

# **OPERATING MANUAL**

# SPRAY GUN & PRESSURE POT CLEANERS UG4000 & UG6000 SERIES, UPP6500E

# **PATENTS**

USA	4,788,836	CANADA
USA	5,213,117	ENGLAND
<b>EUROPE</b>	0300248	ITALY
SWEDEN	0300248	GERMANY
FRANCE	8110528.0	JAPAN

**UNI-RAM CORPORATION • ONTARIO • CANADA** 

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#### INTRODUCTION

Uni-ram holds many patents on designs used in its innovative products. Every machine is rigorously tested for compliance with stringent Quality Assurance standards. Follow the directions in this manual under Setup, Operation and Maintenance in order to operate this machine safely and effectively. Not following these instruction can lead to malfunction or damage to the machine. Follow directions under the section below, Cautions and Warnings and on labels attached to the machine. Ensure that the manual is readily available for the operator at all times. If you have any questions about the operation of this machine, call your distributor or a Uni-Ram Service Engineer.

North America: Uni-ram Technical Service 1-800-417- 9133 Other Continents: Contact Your Supplier

#### **CAUTIONS AND WARNINGS**

- Always disconnect this machine from power sources before performing maintenance
- Do not smoke or use near open flames, sparks or heat.
- · Ground pails and cabinet using supplied grounding wires

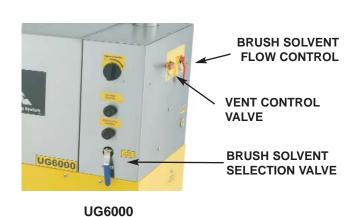
#### **FEATURES BY MODEL**

MODEL	4000DV M	4000D	4000E	4500E	6000E	6000EH	UPP6500E
TANK SIZE (W X D H")	17.25 X 13.5 X 15 20		20 X 17 X	15			
AUTOMATIC WASH	•	•	•	•	•	•	•
AUTOMATIC AIR FLUSH	•	•	•	•	•	•	•
AUTOMATIC SOLVENT RINSE	•	•	•	•	•	•	•
AUTOMATIC FUME VENTING	•	•	•	•	•	•	•
FUME VENT CONTROL					•	•	•
HOSE CLEANING				•		•	•
MANUAL RINSE WITH BRUSH	•	•	•		•	•	•
BRUSH FLOW CONTROL					•	•	•
CHOICE OF MAN WASH SOLVENT					•	•	•
COMBO READY			•	•	•	•	•
INCLUDES PAILS		1	2	2	2	2	2
INCLUDES AIR LINE FOR RECYCLER			•		•	•	•
MANUAL WASH WITH SPIGOT							
TANK MATERIAL	Stainless Steel						
LID MATERIAL	Stainless Steel						
ITEMS CLEANED	2 GUNS				POT & LID		
NO. OF JETS	14				18		
RINSE PUMP	Metering Pump (1ng Pump (100cc)						
SHIP WEIGHT LB/KG	77/35		90/41	80/36.4	115/48	115/48	115/48
SHIP SIZE (W x D x H")	28 x 17 x 42 30 X 20 X		30 X 20 X	45			

### **STRUCTURE**







#### **SETUP**

#### INSPECTION

- Inspect the shipping carton for signs of damage. It is your responsibility to report damage to the
  transport company. Uni-ram Corporation does not accept responsibility for shipping damage
  once the machine has left our warehouse. Keep the packaging materials until you are sure the
  machine has not been damaged during shipping.
- Remove the machine from the carton by opening the bottom flaps and sliding the carton up over the machine.
- Make sure the bag of accessories contains the following:
  - Manual
  - Trigger Clamp and Plug Kit, 2 pieces (Part No. 140-2340)
  - Nozzle Adapters, 1 each of 2 kinds (Part No. 110-430 and 110-430SA)

If any item is missing, contact your supplier.

#### **LOCATION**

Position in a well-ventilated area away from sparks, heat and open flames.

#### LEVELING, VENT AND AIR SUPPLY

- Level the machine using the adjustable legs.
- For vented models only, attach a vent hose (not supplied) to the vent outlet on top of the machine. The duct system must not be under continuous vacuum.
- To stop or vary the rate of solvent venting from the tank upon opening, use the Vent Control Valve on the side of the unit.
- Remove the cover on the "Air Input" (right side of machine) and attach an air supply adapter (not supplied).

The air supply pressure must be at least 85 PSI and the air must be free from contaminants such as water, dust, rust, tar, grease etc.

To prevent damage to the Diaphragm Pump an internal Air Pressure Regulator has been installed to limit the air pressure to precisely 85 PSI. Do not install a second air pressure regulator or use a pressure set below 85 PSI.



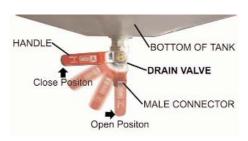
#### SOLVENT SELECTION

The adhesion quality of automotive paint has dramatically improved in recent years. The choice of solvent is critical. Only use good quality solvent that is formulated for your paint and intended for use with automatic spray guns cleaners.

#### **SOLVENT PAIL SETUP**

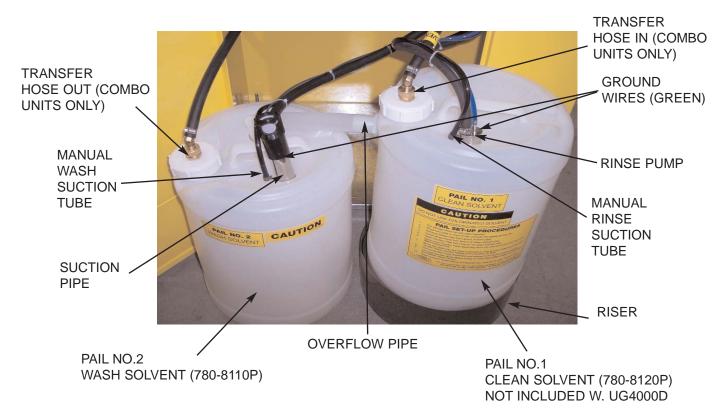
#### For Units Where One or Both Pails are Not Included

- Open the door to the base cabinet
- Move the Drain Valve handle to the "closed" (horizontal) position if it is not already there. See picture on right.
- Two 5-Gal (19 L) pails of solvent are required, one full and one containing 3 gal. Place the pails in front of the machine, full pail on the right and the other pail on the left.



**Drain Valve** 

- Inside the cabinet you will see two pipes strapped together, the Suction Pipe and the Rinse Pump. Cut the strap holding them together. Do not cut the other straps holding the black and blue tubes.
- Disconnect the Suction Pipe from the Drain Valve by pushing the gray button and bring both pipes outside of the cabinet.
- Insert the Rinse Pump into the full pail on the right and the Suction Pipe into the pail with 3 gal on the left. Models with a Manual Wash brush also have a tube to supply the brush. The tube must be inserted through the lid of the left (wash) pail. Models with a Manual Rinse feature have another tube which needs to be inserted through the lid of the right (rinse) pail.
- Move the pails into the cabinet and re-connect the Suction Pipe of the left pail to the Drain Valve.



SOLVENT PAIL SETUP - PLASTIC PAILS

For Units Where Pails are Included (see below and next page)

#### SOLVENT PAIL SETUP (continued)

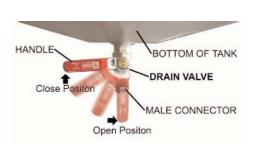
For Units Where Pails are Included (see picture on previous page)

#### **PLASTIC PAILS**

- Disconnect the Suction Pipe (if not already disconnected) from the Drain Valve (make sure it is in the closed, horizontal, position) by pressing the button and pulling down.
- Bring out PAIL NO.2 and remove the Suction Pipe (and Manual Wash Suction Tube if there is one).
- Bring out PAIL NO. 1 and remove the Caps from both pails.
- Fill PAIL NO. 2 with 3 about Gal (11 L) of clean solvent.
- Fill PAIL NO. 1 with 5 about Gal (19 L) of clean solvent (about 1" below the overflow pipe).
- Re-install the Caps onto the pails (the one with the tube goes on PAIL NO. 2).
- Put PAIL NO. 1 and the Riser back into the cabinet.
- Re-insert the Suction Pipe (and Manual Wash Suction Tube if there is one) into PAIL NO. 2
- Put PAIL NO. 2 back into the cabinet and re-insert the Overflow Pipe.
- Re-connect the Suction Pipe to the Drain Valve by pressing the button and pushing up.
- Turn the Drain Valve handle to the open position (vertical) and close the Door.

#### METAL PAILS - OPTIONAL (see picture below)

- Place two pails in front of the unit with the labels facing you and remove caps from both pails.
- Pour 5 Gal (19 L) of solvent into Rinse Solvent Pail and 3 Gal (11 L) into Wash Solvent Pail.
- Turn Handle of Drain Valve to closed (horizontal) position and disconnect the Suction Pipe (if not already disconnected) by pressing the button and pulling down.
- Bring Rinse Pump and, if present, Manual Wash Suction Tube to outside of Base Cabinet.
- Insert the Suction Pipe into the Wash Pail and the Rinse Pump into the Rinse Pail.
- If present, insert Manual Wash Suction Tube into the hole of Rinse Solvent Pail.
- Place the Solvent Pails inside the base cabinet and re-connect the Suction Pipe to the Drain Valve by pressing the button and pushing up. Turn the handle to the open position (vertical).
- Connect Solvent Transfer Hose to the hose barb of Wash Solvent Pail and secure with Hose Clamp supplied.





**SOLVENT PAIL SETUP - METAL PAILS** 

Turn Handle of Drain Valve to open (vertical) position and close Cabinet Door.

#### **GROUND WIRE INSTALLATION**

Three ground wires are provided to discharge static electricity. To work properly, all three must be installed correctly. Connect the ground wire at the back of the cabinet to an external grounded object. On some models ground wires are already connected to the rinse pump and suction pipe. On other models connect the two wires inside the cabinet to the pails, one to each.

#### **OPERATION**

#### **PRE - CLEAN**

- Disconnect the spray gun from the air hose. Pour paint from the cup (when present) into a 5 gallon pail (not supplied).
- Rinse cup with solvent and pour into the same 5 gallon pail for later disposal or recycling.

#### **CLEANING SPRAY GUNS AND CUPS**

- Loosen the air cap of the spray gun two full turns.
- Lock the trigger in the open position with the Trigger Lock Spring.
- Plug air inlet of spray gun with cap to prevent solvent from entering passage. Caps are supplied
  in the accessory kit.
- Place spray guns facing corner jets. Placement depends on **type of spray gun**. See pictures below. Place cups onto the low spray jets and cup holders.

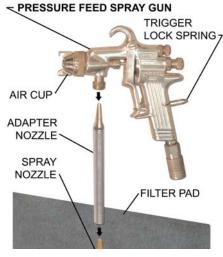
**Note:** Gravity Feed Spray Gun: Some customers prefer to clean the cup separate from the spray gun.

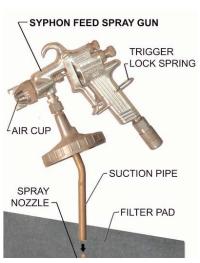
- Close the lid and turn the "Auto Wash Timer" knob clockwise to start cleaning. The cleaning cycle takes about 60 seconds
- Push and hold the "Air Rinse" button for about 3 second to air-rinse the guns.
- Push and hold the "Clean Rinse" button for about 5 seconds to rinse guns with clean solvent. This will send a pre-set amount of clean solvent (100 cc) through the jets. Wait 30 seconds for the Rinse Pump to fully recharge before repeating.

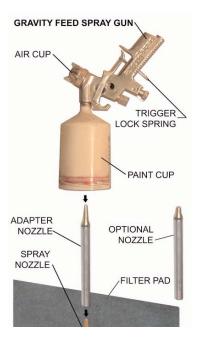
The solvent flow per clean-rinse cycle is limited to 100 cc to minimize consumption. This quantity is usually sufficient to clean the inside passages of the spray guns.

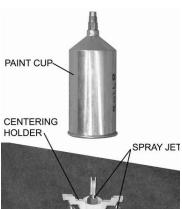
#### CLEANING PRESSURE POTS AND LIDS (UPP6500E only)

• To clean the pressure pot and lid separately, place them one at a time over the extended rotating spray assembly and follow the same procedures as above.









#### **USING THE MANUAL WASH and MANUAL RINSE FEATURES**

- For models with the Manual Wash brush, open the lid and step on the foot pedal (left pedal on two-pedal models). A dedicated pump delivers wash solvent through the brush.
- For models with the Manual Rinse feature, open the lid and step on the foot pedal (right pedal on two-pedal models). Clean solvent is delivered through the brush.

  Solvent flow through the rinse brush is limited to minimize clean solvent consumption.

#### **ADDITIONAL FEATURES - UG6000 SERIES**

- Larger Tank size.
- To choose between wash solvent and clean solvent, use the Brush Solvent Selector on the front of the unit.
- To vary the rate of solvent flow through the Brush, use the Brush Solvent Flow Control on the side of the unit.

#### **HOSE CLEANING**

- Models with this feature can be used to clean a paint feeder hose up to 100 feet (30 m) long.
   Connect the hose to the two fittings, one on the front and one on the right side. Rotate the "Mode Selector" handle to the horizontal position and turn the Timer knob clockwise to start the automatic cleaning cycle.
- To air-rinse the hose, push and hold the "Air Rinse" button.
- To rinse the hose with clean solvent, push and hold the "Clean Rinse" button for about 5 seconds. This will use about 100 cc of clean solvent. Wait 30 seconds for the Rinse Pump to fully recharge before repeating.
- Disconnect the hose.

#### AFTER CLEANING

 Remove the guns and cups from the tank and wipe them dry. Do not store spray guns in the tank.

#### **DAILY MAINTENANCE**

#### **FILTER PADS AND SCREEN**

- Inspect the filter pad located in the tank of the gun cleaner and clean it if there is a build up of paint debris. Clean by removing the filter pad and washing away paint particles with clean solvent. Replace the filter pad when damaged or when solvent cannot drain.
- Inspect the screen, located below the filter pad and clean when necessary.

#### REPLACING SOLVENT

For units with customer supplied pails

- Disconnect the Suction Pipe from the Drain Valve and remove the pipe from the pail. Move the pail out of the cabinet and recycle or dispose of the wash solvent.
- Remove the Rinse Pump from the other pail, move the pail out of the cabinet and locate on left side for use with the suction pipe.
- Place a new, full-pail of clean solvent on the right side in front of the cabinet.
- Insert the Rinse Pump into the full pail on the right and the Suction Pipe into the half-full pail on
  the left. Models with a Manual Wash brush also have a tube to supply the brush. The tube must
  be inserted through the lid of the left (wash) pail. Models with a Manual Rinse feature have
  another tube which needs to be inserted through the lid of the right (rinse) pail.
- Move the pails into the cabinet and re-connect the Suction Pipe of the left pail to the Drain Valve.

For units where pails have an overflow pipe:

Follow instruction under SET UP for solvent pails.

# TROUBLESHOOTING CHART

SYMPTOM	REASON	CORRECTIVE ACTION
WASH SOLVENT DOES NOT FLOW AND PUMP MAKES A NORMAL PUMPING SOUND	<ul> <li>Drain valve closed</li> <li>Solvent level too low</li> <li>Paint debris in pump or blockage in solvent line</li> </ul>	After Each Step Below, Turn Timer. If solvent does not flow, carry out next step.  Open drain valve (put in verti- cle position), if not already open  Check wash solvent level. Add solvent if less than 1/2 full.  Follow Procedure 1, Blocked Fluid Passage in Diaphragm Pump.
WASH SOLVENT DOES NOT FLOW AND PUMP MAKES A HISSING SOUND	Water in air line causes pump to stall	Follow Procedure 2, Blockage in Air Passage in Diaphragm Pump
WASH SOLVENT DOES NOT FLOW AND PUMP DOES NOT MAKE A SOUND	Pump leaks     Blockage in air passage	Replace pump     Follow Procedure 3, Blocked Passage in Air Line
PUMP DOES NOT STOP UNLESS TIMER IS TURNED BY HAND OR AIR IS SHUT OFF	Defective timer	Replace timer
TIMER KNOB SPINS BACK WHEN TURNED	Defective timer	Replace timer
INSIDE WALL OF TANK IS COATED WITH PAINT EVEN THOUGH OPERATOR MAINTAINS TANK	Solvent lacks cleaning strength	Replace solvent with solvent that is formulated for type of paint used and for use with automatic spray gun cleaning

# TROUBLESHOOTING CHART

SYMPTOM	REASON	CORRECTIVE ACTION		
CLEANING PROBLEMS				
GUNS NOT CLEAN, PUMP WORKING,		After Each Step Below, Turn Timer. If guns are not clean, carry out next step.		
SOLVENT FLOW NORMAL	Trigger not locked in open position	Use Trigger Lock Spring		
	<ul> <li>Spray gun is not properly installed on to nozzle</li> </ul>	Re-install with proper adapter		
	Incompatible solvent	<ul> <li>Replace incompatible solvent with solvent formulated for type of paint used and for Automatic Spray Gun Cleaners.</li> </ul>		
	Low pressure in air supply	Increase air pressure to a minimum of 85 PSI		
	Plugged jets	<ul> <li>Remove and clean by blowing air through the jets. If not successful, replace.</li> </ul>		
GUNS NOT CLEAN, WASH SOLVENT IS MILKY WHITE	Wash solvent is contaminated with water	Replace or recycle wash solvent		
CLEAN RINSE DOES NOT WORK	Not enough solvent in clean rinse pail (right side)	See Section "REPLACING SOLVENT"		
	Rinse Pump is leak- ing from a crack caused by corrosion due to acidic or chlo- rine-contaminated solvent	Replace rinse pump		
	Clean Rinse Air Valve is defective	Follow Procedure 3 , Blockage in Air Line for air rinse valve only.		
CLEAN RINSE IS DIRTY	Faulty Combination Valve	Replace Combination Valve.		

#### TROUBLESHOOTING PROCEDURES

#### **PROCEDURE 1**

#### **Blocked Fluid Passage In Diaphagm Pump**

If the pump sounds like it is working but liquid does not flow, clear the fluid passage as follows:

• Remove suction tube from the pail and blow air at 85 PSI into the INLET Sovent Hose (see diagram). Step on foot pedal. This procedure may have to be repeated several times. If this procedure does not help, blow some water into the suction hose using a spray gun, wait one minute and step on foot pedal. This procedure may have to be repeated several times. If this procedure does not work, the pump must be replaced.

If you need to replace the pump call your local dealer. The warranty on the diaphragm pump is two years from date of purchase.



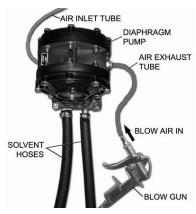
This procedure will also clear a blockage in the fluid line for the wash gun.

#### **PROCEDURE 2**

#### **Blocked Air Passage In Diaphragm Pump**

If there is a steady hissing sound and the pump is not cycling, the spool valve has stalled due to a blocked air passage. Follow the procedure below to clear the blockage.

- Connect a blow gun to an 85 PSI source. Locate the blue hose that extends from the air exhaust port of the diaphragm pump. Use a blow gun to blow air into the open end of this hose. Turn timer. If the procedure is successful, the pump will start working. The procedure may have to be repeated several times. If this procedure does not work, replace the pump.
- Cause: Contaminants in the air supply (water, oil, solid particles etc)
- Preventative Action: If necessary, install an Airline (Moisture)
   Filter.



#### **PROCEDURE 3**

#### **Blocked Passage in Air Line**

The components in the air line are the diaphragm pump, air valve, foot pedal, 3-way ball valve and regulator. See the Flow Diagram and the section: Replacement Parts.

To troubleshoot a component:

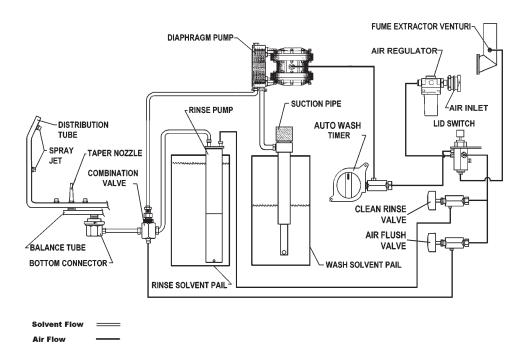
- 1) Disconnect the air line to the component using the guick disconnect.
- 2) Step on foot pedal and check for presence of positive air pressure in the air line. If there is ample positive air pressure, replace the component.

If air pressure is absent, there is a faulty component upstream. Reconnect the air line and check the operation of the next component upstream by following steps 1 and 2 above.

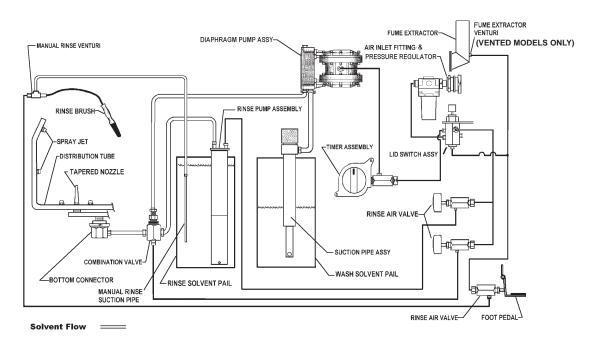
#### **FLOW DIAGRAMS**

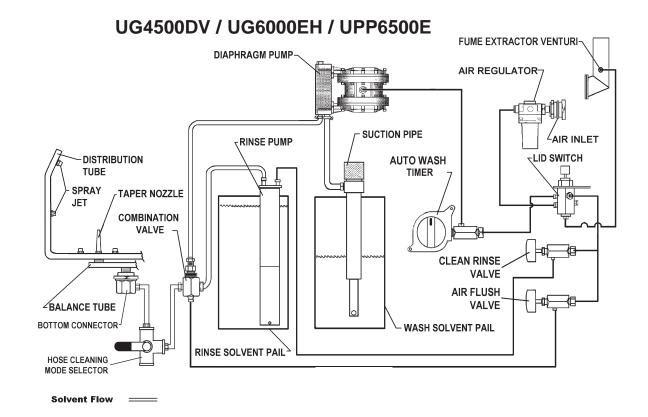
Use the diagrams to trace the flow of compressed air and solvent.

# **UG4000DV**

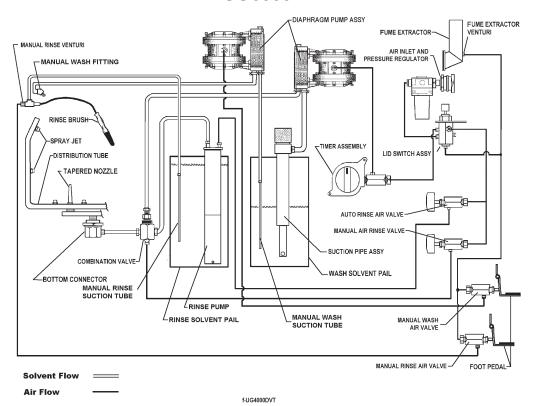


### UG4000DVM / DAM / DA / D / E

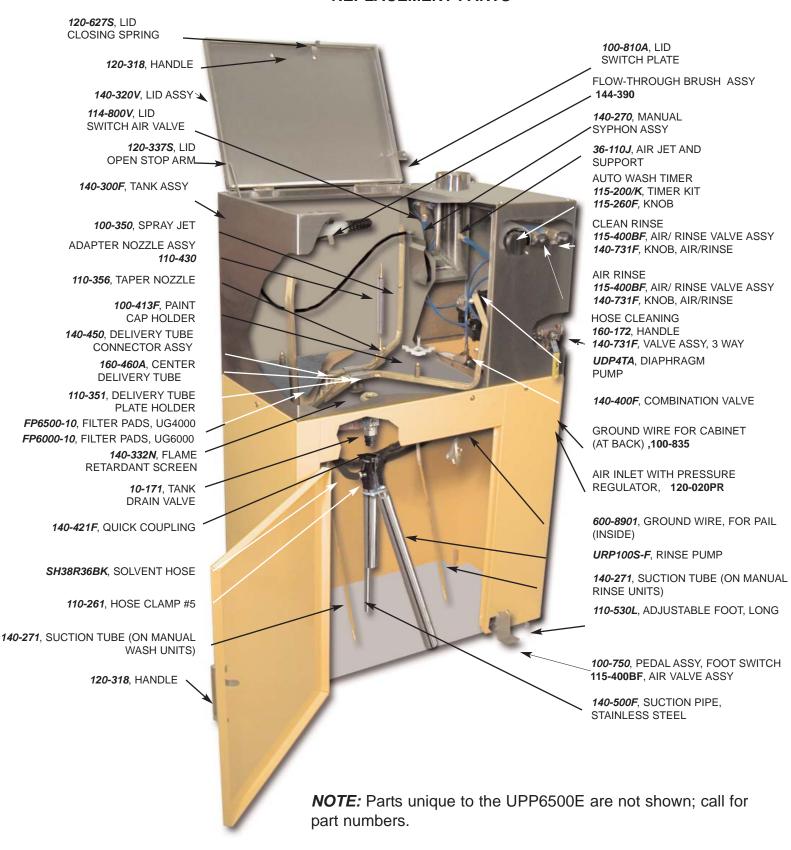




## **UG6000E**



#### REPLACEMENT PARTS



# **ACCESSORIES, CONSUMABLES and OPTIONAL PARTS**

Part No.	Description
110-430	Nozzle Adapter, All models, Push On
110-430MJ	Nozzle Adapter, SATA, Mini Jet, Threaded
110-430MJP	Nozzle Adapter, SATA, Mini Jet, Push On
110-430L1	Nozzle Adapter, Threaded, SATA - 0.6 & 1.0 litre cups
110-430L1P	Nozzle Adapter, Push-On, SATA - 0.6 & 1.0 litre cups
100-413F	Paint Cap Holder
115-200/K	Mechanical Timer Assembly, 5 minutes
140-2340	Trigger Clamp & Plug Kit
140-340S	Rotating Spray Jet Assembly
144-390	Flow-Through Brush Assembly
144-397	Hose for Flow-Through Brush
100-835	Ground Wire for Gun Cleaner, 18G, Green, 4 FT
600-8901	Ground Wire for Pail
FP6000-10	Filter Pad, UG6000, Pkg of 10
FP6500-10	Filter Pad, UG4000, Pkg of 10
KIT-MW4000	Manual Wash Kit, Upgrade DV to DVM
780-8000	2-Pail Set, Plastic, Kit, including Hoses & Fittings (for connecting to Solvent Recyclers)
	Solvent Recyclers)



Pail Set, Part No. 780-8000 (hoses come with P2 Recycler (URS500P2, URS600P2, URS900P2)

# **EXTENDED WARRANTIES For North American Customers**

An extended warranty may be purchased within 3 months from the date of purchase. There are two types of warranty:

- 1) parts
- 2) parts and labor

The warranty period is 2, 3 or 4 years.

If you would like to purchase an extended warranty call Uni-ram at:

Canada 1-800-417-9133 USA 1-800-735-4331



#### **Full Product Warranty**

These Uni-ram products have been engineered and manufactured to high performance standards. Each unit has been subjected to detailed factory testing before shipment.

This product comes with a one-year full warranty from the date of purchase. Uni-ram Corporation reserves the right to repair or replace the unit, free of charge, to the original purchaser if a part is found to be defective in material or workmanship as determined by factory service personnel. The items listed below under "Conditions of Warranty" as consumables are not covered.

Uni-ram reserves the right to direct the customer to ship the unit collect to the Uni-ram factory or to an approved Service Center for repair using the Uni-ram Return Goods Procedure or to repair the unit on-site. To prevent damage in transport, the purchaser must ship the unit in the original packaging or use alternate adequate packaging. All units **must be shipped clean and free of solvent.** 

#### **Diaphragm Pump:**

We are pleased to advise that the warranty on the diaphragm pump, the heart of the spray gun cleaner, comes with a 2 year replacement warranty. If, in the unlikely event your diaphragm pump fails during the first two years of service, call Uni-ram Service at 1-800-417-9133. We will send you a new pump free of charge and arrange for the return of your original pump.

#### **Conditions of Warranty:**

As Uni-ram Corporation has no control over the working conditions or circumstances under which the purchaser stores, handles or uses the product, Uni-ram makes no warranty or claim, either expressed or implied with respect to this product's fitness for any purpose or the result to be obtained from its use. This condition applies to the sale of all products and no representative or distributor of Uni-ram Corporation has the authority to waive or change these conditions.

This warranty applies only to the original purchaser and does not apply if the unit has been misused, overloaded, neglected, altered or used for any purpose other than those specified in the operating and installation instructions. Deterioration due to normal wear is not covered by this warranty. Damage due to accident, transportation, fire, floods or acts of God is also not covered. Units whose serial numbers have been altered or removed are not covered. The warranty is invalid if unauthorized chemicals as noted in the manual or solvents with acid content are used in this unit. Unauthorized attempts at self-repair or alterations by the owner also invalidate this warranty. Interior or exterior finishes are not covered by this warranty.

Consumable Items are not covered by this warranty (eg: gaskets, screens, bags, filters, nozzles and air jets).

This warranty replaces all other warranties expressed or implied by statute or otherwise.

To make a claim, call Uni-ram Service at 1-800-417-9133 and quote the serial number of the unit.