



This manual contains important warnings and information.
READ AND KEEP FOR REFERENCE.

INSTRUCTIONS

ELECTRIC, 120 VAC

ULTRA[®] 750, 1000 AIRLESS PAINT SPRAYER

Motor Replacement Kit

GENERAL REPAIR INFORMATION

WARNING



INJECTION HAZARD

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- or install or clean the spray tip.

CAUTION

To reduce the risk of a pressure control malfunction:

- Always use needle nose pliers to disconnect a wire.
- Mate wire connectors properly. Be sure the flat blade of the insulated male connector is centered in the wrap-around blade of the female connector.
- Route wires carefully through the center of the U-shaped bourdon tube to avoid interference with the movement of the bourdon tube. Also avoid interference from the circuit board and between the pressure control and cover.

Pressure Relief Procedure

1. Engage the gun safety latch.
2. Turn the ON/OFF switch to OFF.
3. Unplug the power supply cord.
4. Disengage the gun safety latch. Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.
5. Engage the gun safety latch.
6. Open the pressure drain valve. Leave the pressure drain valve open until you are ready to spray again.

If you suspect that the spray tip or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen the tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Now clear the tip or hose obstruction.

Tool List

Phillips screwdriver	1/4 in. hex key wrench
Small flat blade screwdriver	3/16 in. hex key wrench
Needle nose pliers	5/8 in. socket wrench
Plastic mallet	3/8 in. open end wrench
Adjustable wrench	1/2 in. open end wrench
Adjustable, open-end wrench	3/4 in. open end wrench
Torque wrench	7/8 in. open end wrench
	High quality motor oil
	Bearing grease

GENERAL REPAIR INFORMATION

1. **Keep all screws, nuts, washers, gaskets, and electrical fittings** removed during repair procedures. These parts are not normally provided with replacement assemblies.
2. **Test your repair before regular operation** of the sprayer to be sure the problem is corrected.

WARNING

To reduce the risk of serious bodily injury, including electric shock, **DO NOT** touch any moving parts or electrical parts with your fingers or a tool while inspecting the repair.

Shut off the sprayer and unplug it as soon as you complete the inspection.

Reinstall all covers, gaskets, screws and washers before operating the sprayer.

3. **If the sprayer does not operate properly**, review the repair procedure again to verify that everything was done correctly.

CAUTION

Do not run the sprayer dry for more than 30 seconds to avoid damaging the pump packings.

4. **Reinstall the motor shield before regular operation** of the sprayer and replace it if it is damaged. The cover directs cooling air around the motor to help prevent overheating. It can also help reduce the risk of burns, fire or explosion; see the **WARNING**, below.

WARNING

During operation, the motor and drive housing become very hot and could burn your skin if touched. Flammable materials spilled on the hot, bare motor could cause a fire or explosion. Always have the motor shield in place during regular operation to reduce the risk of burns, fire or explosion.

MOTOR REPLACEMENT

WARNING



INJECTION HAZARD

To reduce the risk of serious injury, follow the illustrated **Pressure Relief Procedure** warning on page 1 whenever you are instructed to relieve pressure.

NOTE: Read the **GENERAL REPAIR INFORMATION** on page 1 before doing this procedure. See Fig 1.

1. Relieve the pressure.
2. Remove the shield (59).
3. Remove the cover (63) from the pressure control. Disconnect the four motor leads (A).
4. Loosen the nut (345) at the pressure control (75).
5. Swing the conduit (1) away from the elbow (31).
6. Remove the seal (29) from around the elbow coming into the pressure control. Pull the electrical leads through the elbow, one at a time.

CAUTION

Always pull the motor leads one at a time to avoid loosening the terminals which could result in poor sprayer performance.

7. Loosen the nut (31) at the motor. Pull the conduit (1) away from the motor. Pull the electrical leads through the conduit, one at a time.
8. Unscrew the elbow from the motor.
9. Pull the wires through the elbow, one at a time.
10. Remove the cover (49) from the drive housing.

11. Remove the two screws (26).
12. Remove the two lower screws (13) and then remove the two upper screws (16) from the front of the motor (73).
13. Tap the drive housing (67) with a plastic mallet to loosen it from the front of the motor (73). Pull the drive housing straight off of the motor.

CAUTION

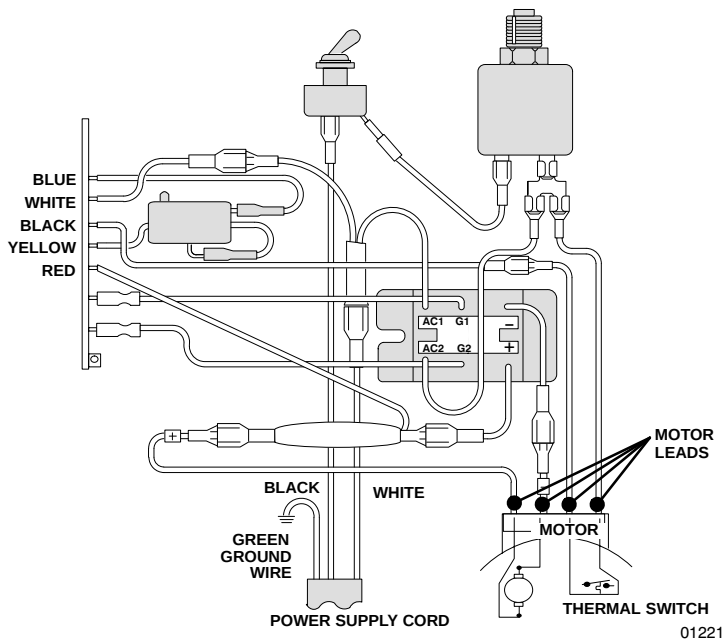
Do not allow the gear cluster (51) to fall when removing the drive housing (67). It is easily damaged if dropped.

Do not lose the thrust balls (9) located at each end of the gear cluster (51). The balls are heavily covered with grease and usually stay in the gear recesses, but they could be dislodged. If the balls fall into the gears and are not removed, the balls will damage the drive housing. If the balls are not in place, the bearings will wear prematurely.

14. Support the motor (75) to keep the sprayer from tipping. Remove the four screws (8). Lift off the motor.
15. Install the new motor (75).
16. Apply 4 ounces (112 grams) of grease to the gear (51). Be sure the balls (9) are in place.
17. Place the bronze-colored washer (67b) and then the silver-colored washer (67a) on the shaft protruding from the big gear in the drive housing (67).
18. Push the drive housing back onto the sprayer.
19. Start at step 12 and proceed backward to reassemble sprayer.

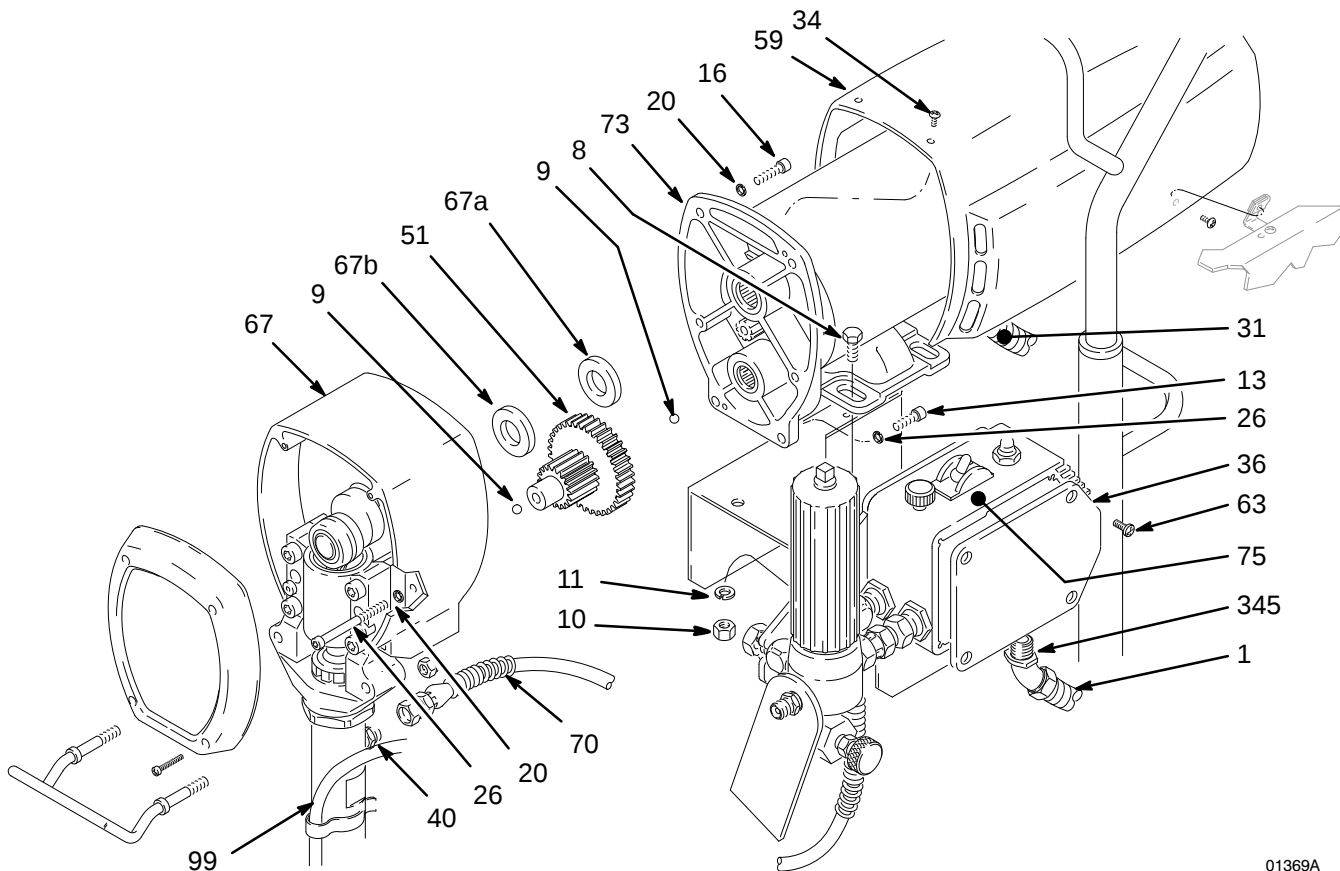
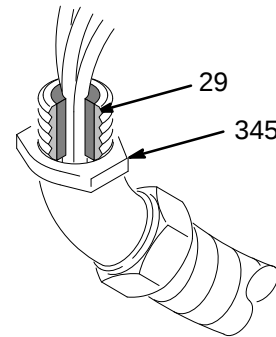
MOTOR REPLACEMENT

WIRING DIAGRAM



DETAIL

Shows position of conduit seal (29) in conduit connector (345)



01369A

Fig. 1

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