, shipped loose, for Display Module	2
84	16G475	MAGNET, with holder	2
87	16F793	CARD, alarm/icon, not shown	1
90	16G607	BUSHING, strain relief	1
325▲	15W598	LABEL, warning	1

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

Model		Item 17	Item 18	Item 19	Item 20	Item 21	Item 22	Item 23	Item 24	Item 25
Non-IS	IS									
24F088	**24F102**	16F249	M02LH0	LW125A	LW125A	15M662	15M662	15T394	16G463	24A627
24F089	**24F103**	-----	M12LN0	LW100A	LW100A	15M662	15M662	15T393		24A626
24F090	**24F104**	-----	M12LN0	LW075A	LW075A	15M662	15M662	15T392		24A625
24F091	**24F105**	-----	M12LN0	LW050A	LW050A	15M662	15M662	15T391		24A622
24F092	**24F106**	16F249	M02LH0	LW150A	LB150B	15M662	15U691	15T395	16G463	24A628
24F093	**24F107**	-----	M12LN0	LW100A	LB100B	15M662	15U691	15T393		24A626
24F094	**24F108**	-----	M18LN0	LW100A	LB100B	15M662	15U691	15T393		24A626
24F095	**24F109**	16F249	M02LH0	LW125A	LW125A	15M662	15M662	15T394	16G463	24A627
24F096	**24F110**	-----	M12LN0	LW100A	LW100A	15M662	15M662	15T393		24A626
24F097	**24F111**	-----	M12LN0	LW075A	LW075A	15M662	15M662	15T392		24A625
24F098	**24F112**	-----	M12LN0	LW050A	LW050A	15M662	15M662	15T391		24A622
24F099	**24F113**	16F249	M02LH0	LW150A	LB150B	15M662	15U691	15T395	16G463	24A628
24F100	**24F114**	-----	M12LN0	LW100A	LB100B	15M662	15U691	15T393		24A626
24F101	**24F115**	-----	M18LN0	LW100A	LB100B	15M662	15U691	15T393		24A626

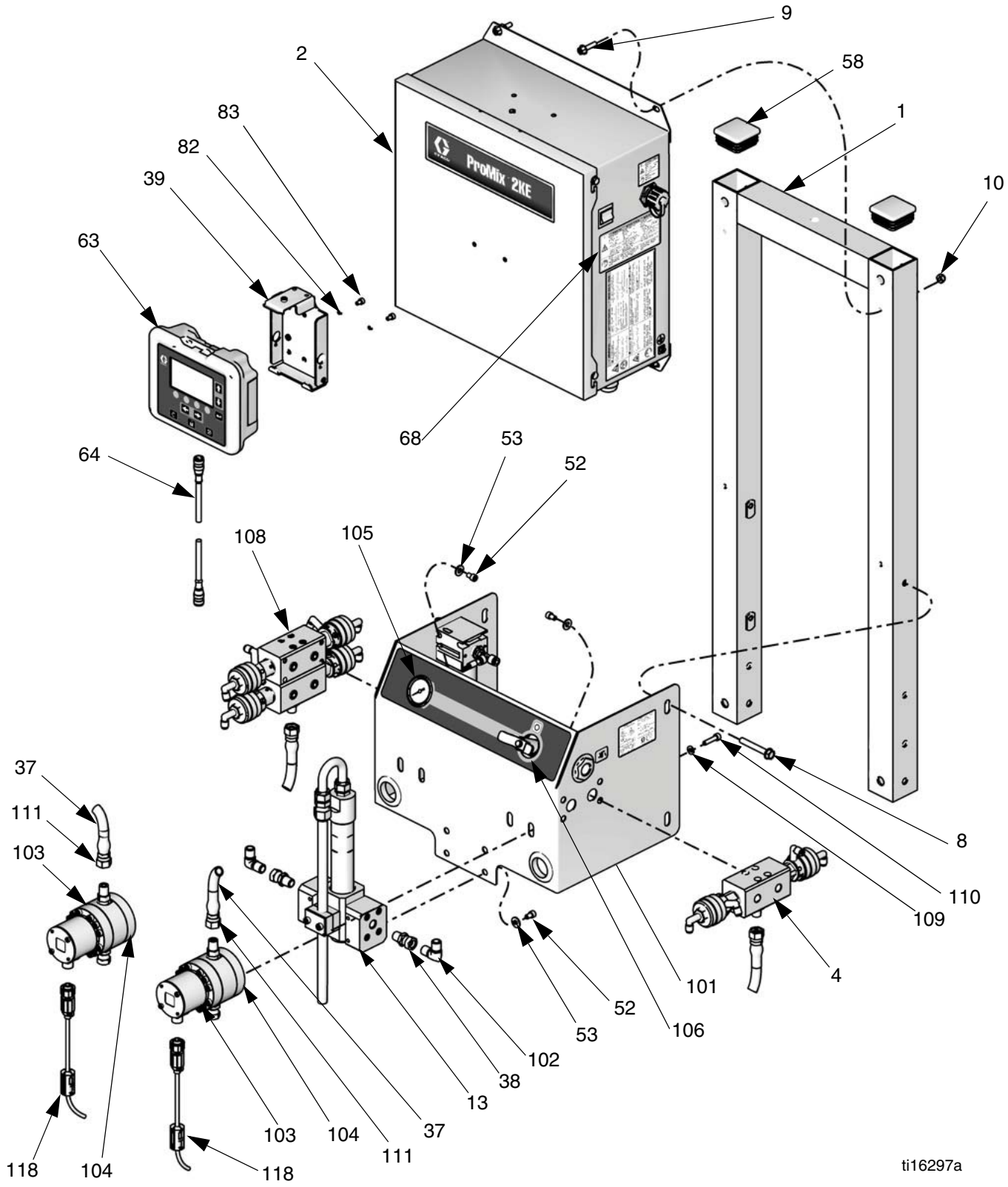
Air Controls - Pump Systems

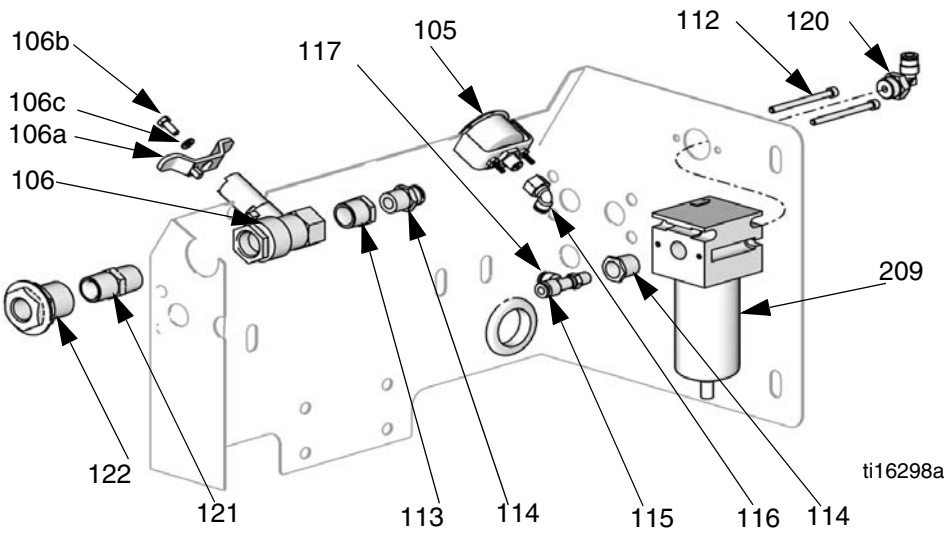


Ref.	Part	Description	Qty.
201	-----	PLATE, air controls	1
202	110225	VALVE, vented, 2-way	1
202a	-----	HANDLE	1
202b	-----	NUT, handle	1
202c	290167	TAG, warning, not shown	1
203	15T500	GAUGE, air pressure	3
203a	-----	SCREW, mounting, gauge	6
204	116513	REGULATOR, air	2
205	116514	NUT, air regulator	2
206	15D795	FILTER, air	1
206a	15D890	ELEMENT, 40 micron	1
207	C19381	ELBOW, male	2
208	15T866	ELBOW, swivel, 1/8 npt x 5/32 T	2
209	114124	FILTER, air	1
209a	15D909	ELEMENT, 5 micron	1
210	114153	ELBOW	1
211	15T498	ELBOW	3
212	115841	ELBOW	5
214	114469	ELBOW	1
215	502524	CONNECTOR, tube	1
219	113498	VALVE, safety	1
220	114485	CONNECTOR, male, 3/8 npt	1

Ref.	Part	Description	Qty.
221	16F701	MANIFOLD, pump	1
222	551787	SCREW, cap	4
223	109478	NUT, lock	2
224	100022	SCREW, cap, hex	2
226	C19252	PLUG, pipe	2

Meter Systems



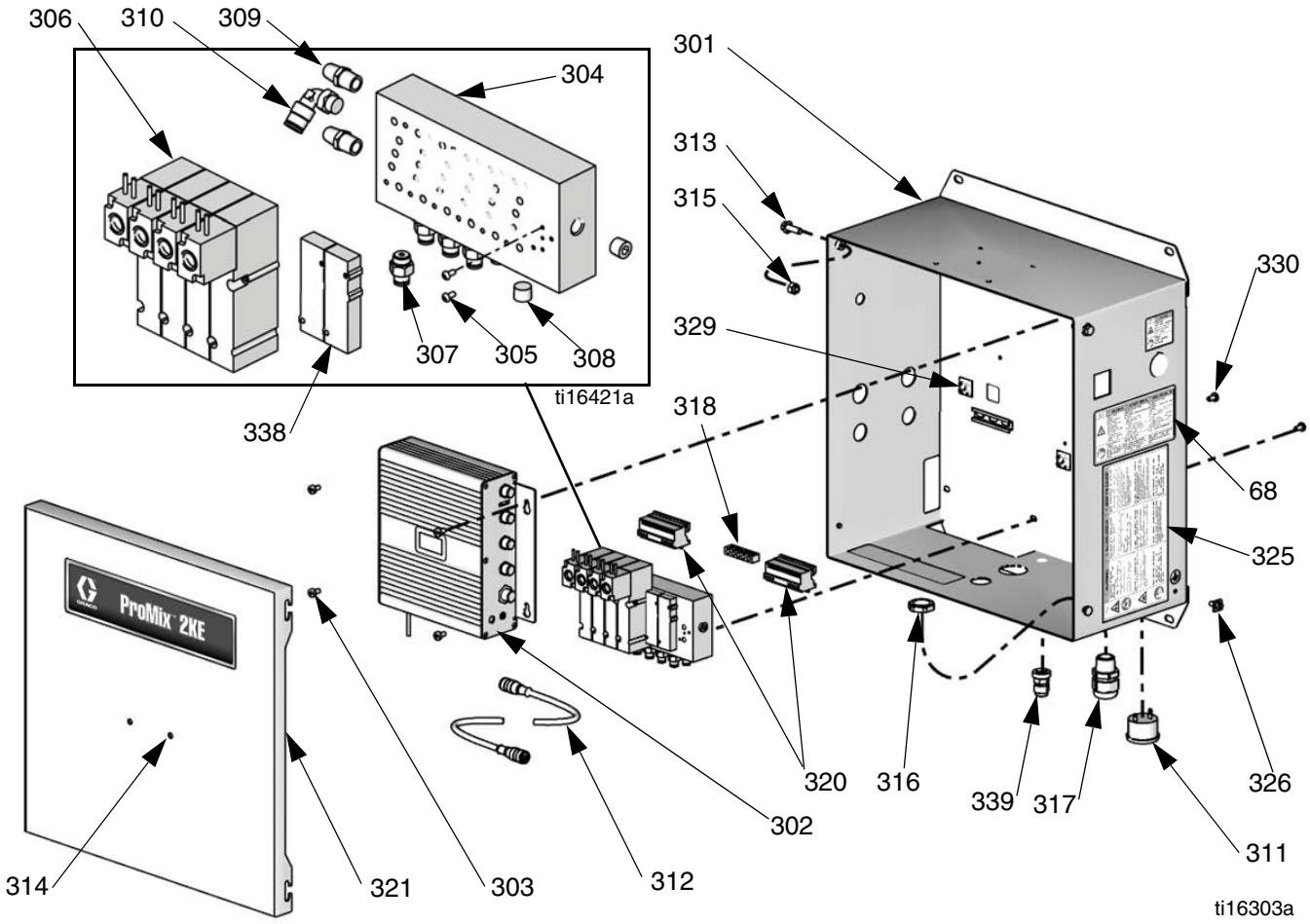


24F080-24F087, Meter Systems

Ref.	Part	Description	Qty.
1	-----	FRAME, meter	1
2	-----	CONTROL, electrical	1
4	-----	VALVE, stack, 1 color/1 fl, see page 39	2
		1-Color Models	1
		3-Color Models	
8	111634	SCREW, machine, hex washer-head	4
9	112547	SCREW, flange, hex hd	4
10	109478	NUT	4
13	262398	MANIFOLD, mix	1
37	206966	HOSE, coupled, 1.5 ft	2
38	114339	FITTING, union, swivel, 1/4 npt, sst	4
39	277853	BRACKET, mounting, display module	1
40▲	15X214	LABEL, warning, USB, not shown	1
51	101970	PLUG, pipe, not shown, used to plug unused ports in valve stacks	
		1-Color Models	4
		3-Color Models	6
52	C19798	SCREW, cap, socket head	12
53	111591	WASHER, fan	12
57	120685	GROMMET	2
58	115313	PLUG, tube	2
63	16E883	MODULE, display	1
64	123278	CABLE, IS, CAN, yellow, m std x f rev.	1
68▲	15W776	LABEL, warning	1
82	111307	WASHER, shipped loose, for Display Module	2
83	121224	SCREW, shipped loose, for Display Module	2
87	16F793	CARD, alarm/icon, not shown	1
90	16G607	BUSHING, strain relief	1
101	-----	PLATE, fluid	1
102	114342	ELBOW, 1/4-18 npsm	2
103	289813	METER, gear, G3000	2
104	16F063	SPACER, meter	2
105	15T500	GAUGE, air pressure	1
105a	-----	SCREW, mounting, gauge	6
106	118762	VALVE, ball, vented, 1/2 in.	1
106a	-----	HANDLE, ball valve	1
106b	-----	SCREW	1
106c	-----	WASHER	1
108	-----	VALVE, stack, 3 clr/1 fl, see page 39, 3-Color Models only	1
109	117018	WASHER	4
110	117029	SCREW, M6x25	4
111	501867	VALVE, check	2
112	107404	SCREW, cap, sockethead	2
113	100081	BUSHING, pipe	1
114	C19675	BUSHING, reducer	2
115	15T498	SWIVEL, 90°, 5/32T x 1/8 npt(f)	1
116	C20365	FITTING, tee	1
117	517312	CONNECTOR, male	1
118	258528	HARNESS, cable, w/connector, G3000	2
119	555353	NUT, nylock, 1/4-20	4
120	114153	ELBOW, male, swivel	1
121	158491	FITTING, nipple	1
122	512905	FITTING, bulkhead	1
123	114366	FITTING, tube	1
124	117793	HOLDER, tie	4
209	114124	FILTER, air, 3/8 npt, see page 41 for filter elements.	1
325▲	15W598	LABEL, warning	1

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

Control Box

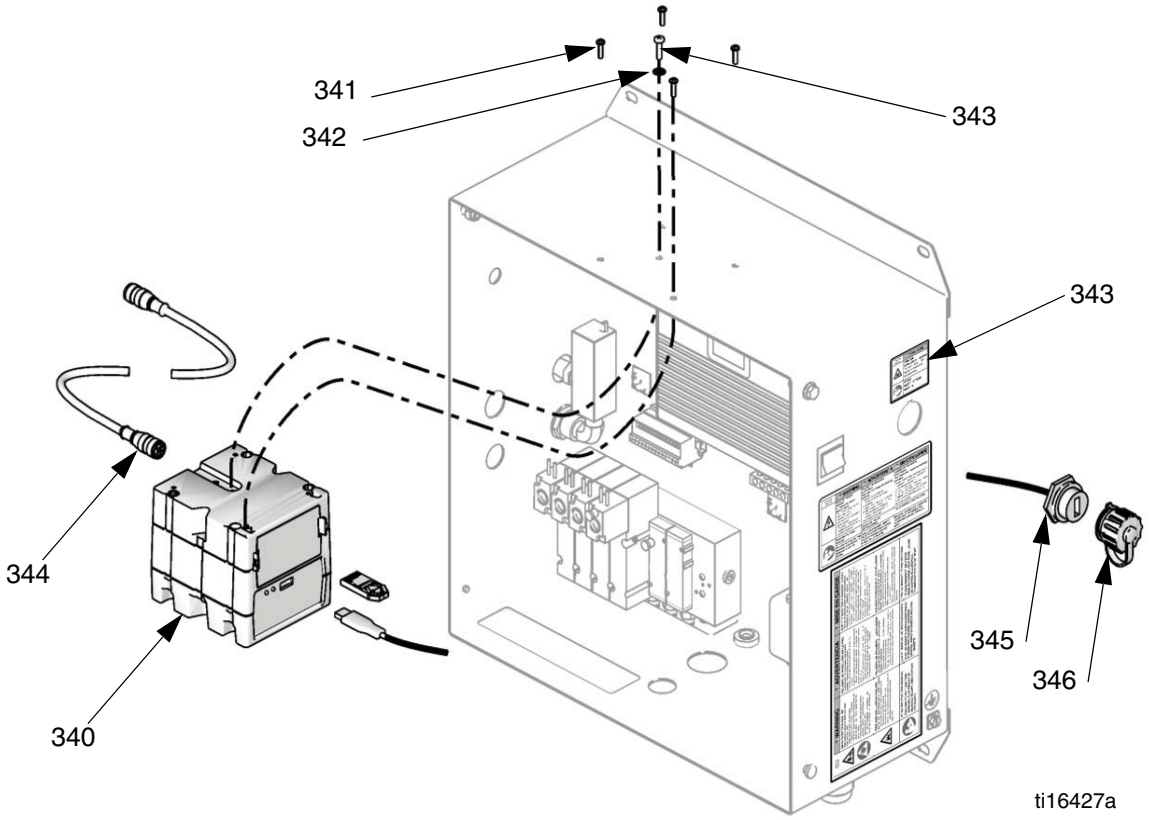


Ref.	Part	Description	Qty.
68▲	15W776	LABEL, warning	1
301	-----	ENCLOSURE, control box	1
302	16F357	MODULE, fluid control	1
302a	103854	SCREWS, access cover, not shown	2
302b	-----	COVER, access, not shown	1
303	110637	SCREW, machine, panhead	4
304	16E943	MANIFOLD, solenoid	1
305	103833	SCREW,	2
306	117356	VALVE, solenoid	4
307	114263	CONNECTOR, male	8
308	100139	PLUG, pipe	4
309	C06061	MUFFLER,	2
310	112698	ELBOW	1
311	122000	ALARM,	1
312	15V778	CABLE, IS, CAN female-female	1
313	113796	SCREW	2
314	-----	PLUG, hole	2
315	102040	NUT, lock, hex	2
316	117625	NUT, locking	1
317	117745	BUSHING, strain relief	1
318	119257	CONNECTOR, bar, ground	1
320	16E890	HARNESS, solenoid/meter	2

Ref.	Part	Description	Qty.
321	24F208	COVER, control box	1
325▲	15W598	LABEL, warning	1
326	116343	SCREW, ground	1
327	223547	WIRE, not shown	A/R
328	112512	FERRULE, wire, orange, not shown	10
329	117793	HOLDER, tie	3
330	121628	SCREW, self-sealing	2
334	16F006	TERMINAL, ring, #2, 24/26, AWG, not shown	2
338	552183	PLATE, solenoid mounting	2
339	111987	CONNECTOR, cord strain relief	1

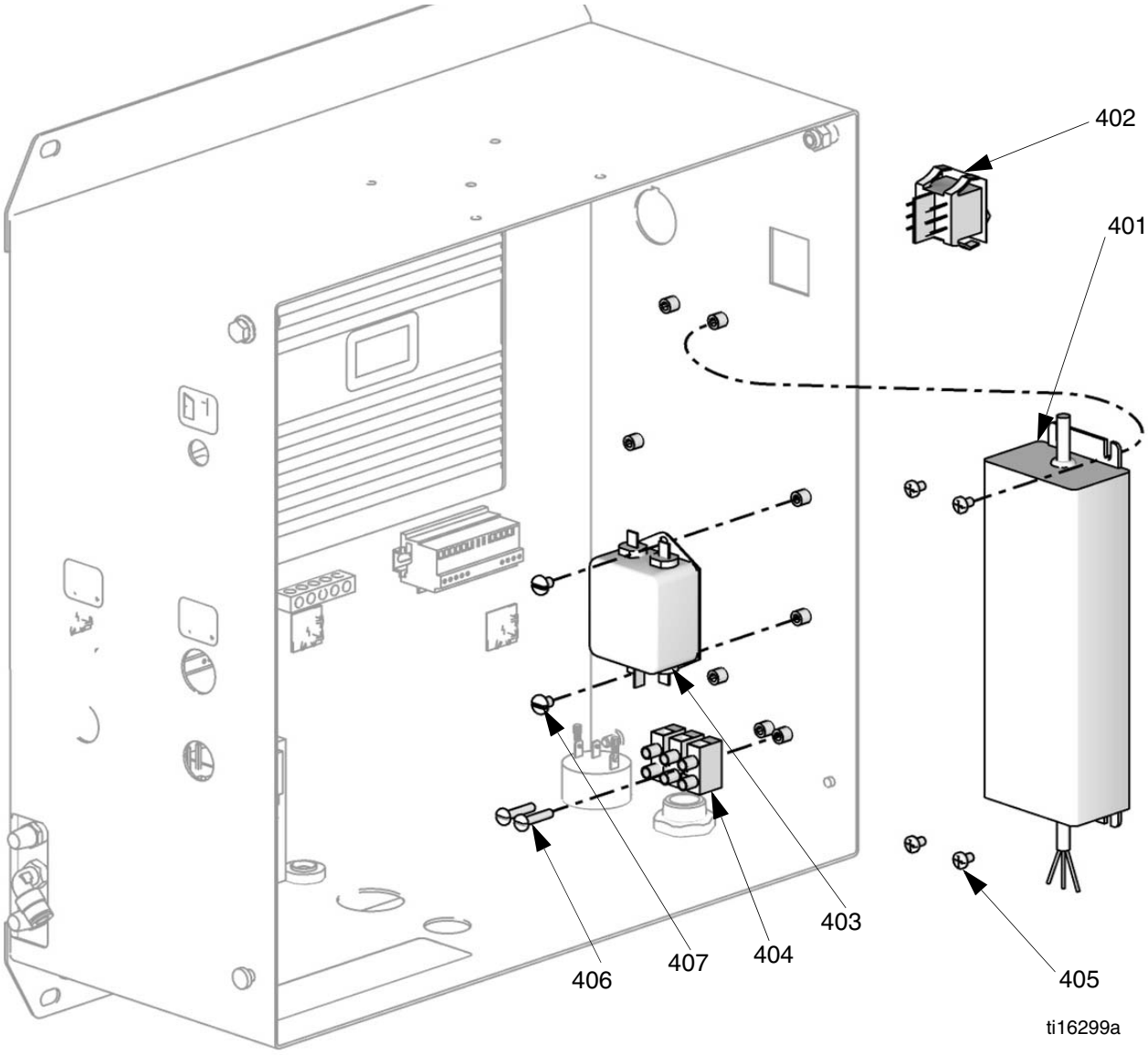
▲*Replacement Danger and Warning labels, tags, and cards are available at no cost.*

USB Module Kit 24H253



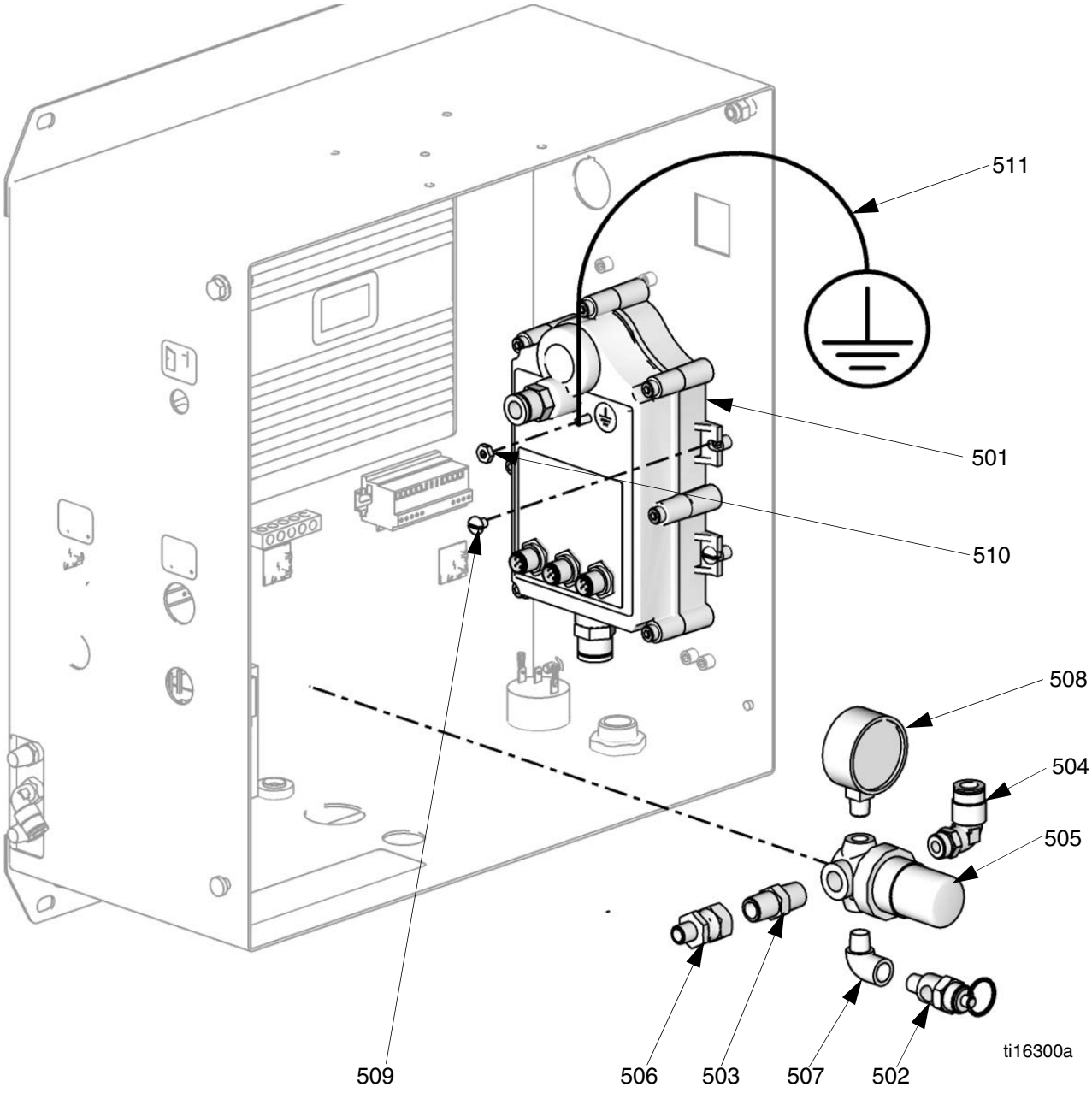
Ref.	Part	Description	Qty.
340	16F358	USB MODULE with TOKEN	1
341	121417	SCREW	4
342	102063	WASHER	1
343	195875	SCREW	1
344	15V782	CABLE	1
345	24H084	USB HARNESS	1
346	15R325	COVER, bulkhead	1
347	15X214	LABEL, warning	1

Electric Power Kit 16G351



Ref.	Part	Description	Qty.
401	15V747	POWER SUPPLY, 24 VDC, 2.5 A, 60 watt, B-code	1
402	116320	SWITCH, rocker, power	1
403	115306	FILTER, power line	1
404	114095	BLOCK, terminal	1
405	112144	SCREW, machine, pan head	4
406	109467	SCREW, machine, pan head	2
407	103832	SCREW, mach	2
408	100139	PLUG, pipe, not shown	1

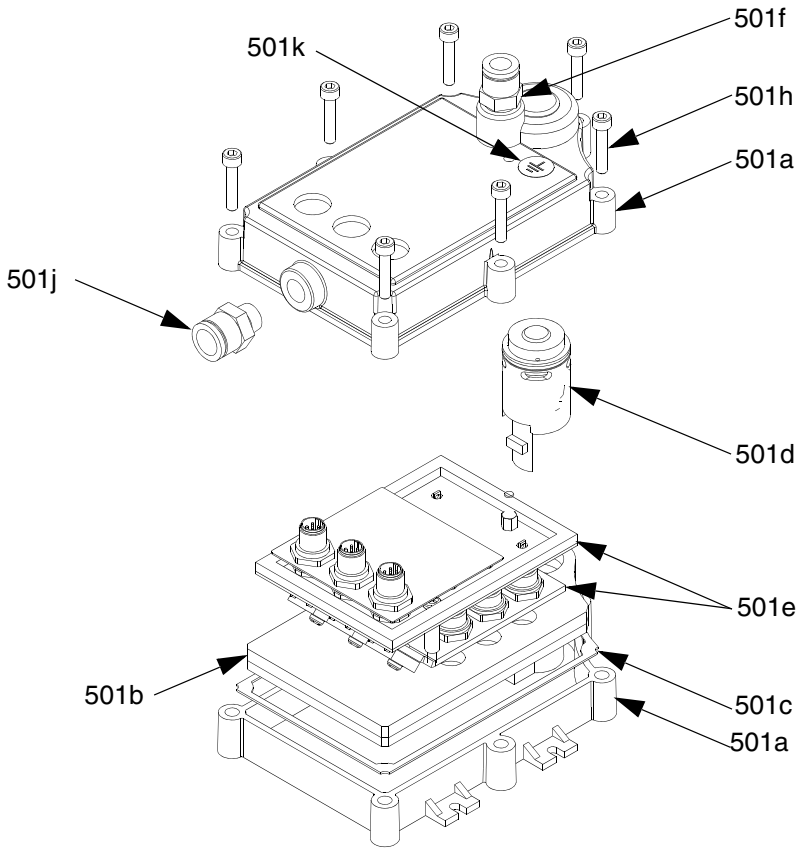
Alternator Power Kit 16G353



Ref.	Part	Description	Qty.
501	255728	ALTERNATOR, module	1
502	15W017	VALVE, safety	1
503	156971	FITTING, nipple, short	1
504	115841	ELBOW	1
505	115243	REGULATOR, air, 1/4 npt	1
506	113915	FITTING, union	1
507	112307	ELBOW	1

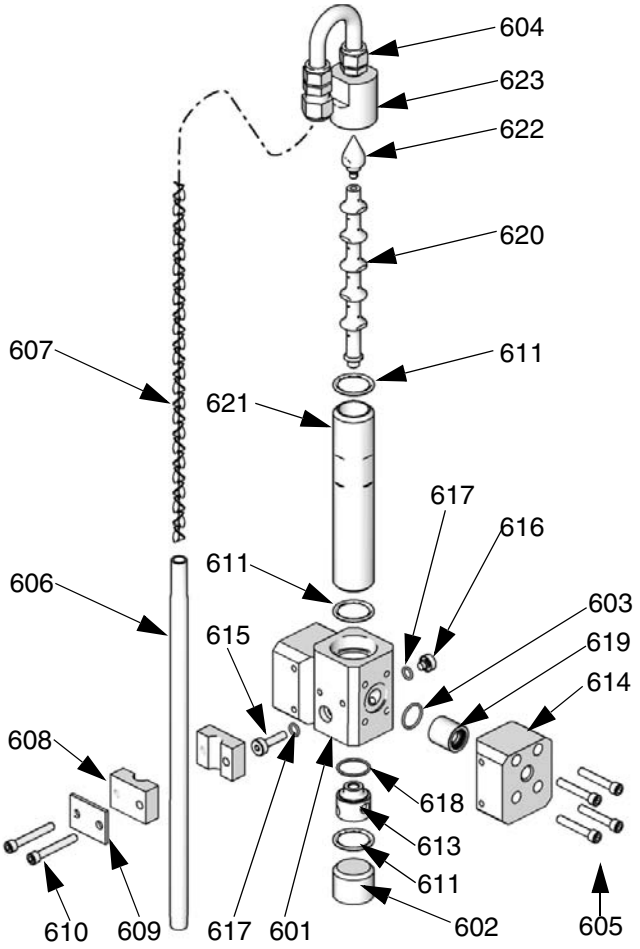
Ref.	Part	Description	Qty.
508	104655	GAUGE, pressure	1
509	103832	SCREW, mach	4
510	100284	NUT, hex	1
511	15B090	WIRE, grounding, door	1
512	112514	FERRULE, not shown	1

Alternator Module



Ref.	Part	Description	Qty.
501a	-----	HOUSING, upper and lower	1
501b	-----	GASKET, stacked, internal	1
501c	-----	GASKET, housing	1
501d	257147	TURBINE	1
501e	-----	BOARD, assy.	1
501f	122161	FITTING, air	1
501g▲	15R337	LABEL, warning, not shown	1
501h	114380	SCREW, cap, socket head	7
591j	122848	FITTING, air	1
501k▲	172953	LABEL, grounding	1

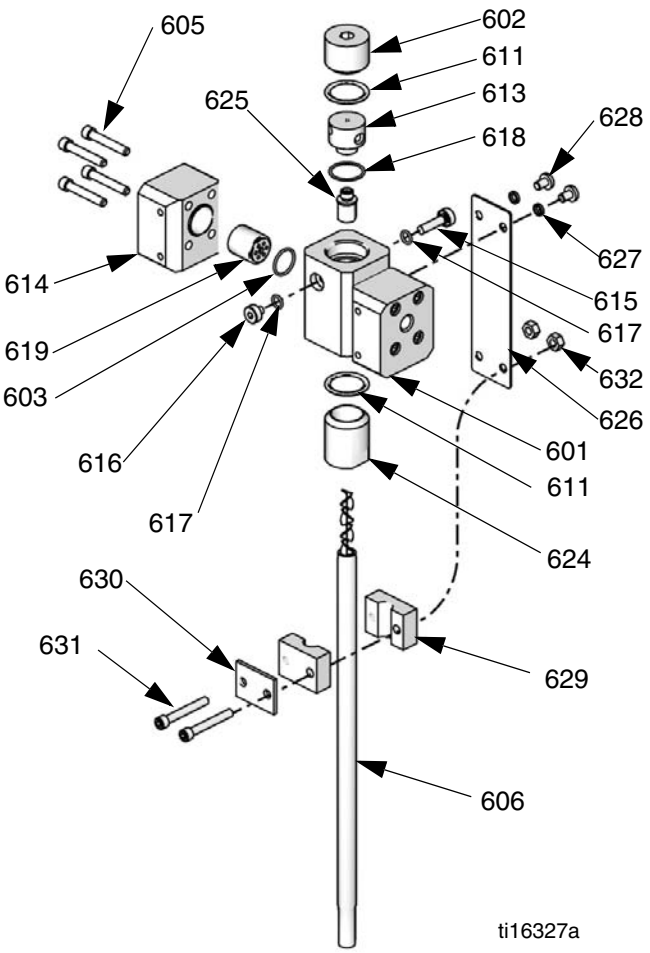
Sequential Dosing Mix Manifold 262398



ti16301a

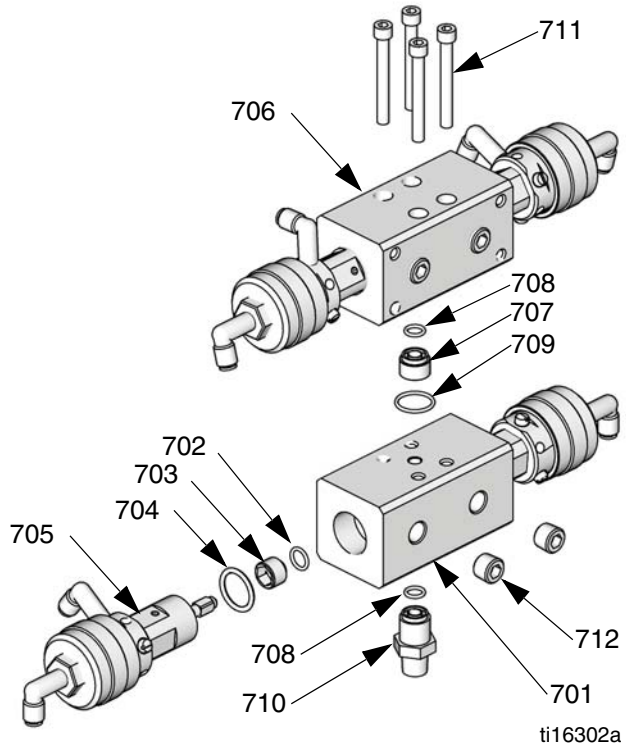
Ref.	Part	Description	Qty.
601	-----	BODY, integrator manifold	1
602	15T592	PLUG, integrator manifold	1
603	-----	O-RING	2
604	118823	TUBE, outlet	1
605	15B588	SCREW, cap, socket hd	8
606	15D430	TUBE, static mixer	1
607	118822	ELEMENT, static mixer	2
608	118830	CLAMP, body, integrator tube	1
609	118831	COVER, clamp, integrator tube	1
610	101885	SCREW, cap, socket hd	2
611	-----	O-RING	3
613	15T943	BASE, integrator	1
614	-----	MANIFOLD, end	2
615	15T748	SEAL, screw	1
616	15T749	SEAL, screw	1
617	-----	O-RING	2
618	-----	O-RING	1
619	16D658	VALVE, check	2
620	15V021	MIXER, integrator, 50cc, includes parts 621-623	1
621	-----	HOUSING, integrator, 50cc	1
622	-----	CAP, mix, integrator	1
623	-----	CAP, integrator	1

Dynamic Dosing Mix Manifold 262399



ti16327a

Ref.	Part	Description	Qty.
601	-----	BODY, integrator manifold	1
602	15T592	PLUG, integrator manifold	1
603	-----	O-RING	2
605	15B588	SCREW, cap, socket hd	8
606	15D430	TUBE, static mixer	1
607	118822	ELEMENT, static mixer	2
611	-----	O-RING	3
613	15T943	BASE, integrator	1
614	-----	MANIFOLD, end	2
615	15T748	SEAL, screw	1
616	15T749	SEAL, screw	1
617	-----	O-RING	2
618	-----	O-RING	1
619	16D658	VALVE, check	2
624	15U955	CAP, injection, 0cc, includes part 625	1
625	-----	RESTRICTOR, injection, 0.070	1
626	16D019	BRACKET, mounting	1
627	105510	WASHER, lock	2
628	100609	SCREW, machine, panhead	2
629	118830	CLAMP	2
630	118831	COVER, clamp	1
631	101885	SCREW, cap, sockethead	2
632	112223	NUT, hex	2



1-Color Valve Stack

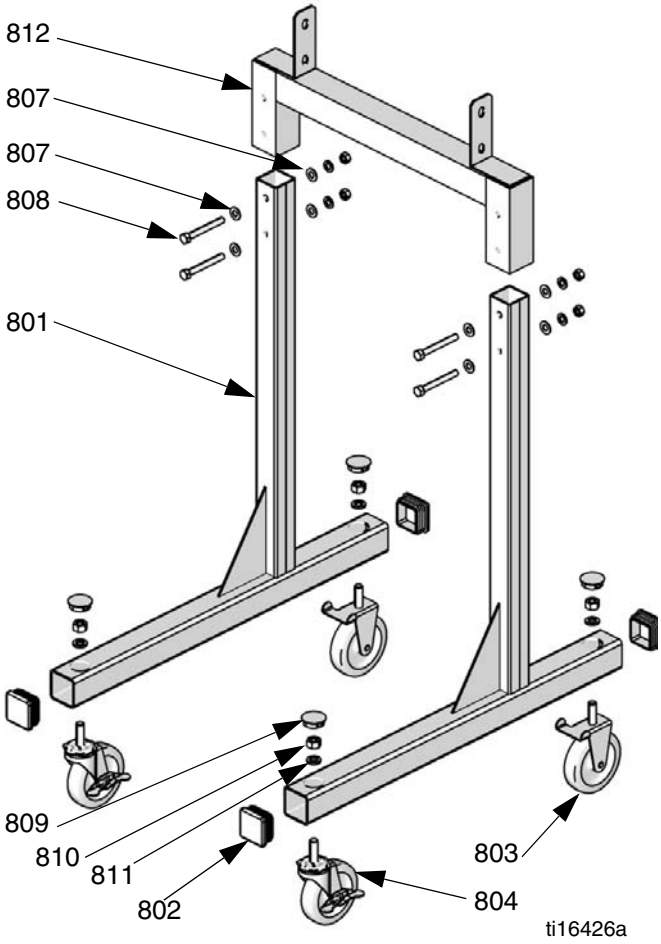
Ref.	Part	Description	Qty.
702*	-----	O-RING	2
703*	-----	RETAINER, seat, dump valve	2
704*	-----	O-RING, PTFE	2
705	15X303	VALVE, dispense	2
706	16F057	MANIFOLD, valve, 1-color	1
708*	-----	O-RING	2
710	16F064	FITTING, CC	1

* *Parts included in Valve Stack Rebuild Kit 24H254.*

3-Color Valve Stack

Ref.	Part	Description	Qty.
701	16F058	MANIFOLD, valve, 3-color	1
702*	-----	O-RING	4
703*	-----	RETAINER, seat, dump valve	4
704*	-----	O-RING, PTFE	4
705	256210	VALVE, dispense	4
706	16F057	MANIFOLD, valve, 1-color	1
707*	-----	SPACER, manifold	1
708*	-----	O-RING	2
709(	-----	O-RING	1
710	16F064	FITTING, CC	1
711	100642	SCREW, cap, socket hd	4
712	101970	PLUG	4

* *Parts included in Valve Stack Rebuild Kit 24H254.*

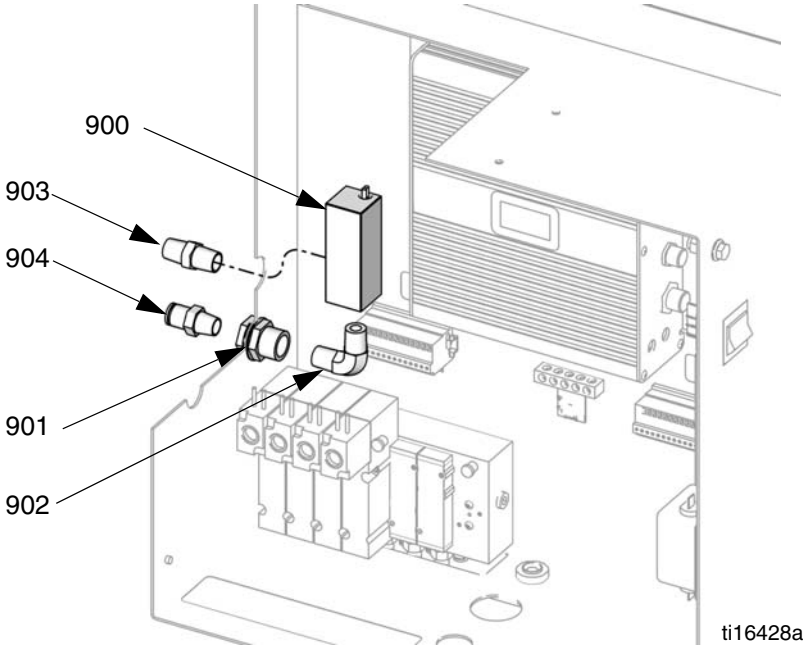


Pump Stand Kit 24F301
Meter Stand Kit 24G611

Ref.	Description	Qty.
801	TUBE, cart	2
802	PLUG, tube	4
803	CASTER, cart	2
804	CASTER, swivel	2
805	NUT	8
806	WASHER	8
807	WASHER	16
808	SCREW, cap, hex hd‘	8
809	PLUG, button	4
810	NUT	4
811	WASHER	4
812	ADAPTER, meter stand only	1

NOTE: Stand parts are not sold separately.

Air Flow Switch Kit 15T632



Ref.	Part	Description	Qty.
900	119159	SWITCH, air flow	1
901	-----	FITTING	1
902	-----	ELBOW, 1/4 npt	1
903	-----	NIPPLE, 1/4 x 1/4 npt	1
904	-----	CONNECTOR, tube	1

Accessories

ProMix 2KE systems are not approved for use in hazardous locations unless the base model, all accessories, all kits, and all wiring meet local, state, and national codes.

Part	Description
USB Module	
16F358	USB Module Kit, see page
Air Flow Switch	
15T632	Air Flow Switch, see page 40
Power Kits	
16G351	Electric Power Kit, see page 35
16G353	Alternator Power Kit, see page 36
Cables	
123278	10 ft (3.05 m), Yellow, IS CAN Cable, male x female
123280	50 ft (15.25 m), Yellow, IS CAN Cable, male x female
15U533	50 ft (15.25 m) IS CAN Cable, Blue, female x female
Air Filter Kits	
15D909	5 micron air filter replacement
15D890	40 micron air filter replacement
248433	5 and 40 micron air filter kit (pump system)
Stand Kits	
24F301	Pump Stand Kit, see page 39
24G611	Meter Stand Kit, see page 39
Dosing Kits	
15V021	50cc Sequential Dosing
24B618	100cc Sequential Dosing
15U955	0cc Dynamic Dosing
Meter Kits	
15V806	1/8 in. Coriolis Kit
16D329	S3000 Solvent Meter Kit
Gun Flush Box	
15V826	Gun Flush Box

Part	Description
Gun Holder Kits (for GFB)	
198787	ProXS2
198405	ProXs3, ProXs4
196768	PRO 3500, 3500hc, 4500
15T646	AirPro Air Spray
196769	Delta Air Spray
196770	Alpha
196771	Alpha Plus, Alpha Plus RAC
15G093	G15
15G346	G40, G40 RAC
Pump Accessory Kits	
256410	Hopper, 1.5 gallon (1 l) polyethylene)
243340	5 gal (18.9 l) pail cover with agitator
222121	Fluid regulator, stainless steel Maximum working pressure: 1500 psi (10.3 MPa, 103 bar) Regulator range: 150 - 1200 psi (1.0-8.2 MPa, 10-82 bar)
24A587	Pump outlet fluid filter, stainless steel, 60 mesh (250 micron), 5000 psi (35 MPa, 350 bar)
256425	Fluid filter drain valve, stainless steel, 5000 psi (35 MPa, 350 bar)
224458	Fluid filter screen element, 3-pack, 30 mesh, stainless steel
224459	Fluid filter screen element, 3-pack, 60 mesh, stainless steel
24A954	55 gal Drum Suction Hose and Strainer, 3/4 in. fluid inlet
24B598	55 gal Drum Suction Hose and Strainer, 1 in. fluid inlet
24B337	Stand Mount Suction Hose, PTFE lined, 3/4 in. inlet
24B338	Stand Mount Suction Hose, PTFE lined, 1 in. inlet
24B424	Wall Mount Suction Hose, PTFE lined, 3/4 in. inlet
24B425	Wall Mount Suction Hose, PTFE lined, 1 in. inlet

Technical Data

Maximum fluid working pressure	See **Models**, page 3.
Maximum working air pressure	100 psi (0.7 MPa, 7 bar)
Air supply	75 - 100 psi (0.5 - 0.7 MPa, 5.2 - 7 bar)
Air filter inlet size	3/8 npt(f)
Air filtration for air logic (Graco-supplied)	5 micron (minimum) filtration required; clean and dry air
Air filtration for atomizing air (user-supplied)	30 micron (minimum) filtration required; clean and dry air
Mixing ratio range	0.1:1- 30:1
On-ratio accuracy	up to ± 1%, user selectable
Fluids handled	one or two component: • solvent and waterborne paints • polyurethanes • epoxies • acid catalyzed varnishes • moisture sensitive isocyanates
Viscosity range of fluid	20- 5000 cps
Fluid filtration (user-supplied)	100 mesh minimum
Fluid flow rate range	
G3000, G250 Meter	75 - 3800 cc/min. (0.02-1.00 gal./min.)
G3000HR, G250HR Meter	38 - 1900 cc/min. (0.01-0.50 gal./min.)
Coriolis Meter	20 - 3800 cc/min. (0.005-1.00 gal./min.)
S3000 Solvent Meter (accessory)	38 - 1900 cc/min. (0.01-0.50 gal./min.)
Fluid inlet sizes	
Flow Meter	1/4 npt(f)
Dose Valve/Color Valve Adapters	1/4 npt(f)
Fluid outlet size (static mixer)	1/4 npt(f)
External Power Supply Requirements	85 - 250 Vac, 50/60 Hz, 2 amps maximum draw 15 amp maximum circuit breaker required 8 to 14 AWG power supply wire gauge
Operating temperature range	41- 122° F (5-50° C)
Approximate Weight	
Meter Systems	200 lb (91 kg)
Pump Systems	300 lb (136 kg)
Environmental Conditions Rating	indoor use, pollution degree (2), installation category II
Noise Level	
Sound pressure level	below 70 dBA
Sound power level	below 85 dBA
Wetted parts	303, 304 SST, Tungsten carbide (with nickel binder), perfluoroelastomer; PTFE

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.

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Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

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