

TRANS PRO



SERIES

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TRANS PRO

X SERIES

OPERATIONS MANUAL



TABLE OF CONTENTS

- I. INTRODUCTION to the TRANS PRO X-SERIES2**
- II. SAFETY INFORMATION3**
 - Section 1.01: Important Safety Notice3
 - Section 1.02: Important Safety Instructions5
- III. SYSTEM FEATURES & SPECIFICATIONS9**
 - Section 2.01: Features9
 - Section 2.02: Dimensions & Technical Specifications10
 - Section 2.03: Machine Overview11
 - Section 2.04: Control Panel Overview12
- IV. OPERATING PROCEDURES14**
 - Section 3.01: Tool Usage / Battery Voltage Chart14
 - Section 3.02: Overview of TRANS PRO Service Modes
of Transmission Fluid Exchange15
 - Section 3.03: Dipstick Mode16
 - Section 3.04: Cooler Only Mode (TRANS PRO+ feature)18
 - Section 3.05: Manual/Top Off Mode20
 - Section 3.06: Drain Waste Tank Mode22
 - Section 3.07: Total Count23
- V. TROUBLESHOOTING & ADDITIONAL HELP24**
 - Section 4.01: Troubleshooting Guide24
- APPENDIX A - ADAPTERS (TRANS PRO+ feature)26**
 - Section 5.01: Adapters26
- APPENDIX B - REPLACEMENT PARTS28**
 - Section 5.02: Replacement Parts28
- APPENDIX C - MAINTENANCE32**
 - Section 6.01: Maintenance Procedures32
- WARRANTY INFORMATION33**

I. INTRODUCTION TO THE TRANS PRO X-SERIES

Congratulations on the purchase of your TRANS PRO system.

The TRANS PRO system is a technologically advanced fluid exchanger that allows convenient, quick, thorough, and accurate automatic transmission fluid (ATF) exchanges. Utilizing unique and visible dual wheel flow meters it accurately monitors fluid movement to and from the transmission.

Logically arranged, the TRANS PRO's fully electronic and intuitive control panel allows three (3) modes of operation. TRANS PRO+ offers the addition of Cooler Line only mode.

- Dipstick only
- Cooler Line only (TRANS PRO+ feature)
- Manual/Top Off
- Drain Waste Tank

The high flow rate of the TRANS PRO system allows most automatic transmission fluid exchanges through the dipstick under 15 minutes.

With this approach, used ATF in the transmission pan is first replaced by new ATF in the static service phase. This significantly reduces dilution time, minimizes transmission fluid degradation, and optimizes the comprehensiveness of the ATF service.

Improvements in mileage, transmission life, and power delivery are typically realized as the result of periodic ATF exchanges. Recommended by most manufacturers, it should be performed periodically and at the specified intervals to maintain your vehicle's efficiencies.

II. SAFETY INFORMATION

1.01 IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating your TRANS PRO system. Your TRANS PRO system 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 TRANS PRO system, 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, may 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 TRANS PRO system 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

1.02 IMPORTANT SAFETY INSTRUCTIONS

DANGER



Vehicle gases contain Carbon Monoxide, which is a colorless & odorless lethal gas.

- **Only run engines in well ventilated areas and avoid breathing exhaust gases.**
Extended breathing of exhaust gases will cause serious injury or death.

WARNING



Improper use and operation.

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



Exhaust gases, moving parts, hot surfaces, and potent chemicals may be present during use of the transmission fluid exchange equipment.

- **When using chemicals and fluids always refer to the MSDS sheets and manufacturer's instructions for the proper procedure to handle emergency medical treatment, cleanup, handling, and storage requirements.**

Improper use of the equipment or exposure to exhaust gases, moving parts, hot surfaces, or moving parts may cause injury.



WARNING



Transmission systems may maintain residual pressure in lines after the engine has been turned off.

- **Wear safety glasses, chemical resistant gloves, and protective clothing when connecting and disconnecting lines and adapters.**
 - **Confirm ZERO pressure before connecting and disconnecting lines and adapters.**
- Exposure to liquids and vapors can cause injury.*



WARNING



Risk of expelling pressurized fluids.

- **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.**

Chemicals and fluids may cause respiratory tract and/or skin and eye irritation.

- **Use safety glasses and protective clothing when handling fluids.**
 - **Do not ingest chemicals or breathe vapors**
 - **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 transmission fluids pose no significant health hazards, some individuals may experience adverse reactions upon contact. Pressurized fluid can cause serious injury.*



WARNING



Batteries produce explosive gases and can explode.

- **Keep sparks and flames away from the battery.**
- **Do not lay tools, equipment, or other conductive items on the battery.**
- **Connect the positive lead of the equipment to the positive lead of the battery first.**
- **Connect the negative lead of the equipment to vehicle ground as far away from the battery as leads will allow to prevent sparking and igniting of battery gases.**
- **Keep battery acid away from skin and eyes. In case of eye contact, flush with clean water for 15 minutes and get medical attention.**

Battery explosion and ignited gases can cause 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, adapters and service hoses clear of moving parts such as fan blades, belts and pulleys.**
- **Wear safety goggles (user and bystanders).**

Moving components can cause injury.

 **WARNING**

Risk of burns.

- **Wear gloves when working near hot engine components.**
- **Do not touch hot exhaust systems, manifolds, engines, radiators, etc.**

Hot components can cause injury or discomfort.

 **WARNING**

Risk of injury.

- **This equipment should be operated by qualified personnel only.**
- **Use this equipment only as described in this manual.**
- **Loop the power cord loosely in its proper location when machine is not in use.**
- **Do not operate equipment with a damaged power cord 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 power cord and service hoses so that they will not be tripped over or pulled.**
- **Never pull on the power cord or service hoses to transport the TRANS PRO system. Damage may occur to these components, or machine may tip over.**
- **Keep area of operation clear of unnecessary tools and equipment. Utilize storage area on the top of the machine and drawers.**
- **Never leave the machine running unattended.**
- **The TRANS PRO system is not designed for any other purpose than the exchanging, filling, and draining of automatic transmission fluids.**

Operation of your TRANS PRO system by anyone other than qualified personnel may result in injury.

 **CAUTION**

Risk of equipment damage.

- **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 TRANS PRO system is fully automatic. Refer to your control panel at all times.**
- **Never pull on the power cord or service hoses to transport the TRANS PRO system. 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!

III. SYSTEM FEATURES & SPECIFICATIONS

2.01 FEATURES

Application

- Exchanges automatic transmission fluid (ATF) in most transmission systems
- Restores power delivery, helps improve fuel economy, and maximizes transmission service life.

Functions

- Intuitive, fully electronic microprocessor controlled panel with internal fuses, overload, and ground protection
- Step by step guided operation
- User selectable modes: Dipstick, Cooler Line (TRANS PRO+ feature), manual/top-off, drain waste tank, total count
- Visible signal for polarity check
- Bright seven segment LED displays function, fluid volume in and out, process progression and service count
- Board mounted LEDs display indicate available procedures and fluid direction
- Audible alarm and LED display prompt technician involvement to START service, START engine, CHECK ATF fluid level, and END service
- Waste tank level indicator
- Emergency PAUSE/ABORT button (also used to “reset”)

Cabinet Features

- Composite cabinet
- Ergonomically correct working height
- 9” rigid rear wheels
- 4” swivel casters with brakes
- Large new ATF reservoir with readily visible sight gauge
- 8’ external nylon reinforced Hytron hoses
- Bi directional high flow rate pump
- Flexible nylon hose for ATF evacuation and filling via dipstick mode
- Two (2) accurate readily visible dual wheel flow meters

2.02 DIMENSIONS & TECHNICAL SPECIFICATIONS

Specifications

- Eight (8) U.S. gallon tanks for new and used ATF
- 8' external nylon reinforced Hytron hoses
- 9" rigid rear wheels
- 4" swivel caster with brakes

- **Electrical Requirement:** Fully charged 12 VDC Automotive Battery.
- **Weight** (uncrated): 91 lbs. (42 kgs) TRANS PRO
(uncrated): 99 lbs. (45 kgs) TRANS PRO+

- **Dimensions:** 18" (46 cm) wide
24" (61 cm) deep
60" (152 cm) high

- One (1) year limited warranty

Standard Accessories

- Dipstick tube 75", 6300-00-75-5 (2 pcs.)
- Dipstick tube 42", 6300-00-42-5 (1 pc.)

2.03 MACHINE OVERVIEW



TRANS PRO+ adapters shown

Dipstick Adapter

Control Panel

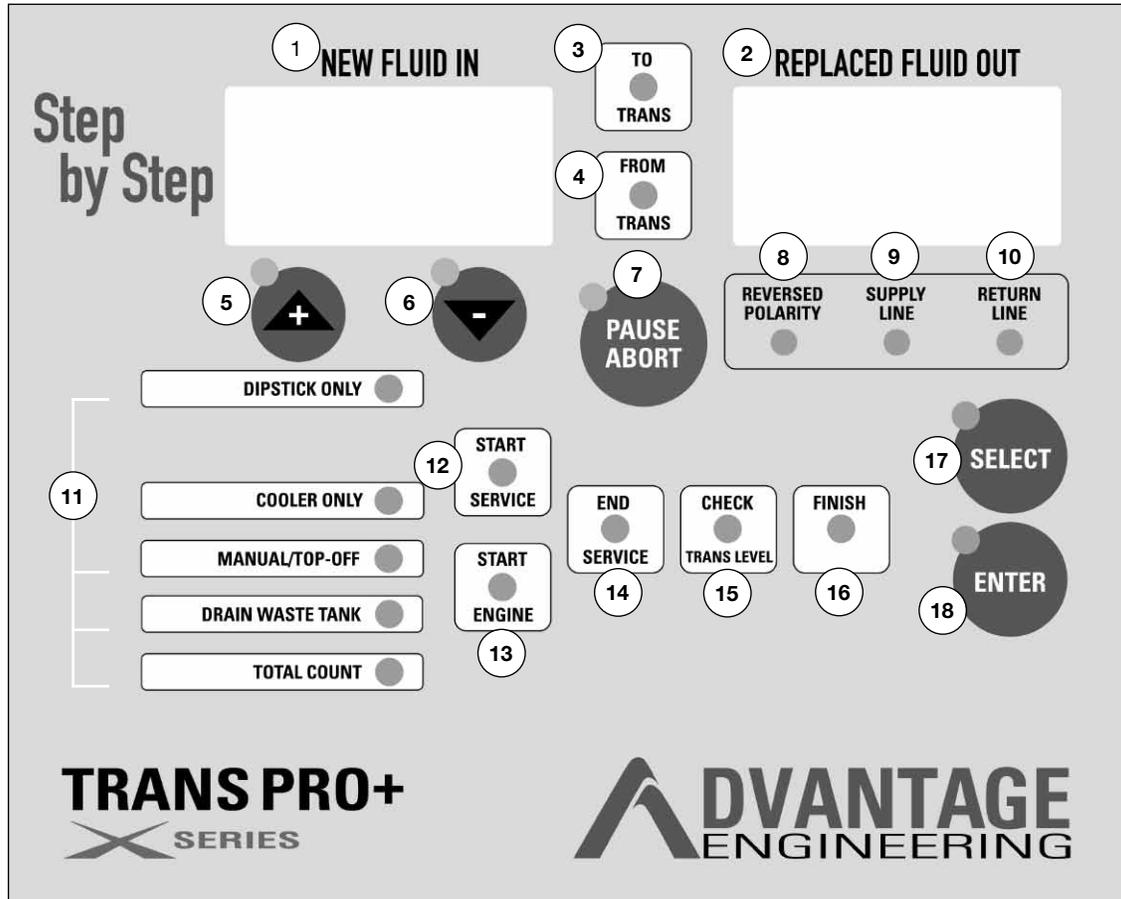
Flow Meters

New Fluid Reservoir

Rigid 9" Wheels

4" Locking Caster Wheels

2.04 CONTROL PANEL OVERVIEW



TRANS PRO+ panel shown.

KEYS NAME/FUNCTION	DETAILS
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1 NEW FLUID IN Display (3 digits) LED	Indicates fluid in (in tenths of a quart) Indicates count in TOTAL COUNT mode
2 REPLACED FLUID OUT Display (3 digits) LED	Indicates fluid out (in tenths of a quart) Indicates count in TOTAL COUNT mode
3 TO TRANS LED	Indicates direction of fluid
4 FROM TRANS LED	Indicates direction of fluid

KEYS	NAME/FUNCTION	DETAILS
5	ADD (ARROW UP) Button - LED	Add volume in 1 quart increments (in CHECK TRANS LEVEL mode, .1 quart increments)
6	SUBTRACT (ARROW DOWN) Button - LED	Reduce volume in 1 quart increments (in CHECK TRANS LEVEL mode, .1 quart increments)
7	PAUSE/ABORT Button - LED	To pause, abort, or reset
8	REVERSED POLARITY LED (red)	Lights when leads are improperly connected to 12V power source
9	SUPPLY LINE LED (red)	Lights to indicate flow problem in supply line.
10	RETURN LINE LED (red)	Lights to indicate flow problem in return line.
11	MODE LED (green)	Lights to indicate mode selected
12	START SERVICE LED (red)	Lights to prompt beginning of fluid exchange process
13	START ENGINE LED (red)	Lights to prompt engine start during fluid exchange process
14	END SERVICE LED (red)	Lights to prompt “stop engine” during fluid exchange process
15	CHECK TRANS LEVEL LED (red)	Lights to prompt check of transmission fluid level during fluid exchange process
16	FINISH LED (red)	Lights when service is complete
17	SELECT Button (LED – green)	Depress to select mode
18	ENTER Button (LED – green)	Depress to confirm selection

IV. OVERVIEW AND OPERATING PROCEDURES

3.01 TOOL USAGE

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

BATTERY VOLTAGE CHART

VOLTAGE	% CHARGE
12.6 to 12.72 VDC	100
12.45 VDC	75
12.30 VDC	50
12.15 VDC	25
@ 80° Fahrenheit (27° Celsius)	

IMPORTANT: A charged battery is required for proper machine function.

3.02 OVERVIEW OF TRANS PRO X-SERIES AUTOMATIC TRANSMISSION FLUID EXCHANGING SERVICE MODES

The TRANS PRO can perform an ATF exchange, drain the transmission pan, and/or top off ATF levels in vehicles that have a dipstick. A fluid exchange service is possible in the cooler line mode (TRANS PRO+ feature). The mode selected when performing an ATF exchange may determine the comprehensiveness of the service.

Dipstick Only – no adapters to the cooler lines are used

Dipstick adapter is inserted into transmission's dipstick tube

(used ATF and new ATF are transferred through the transmission's dipstick to the transmission system with this mode)

- Step 1: Technician selects the quantity of ATF to be used for the service (default is 12 quarts). Minimum is 6 quarts, maximum is 32 quarts.
- Step 2: With engine off, TRANS PRO extracts used ATF from the transmission pan through the transmission's dipstick tube.
- Step 3: With engine off, TRANS PRO pumps back the same volume of new ATF to the transmission's pan through the transmission dipstick tube.
- Step 4: The engine is started, circulating new ATF through the transmission fluid circuits; returning old system fluid to the transmission pan.
- Step 5: TRANS PRO extracts one (1) quart of now diluted ATF, and returns one (1) quart of new ATF through the dipstick to the transmission pan. This step is repeated until the ATF volume selected for the service is reached.

Cooler Only (Trans Pro+ feature) – adapters to the cooler lines are used

(used ATF and new ATF are transferred through the transmission's cooler line with this mode)

- Step 1: Technician locates cooler line, points of connection, and adapters for this mode. Adapters are connected with the engine off.
- Step 2: Technician selects the quantity of ATF to be used for the service (default is 12 quarts). Minimum is 6 quarts, maximum is 32 quarts.
- Step 3: After the Trans Pro+ is activated and the engine is started, the Trans Pro+ X-series senses pressure from transmission and allows transfer of 1 quart used ATF through cooler line. Trans Pro+ X-series returns 1 quart new ATF through cooler line. This to/from continues until the ATF volume selected for the service has been transferred.

MANUAL/TOP OFF

(used ATF and new ATF are transferred through the transmission's dipstick to the transmission system with this mode)

This mode is used commonly used when the transmission pan needs to be removed (to change gaskets or replace filter). It is also used to top off the ATF fluid level when necessary.

3.03 DIPSTICK MODE – OPERATING PRODECURE

(used ATF and new ATF are transferred through the transmission's dipstick to the transmission system with this mode)

NOTE: Confirm vehicle and transmission are at operating temperature before initiating service!

Power up. Connect power cord to 12.0 VDC battery. **REFER TO BATTERY VOLTAGE CHART ON PAGE 14.** Connect the positive lead of the equipment to the positive lead of the battery first. Connect the negative lead of the equipment to vehicle ground as far away from the battery as the leads will allow to prevent sparking and igniting of battery gases. Note: The REVERSED POLARITY LED will light if connected improperly.

The TRANS PRO will self test. The buzzer will sound, all LEDs and display segments will light briefly, the dipstick tube holder will be evacuated, and software version will be displayed.

The SELECT key and DIPSTICK ONLY, MANUAL/TOP-OFF, DRAIN WASTE TANK, and TOTAL COUNT LEDs will light and flash (additional COOLER LINE LED visible on TRANS PRO+ model).

Remove dipstick from transmission. Note dipstick length. Insert flexible nylon dipstick tube to length of dipstick being mindful that it may be necessary to insert slightly farther until the bottom of the pan is reached.

Depress the SELECT key until the LED for the proper function is lit. (Note: The lit LED will move from option to option i.e. MANUAL/TOP-OFF, DRAIN WASTE TANK, and TOTAL COUNT, etc. each time it is depressed). When the LED for the DIPSTICK ONLY mode is lit and flashing, pause for one second.

The ENTER key LED will then light and flash. Depress ENTER to confirm.

The left display indicating the quantity of new ATF for the service will show "12."

Select the quantity of ATF to be used for the service (default is 12 quarts; minimum is 6 quarts, maximum is 32 quarts). Add or subtract in one (1) quart increments by depressing the ADD (ARROW UP) or SUBTRACT (ARROW DOWN) buttons below the display. Depress ENTER key to confirm the quantity displayed.

The alarm will sound and the START SERVICE and ENTER LEDs will flash. Depress ENTER to start the ATF exchange.

With engine off, TRANS PRO purges its internal fluid lines and then extracts used ATF from the transmission pan through the transmission's dipstick until empty. The cumulative volume extracted is shown on the right display.

With engine off, TRANS PRO pumps back the same volume of new ATF to the transmission's pan through the transmission dipstick. The cumulative volume of new fluid selected LESS the volume of new ATF pumped to the transmission is shown on the left display.

The alarm will sound and the START ENGINE and ENTER LEDs will flash. Start the engine, depress brake pedal, and shift through gear range, holding each gear for three to five seconds before returning gear selector to Neutral or Park. Block wheels and set emergency/parking brake. Depress ENTER to confirm that the engine is now running.

ATF circulates through the transmission system (torque converter and cooler lines) when the engine is running.

TRANS PRO extracts one (1) quart of now diluted ATF, and returns one (1) quart of new ATF through the dipstick to the transmission pan. The volume of extracted fluid from and new fluid pumped to the transmission are reflected on right and left displays respectively.

This step is repeated until the ATF volume selected above for the service is reached.

The buzzer will sound and the END SERVICE and ENTER LEDs will light. Confirm by depressing ENTER. CHECK TRANS LEVEL LED will light.

Check the ATF level in the pan. Remove the flexible nylon dipstick tube. Insert the dipstick and note level.

Adjust the ATF level. Depress ENTER. The TO TRANS, FROM TRANS, and FINISH LEDS will light. Depress SELECT to toggle to the appropriate function.

If the level is too low depress SELECT until TO TRANS LED is lit. If too high, depress SELECT until FROM TRANS LED is lit. Confirm by depressing ENTER.

Depress the ADD (ARROW UP) button. The left display will indicate a cumulative one-tenth (.1) quart adjustment each time the ADD (ARROW UP) button is depressed.

Reinsert dipstick tube to transmission. Depress ENTER key to complete level adjustment sequence.

If level is satisfactory, depress SELECT until FINISH LED is lit.

Wait for one second. Depress ENTER key when it flashes to confirm the function. Depress ENTER again.

The buzzer will sound and the TRANS PRO will display "SR FIN" "Service Finished."

3.04 COOLER ONLY MODE – OPERATING PRODECURE

(Used ATF and new ATF are transferred through the cooler lines to the transmission system with this mode)

NOTE: Confirm vehicle and transmission are at operating temperature before initiating service!

Power up. Connect power cord to 12.0 VDC battery. **REFER TO BATTERY VOLTAGE CHART ON PAGE 14.** Connect the positive lead of the equipment to the positive lead of the battery first. Connect the negative lead of the equipment to vehicle ground as far away from the battery as the leads will allow to prevent sparking and igniting of battery gases. Note: The REVERSED POLARITY LED will light if connected improperly.

The TRANS PRO+ will self test. The buzzer will sound, all LEDs and display segments will light briefly, and software version will be displayed.

Identify and select an appropriate Automatic Transmission cooler line. Disconnect and attached appropriate adapters to the previously selected cooler line, either at transmission or at radiator, whichever is most convenient.

Attach cooler line adapters to TRANS PRO+ selector valve assembly. Disconnect TRANS PRO+ red and black hoses from dipstick nozzle assembly and attach lines to fittings on selector valve assembly.

The SELECT key and DIPSTICK ONLY, COOLER ONLY, DRAIN WASTE TANK, AND TOTAL COUNT LEDs will light and flash.

Depress the SELECT key until only the LED for the COOLER ONLY function is illuminated. Pause for one second.

The ENTER key LED will then light and flash. Depress ENTER to confirm.

The left display indicating the quantity of new ATF for the service will show “12” and the ADD (ARROW UP) and SUBTRACT (ARROW DOWN) LEDs will flash.

Select the quantity of ATF to be used for the service (default is 12 quarts; minimum is 6 quarts, maximum is 32 quarts). Add or subtract in one (1) quart increments by depressing the ADD (ARROW UP) or SUBTRACT (ARROW DOWN) buttons below the display. Depress ENTER key to confirm the quantity displayed.

The alarm will sound and the START ENGINE and ENTER LEDs will flash. Press ENTER to start the ATF service, then start the engine.

When conditions are correct (i.e. fluid temperature up to operating temperature and correct gear range selected), ATF circulates through the transmission system when the engine is running.

TRANS PRO+ extracts 1 quart used ATF from the cooler line. The TRANS PRO+ then pumps back the same amount (1 quart) of new fluid through the other cooler line. This continues until the ATF volume selected for the service is reached.

NOTE: If flow from transmission is too slow, depress brake pedal and shift transmission to neutral. Block wheels to secure vehicle in Neutral range.

When selected amount of fluid has been exchanged, TRANS PRO+ will go into a bypass mode in which the circulating transmission fluid “bypasses” the machine but continues to safely flow through the cooler circuit. Buzzer will sound and END SERVICE and ENTER LEDs will flash. Confirm by depressing ENTER.

CHECK TRANS LEVEL LED flashes. Buzzer sounds five (5) times. CHECK TRANS LEVEL LED then goes solid. TO TRANS, FROM TRANS, FINISH, AND SELECT LEDs flash.

Adjust the ATF level. Depress ENTER. The TO TRANS, FROM TRANS, and FINISH LEDs will light. Depress SELECT to toggle to the appropriate function. If the level is too low depress until TO TRANS LED is lit. If too high, depress until FROM TRANS LED is lit.

Depress the ADD (ARROW UP) button. The left display will indicate a cumulative one-tenth (.1) quart adjustment each time the ADD (ARROW UP) button is depressed.

If level is satisfactory, depress until FINISH LED is lit.

Wait for one second. Depress ENTER key when it flashes to confirm the function. Depress ENTER again.

The TRANS PRO+ will display SR FIN “Service Finished.” Confirm by depressing ENTER.

3.05 MANUAL/TOP OFF MODE – OPERATING PRODECURE

(Used ATF and new ATF are transferred through the transmission's dipstick tube to the transmission system with this mode)

This mode is used when the transmission pan needs to be removed (to change gaskets or replace filter). It is also used to top off the ATF fluid level when necessary.

NOTE: Confirm vehicle and transmission are at operating temperature before initiating service!

Power up. Connect power cord to 12.0 VDC battery. **REFER TO BATTERY VOLTAGE CHART ON PAGE 14.** Connect the positive lead of the equipment to the positive lead of the battery first. Connect the negative lead of the equipment to vehicle ground as far away from the battery as the leads will allow to prevent sparking and igniting of battery gases. Note: The REVERSED POLARITY LED will light if connected improperly.

The TRANS PRO will self test. The buzzer will sound, all LEDs and display segments will light briefly, and software version will be displayed.

The SELECT key and DIPSTICK ONLY, MANUAL/TOP-OFF, DRAIN WASTE TANK, and TOTAL COUNT LEDs will light and flash (additional COOLER LINE LED visible on TRANS PRO+ model).

Remove dipstick from transmission. Note dipstick length. Insert flexible nylon dipstick tube to length of dipstick being mindful that it may be necessary to insert slightly farther until the bottom of the pan is reached.

Depress the SELECT key until the LED for the proper function is lit. (Note: The lit LED will move from option to option i.e. MANUAL/TOP-OFF, DRAIN WASTE TANK, and TOTAL COUNT, etc. each time it is depressed). When the LED for the MANUAL/TOP-OFF mode is lit and flashing, pause for one second.

The ENTER key LED will then light and flash. Depress ENTER to confirm.

The CHECK TRANS LEVEL LED will light. TO TRANS, FROM TRANS, FINISH, and SELECT LEDs will flash. The display will also flash DRN PAN. Depress the SELECT key to toggle between these four selections. Pause when the LED for the appropriate selection or the DRN PAN display is lit. Depress ENTER to confirm.

If TO TRANS or FROM TRANS is selected, follow the procedure below.

Depress the ADD (ARROW UP) key to enter the volume of new ATF to be added (if TO TRANS is selected). This key is also used to enter the volume of ATF to be extracted (if FROM TRANS is selected). The volume for adding or extracting is measured in increments of .1 (1/10) quart.

Pause after the correct volume is selected. The ENTER key LED will light and flash. Depress ENTER to start the transfer of fluid.

When the TO TRANS or FROM TRANS function is finished, the CHECK TRANS LEVEL LED will light. Check the ATF level with dipstick. If further adjustment is desired, repeat the above sequence. When satisfied with fluid level, depress SELECT to illuminate FINISH LED. Depress ENTER to confirm completion of desired mode. Display will indicate SR FIN.

If the DRAIN PAN is selected, follow the procedure below.

Depress ENTER to start the service. TRANS PRO purges internal fluid lines and then extracts used ATF from the transmission pan until empty.

When the DRN PAN service is complete, the CHECK TRANS LEVEL LED will light. TO TRANS, FROM TRANS, FINISH, and FINISH LEDs will light. The display will also flash DRN PAN. Complete the transmission pan service (i.e. filter change/gasket change).

When the transmission pan service is complete (i.e. filter change/gasket change), depress SELECT, toggling between the flashing selections until the TO TRANS LED is lit. Pause for one second. Depress ENTER to confirm. The volume of fluid extracted from the DRN PAN service is shown on the right display. Depress the ADD (ARROW UP) key to enter the volume of new ATF to be added. Depress ENTER. TRANS PRO will transfer selected volume of new ATF to transmission pan.

The procedures, TO TRANS and FROM TRANS can be repeated. Note the fluid level after each procedure. When the fluid level is satisfactory confirm by selecting FINISH. Pause for a second. The ENTER LED will flash. Depress the ENTER key. Depress ENTER again.

The TRANS PRO will display SR FIN "Service Finished."

3.06 DRAIN WASTE TANK – OPERATING PRODECURE

(Used ATF is transferred from the internal waste tank of TRANS PRO through the drain adapter to external waste ATF reservoir with this mode)

Power up. Connect power cord to 12.0 VDC battery. **REFER TO BATTERY VOLTAGE CHART ON PAGE 14.** Connect the positive lead of the equipment to the positive lead of the battery first. Connect the negative lead of the equipment to vehicle ground as far away from the battery as the leads will allow to prevent sparking and igniting of battery gases. Note: The REVERSED POLARITY LED will light if connected improperly.

The TRANS PRO will self test. The buzzer will sound, all LEDs and display segments will light briefly, and software version will be displayed.

The SELECT key and DIPSTICK ONLY, MANUAL/TOP-OFF, DRAIN WASTE TANK, AND TOTAL COUNT LEDs will light and flash (additional COOLER LINE LED visible on TRANS PRO+ model).

Depress the SELECT key until the LED for the proper function is lit. (Note: The lit LED will move from option to option i.e. MANUAL/TOP-OFF, DRAIN WASTE TANK, and TOTAL COUNT, etc. each time it is depressed). When the LED for the DRAIN WASTE TANK mode is lit and flashing, pause for one second.

Attach drain adapter to red hose and place into external waste ATF reservoir.

The ENTER key LED will then light and flash. Depress ENTER to confirm.

Display will register used ATF being discharged.

The buzzer will sound and the FINISH and ENTER LEDs will flash when the drain cycle is completed. Depress ENTER key. Depress ENTER again.

The TRANS PRO will display “SR FIN,” “Service Finished.” when the waste tank is completely drained.

3.07 TOTAL COUNT – OPERATING PRODECURE

(Used ATF is transferred from the internal waste tank of TRANS PRO through the drain adapter to an external waste ATF reservoir with this mode)

Power up. Connect power cord to 12.0 VDC battery. Connect the positive lead of the equipment to the positive lead of the battery first. Connect the negative lead of the equipment to vehicle ground as far away from the battery as the leads will allow to prevent sparking and igniting of battery gases. Note: The REVERSED POLARITY LED will light if connected improperly.

The TRANS PRO will self test. The buzzer will sound, all LEDs and display segments will light briefly, and software version will be displayed.

The SELECT key and DIPSTICK ONLY, MANUAL/TOP-OFF, DRAIN WASTE TANK, AND TOTAL COUNT LEDs will light and flash.

Depress the SELECT key until the LED for the proper function is lit. (Note: The lit LED will move from option to option i.e. MANUAL/TOP-OFF, DRAIN WASTE TANK, and TOTAL COUNT, etc. each time it is depressed). When the LED for the DRAIN WASTE TANK TOTAL COUNTmode is lit and flashing, pause for one second.

The ENTER key LED will then light and flash. Depress ENTER to confirm.

The display will show total services performed. The FINISH LED will also flash. Depress ENTER to return to mode selection after you note the total services.

V. TROUBLESHOOTING GUIDE & ADDITIONAL HELP

4.01 TROUBLESHOOTING GUIDE & ADDITIONAL HELP

PROBLEM: Reversed Polarity LED is on and the unit is not operational

SOLUTION: Polarity is Reversed on vehicle's battery connection.
Check connection; Red to positive and Black to vehicle ground as far away from the battery as leads will allow.

PROBLEM: The unit will not power up.

SOLUTION: Check for proper connection on power leads. Verify proper voltage at battery (see Battery Voltage Chart on page 14).

NOTE: If voltage was incorrect (above 18.0 VDC) disconnect leads and reconnect to proper power source. This will reset unit.

PROBLEM: Pump is running but unit will not build pressure.

SOLUTION: Check for proper connection on power leads. Verify proper voltage at battery (see Battery Voltage Chart on page 14).

PROBLEM: Unit performs poorly.

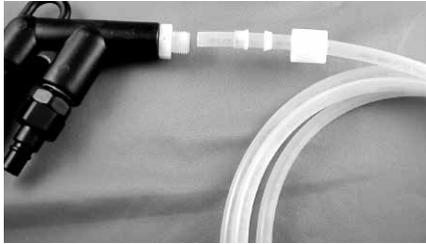
SOLUTION:

- Check hoses for damage.
- Check power leads for cuts or frays.

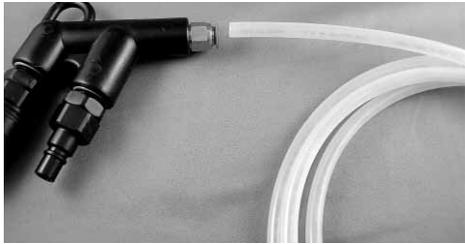
PROBLEM: Does not pull fluid from transmission.

SOLUTION:

- Verify voltage output from battery (12.6VDC or above).
- Verify that power leads are securely connected to battery.
- Verify that black external hose is properly connected to wand assembly.
- Verify proper seal on dipstick tube and wand connection.



- If dipstick tube with nut and 2 piece ferrule, make sure that two piece ferrule has proper orientation and nut is tight.



- If dipstick tube with push lock fitting, make sure that tube has a proper seal in the push lock fitting. Remove tube from fitting and check tube OD for distortions. If distorted, cut 1/2" length with razor blade and reinstall.



- Check main strainer. Make sure O-ring is present, properly seated and bowl is hand tight.

ADDITIONAL HELP

Please verify that items 1-4 above have been reviewed before calling of additional assistance.

In the unlikely event that problems persist with the unit call Technical Support, have you model and serial numbers available before you call.

**Remember to send in your warranty card,
otherwise service will be delayed.**

1-877-906-1395 (U.S. AND CANADA)

APPENDIX A - ADAPTERS

5.01 ADAPTERS

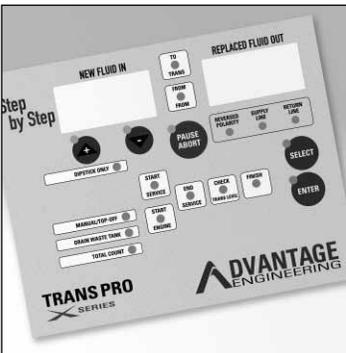
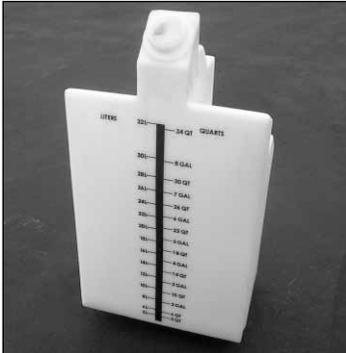
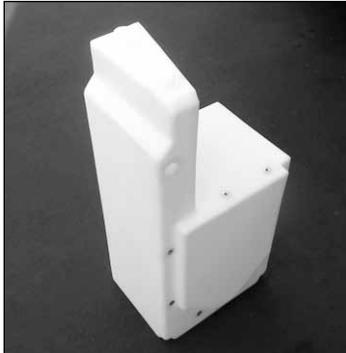
PART #	QTY.	DESCRIPTION	PICTURE	APPLICATION
1410-98-00-3	1	M14 CAPNUT USE WITH BANJO BOLT 6007-14-20-3		IMPORT
1602-14-00-2	3	M14 COPPER WASHER USE WITH BANJO BOLT 6007-14-20-3		IMPORT
2025-12-20-0	1	QUICK DISC. PLUG 5/25 X 1/4" FPT		DOMESTIC
2025-13-20-0	2	QUICK DISC. PLUG 5/25 X 1/4" MPT		DOMESTIC
2025-32-22-0	1	QUICK DISC. PLUG 5/25 X 3/8" FPT		DOMESTIC
2025-33-20-0	1	QUICK DISC. PLUG 5/25 X 3/8" MPT		DOMESTIC
2030-31-21-0	1	DRAIN HOSE ASSY 3/48 X 9" HOSE		DRAIN WASTE TANK
2102-07-20-1	3	1/2" TO 29/32" HOSE CLAMP		GENERAL
6007-14-20-3	1	M14 BANJO BOLT (LONG)		IMPORT
6301-01-01-3	1	#6 FEMALE X SAE 45 DEG. FLARE		DOMESTIC- IMPORT
6302-02-01-3	1	5/8"-18 FEMALE X 45 DEG. INVERTED FLARE (SHORT)		DOMESTIC IMPORT
6303-06-01-7	1	1/4"(M6) OPEN END HOSE ASSY		GENERAL
6303-08-01-7	1	5/16"(M8) OPEN END HOSE ASSY		GENERAL
6303-10-01-7	1	3/8"(M10) OPEN END HOSE ASSY		GENERAL
6303-12-01-7	1	1/2"(M12) OPEN END HOSE ASSY		GENERAL
6304-06-01-3	1	1/4"(M6) BARB ASSY		GENERAL
6304-08-01-3	1	5/16"(M8) BARB ASSY		GENERAL
6304-10-01-3	1	3/8"(M10) BARB ASSY		GENERAL
6304-12-00-4	1	1/2" PUSH ON BARB X 3/8" PUSH-LOCK		GENERAL
6306-03-01-0	1	5/16" X 90 FEMALE SNAPLOCK ASSY		DOMESTIC
6306-05-01-0	2	3/8" X 90 FEMALE SNAPLOCK ASSY		DOMESTIC
6306-06-01-0	1	1/2" X 90 FEMALE SNAPLOCK ASSY		DOMESTIC
6307-03-01-3	1	5/8"-18 MALE (LONG) INVERTED FLARE		FORD
6307-04-01-3	1	5/8"-18 FEMALE X SAE INVERTED FLARE		FORD
6308-02-01-3	1	1/2"-20 FEMALE SAE INVERTED FLARE (SHORT)		DOMESTIC IMPORT
6308-03-01-3	1	1/2"-20 FEMALE SAE INVERTED FLARE (LONG)		FORD
6308-04-01-3	1	1/2"-20 MALE SAE INVERTED FLARE (LONG)		FORD

5.01 ADAPTERS (CONTINUED)

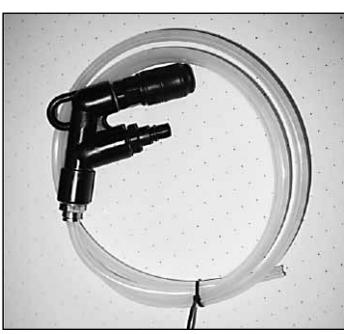
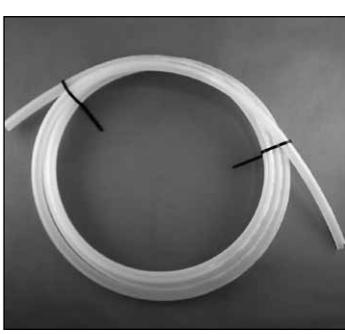
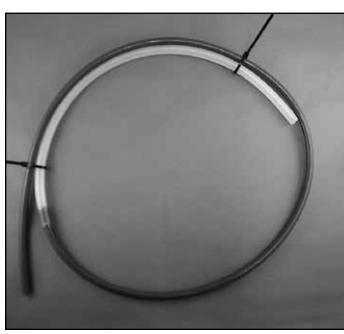
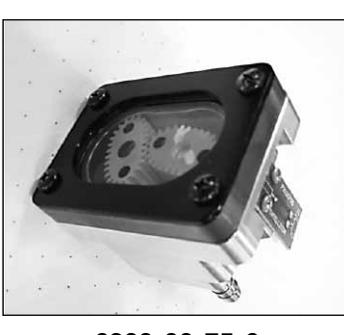
PART #	QTY.	DESCRIPTION	PICTURE	APPLICATION
6308-14-21-3	2	M14 BANJO FITTING ASSY		IMPORT
6310-10-08-3	1	3/8" MALE X 5/16" MALE SNAPLOCK		DOMESTIC-IMPORT
6310-12-01-3	1	1/2" MALE SNAPLOCK		CHRYSLER V10 DIESEL
6310-16-01-3	1	M16 FEMALE SWIVEL ASSY		IMPORT
6311-01-01-3	1	3/8" MALE ANGLE STEP SNAPLOCK		GM
6312-01-01-3	1	1/2" MALE ANGLE STEP SNAPLOCK		GM
6313-01-01-3	1	# 5 FEMALE 45 DEG. FLARE		DOMESTIC-IMPORT
6313-02-00-3	1	# 5 X # 6 SAE UNION		CHRYSLER FORD
6318-05-01-3	1	1/2"-20 MALE INVERTED FLARE (SHORT)		DOMESTIC-IMPORT
6318-06-01-3	1	5/8"-18 MALE X 45 DEG. INVERTED FLARE (SHORT)		DOMESTIC-IMPORT
6319-06-00-4	1	3/8" MALE (SMALL ANGLE STEP) SNAPLOCK		FORD

APPENDIX B - REPLACEMENT PARTS

5.02 REPLACEMENT PARTS

		
<p>3160-68-12-1 Audio Signal</p>	<p>2291-84-32-4 Cap, New Tank</p>	<p>3075-12-22-7 Cord/Clamp assy., 12'</p>
		
<p>5370-04-61-2 TRANS PRO display</p>	<p>5370-05-61-2 TRANS PRO+ display</p>	<p>2228-09-00-4 External Strainer Bowl and O-ring</p>
		
<p>2284-44-10-1 New Tank, TRANS PRO</p>	<p>2284-14-10-1 Waste Tank, TRANS PRO</p>	<p>2247-12-31-2 Pump, TRANS PRO</p>

5.02 REPLACEMENT PARTS (CONTINUED)

 <p>2247-12-04-0 Pump Head</p>	 <p>2228-59-14-4 External Strainer Housing, assy</p>	 <p>2228-52-12-4 Internal Strainer Housing, assy</p>
 <p>6300-00-21-8 Wand assy. <i>(supersedes 6300-00-11-4)</i></p>	 <p>6300-00-75-5 Dipstick tube assy., 75,\" for push lock</p>	 <p>6300-00-42-5 Dipstick tube assy., 42,\" for push lock</p>
 <p>6300-00-75-6 Flowmeter assy.</p>	 <p>6300-00-75-6 Dipstick Tube assy., 75\"</p>	 <p>6300-00-42-6 Dipstick Tube assy., 42\"</p>

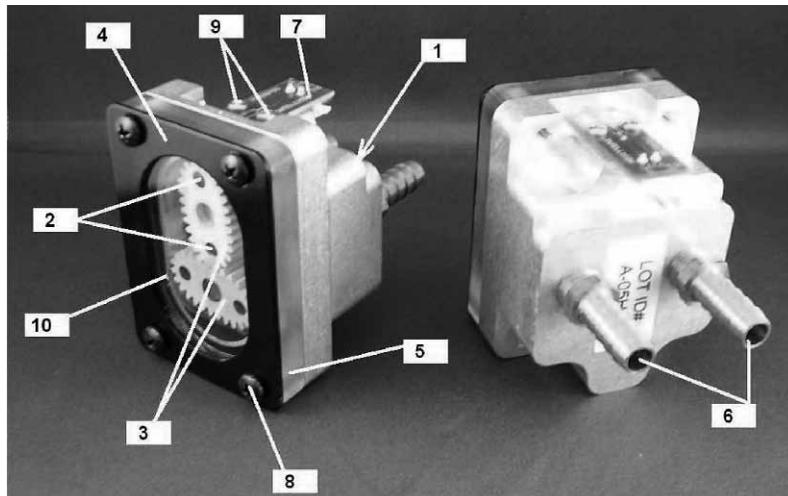
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5.02 REPLACEMENT PARTS (CONTINUED)

<p>6350-01-92-4 Selector Valve assy., TRANS PRO+</p>	<p>2030-33-20-0 Quick disconnect, body</p>	<p>2030-33-30-1 Quick disconnect, plug</p>
<p>0901-56-92-2 Pressure Hose assy., 92"</p>	<p>0901-56-92-1 Return Hose assy., 92"</p>	<p>1631-08-60-1 8" wheel</p>
<p>1631-09-61-2 Wheel, 9" OD</p>	<p>1635-44-40-4 Wheel, Swivel Locking Caster, 4" OD</p>	<p>1633-53-40-4 Wheel, Swivel Locking Caster, 3 1/2" OD</p>

ORDERING ADAPTERS AND REPLACEMENT PARTS
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5.02 REPLACEMENT PARTS (CONTINUED)



FLOW METER ASSY (BARB FITTINGS) 3107-54-21-4

NO.	PART NO.	DESCRIPTION	QTY
1	3107-54-00-4	BODY FLOW METER (TRANS ALL)	1
2	1625-40-00-8	MAGNET, CERAMIC ROD M5 X M20 LONG	2
3	1628-02-00-4	GEAR FLOW METER	2
4	5350-00-60-5	LENS SUPPORT FLOW METER (BLACK)	1
5	1628-01-00-6	LENS FLOW METER	1
6	2354-40-14-1	FITTING, 1/4" MPT X 3/8" BARB	2
7	3106-51-00-5	FLAT SENSOR FOR FLOW METER	1
8	1017-10-60-9	SCREW, 10-32" X 5/8" PHILIPS PANHEAD (BLACK)	4
9	1007-12-54-5	SCREW, 4-40" X 3/16" PANHEAD PHILIPS	2
10	6801-38-00-1	O-RING, .138 BUNA-N (BLACK)	1

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APPENDIX C - MAINTENANCE



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.

6.01 MAINTENANCE PROCEDURES

The following maintenance procedures should be performed on a routine basis:

1. Check the strainer frequently or after every 50 services.
2. Clean the exterior with a plastics cleaning agent or similar product to keep the cabinet looking new.
3. Check all hoses and wires for cuts or frays.

The unit is now ready for the next service.

LIMITED ONE (1) YEAR WARRANTY

TRANS PRO X-SERIES

AEC GROUP INC. 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.

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.

