# TABLE OF CONTENTS

IN'	INTRODUCTION to the 735 SERIES 2			
I.	- Section 1.01:	ORMATION Important Safety Notice Important Safety Instructions	3	. 3
II.		EATURES & SPECIFICATIONS		. 9
	- Section 2.01: - Section 2.02: - Section 2.03:	Features Dimensions & Technical Specifications Machine Overview	10	
III.	OPERATIN	G PROCEDURES		12
NZ	<ul> <li>Section 3.01:</li> <li>Section 3.02:</li> <li>Section 3.03:</li> <li>Section 3.04:</li> <li>Section 3.05:</li> <li>Section 3.06:</li> <li>Section 3.07:</li> </ul>	First Time Operation & Technical Support TS735 Operating Instructions TSD735 Operating Instructions TSPS735 Operating Instructions TSDPS735 Operating Instructions Cleaning Feature	13 14 17 21 25 30	24
IV.	- Section 4.01:	ADAPTERS Adapter Hoses Adapters	31	31
V.	TROUBLES	HOOTING & MAINTENANCE		36
VI.	ORDERING	<b>G REPLACEMENT PARTS</b>		37
LII		RANTY		41

# **INTRODUCTION** to the Flo-Dynamics 735 SERIES

Congratulations on the purchase of your Flo-Dynamics 735 SERIES fluid exchanging machine!

Simply put, this machine is the cleanest, safest, easiest, fastest, most thorough, and most costefficient method of fluid exchange ever devised. Suddenly, regular automatic transmission and power steering maintenance become a more realistic proposition. Transmission and power steering fluid exchanging are cleaner and neater than ever!

#### Transmission Fluid Exchange:

To attain the highest level of protection for internal transmission components and increase the transmission's life span to the maximum, it is recommended that the transmission's lubrication system is serviced every 15,000 miles (or according to the vehicle owner's manual). The Flo-Dynamics 735 SERIES exchanges virtually all of the used transmission fluid to new, without even requiring the transmission pan to be dropped. There is no spillage, and no mess.

#### Power Steering Fluid Exchange (TSPS & TSDPS Only):

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.

- The 735 Series can be used practically anywhere and with almost any vehicle.
- It is compact, mobile, and self-contained.
- It operates off the 12-volt battery of the vehicle being serviced.
- It does not require a pit, lift, or ramp.

• The machine hooks up directly to one of the vehicle's transmission cooler lines or through the dipstick tube (TSD & TSDPS only) for a transmission fluid exchange.

#### • The ATF fluid exchange, from setup to finish, typically takes 15 minutes or less!

No wonder an ATF exchange is the most requested method of preventative automatic transmission maintenance today. Now there's the option of a power steering fluid exchange as well... Both in one machine!

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

# I. SAFETY INFORMATION

## 1.01 IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating your 735 Series unit. Your 735 Series 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 735 Series 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:

# **A** 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.

# **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 735 Series or the vehicle being serviced.

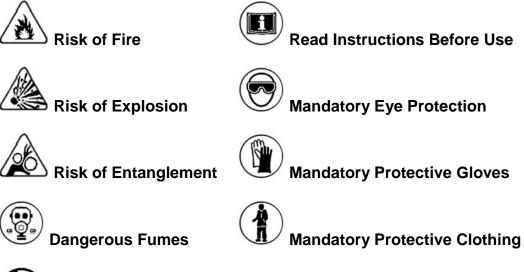
## Safety Messages

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

# 1.02 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 the Flo-Dynamics 735 Series.

• This equipment should be operated only by gualified 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 debris.

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

Engine systems that fail can cause serious injury.

# A WARNING



Risk of expelling pressurized fluids.

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

• Verify that engine and machine are off before connecting or disconnecting cooler lines and adapter hoses.

• 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.

• Tighten all connections properly. Insufficient or excessive torque can result in fluid leakage.

• Avoid contact with automatic transmission or 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.



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.



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.





Risk of fire or explosion.

• Do not operate the 735 Series 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. Only use the "EMERGENCY STOP" button located on the control panel to stop an exchange.

Battery explosion can 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.

# 



Risk of burns.

• Wear gloves when working near hot engine components.

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

• The automatic transmission 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.* 

# **A** CAUTION

Ratchet mechanisms and tools may slip or break if dirty. Mismatched or partially worn parts can cause ratchet or any tool to slip or break.

- Frequently inspect and clean any tools used, and lubricate all non-sealed ratchet mechanisms with light oil.
- Do not replace worn parts individually. If adapter hose fittings become worn, see "Ordering Replacement Parts" to order new hoses.

• The use of any other accessories not specified in this manual may create a hazard. Tools that slip or break can cause injury.

# 

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 735 Series. 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 735 Series is not designed for any other purpose than the exchanging of automatic transmission and power steering fluid.

Operation of your 735 Series unit by anyone other than qualified personnel may result in injury.

# 

• Do not replace worn parts individually. If adapter hose fittings become worn, see

- "VI Ordering Replacement Parts" to order new hoses.
- 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.

# IMPORTANT

Risk of equipment damage.

• Flushing high mileage cars that have not been previously serviced can cause operating problems in the transmission.

- 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.
- Use only the manufacturer's recommended attachments.
- The Flo-Dynamics 735 Series is fully automatic. Refer to your control panel at all times.
- Never pull on the power cables or service hoses to transport the 735 Series. 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!

# **II. SYSTEM FEATURES & SPECIFICATIONS**

## 2.01 FEATURES

#### **Mechanical Features**

- Accurate sensor technology allows optimum fluid level to be maintained in vehicle's transmission.
- Two in-line 22-micron absolute fluid filters capture microscopic particles and contaminants.
- Numbered quick-disconnect hoses with adapters save time in identifying the proper hoses for the application
- Easy to use adapters allow quick hookup to virtually any automobile make and model, saving time and money.
- Clear service hoses give visual confirmation of new and used fluid movements.
- Ergonomically correct working height means greater productivity, less stress and strain.
- Durable roto-cast polyethylene body and tanks prevent vehicle damage. The unit is also lightweight and durable, for easier handling and longer life.
- Large 5-inch locking caster wheels make machine easy to maneuver.
- Easy-access service panel provides hassle-free operations for greater efficiency.

#### **Electronic Features**

- Self-contained battery cables hook up to the vehicle's 12-volt battery
- Automatic monitoring of fluid in new and used fluid tanks assures safe operation
- Accurate sensor technology
- LCD counter display with cumulative ATF options
- Ability to exchange anywhere from 1 to 35 quarts in 1 quart intervals
- Drain used fluid tank (no need to tip machine upside-down)
- Drain new fluid tank
- Ability to pause machine during exchange to change transmission filter
- Battery backup allows machine to resume where it left off should it lose power
- Add new fluid to transmission in 2/10 quart increments (approx. 1/8" on the dipstick)
- Remove fluid from transmission in 2/10 quart increments (approx. 1/8" on the dipstick)
- Cycle valves feature allows you to electronically clean out valves
- Totalizer check (indicates lifetime use)
- Interactive menu:
  - "Auto Prime" feature automatically primes the system
  - Indicate new fluid volume
  - Indicate used fluid capacity
  - Read battery voltage

#### Power Steering Fluid Exchange Unit (TSPS & TSDPS)

- Remote pendant for ease of operation
- Compartment for new fluid bottle
- Drains directly to waste tank

## 2.02 DIMENSIONS & TECHNICAL SPECIFICATIONS

#### **DIMENSIONS:**

39 1/2" Tall 23" Wide 25 1/2" Deep

**Service Hoses:** 10' outside of machine

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

**Fluid Tanks:** 40-Quart New Fluid Tank 40-Quart Used Fluid Tank

Weight: 135 lbs.

#### **TECHNICAL SPECIFICATIONS:**

Power:

12-Volt DC from vehicle battery

#### Fuse:

15 Amp

#### Fluid Sensors:

Accurate sensor technology

Filters: 22-micron absolute fluid filters

#### **Operating Temperature:**

65° to 150°F (15° to 65°C)

Printed in the U.S.A. for Flo-Dynamics ®

## 2.03 MACHINE OVERVIEW



# **III. OPERATING PROCEDURES**

## 3.01 SUGGESTED ADDITIONAL TOOLS

# **A** CAUTION

• Frequently inspect and clean any tools used, and lubricate all non-sealed ratchet mechanisms with light oil.

• 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.

Line Wrenches 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4"	End Wrenches 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4"	s Hex Wrenches 1/8" 11/16"
Nut Drivers (American) 3/16" 1/4" 5/16" 3/8" 7/16"	Nut Drivers (Metric) 6 mm 8 mm 9 mm 10 mm 10 mm 11 mm 12 mm 13 mm 14 mm	Filter Band Clamp For replacing canister filters
Metric End or	Screwdriv	vers
Line Wrenches	Phillips	Standard
10 mm	1 long	1 long
11 mm 12 mm 13 mm 14 mm 15 mm 15 mm 16 mm 17 mm 18 mm 19 mm 20 mm	1 short	1 short

## 3.02 FIRST TIME OPERATION & TECHNICAL SUPPORT

## IMPORTANT

Turn vehicle's A/C system OFF before starting an exchange. New transmission fluid MUST be 65°F or above for optimal performance.

#### FIRST TIME OPERATION (Priming the System)

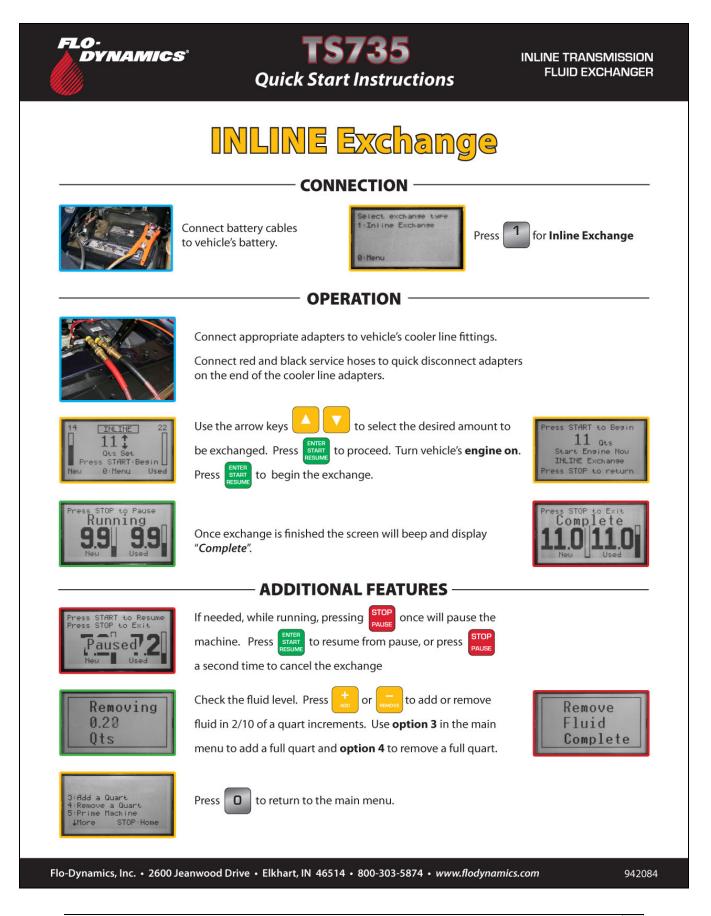
(Only necessary when machine is received, before first operation.) **System must be primed before first use.** 

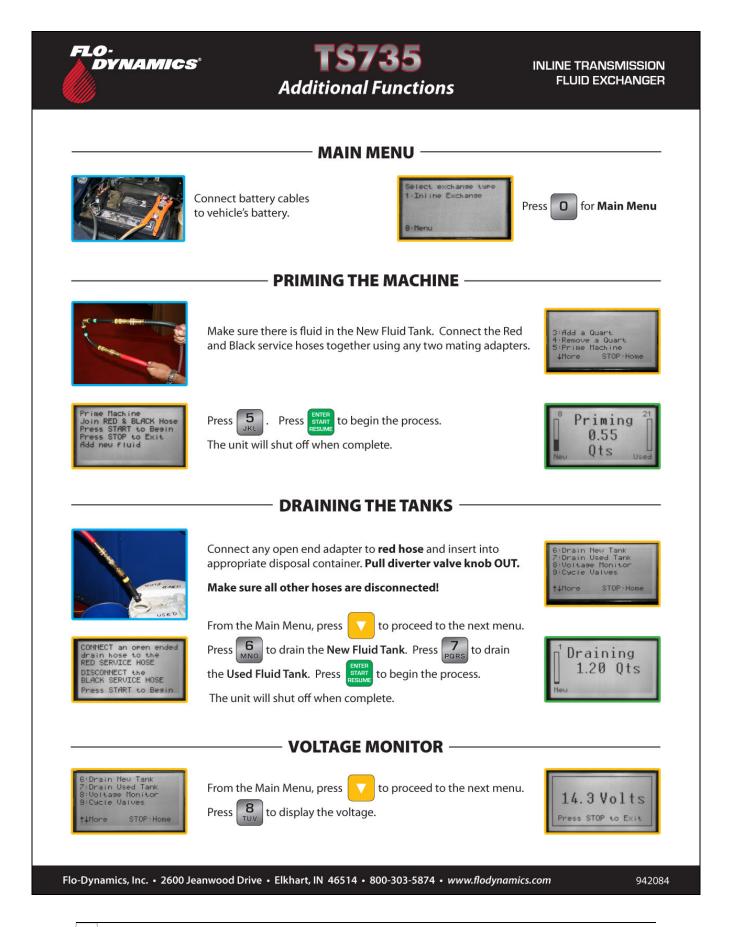
- **1** Connect machine to battery
- 2. Make sure fluid is in new fluid tank
- 3. Connect the red and black service hoses together using the adapters
- **4.** Press 0
- 5. Press 5
- 6. Press START

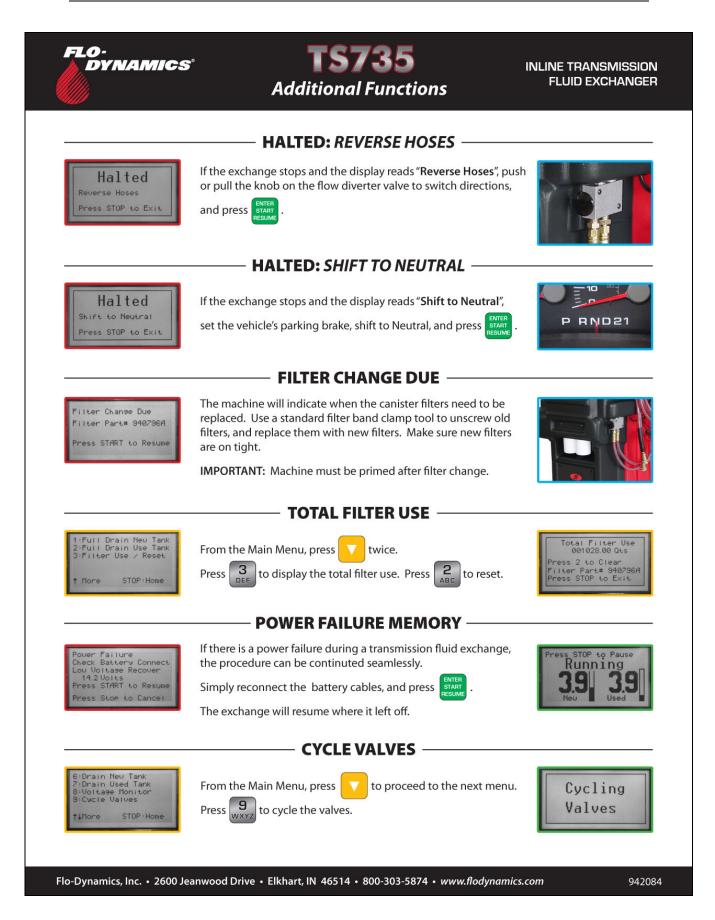
## **TECHNICAL SUPPORT**

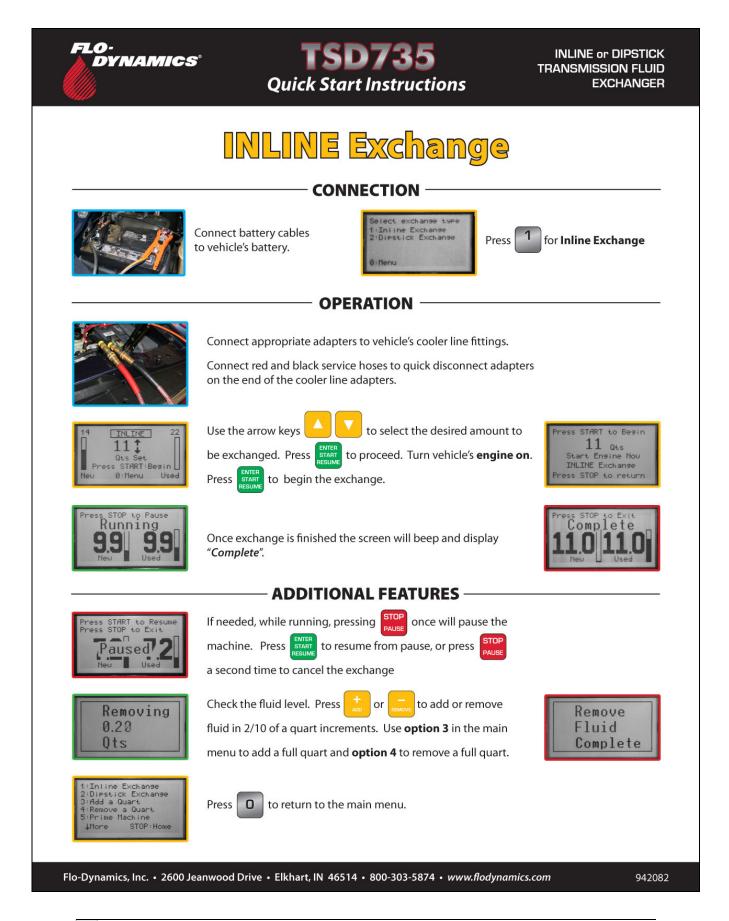
If you experience any problems or have any questions, call technical support at:

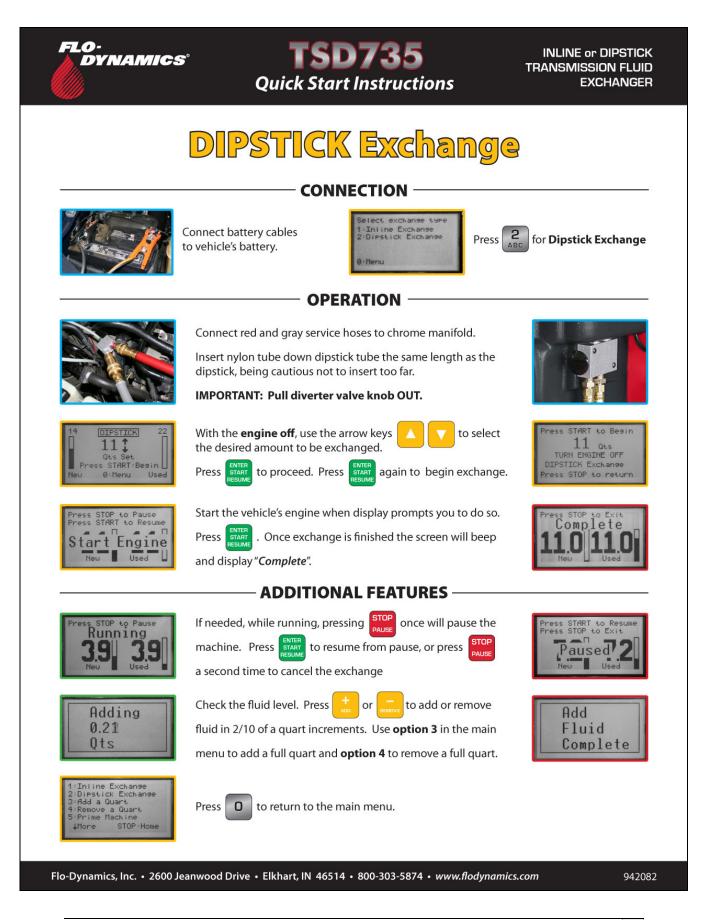
#### 1-800-303-5874



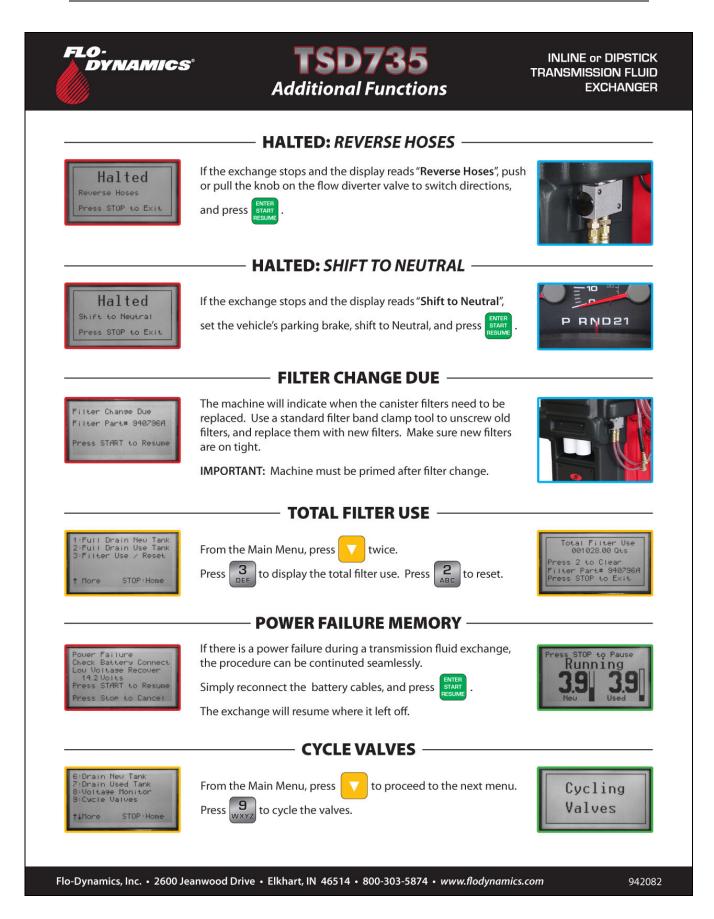




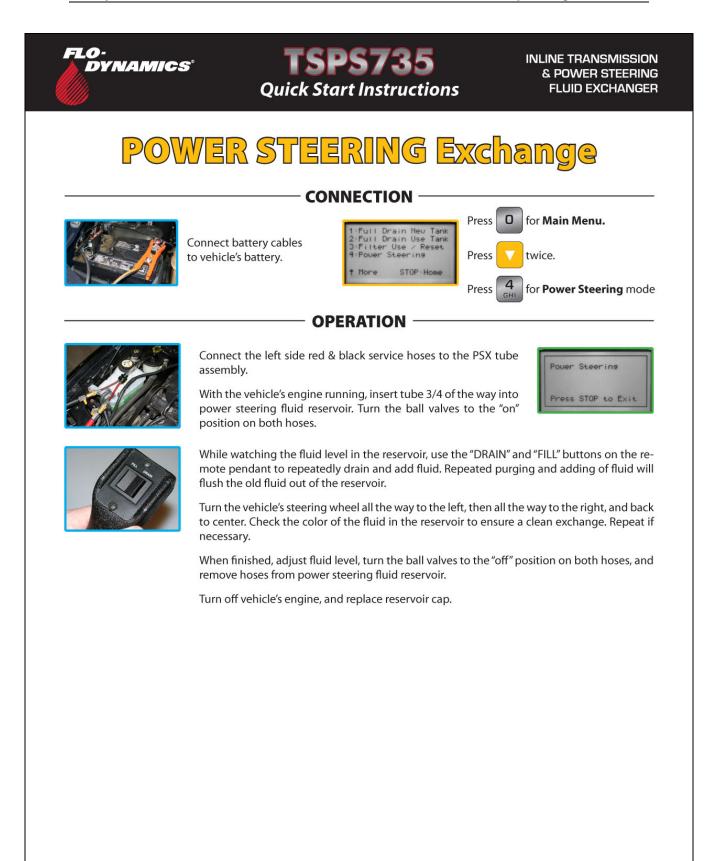




FLO- DYNAMICS <sup>®</sup>	<b>TSD735</b> Additional Functions	INLINE or DIPSTICK TRANSMISSION FLUID EXCHANGER
	MAIN MENU	
Connect b to vehicle's	attery cables s battery.	nse
	— PRIMING THE MACHINE -	
	ure there is fluid in the New Fluid Tank. Conne ck service hoses together using any two mati	
Prime Machine Join RED & BLACK Hose Press START to Besin Press STOP to Exit Add new fluid The unit	5. Press <b>ENTER</b> <b>TRESUME</b> to begin the process. t will shut off when complete.	Priming <sup>21</sup> 0.55 Qts Used
	— DRAINING THE TANKS —	
CONNECT an open ended drain hose to the RED SERVICE HOSE DISCONNECT the BLACK SERVICE HOSE the Use	t any open end adapter to <b>red hose</b> and inser riate disposal container. <b>Pull diverter valve k</b> ure all other hoses are disconnected! The Main Menu, press to proceed to the r to drain the New Fluid Tank. Press <b>7</b> <b>DIVID</b> to drain the New Fluid Tank. Press <b>7</b> <b>CONT</b> to begin the process it will shut off when complete.	to drain
9:Cucie Valves 9:Cucie Valves 14More STOP:Home Press	voltage Monitor	14.3 Volts Press STOP to Exit



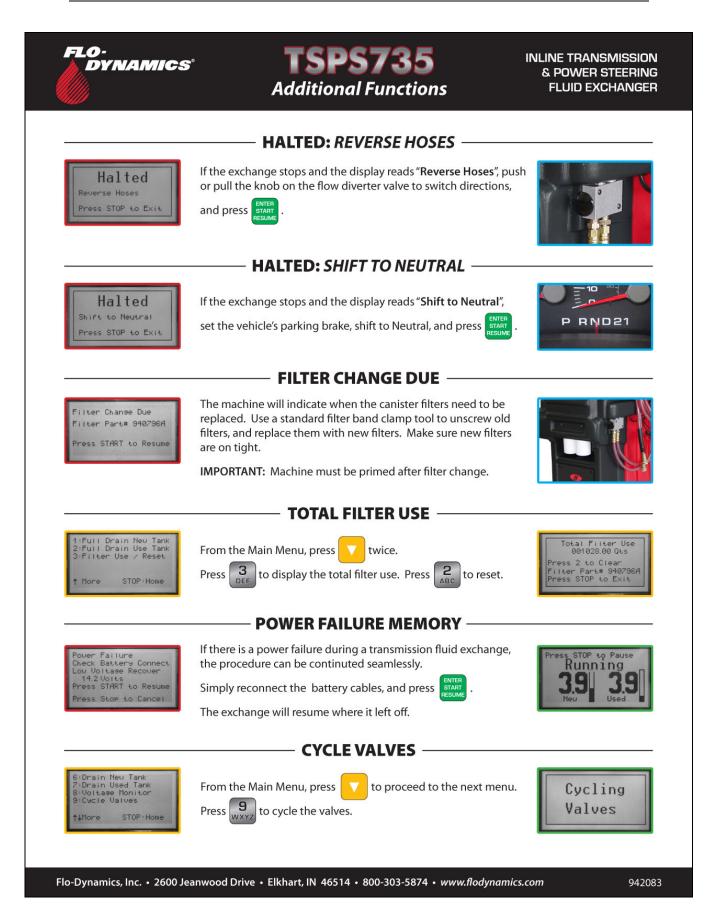
FLO- DYNAMICS	<b>TSPS735</b> Quick Start Instruction	INLINE TRANSMISSION & POWER STEERING FLUID EXCHANGER
	INLINE Exchan	Ŋġe
	CONNECTION —	
	Connect battery cables o vehicle's battery. @ Menu	Press 1 for Inline Exchange
	OPERATION —	
	Connect appropriate adapters to vehicle's cooler lin Connect red and black service hoses to quick disco on the end of the cooler line adapters.	
14 INLINE 22 111 1 2 Ots Set Press START:Begin New 0:Menu Used	Use the arrow keys to select the desire be exchanged. Press EXTER Press EXTER Press EXTER BESUME to begin the exchange.	11
Press STOP to Pause Running 9.9 9.9 New Used	Once exchange is finished the screen will beep and " <i>Complete</i> ".	display
-	ADDITIONAL FEATURES	
Press START to Resume Press STOP to Exit Paused 22 New Used	If needed, while running, pressing <b>STOP</b> once will machine. Press <b>EXTER</b> to resume from pause, or pr a second time to cancel the exchange	
Removing 0.20 Qts	Check the fluid level. Press to add o fluid in 2/10 of a quart increments. Use <b>option 3</b> in menu to add a full quart and <b>option 4</b> to remove a	Complete
3:Add a Quart 4:Remove a Quart 5:Prime Machine 4More STOP:Home	Press <b>O</b> to return to the main menu.	
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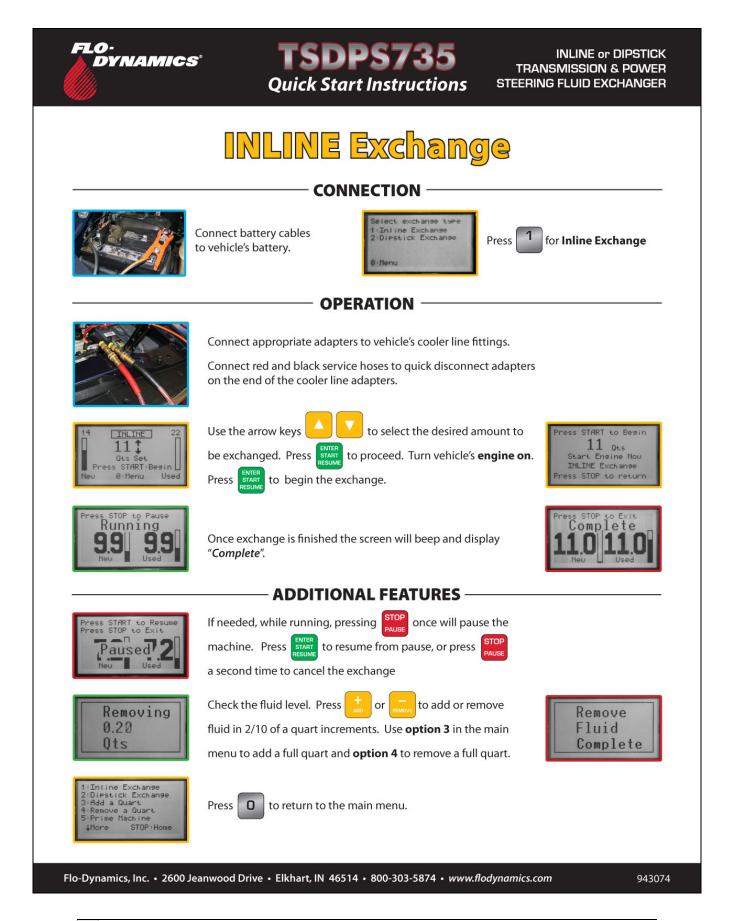


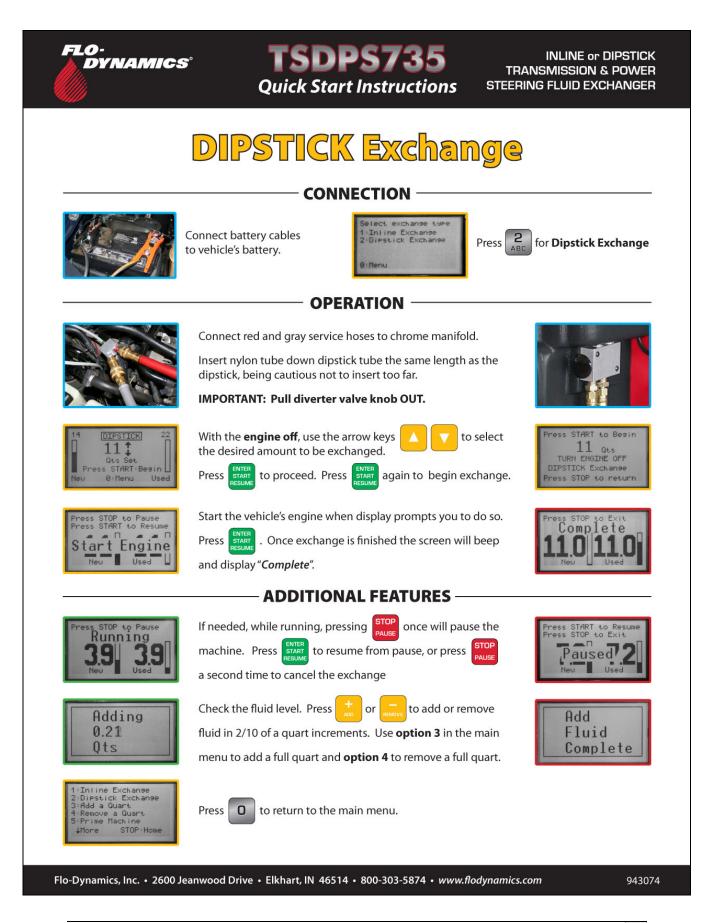
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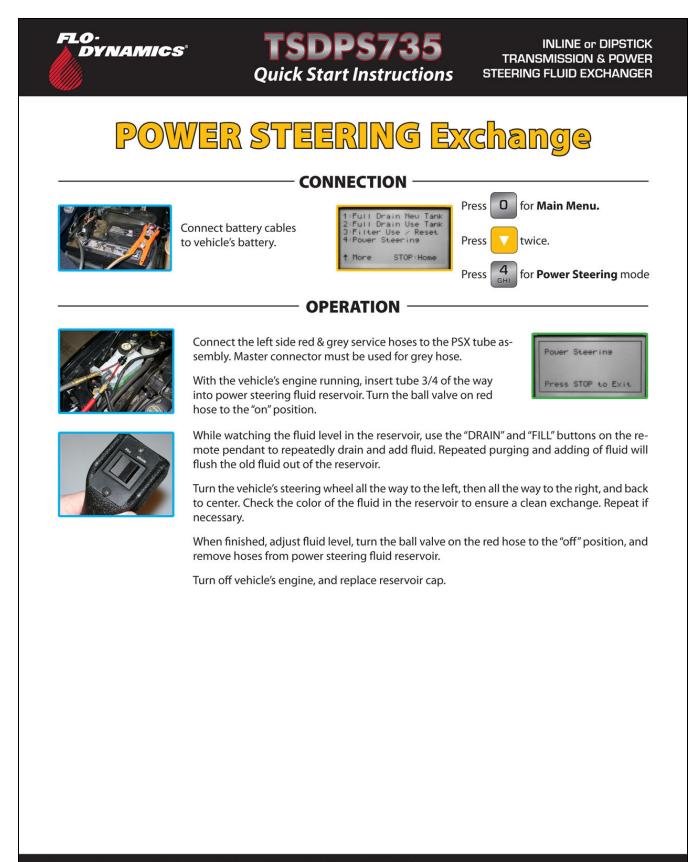
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FLO- DYNAMICS'	<b>TSPS735</b> Additional Functions	INLINE TRANSMISSION & POWER STEERING FLUID EXCHANGER
	MAIN MENU	
Connect b to vehicle's	attery cables 1 · Ini ine Exchange s battery.	
	— PRIMING THE MACHINE —	
	ire there is fluid in the New Fluid Tank. Connec ck service hoses together using any two matin	
Prime Machine Join RED & BLACK Hose Press START to Besin Press STOP to Exit Add new fluid The unit	5. Press <b>ENTER</b> RESUME to begin the process. t will shut off when complete.	Priming 0.55 Qts Used
	— DRAINING THE TANKS —	
CONNECT an open ended drain hose to the DISCONNECT the BLACK SERVICE HOSE DISCONNECT THE BEAM	t any open end adapter to <b>red hose</b> and insert riate disposal container. <b>Pull diverter valve kr</b> ure all other hoses are disconnected! e Main Menu, press to proceed to the n bit to drain the New Fluid Tank. Press <b>7</b> <b>1 Fluid Tank</b> . Press <b>1</b> <b>1 Fluid Tank</b> . Press <b>1</b> <b>1 Fluid Tank</b> . Press <b>1</b> <b>1</b> <b>1</b> to begin the process it will shut off when complete.	ext menu.
S:Drain New Tank 7:Drain Used Tank 8:⊍oitase Monitor 9:Cucle Valves ↑↓More STOP:Home Press	e Main Menu, press 🔽 to proceed to the n 8 uv to display the voltage.	ext menu. 14.3 Volts Press STOP to Exit
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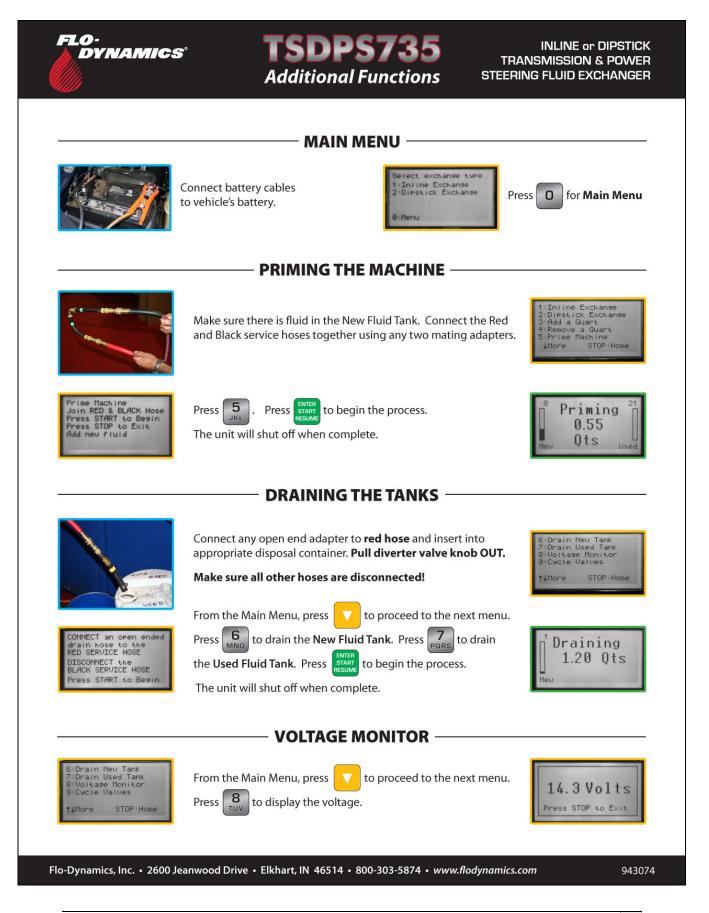


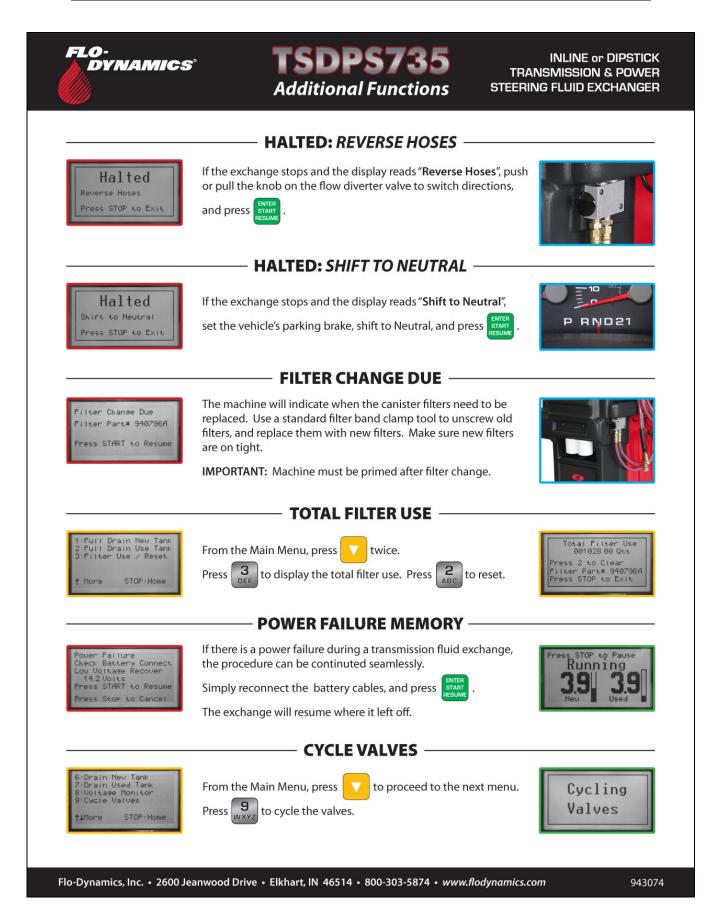




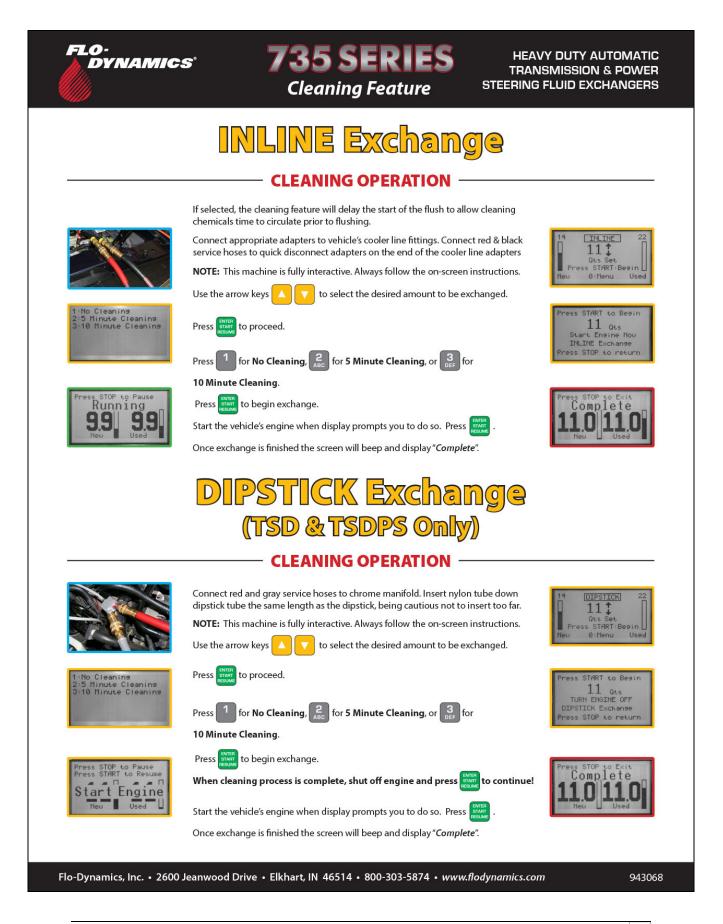
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# **IV. HOSES & ADAPTERS**

## 4.01 ADAPTER HOSES

#### **STANDARD HOSES**

-Green- 5/8"-18 [F] SAE 45° Flare - Swivel 941801- Hose #51 (Mates with #52) (Chrysler - 1993 and Newer) -Green-5/8"-18 [M] SAE 45° Flare 941802- Hose #52 (Mates with #51) (Chrysler) -Blue-5/8"-18 [M] SAE 45° Flare - Swivel 941803- Hose #53 (General Motors with 3/8" Tube Diameter Lines - All Years) (Mates with #57) ------Black-3/8" Diameter Hose [F] Open End Hose w/Clamp 941805- Hose #55 (Import - 1987 and Newer) (Mates with Step Fitting) -Blue-5/8"-18 [F] 941807- Hose #57 SAE 45° Inverted (Mates with #53) (General Motors with 3/8" Tube Diameter Lines - 1997 and Newer) . . -Black-1/2" Diameter Hose [F] Open End Hose w/Clamp 941809- Hose #59 (Mates with Step Fitting) (Import) and the state of t -Black-5/16" Diameter Hose [F] 941813- Hose #63 Open End Hose w/Clamp (Mates with Step Fitting) (Import) -Green- 1/4"-18 [M] 941815- Hose #65 NPTF (Mates with #75) (Jeep Cherokee- 1980-1986) -Red-1/2"-20 [F] SAE 45° Inverted 941816- Hose #66 (Chrysler, Ford Aerostar, Jaguar, Mercedes, & Cadillac-1985 and (Mates with #67) Newer) \* Needs Ford Slide Tool 940140 for Aerostar / Windstar 8 -Red-1/2"-20 [M] SAE 45° 941817- Hose #67 (Mates with #66) (Chrysler and Ford)

941818- Hose #68 (Mates with #69)	-Red-	5/8"-18 [M] SAE Inverted - Swivel (Ford With Large Nut Adapter - 1980 and Newer)
941819- Hose #69 (Mates with #68)	-Red-	5/8"-18 [F] SAE Inverted <i>(Ford)</i>
941820- Hose #70 (Mates with #71)	-Blue-	1/2"-20 [M] SAE 90° Inverted - Swivel (General Motors with 5/16" Tube Diameter Lines - All Years)
941821- Hose #71 (Mates with #70)	-Blue-	1/2"-20 [F] SAE Inverted (General Motors & Ford Expedition)
941822- Hose #72 (Mates with #73)	-Red-	1/2"-20 [F] SAE Inverted <i>(Ford)</i>
941823- Hose #73 (Mates with #72)	-Red-	1/2"-20 [M] SAE 90° Inverted - Swivel (Ford 5/16" Small / Long Nut Adapter - 1980 and Newer)
941825- Hose #75 (Mates with #65)	-Green-	M14 x 1.5 [F] Swivel O-ring (Jeep Cherokee, Ford Escort - 1980-1986)
940874- Hose #78 (Mates with #79)	-Red-	M14 [F] Banjo Fitting <i>(Ford Escort – 1994 and Newer)</i>
940875- Hose #79 (Mates with #78)	-Red-	M14 x 1.5 [M] Bolt w/ 2 Washers (Ford Escort - 1994 and Newer)
<b>941828</b> - Hose <b>#80</b> (Mates with #81)	-Black-	1/4" [M] Universal Bump Fitting <i>(Import)</i>
941829- Hose #81 (Mates with #80)	-Black-	1/4" Diameter Hose [F] Open End Hose w/Clamp <i>(Import)</i>
941830- Hose #82 (Mates with #63)	-Black-	5/16" [M] Universal Bump Fitting ( <i>Infiniti, Lexus, and BMW - 1980 and Newer</i> )

941831- Hose <b>#83</b> (Mates with #55)	-Black-	3/8" [M] Universal Bump Fitting ( <i>Toyota, Nissan, Honda, Ford and Chrysler - 1975 and Newer</i> )
941832- Hose #84 (Mates with #59)	-Black-	1/2" [M] Universal Bump Fitting (Toyota, Nissan and Honda - 1980 and Newer)
941835- Hose #87 (Mates with #88)	-Green-	9/16"-18 [M] JIC 37° Flare - Inverted <i>(Dodge Durango/Dakota - All Years)</i>
941836- Hose #88 (Mates with #87)	-Green-	9/16"-18 [F] JIC 37° Flare - Swivel (Dodge Durango/Dakota - All Years)
941841- Hose #89 (Mates with #90)	-Black-	3/4"-16 [M] SAE O-Ring (Chevy DuraMax w/Allison Transmission – 2001 & Newer)
<b>941842-</b> Hose <b>#90</b> (Mates with #89)	-Black-	3/4"-16 [F] SAE O-Ring Adapter (Chevy DuraMax w/Allison Transmission – 2001 & Newer)
941960- Hose #91	-Red-	3/4"-18 [M]
(Mates with #92)	-Red-	(Ford F-250 & F-350 w/ Torqueshift Transmission) 3/4"-18 [F]
(Mates with #91)		(Ford F-250 & F-350 w/ Torqueshift Transmission)
941080- Hose <b>#93</b> (Mates with #94)	-Red-	5/8-18 [M] (Ford Focus / Mercury Mystique)
941081- Hose #94 (Mates with #93)	-Red-	5/8-18 [F] (Ford Focus / Mercury Mystique)
940388- Hose #124 (Mates with #142)	-Yellow-	3/4"-18 [M] 90° Inverted SAE 45° - Swivel (Ford Torqshift / 250SD / 550SD / Econoline / Excursion)
940389- Hose #142 (Mates with #124)	-Yellow-	3/4"-18 [F] Inverted SAE 45° Rigid - Straight <i>(Ford Torqshift / 250SD / 550SD / Econoline / Excursion)</i>
<b>941900</b> - Hose <b>#149</b> (Mates with 5/8" Adapt	Yellow- er)	5/8" Diameter Hose [F] Open End Hose w/Clamp (Chevy DuraMax w/Allison Transmission - 2003 & Newer)



941178 (TSPS & TSDPS Only) 1/2" Diameter PSX Y-Adapter (All Vehicles)

### **ALLISON HOSES (Optional)**

941844- Hose #134 (Mates with #135)	<b>#16 PTT Thread</b> [Male]
• Yellow- 941845- Hose #135 (Mates with #134)	<b>#16 PTT 30° Swivel</b> [Female]
••••••••••••••••••••••••••••••••••••••	<b>#12 SAE</b> [Male]
• Yellow- 941847- Hose #137 (Mates with #136)	<b>#12 SAE</b> [Female]
• Yellow- 941848- Hose #138 (Mates with #139)	<b>#16 JIC</b> [Female]
••••••••••••••••••••••••••••••••••••••	<b>#16 JIC</b> [Male]
• Yellow- 941850- Hose #140 (Mates with #141)	<b>#10 JIC</b> [Female]
• Yellow- 941851- Hose #141 (Mates with #140)	<b>#10 JIC</b> [Male]
941893- Fitting (Mates with #143)	<b>#12 ORFS</b> [Male]
• Yellow- 941894- Hose #143 (Mates with 941893 Fitting)	<b>#12 ORFS</b> [Female]
• Yellow- 941895- Hose #144 (Mates with #145)	<b>#12 JIC</b> [Male]

941896- Hose #145 (Mates with #144)	- Yellow-	<b>#12 JIC Swivel</b> [Female]
941897- Hose #146 (Mates with #147)	-Yellow-	<b>1 1/16-1 w/ O-Ring</b> [Female]
••••••••••••••••••••••••••••••••••••••	-Yellow-	<b>1 1/16-1 Flat Face</b> [Male]
941903- Hose #152 (Mates with #153)	-Yellow-	<b>#10 ORFS</b> [Female]
941904- Hose #153 (Mates with #152)	- Yellow-	<b>#10 ORFS</b> [Male]

## 4.02 ADAPTERS

The following adapters allow quick and easy hookup to virtually any vehicle make and model.



**940328** 1/2" Adapter



942163S

GM Adapter



942162

Quick Disconnect Tool



941899 5/8" Duramax Adapter



**940329** 3/8" Adapter



941910 3/8" Ford Adapter

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the state of the s	STATUTE OF TAXABLE PARTY.	ad attention	
Manual Park			

**941923** 1/2" Adapter



**940334** 5/16" Adapter



942169 1/2" Medium GM Adapter

Printed in the U.S.A. for Flo-Dynamics ®



**941925** 3/8" Adapter



940831

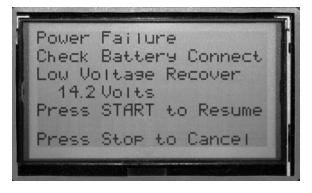
Master Hose Connector

941966 Slider Pin Adapter (Optional)

# V. TROUBLESHOOTING & MAINTENANCE

## **COMMON PROBLEMS / SOLUTIONS**

Problem: "Power Failure" screen displays



- Solution 1: Check battery connection. Make sure there are no loose connections, and the machine's battery clips are not reversed. Remove all corrosion from the battery terminals. Make sure vehicle's A/C system is turned off.
- Solution 2: The vehicle's battery is not putting out enough voltage to run the machine. Connect the machine to a better 12V power source. Stand-alone shelf batteries will not work.

## MAINTENANCE PROCEDURES

• Replace Canister Filters (Part#: 940796A) when machine prompts you to do so:



Use a standard filter band clamp tool to unscrew old filters, and replace them with new filters. Make sure new filters are on tight.

• Clean Waste Fluid Screen (Located in bottom of recessed hose tray area) This helps eliminate surface tension caused by debris and contamination from the air. Using a sharp pick, remove screen. Clean using degreaser and brush, and blow out with air compressor.

• Periodically Wipe Down Exterior using a soft, damp cloth.

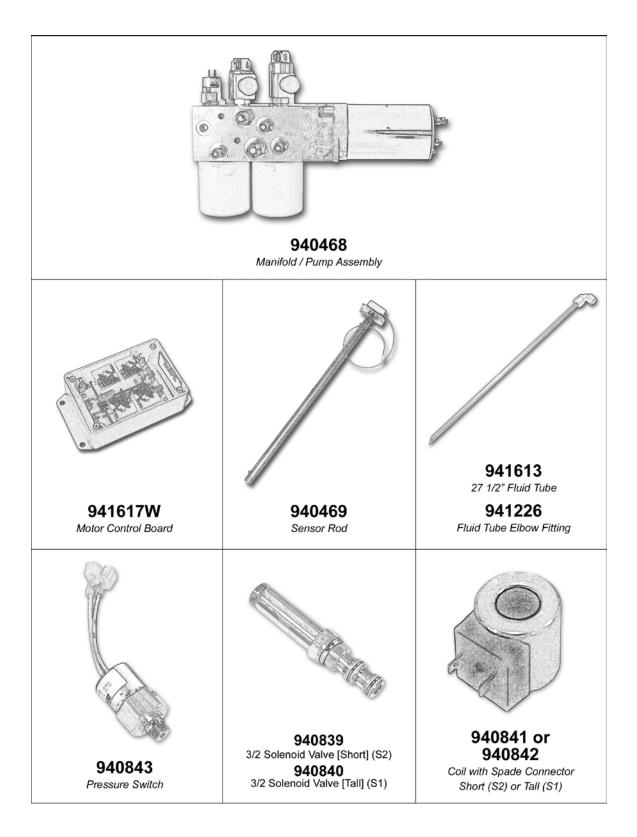
# VI. ORDERING REPLACEMENT PARTS

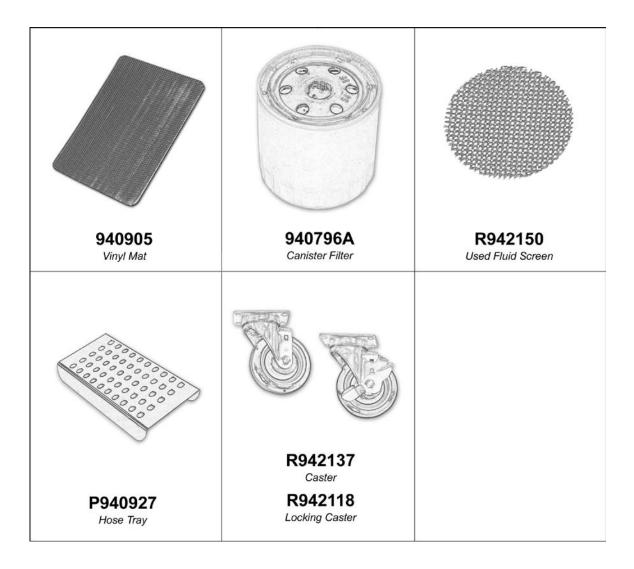
# **REPLACEMENT PART LIST**

Part #	Description
	p
943083W	Control Panel w/ Elec. Board & Label (TSPS)
943082W	Control Panel w/ Elec. Board & Label (TSD)
943081W	Control Panel w/ Elec. Board & Label (TS)
943080W	Control Panel w/ Elec. Board & Label (TSDPS)
940307	Battery Cable Assembly
941617W	Motor Control Box
940469	Sensor Rod
941613	27 1/2" Fluid Tube
941226	Fluid Tube Elbow Fitting
	-
940551	PSX Fill Pump (TSPS & TSDPS Only)
940468	Manifold/Pump Assembly
940843	Pressure Switch (Factory preset to 6 psi)
940839	3/2 Solenoid Valve [Short] (S2)
940840	3/2 Solenoid Valve [Tall] (S1)
940841	Coil with Spade Connector [Short] (S2)
940842	Coil with Spade Connector [Tall] (S1)
R940775	Standard Hose Kit
941168	Allison Hose Kit (Optional)
P940927	Hose Tray
941220	Optional Hose Rack
R940985	Internal Hose Kit (TS)
R941171	Internal Hose Kit (TSPS)
R942094	Internal Hose Kit (TSD)
943069	Internal Hose Kit (TSDPS)
0.4000.4	
940831	Master Hose Connector
940785	Service Hose Black
940786	Service Hose Red
940787	Service Hose PSX Black (TSPS)
940788	Service Hose PSX Red (TSPS & TSDPS)
941178	12" Tube w/ Air Nipple (TSPS & TSDPS)
940834	PSX Pendant Assembly (TSPS & TSDPS)
R940663	PSX Pendant Switch (TSPS & TSDPS)
940922	PSX Dock Magnet Assembly (TSPS & TSDPS)
940913	New Power Steering Fluid Bottle (TSPS & TSDPS)
941716W	Dipstick Manifold Assembly (TSD & TSDPS)

941728	Gray Service Hose (TSD & TSDPS)	
941099	Diverter Valve	
941708	Dipstick Reducer (TSD & TSDPS)	
R940557	5/16" x 6' Poly Tube (TSD & TSDPS)	
943087	Console	
943086	Тор	
943085	Waste Fluid Tank	
943084	New Fluid Tank	
941603	Chassis	
943079	Service Panel Label	
R942118	Locking Caster Wheel	
R942137	Caster Wheel	
940905	Vinyl Mat	
940796A Canister Filter		
R942150	Used Fluid Screen (1 1/4" Diameter)	
941921	Universal Standard Adapter Hose Chart	
943078	Operations Manual	
943074	Quick Start & Add'l Functions Bundle Set (TSDPS)	
943075	Quick Start & Add'l Functions Bundle Set (TS)	
943076	Quick Start & Add'l Functions Bundle Set (TSD)	
943077	Quick Start & Add'l Functions Bundle Set (TSPS)	
943068	Cleaning Feature Universal Quick Start Supplement	
940844	Adapter Instruction Sheet	

# **REPLACEMENT PART ILLUSTRATIONS**





## **ORDERING INFORMATION**

To order replacement parts for the Flo-Dynamics 735 SERIES, call:

1-800-303-5874

# LIMITED ONE (1) YEAR WARRANTY Flo-Dynamics 735 SERIES

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.