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INTRODUCTION

to the Flo-Dynamics PSX3000

Congratulations on the purchase of your PSX3000 power steering fluid exchanging machine!

Simply put, this machine is the cleanest, safest, easiest, fastest, most thorough, and most cost-efficient method of power steering fluid exchange ever devised. Suddenly, power steering maintenance has become a more realistic proposition. Fluid exchanges are cleaner and neater than ever!

Service neglect leads to power steering system complaints including poor handling, hard or sluggish steering, and objectionable noise. Historically, power steering system fluid service has been neglected, often due to the lack of a convenient method for providing such flush or fluid exchange services. Previous methods for flushing the power steering system or replacing the power steering fluid were time consuming and often inefficient or incomplete. Now, it's easier than ever to replace up to 95% of the old power steering fluid in less than 8 minutes, to ensure your power steering system has a long, trouble-free life.

Please take time to read through this manual to familiarize yourself with the PSX3000 before performing your first power steering fluid exchange.

IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating your PSX3000 unit. Your PSX3000 unit 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 unit. Before using your PSX3000 unit, 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:

DANGER

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.

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:



Risk of Fire



Read Instructions Before Use



Risk of Explosion



Mandatory Eye Protection



Risk of Entanglement



Mandatory Protective Gloves



Dangerous Fumes



Mandatory Protective Clothing



Do Not Pull or Move

IMPORTANT SAFETY INSTRUCTIONS

DANGER



Engine exhaust contains toxic gases.

- **Vent vehicle's exhaust away from work area.**
- **Do not breathe exhaust.**

Exhaust gases will cause injury or death.

WARNING



Improper use and operation.

- **Read, understand and follow all safety messages and operational procedures in this manual before operating the PSX3000.**
- **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.

WARNING



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

- **Wear safety goggles and protective clothing, user and bystander.**

Engine systems that fail can cause serious injury.

WARNING



Risk of expelling pressurized fluids.

- **Wear safety goggles and protective clothing, user and bystander.**
- **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 power steering fluid.**
- **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 used fluid according to environmental laws and regulations.**

Although automatic transmission and power steering fluid pose no significant health hazards, some individuals may experience adverse reactions upon contact. Pressurized fluid 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.**

A moving vehicle can cause injury.

WARNING



Engine has moving parts. Risk of entanglement.

- **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 and pulleys.**

Contact with moving parts can cause injury.

WARNING



Risk of fire or explosion.

- **Do not operate the PSX3000 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.

WARNING



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.*

WARNING



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.

WARNING



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. external: hoses and quick-disconnect fittings; internal: hoses and all fittings) may reach temperatures uncomfortable to the touch.**
- Exercise caution in avoiding contact with these items.**

Hot components can cause injury or discomfort.

CAUTION



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 PSX3000. 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 PSX3000 is not designed for any other purpose than the exchanging of power steering fluid.

Operation of your PSX3000 unit by anyone other than qualified personnel may result in injury.

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 PSX3000. Damage may occur to these components, or machine may tip over.**
- **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!

DIMENSIONS & TECHNICAL SPECIFICATIONS

DIMENSIONS:

39" Tall
17" Wide
25" Deep

Service Hoses:

10' outside of machine

Wheels:

5" locking casters (front)
5" casters (back)

Fluid Tanks:

5-Quart New Fluid Tank
20-Quart Used Fluid Tank

Weight:

68 lbs

TECHNICAL SPECIFICATIONS:

Power:

12-Volt DC from vehicle battery

Fuse:

15 Amp

Operating Temperature:

60° to 150°F (15° to 65°C)

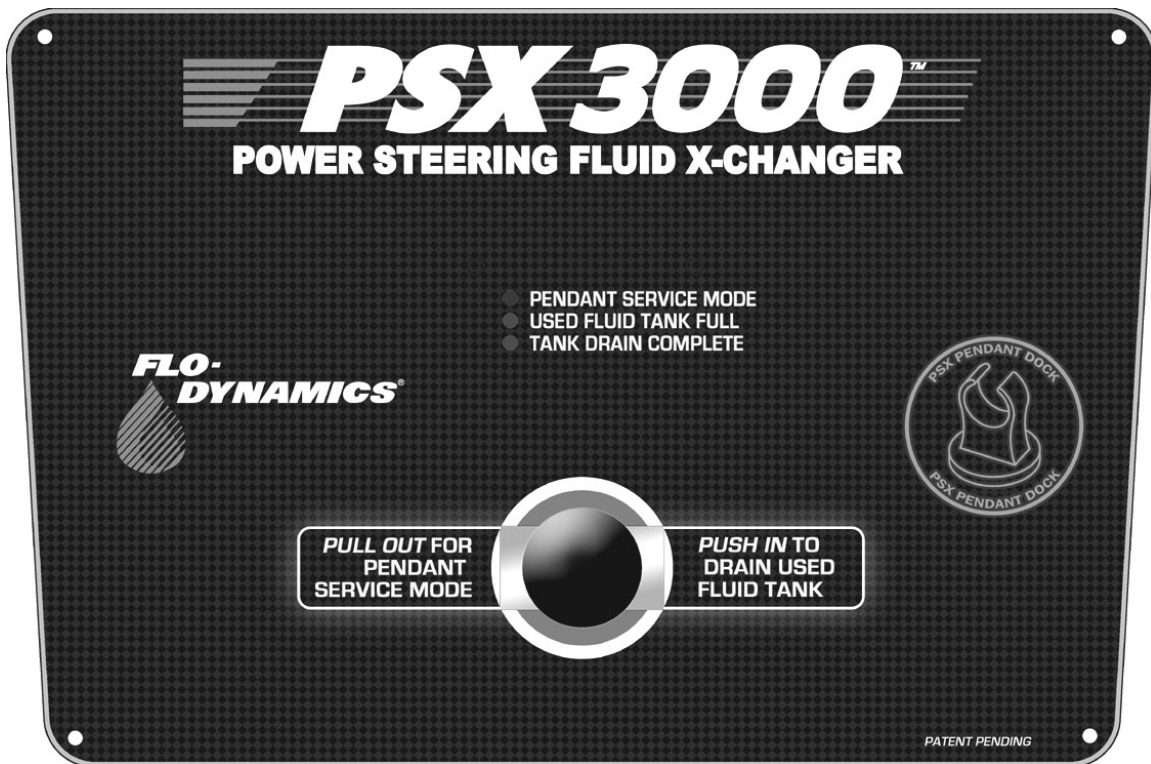
FEATURES

- Durable roto-cast polyethylene body and tanks prevent vehicle damage
- Ergonomically correct working height
- 5" locking caster wheels allow easy maneuverability
- Clear service hoses allow visual confirmation of new and used fluid movement
- Easy access service panel
- Self-contained battery cables hook up to the vehicle's 12-volt battery
- Indicating lamps are activated to show all machine operations and status functions
- Remote pendant for ease of operation

MACHINE OVERVIEW



CONTROL PANEL OVERVIEW



BUTTONS

Button:

PUSH/PULL KNOB

Function:

Allows operator to switch between 'Pendant Service Mode' and 'Drain Used Fluid Mode'.

LED LIGHTS

Light:

PENDANT SERVICE MODE

USED FLUID TANK FULL

TANK DRAIN COMPLETE

Indication:

Enables the Drain/Fill controls on the PSX pendant.

The used fluid tank does not have enough remaining capacity to complete the exchange.

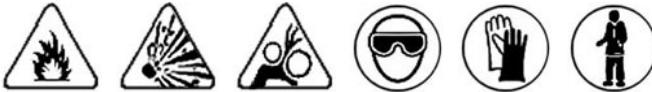
The used fluid tank is empty.

DANGER



- Vent vehicle's exhaust away from work area.
- Do not breathe exhaust.
- Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

WARNING



- Wear safety goggles and protective clothing, user and bystander.
- Do not operate the PSX3000 in the vicinity of open containers of flammable liquids such as gasoline.
- This machine is equipped to operate on 12-volt DC power only.
- 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.
- Keep yourself, clothing, battery cables and service hoses clear of moving parts such as fan blades, belts and pulleys.
- Unless instructed otherwise, set parking brake and put gear selector in park.
- Do not leave a running vehicle unattended.
- Keep the service hoses away from hot or moving engine parts. Hoses can split or burst causing fluid to be expelled.
- Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

CAUTION



- Use this equipment only as described in this manual. Use only the manufacturer's recommended attachments.
- Care should be taken to arrange the battery cables and service hoses so that they will not be tripped over or pulled.
- Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

OPERATING PROCEDURE

NOTE: To prevent overfilling, if the used fluid tank becomes too full the system will disable the "DRAIN" button on the pendant, an audible alarm will sound, and the "Used Fluid Tank Full" LED will light up. At this point the "FILL" button on the pendant will remain active, but the "DRAIN" button is disabled.

1. Ensure the vehicle's battery terminals are free of any corrosion.
2. Attach the PSX3000's battery clips to the vehicle's battery terminals.
3. Activate pendant service mode by pulling the knob on the machine's control panel. The *pendant service mode* LED will light up.
4. Remove cap from vehicle's power steering fluid reservoir (and screen if applicable)
5. With the vehicle's engine running, place hoses (same length) into power steering fluid reservoir. You may use the included dock magnet to hold the hoses in place.
6. Turn the ball valves to the "on" position on both hoses.
7. While watching the fluid level in the reservoir, use the "DRAIN" and "ADD" buttons on the remote pendant to repeatedly drain and add fluid. Repeated purging and adding of fluid will flush the old fluid out of the reservoir.
8. Turn the vehicle's steering wheel all the way to the left, then all the way to the right, and back to center.
9. Check the color of the fluid in the reservoir to ensure a clean exchange. Repeat steps 7 & 8 if necessary.
10. When finished, adjust fluid level, turn the ball valves to the "off" position on both hoses, and remove hoses from power steering fluid reservoir.
11. Turn off vehicle's engine, and replace reservoir cap and screen (if applicable).

DRAIN USED FLUID TANK

1. The "Used Fluid Tank Full" LED will light up when the used fluid tank is full.
2. Make sure the PSX3000's battery clips are connected to the vehicle's battery terminals.
3. Attach an open adapter to the black service hose.
4. Push the control panel knob all the way in to begin draining tanks. The machine will stop automatically once the tank is fully drained.
5. To reset the machine for another exchange, pull the knob back out to "Pendant Service Mode".

REPLACEMENT PARTS LIST

Part #	Description
941412W	Control Panel w/ Electronic Board & Label
940912	Diverter Valve
R941251	Level Switch
941261	Vinyl Mat
940830	Battery Cable Assembly
940551	PSX Fill Pump
942130	PSX Drain Pump
940834	Pendant Assembly
R940663	Pendant Switch
940922	Pendant Dock Magnet Assembly
940787	Service Hose Black
940788	Service Hose Red
941178	Y-Adapter
R940750	Chassis
R940751	Console
942113	Tank Cap
R942129	Screen Basket
941253	New Fluid Tank (White)
941252	Used Fluid Tank (Red)
941392	Service Panel Label
P941259	Shepherd's Hook
R942118	Locking Caster Wheel
R942137	Caster Wheel
941393	Operations Manual

ORDERING REPLACEMENT PARTS

To order replacement parts for the Flo-Dynamics PSX3000, call

1-800-303-5874



940551
PSX Fill Pump



942130
PSX Drain Pump



940912
Diverter Valve



R941251
Level Switch



941261
Vinyl Mat



R942129
Screen Basket



P941259
Shepherd's Hook



R942137
Caster Wheel
R942118
Locking Caster Wheel

MAINTENANCE PROCEDURES

CAUTION

- The use of any other accessories not specified in this manual may create a hazard.
- Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

- **Clean Filter Screen every 50 exchanges, or as needed**

Open filter screen housing by unscrewing the top. Use a sharp pick to remove screen from housing. Clean using degreaser and brush, and blow out with air compressor. Put screen back in housing.

- Periodically wipe down exterior using a soft, damp cloth.

CUSTOMER SERVICE CONTACT INFORMATION

If you are experiencing problems with this machine,
call technical support at:

1-800-303-5874

LIMITED ONE (1) YEAR WARRANTY

FLO-DYNAMICS PSX3000

Flo-Dynamics warrants only to the original Purchaser 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 year from the date of original invoice. 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, but not installed by Seller are not warranted.

SELLER'S OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED SOLELY TO THE REPAIR OR, AT SELLER'S OPTION, REPLACEMENT OF EQUIPMENT OR PARTS 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 reasonable time following Purchaser's request. **All requests for Warranty service must be made during the stated Warranty period.** This warranty is non-transferable.