

# EW30001 Pneumatic Coolant Machine



### **Operations Manual**

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### **INTRODUCTION** to the

#### Wynn's Pneumatic Coolant Machine

This is a device that removes and refills engine coolant quickly and efficiently. Before the coolant is refilled, a vacuum is applied to the cooling system to eliminate any air in the system.

Suddenly, cooling system maintenance has become a more realistic proposition. Fluid exchanges are cleaner and neater than ever!

Service neglect causes engine coolant to break down which can lead to the engine freezing or overheating. Historically, cooling system fluid service has been neglected, often due to the lack of a convenient method for providing such fluid exchange services.

Please take time to read through this manual to familiarize yourself with the machine before performing your first coolant exchange.

### **CUSTOMER SERVICE CONTACT INFORMATION**

For product information, tech support, or to order replacement parts, please call: **833-303-4644** or visit: *equipment.wynnsusa.com* 

### **IMPORTANT SAFETY NOTICE**

For your safety, read this manual thoroughly before operating this machine. Your machine is intended for use by properly trained, skilled professional automotive technicians. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise care when using this machine. Before using your machine, always refer to and follow the safety messages and applicable service procedures provided by the manufacturer of the vehicle being serviced.

### Read All Safety Instructions

Read, understand and follow all safety messages and instructions in this manual. Safety messages in this section of the manual contain a signal word with a three-part message and, in some instances, an icon.

### Signal Words

The signal word indicates the level of the hazard in a situation:

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Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

# **WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

# **A** CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

### IMPORTANT

Indicates a situation which, if not avoided, may result in damage to the machine, or the vehicle being serviced.

### Safety Messages

Safety messages in this section contain three different type styles:

- Normal type states the hazard.
- Bold type states how to avoid the hazard.
- Italic type states the possible consequences of not avoiding the hazard.

### Safety Symbols

A safety symbol, when present, gives a graphical description of the potential hazard, and how to avoid the hazard:





Do Not Pull or Move



**Risk of Burns** 

# **IMPORTANT SAFETY INSTRUCTIONS**





Engine exhaust contains toxic gases.

• Vent vehicle's exhaust away from work area.

• Do not breathe exhaust.

Exhaust gases will cause injury or death.



Improper use and operation.

 Read, understand and follow all safety messages and operational procedures in this manual before operating this machine.

• This equipment should be operated only by qualified personnel.

• Use this equipment only as described in this manual.

Improper use and operation of this product can result in injury.





Engine systems can malfunction expelling fuel, oil vapors, hot steam, hot toxic exhaust gases and other flying particles.

 Wear safety goggles and protective clothing, user and bystander. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

 Do not position head directly over or in front of carburetor or throttle body. Engine backfire can occur when air cleaner is out of normal position.

 Make sure gauge reads zero before connecting or disconnecting hose connections to adapters.

 Make sure cooling system pressure has been relieved before connecting or disconnecting hose connections and adapters.

• Keep a dry chemical (Class B) fire extinguisher rated for gasoline, chemical & electric fires in the work area.

Fire, explosion, or flying particles may cause serious injury.

# WARNING

Risk of expelling pressurized fluids.

• Wear safety goggles and protective clothing, user and bystander.

 Engine systems can malfunction, expelling fuel, oil vapors, hot steam, hot toxic exhaust gases and other debris.

Always unplug the machine from its power source when not in use.

• Keep the service hoses away from hot or moving engine parts. Hoses can split or burst causing fluid to be expelled.

- Avoid contact with engine coolant.
- Treatment methods are as follows:

Eyes: Flush eyes with plenty of water. Skin: Wash with soap and water. Inhalation: Move to uncontaminated area. Ingestion: If large amount, get medical attention. If any irritation persists, get medical attention.

• Dispose of waste fluid according to environmental laws and regulations.

Fuel, oil vapors, hot steam, hot toxic exhaust gases, pressurized fluid, and other debris can cause serious injury.

# **WARNING**

Risk of unexpected vehicle movement.

- Block drive wheels before starting vehicle's engine to begin an exchange.
- Unless instructed otherwise, set parking brake and put gear selector in park.
- Do not leave a running vehicle unattended.
- If vehicle has an automatic parking brake release, disconnect release mechanism for testing and reconnect when testing is completed.

A moving vehicle can cause injury.

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Risk of entanglement. Engine has moving parts.

• Do not place tools on fenders or other places in engine compartment.

• Keep yourself, clothing, battery cables and service hoses clear of moving parts such as fan blades, belts, pulleys, hood and doors.

• Barriers are recommended to help identify danger zones in test area.

• Prevent personnel from walking through immediate test area.

Contact with moving parts can cause injury.

### **WARNING**



Risk of fire or explosion.

• Do not operate in the vicinity of open containers of flammable liquids such as gasoline.

• Keep hoses and jumper cables away from heat sources and sharp edges.

• Do not operate equipment with damaged cords or hoses until they have been examined by a qualified serviceman.

Fire or explosion can cause injury.



Risk of fire or explosion. Gases produced by a battery are highly explosive.

Wear safety goggles and protective clothing, user and bystander.

• This machine is equipped to operate on 12-volt DC power only. A power source greater than this can result in serious injury to the user as well as damage to the machine.

• Do not smoke, place metal tools on battery or allow a spark or flame in vicinity of battery.

Clean battery terminals before hooking the machine's battery clips to them. During

cleaning, keep airborne corrosion from eyes, nose and mouth.

• Be sure both battery cables are tightly connected to the battery terminals as instructed before proceeding with a fluid exchange.

• Never remove battery cables from the battery terminals while the machine is operating. Battery explosion can cause injury.

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Risk of burns.

• Wear gloves when handling hot engine components.

- Do not remove radiator cap unless engine is cold.
- Pressurized engine coolant may be hot.
- Do not touch hot exhaust systems, manifolds, engines, radiators, etc.

Hot fluid and engine parts may cause injury.



Battery acid is a highly corrosive sulfuric acid.

• Wear safety goggles and protective gloves, user and bystander.

• Have plenty of fresh water and soap nearby. If battery acid contacts skin, clothing, or eyes, flush exposed area with soap and water for 10 minutes.

• While cleaning battery's terminals, keep airborne corrosion from eyes, nose and mouth.

• Do not touch eyes while working near battery.

Battery acid can burn eyes and skin.

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Risk of burns.

• Wear gloves when working near hot engine components.

• Do not touch hot exhaust systems, manifolds, engines, radiators, etc.

• The fluid coming from the vehicle along with some of the machine's components that the fluid comes into direct contact with (i.e. hoses and fittings) may reach temperatures uncomfortable to the touch. Exercise caution in avoiding contact with these items. *Hot components can cause injury or discomfort.* 



Risk of injury.

• This equipment should be operated by qualified personnel only.

• Use this equipment only as described in this manual.

• Always unplug the machine from its power source when not in use.

• Loop the power cord loosely in its proper location when machine is not in use.

• Do not operate equipment with a damaged battery cables or hoses, or if the equipment has been dropped or damaged, until it has been examined by a qualified service representative.

• Care should be taken to arrange the battery cables and service hoses so that they will not be tripped over or pulled.

• Never pull on the power cables or service hoses to transport the machine. Damage may occur to these components, or machine may tip over.

• Keep area of operation clear of unnecessary tools and equipment. Utilize recessed tool storage areas on the top of the machine.

• Never leave the machine running unattended.

• The machine is not designed for any other purpose than the servicing of automotive cooling systems.

Operation of this machine by anyone other than qualified personnel may result in injury.

# **A** CAUTION

Misdiagnosis may lead to incorrect or improper repair and/or adjustment.

• Do not rely on erratic, questionable, or obviously erroneous test information or results. If test information or results are erratic, questionable, or obviously erroneous, make sure that all connections and data entry information are correct and that the test procedure was performed correctly. If test information or results are still suspicious, do not use them for diagnosis.

Improper repair and/or adjustment may cause vehicle or equipment damage or unsafe operation.

### IMPORTANT

Risk of equipment damage.

• Connect battery cables to a 12-volt power source only (i.e. vehicle's battery).

• Servicing, transporting, or storing this machine in an attitude other than the normal

operating position can result in fluid spillage and/or component damage.

 Never pull on the power cables or service hoses to transport the unit. Damage may occur to these components, or machine may tip over. Always use the handle to move.

• Periodically clean the machine by wiping down with a clean, soft, dry cloth.

Improper operation of equipment may result in damage to machine or components.

#### SAVE AND FOLLOW THESE INSTRUCTIONS!

# **MACHINE SPECIFICATIONS**

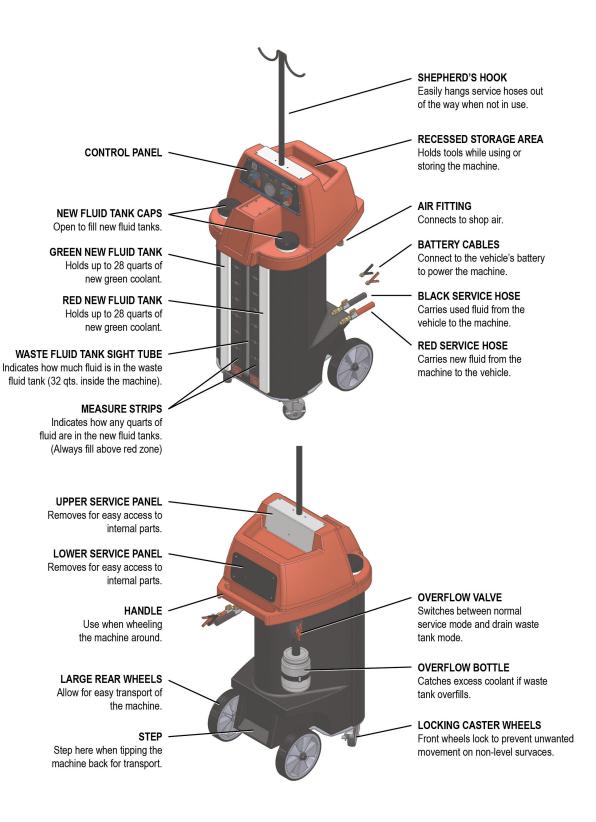
Dimensions: 48" H x 24" W x 22" D Weight: 120 lbs. New Fluid Tanks: (2) 28 Qt. Waste Fluid Tank: 32 Qt. Power: 12V DC Power / Shop Air

# FEATURES

The Wynn's Pneumatic Coolant Machine provides a faster, more efficient preferred way of performing a coolant drain and fill service. This operator friendly machine provides uncomplicated and efficient vacuum removal of old coolant fluid and refill of new coolant.

- ✔ Creates Vacuum in Cooling System
- ✔ Easy Connection to Radiator & Remote Reservoirs
- ✔ Clear Hose for Fluid Visibility
- ✓ Easy to Operate
- ✔ Vacuum Gauge
- ✔ Universal Cone Adapters Fit Most Vehicles
- ✔ Convenient, Portable Roll-Around Unit
- ✓ Includes (1) Adapter, (1) Accessory

### **MACHINE OVERVIEW**



# **OPERATING INSTRUCTIONS**

IMPORTANT: Machine needs 12V DC power and at least 115 psi of air to operate.

SAFETY RECOMMENDATIONS			
Use extreme caution when working around a running engine.			
Always block the vehicle's drive wheels.		2	
Ventilate the vehicle's exhaust.	U		Sec. 21
Always wear safety glasses.			<u>∎\$₩</u> i
It's a good idea to wear insulated gloves.			
	PR	EPARATION	
Road test the vehicle at least one mile.			
Make sure there are no problems with the Engine Cooling System such as leaks, low fluid level and soft or damaged hoses.			
Connect battery cables to vehicle's battery.			

Connect shop air supply to back of machine.

#### **EVACUATION PROCEDURE**

Turn overflow valve on back of machine to NORMAL SERVICE POSITION.

Connect wand adapter to **BLACK** service hose, insert into vehicle's overflow bottle/remote reservoir and open ball valve.

Turn the Vacuum / Fill Control dial to the VACUUM / DRAIN WASTE position.

Set switch to **AIR ON** position to remove fluid.

Remove Cooling System Pressure Cap and remove 2-3 inches of coolant.

**NOTE:** Use extreme caution when removing Pressure Cap from a hot cooling system that is under pressure.

Add Wynn's Cooling System Cleaner.

Replace Cooling System Pressure Cap.

Set switch to **OFF** position when finished removing fluid.









#### **REMOVE & FILL PROCEDURE**

Perform service with the vehicle off and at operating temperature.

Start Engine, and run at idle or at a maximum of 1200 rpm, after thermostat opens, run engine for additional **10 minutes** and shut engine off.

Connect the sliding cone adapter to the **BLACK** service hose, and open the ball valve.

Turn the Vacuum / Fill Control dial to the VACUUM / DRAIN WASTE position.

Set switch to **AIR ON** position to remove fluid.





Remove Cooling System Pressure Cap.

**NOTE:** Use extreme caution when removing Pressure Cap from a hot cooling system that is under pressure.

Insert cone adapter into radiator / remote reservoir, making sure the tip of the cone is submerged.

**TIP:** If servicing from degas bottle, slide the hose through the cone long enough to reach near the bottom of the bottle.

When no more fluid is being removed break the seal and reseal. Repeat process until all old coolant is evacuated. When all coolant has been evacuated allow the radiator hoses to collapse by vacuum.

Once radiator hoses are completely collapsed and no more fluid is being removed set the switch the **OFF** position

Turn the Vacuum / Fill Control dial to the desired fluid type to fill the radiator.

**IMPORTANT:** Be sure not to break the vacuum seal between the rubber cone and the radiator/cooling system once the final evacuation step has been completed.

When new fluid stops entering the radiator, remove the cone adapter from the radiator.

Top off radiator if needed and refill overflow bottle (refer to top-off procedure).

Replace Cooling System Pressure Cap.













#### **TOP-OFF PROCEDURE**

Connect wand adapter to <b>RED</b> service hose, making sure ball valve is closed. Turn the Top-Off Control dial to the desired fluid type.		TOP-OFF CONTROL OFF		
Set switch to <b>PUMP ON</b> position to add coolant. Open ball valve on <b>RED</b> service hose to regulate fluid flow.	PUMP ON OFF			
Set the switch and turn the Top-Off Control dial to the <b>OFF</b> position when finished adding fluid.	COLANT MA Determine Determine COLONTROL OFFCONT OFFCONT	PUMP ON OFF		

#### DRAIN TANKS PROCEDURE

Turn overflow valve on back of I FILL COM machine to DRAIN WASTE TANK POSITION. Turn the right-side dial to the VACUUM / DRAIN WASTE position. Connect wand adapter to BLACK service hose, place into waste container, and open ball valve. Set switch to AIR ON position to drain the tank. PUMP ON AIR ON WARNING: Coolant may OFF splash out while air pressure is being released. Keep hands and face away from the overflow bottle.

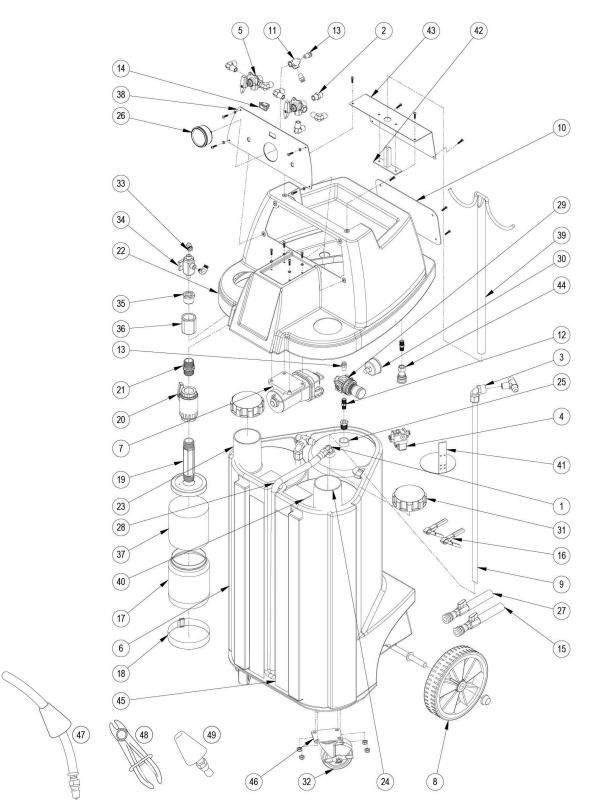
When finished draining, close ball valve and remove service hose from waste container. Set switch to <b>OFF</b> position.	PUMP ON OFF
Turn overflow valve on back of machine to <b>NORMAL SERVICE POSITION</b> .	

### MAINTENANCE

### To keep your machine working properly...

- Keep debris out of new fluid tanks.
- Avoid spilling fluid on the control panel.

### **REPLACEMENT PARTS**



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	940114	90 JIC ELBOW	8
2	940124	MALE CONNECTOR 3/8 NPT 1/2 JIC	2
3	941226	ELBOW PLASTIC FEM 1/2 NPT x 5/8 TU	2
4	941276	SOLENOID AIR VALVE (BLUE)	1
5	941277	4-WAY VALVE	2
6	941283	CONSOLE	1
7	941285	INTERNAL PUMP	1
8	941300	WHEEL 10 x 2-5/8 x 2-3/16	2
9	941307	ALUM TUBE 5/8 X 29.5 MITER 1 END	2
10	941317	LOWER SERVICE PANEL - BLACK	1
11	941324	TEE 1/4 FEMALE	1
12	941328	CONNECTOR 1/4NPT 1/4NPT	2
13	941332	1/4NPT 5/16 PUSH CONN FITTING	4
14	941342	3-WAY SWITCH	1
15	941346	RED SERVICE HOSE	1
16	941396W	BATTERY CABLE ASSEMBLY	1
10	941424	BOTTLE - PLASTIC OVRFLOW	1
18	941425	STRAP - VELCRO BOTTLE HOLDER	1
10	941426	PIPE NIPPLE-1 X 6 LONG	1
20	941427	OVERFLOW VALVE- 1 FPT PVC	1
20	941428	PIPE NIPPLE-1 X 6 SHORT	1
21	941431	TOP - RED	1
23	941432	TANK - NEW LH NATURAL	1
23	941432	TANK - NEW RH NATURAL	1
24	941433	TANK - USED FLUID STEEL	1
25	941434	2.5 PANEL MOUNT GAUGE	1
20	941430	BLACK SERVICE HOSE	1
28	941450	INTERNAL HOSE SET	1
20	941450	REGULATOR	1
30	941409	GAUGE 0-200 PSI MINIATURE	1
31	941470	TANK CAP	2
31	942113 942137W	WHEEL ONLY 4" CASTERS	4
33	40200338	5/16 TUBE X 1/8 NPT ELBOW	2
34	40200338	GENERATOR - VACUUM	1
34	40200355	REDUCER BUSHING PVC 1 X 1/4	1
35	40200396	1" NPT FEMALE PVC PIPE FITTING	1
30	40200397 40201007	FOAM 5" DIA X 5" THICK 1533 FOAM	1
38	40201007 40300312		4
39	P941321	PANEL - OVERLAY ASSEMBLY SHEPHERD HOOK WELDMENT	1
40	P941321 P941370	BRACKET- BLACK CONSOLE	2
40	P941370 P941437		1
41	P941437 P941452	BOTTLE HOLD PLATE SHEPHERD HOOK MOUNT	1
42	P941452 P941454	UPPER SERVICE PANEL BLACK	1
43	R940828	BULKHEAD CON 1/4 FPT	1
		MEASURING STRIP STICKER	2
45	R941306		
46	R942118		2
47	40100057	VACUUM FILL HOSE ASSEMBLY	1
48	941290	SMALL HOSE CLAMP PLIERS	1
49	941295	CONE ADAPTER ASSEMBLY	1

### Wynn's Equipment Limited Warranty Terms and Conditions

(1 Year on Equipment / 2 Years on Parts)

Seller warrants to its distributors that under normal use, care and service, the Equipment (except as otherwise provided herein) shall be free from defects in material and workmanship for One (1) year from the date of original invoice (unless a machine was put into inventory and later sold (such sale from inventor to occur no later than [six (6) months] after the date of original invoice), and a distributor can provide proof of sale and registered warranty card, then the one-year warranty will begin on the registration date) for all Equipment with an additional 12 months of coverage for **parts only**. External hoses, remote control modules, adapters and all other attachments, supplies and consumables (except as otherwise provided herein) are warranted for 90 calendar days from the date of original invoice. Filter elements are not warranted. Printed circuit boards purchased from Seller will be warrantable for a period of one (1) years from original purchase date, and any repair services for machines under warranty or to a purchased circuit board by an ITW employee or authorized representative shall be reimbursed.

SELLER'S OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED SOLELY TO THE REPAIR OR, AT SELLER'S OPTION, REPLACEMENT OF EQUIPMENT OR PARTS, AND LABOR COSTS ASSOCIATED WHICH TO SELLER'S SATISFACTION ARE DETERMINED TO BE DEFECTIVE AND WHICH ARE NECESSARY, IN SELLER'S JUDGEMENT, TO RETURN THE EQUIPMENT TO GOOD OPERATING CONDITION. NO OTHER WARRANTIES EXPRESS OR IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

This warranty does not cover (and separate charges for parts, labor and related expenses shall apply to) any damage to, malfunctioning, inoperability or improper operation of the Equipment caused by, resulting from or attributable to (A) abuse, misuse or tampering; (B) alteration, modification or adjustment of the Equipment by anyone other than Seller's authorized representatives; (D) improper or negligent use, application, operation, care, cleaning, storage or handling; (E) fire, water, wind, lightning or other natural causes; (F) adverse environmental conditions, including, without limitation, excessive heat, moisture, corrosive elements, or dust or other air contaminants, radio frequency interference, electric power failure, power line voltages beyond those specified for the equipment, unusual physical, electrical or electromagnetic stress, and/or any other condition outside of Seller's environmental specifications; (G) use of the Equipment in combination or connection with other equipment, attachments, supplies or consumables not manufactured or supplied by Seller; or (H) failure to comply with any applicable federal, state or local regulation.

Repairs or replacements qualifying under this Warranty will be performed on regular business days during Seller's normal working hours within a similar timeframe and process as BUYER already has in place, to be accomplished by Wynn's/QMI distributors with the support and cooperation of the SELLER, or by SELLER or SELLER's subcontractors if that is acceptable to the BUYER following Purchaser's request or if agreed to between Seller and Buyer by Purchaser's/ ITW staff if necessary. All requests for Warranty service must be made during the stated Warranty period. **This warranty is non-transferable**.