



*Safety by Design*

**ATF 2D**

**Transmission Fluid  
Exchanger**

## OPERATION MANUAL



**Automatic Transmission  
Fluid Exchanger**

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## Introduction

Thank you for purchasing Symtech Corporations **ATF 21** Automatic Transmission Fluid Exchange System. The **ATF 21** is state of the art and incorporates the latest technology and techniques to quickly perform all required periodic maintenance services for automatic transmissions. It is extremely easy to operate, environmentally safe, and designed for the highest efficiency.

The Operations Manual is a **MUST** to be read and **COMPLETELY UNDERSTOOD** in order to properly operate the unit and experience the highest return on investment. Refer to the manual in the future for continued safe operation. If you encounter difficulties in the operation, understanding of procedures, or have general service questions, please do not hesitate to call us at **888-884-8182**.

Please record the purchase date, serial number and distributor purchased from below for future reference and assistance in technical issues.

Purchase Date: \_\_\_\_\_

Serial Number: **T2** \_\_\_\_\_  
Located on Back of Unit

Purchased From: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# SAFETY PRECAUTIONS

**WARNING: FAILURE TO FOLLOW PRECAUTIONS CAN RESULT IN INJURY OR DEATH**

- **Always use extreme caution and forethought when servicing automotive systems!**  
Automotive systems are **extremely hot** and contain **high pressure**.
- Always read and understand the entire Operations Manual before operating!
- Always wear proper eye and skin protection when operating equipment!
- Always keep fire extinguisher nearby for flammable conditions!
- Always keep hair, loose clothing, hoses, etc. securely away from moving parts!
- Always keep work area well ventilated to prevent carbon monoxide build up!
- Always comply with local, state, and federal regulations concerning fluid!
- Always clean up and report spill in a proper manner!
- Always read and understand the **Material Safety Data Sheets (MSDS)** for particular fluids!
- Always seek emergency medical attention for ingestion of, or eye contact with fluid!

## BATTERY SAFETY

Lead-acid batteries commonly used in vehicles, and in the **ATF 21** unit to provide remote power, can be highly dangerous if the proper precautions are not taken while working in the vicinity of the battery.

**Batteries generate explosive hydrogen gas during normal operation that may ignite in the presence of sparks, flames, or smoking!**

Always have the Main Power switch of the unit in the off position when making connections to avoid sparks. Connecting the negative (black) power clip to a suitable system ground away from the battery, and never to the negative post of the battery provides additional protection from explosive hazard.

## **Before Starting**

- ❖ Adjust the transmission fluid level according to the manufacturer's instructions or take note of level. Be aware that some vehicles require the fluid level to be checked in "PARK" and some in "NEUTRAL."

**WARNING: TAKE NECESSARY PRECAUTIONS TO SECURE THE VEHICLE WHEN CHECKING TRANSMISSION FLUID LEVELS OR PERFORMING SERVICES!!**

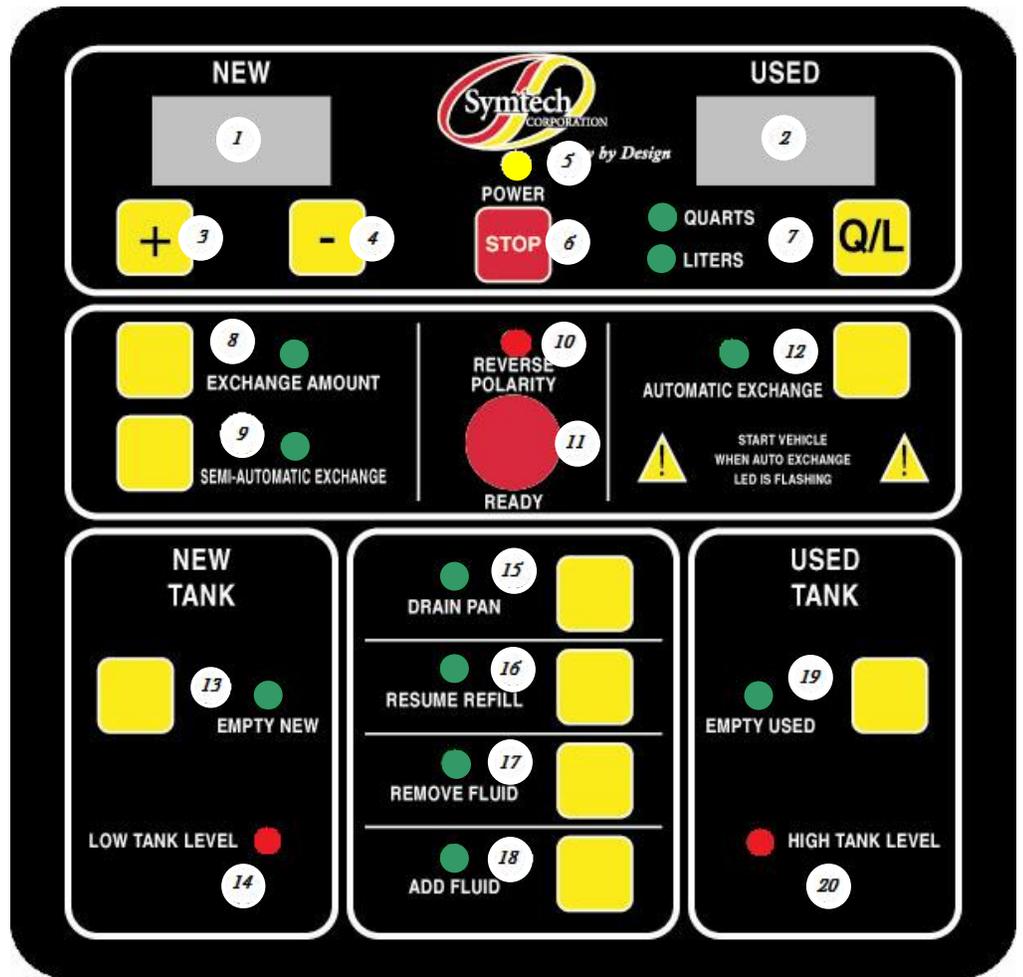
- ❖ NEVER put anything but automatic transmission fluid in the NEW tank of the **ATF 2i**. If transmission flush is to be used, it should be added and circulated in the transmission prior to exchange or drain pan functions being performed.
- ❖ Always use the proper type of automatic transmission fluid for the vehicle being serviced. Refer to the vehicle's Service Manual or dipstick for information on the type of fluid to be used.

NOTE: Refer to the EMPTY NEW tank procedures on page 14 for information on how to change fluid types in the unit.

- ❖ The **ATF 2i** is designed to operate on regulated 12V DC power **ONLY** from either the vehicle's battery or the unit's on-board battery. Use of battery chargers and other power sources are not recommended.
- ❖ Pull on all of the connections after being made in order to verify that the connections are complete and secure.
- ❖ Only use fingertips to depress control panel buttons. Sharp, or pointed metal objects will ultimately destroy the control panel.
- ❖ Always keep the **ATF 2i** unit in the upright position and as level as possible during operation. Inverting or lying the unit down will allow fluids to escape the internal tanks. Operating the unit on a level surface will insure precise operation.
- ❖ Turn the **ATF 2i** Main Power switch OFF when not in use to conserve power and prevent accidental start up.
- ❖ Always connect power cables to 12V DC battery of vehicle to be serviced. Although the fully-charged on-board battery will power the **ATF 2i** during exchanges, the primary purpose of the on-board power is resume-refill procedure, drain used tank procedure, and emergency power back-up to avoid service interruptions. The power leads should always be connected during each service to keep on board battery fully charged and ready for intended purposes.
- ❖ Never overfill the NEW fluid tank over 31.9 quarts. The **ATF 2i** will lock all keypad functions out except EMPTY NEW function as level sensing only occurs 0-32 quarts. This protects against improper operation due to overfilling of unit.

# CONTROL PANEL LAYOUT

1. NEW Fluid Display
2. USED Fluid Display
3. INCREASE Fluid Amount
4. DECREASE Fluid Amount
5. POWER ON LED
6. STOP-RESET System
7. QUARTS / LITERS Mode
8. EXCHANGE AMOUNT Set
9. SEMI-AUTOMATIC EXCHANGE Mode
10. REVERSE POLARITY LED
11. READY Indicator LED
12. AUTOMATIC EXCHANGE Mode
13. EMPTY NEW Tank Function
14. LOW Fluid Level Indicator
15. DRAIN PAN Function
16. RESUME REFILL Function
17. REMOVE FLUID Function
18. ADD FLUID Function
19. EMPTY USED Tank Fluid Function
20. HIGH Fluid Level Indicator



## On Board Battery

The **ATF 21** on board battery is very similar to any other cordless tool with a battery. The more it is slowly charged at a low rate the better the charge and longer the battery life. Charging the on board battery quickly and at a high rate will shorten the life of the battery and lessen the amount of services using the on board battery.

The **MAIN POWER** switch must be in the **ON Position** while charging the on board battery.

## Power Saving Mode

The **ATF 21** has a power saving mode that protects and prevents operation of the unit under 11volts DC. Both LCD readouts will blank and the keypad will be non-functional until the unit is connected to a 12volt DC supply or the on board battery has been adequately re-charged.

## Control Panel Descriptions and Functions

The following information is intended to familiarize the **ATF 21** operator with the control panel and its functions. It is not designed to replace the guidelines and safety warnings found in the remainder of this document. The complete Operations Manual must be read and understood and the warnings must be taken note of before operating the machine.

**Failure to follow these instructions could endanger the operator and risk damage to the vehicle.**

The control panel is arranged in a very logical and intuitive manner that provides the required modes and functions needed to perform successful preventative maintenance on automatic transmissions.

The operator starts at the top and works down the control panel. Look at the display upon power up to view tank levels, to select mode of operation, to adjust Quart/Liter amounts of fluid as required, to start functions to be performed, to verify function completed, and to continue to the next function if needed.

- 1) **NEW Fluid digital display** – Displays the amount of NEW transmission fluid in the NEW tank when no modes are selected. It also displays the amount of fluid to be exchanged, added, or the decreasing amount of NEW fluid being pumped from the unit. Amounts are displayed to the nearest tenth in quarts or liters dependent upon unit of measure selected.

The display decreases in value for the NEW fluid being pumped out of the unit and increases in value as the desired fluid amounts are keyed in or set for the various functions.

- 2) **USED Fluid digital display** – Displays the amount of USED transmission fluid in the USED tank when no modes are selected. In all modes and functions, the USED fluid display indicates increasing amounts of fluid being extracted from the vehicle during the process selected. Amounts are displayed to the nearest tenth in quarts or liters dependent upon unit of measure selected.

The display decreases in value for the USED fluid being pumped out of the unit and increases in value as the desired fluid amounts are keyed in or set for the various functions.

- 3) “ + ” **Increase Button** – Adjustment button used to increase the amount of fluid, in tenths, of a quart/liter to be transferred in each applicable mode and function.
- 4) “ - ” **Decrease Button** – Adjustment button used to decrease the amount of fluid, in tenths, of a quart/liter to be transferred in each applicable mode and function.
- 5) **POWER** – Indicates that 12V DC power with a negative ground, either internally via onboard battery, or externally via power cables, has been supplied to the unit through the Main Power switch.
- 6) **STOP** – Button used to stop all modes and functions at any time. NOTE: If unit is stopped during an exchange, all exchange amounts will be lost.
- 7) “ Q/L ” **QUARTS / LITERS** – Selection button and indication LED’s used to select and depict the required unit of measure for volume measurements. Can only be utilized before mode selection.

- 8) **EXCHANGE AMOUNT** – Exchange amount selection button and indicator LED used to select amount of fluid to be exchange in either mode. Default amount is 12 quarts.
- 9) **SEMI-AUTOMATIC EXCHANGE** – Function selection button and indicator LED used to select “batch” removal and addition of transmission fluid to complete an exchange.  
NOTE: **SEMI-AUTOMATIC EXCHANGE** results in the **HIGHEST EFFICIENCY** exchange, but requires technician intervention.
- 10) **REVERSE POLARITY** – Light indicates that the battery connections to the vehicle are reversed and need to be corrected before the unit will receive external power. A continuous alarm accompanies the light as long as the incorrect connection exists.
- 11) **READY** – Illumination of the **READY** light indicates that the unit has completed the selected function and will require attention or input from the operator in order to continue. The **READY** light is accompanied by short beeps or continuous alarms, depending upon the function completed, in order to further alert the operator.
- 12) **AUTOMATIC EXCHANGE** - Mode selection button and indicator LED used to select automatic removal of used fluid and addition of new fluid up to two quarts at a time after initial draining and re-filling of all accessible fluid. Requires minimal technician intervention.
- 13) **EMPTY NEW** – Function selection button and indicator LED used to start and show when **NEW** transmission fluid is being pumped from the unit. Selection of this function empties the new fluid through the dipstick wand and stops when the tank level nears zero. See page 14 for complete instructions.
- 14) **LOW TANK LEVEL** – LED that indicates when the **NEW** tank fluid quantity is inadequate to perform the selected function, or that the **NEW** tank level is below one quart. The appropriate amount of new fluid must be added to the **NEW** tank when this LED is lit.
- 15) **DRAIN PAN** – Function selection button and indicator LED used to start and depict when draining the vehicle’s accessible transmission sump. The LED light flashes to prompt operator and/or remains lit until the process is complete.
- 16) **RESUME REFILL** – Function selection button and indicator LED used to start and depict the refilling of the vehicle’s accessible transmission sump after a **DRAIN PAN** procedure. The LED light flashes to prompt operator and/or remains lit until the process is complete.
- 17) **REMOVE FLUID** – Function selection button and indicator LED used to select the function and to start the removal process of used fluid after data input.
- 18) **ADD FLUID** - Function selection button and indicator LED used to select the function and to start the addition process of new fluid after data input.
- 19) **EMPTY USED** - Function selection button and indicator LED used to start and depict **USED** transmission fluid being pumped from the unit. Selection of this function empties the old fluid out through the large yellow hose with the ball valve. This process stops when the tank level indicates zero or when the ball valve is in the closed position. See page 14 for complete instructions.

- 20) **HIGH TANK LEVEL** - LED that indicates when the USED tank fluid quantity is inadequate to perform the selected function, or that the USED tank level is above 31 quarts. The USED fluid tank level must be lowered or the tank emptied when this LED is lit.

## **Dipstick Exchanges**

There are two types of dipstick fluid exchange services that can be performed, **SEMI-AUTOMATIC EXCHANGE** mode and **AUTOMATIC EXCHANGE** mode. There are advantages and disadvantages to either – only Symtech’s **ATF 2i** offers the best of both worlds:

The **SEMI-AUTOMATIC EXCHANGE** mode is primarily a vehicle off process that maximizes exchange efficiency by removing used fluid and adding new transmission fluid in “batches” – This practice utilizes least amount of new fluid to yield highest percentage of new fluid versus used fluid upon completion of exchange. This mode entails more technician intervention but gives the best dipstick exchange with least amount of new transmission fluid.

The **AUTOMATIC EXCHANGE** mode is a vehicle running mode that automatically, with minimal technician intervention, exchanges new and used fluid by removing up to two quarts used and adding up to two quarts new during each cycle. The exchange process is maximized by initial draining of vehicles accessible capacity and re-filling, and also during each cycle by removing the maximum accessible amount up to two quarts.

## **SEMI-AUTOMATIC EXCHANGE MODE**

- 1) Bring vehicle to normal operating temperature. Check vehicle’s automatic transmission fluid level. Adjust as required to obtain proper operating level. **TURN OFF VEHICLE!!!**
- 2) Check vehicle’s owners manual for specified transmission fluid type and capacity. Fill the **ATF 2i** new fluid tank with appropriate amount and type of transmission fluid to perform fluid exchange. General practice is to exchange 20% more fluid than vehicle’s capacity i.e. 10 qt. system – 12 qt. exchange. Drain used tank using proper disposal practices if required.
- 3) Remove vehicle’s transmission fluid level dipstick. Insert dipstick extraction wand into vehicle’s transmission dipstick tube as far as possible until resistance is felt. Remove dipstick extraction wand and verify the wand’s tip has accessed the transmission fluid sump. Re-insert dipstick extraction wand.

***HINT: If the ATF-2D dipstick extraction wand barely accesses fluid or fluid is only on the very tip of the wand, the transmission sump level can be raised by adding 1-2 quarts of NEW fluid prior to the exchange as detailed in Step 15 below. Fluid level can then be adjusted after completing the exchange. Increasing accessible volume of fluid will greatly speed-up the exchange process.***

- 4) Connect the **ATF 2i** to the vehicle’s 12v battery, making sure to observe all applicable safety precautions. Should the connection inadvertently be reversed, REVERSE POLARITY light will be lit along with a steady audible alarm, until the correct connection is made. The on-board battery can be used if it is sufficiently charged from past operation of the unit.

Once correct battery connection is made, (or not if using on-board battery) turn Main Power switch to the ON position. Alarm will sound for two seconds, all of the LED’s will momentarily turn on, the POWER and READY lights will turn on and the NEW and USED readouts will display quantities of corresponding fluid in each tank. If fluid in the NEW tank is

low or the fluid in the USED tank is high, take the appropriate steps at this time to add NEW, or empty USED fluid(s). See page 14 for instructions.

### **SEMI-AUTOMATIC EXCHANGE MODE (Continued)**

- 5) Select EXCHANGE AMOUNT. LED light will remain on during the entire process until complete. NEW fluid displays default to 12 and USED fluid display defaults to 0.
- 6) Enter the total amount of fluid to be exchanged using the increase (+), or decrease (-) buttons until desired amount of fluid to be exchanged is displayed in NEW fluid display.
- 7) Select SEMI-AUTOMATIC EXCHANGE mode. LED light will remain on until process is completed. DRAIN PAN LED will begin to flash.
- 8) Select DRAIN PAN function. LED light will remain on until process is complete and USED fluid will now begin to be removed from vehicle. NEW fluid display will indicate the remaining amount to be exchanged or NEW fluid to be added, and USED fluid display will increase as USED fluid is removed from vehicle.

Unit will sense that all of USED fluid has been removed from vehicle transmission pan when USED fluid level ceases to change for a period of twenty seconds. This step is complete when DRAIN PAN LED turns off, READY light turns on, and alert sounds.

#### **NOTE:**

If NEW fluid tank does not have enough fluid to perform function or USED fluid tank does not have enough capacity to perform function, the appropriate LED will light and alert will sound. The exchange process will not occur until adequate tank capacities are obtained. Reset unit, take the appropriate action to correct then repeat Step #5.

- 9) The RESUME REFILL LED will begin to flash. Exchange can continue by depressing RESUME REFILL button and NEW fluid, equal to the amount extracted, is pumped into vehicle. NEW fluid display will decrease from the amount extracted down to 0 and the USED fluid display is blanked. This step is complete when RESUME REFILL LED turns off, READY light turns on, and alert sounds.
- 10) Start and Run vehicle at idle for one minute, shifting through gears at least ten seconds of this minute. SHUT-OFF ENGINE.

#### **FOR A BETTER EXCHANGE RATIO:**

Data accumulated has indicated that using the following formula results in the highest percentage of NEW fluid compared to USED fluid using this exchange method based on average flow rates of vehicles tested.

$$\text{AMOUNT EXTRACTED FROM VEHICLE} / 3.25 = \text{VEHICLE RUN TIME}$$

Example: If the amount of USED fluid removed from the drain pan function is 5 quarts, divide the 5 quarts by 3.25 which results in running the vehicle 1.5 minutes at idle and shifting through the gears at least ten seconds.

Formula will provide the best ratio of new versus used fluid using this exchange method based on data gathered to date.

## **SEMI-AUTOMATIC EXCHANGE MODE (Continued)**

- 11) Should the amount of USED fluid drained and NEW fluid refilled be less than the total amount to be exchanged entered in Step 6, the DRAIN PAN LED will flash and NEW fluid display will indicate the remaining amount of total fluid yet to be exchanged.

Select DRAIN PAN function and USED fluid will now be removed from vehicle for a second cycle. NEW fluid display will indicate the remaining amount of fluid remaining to be exchanged and USED fluid display will increase as USED fluid is removed from the vehicle.

The **ATT 21** will sense that all of the USED fluid has been removed from the vehicle transmission pan when the fluid level ceases to change for a period of twenty seconds, or if the remaining amount to be exchanged is obtained, whichever occurs first. This step is complete when the DRAIN PAN LED turns off, READY light turns on, and alert sounds.

- 12) RESUME REFILL LED will begin to flash and the exchange continues by depressing the RESUME REFILL button. NEW fluid, equal to the amount extracted in step #11, is pumped into the vehicle. NEW fluid display will decrease from the amount extracted down to 0 and USED fluid display is blanked. This step is complete when RESUME REFILL LED turns off, READY light turns on, and alert sounds.
- 13) Start and run vehicle at idle for one minute Shifting through the gears at least ten seconds of this minute. SHUT-OFF ENGINE. Refer to *Better Exchange Ration notes in Step #10*
- 14) Steps 11 and 12 will keep repeating and need to be performed until the total amount to be exchanged, entered in step 6, is obtained. Once the total amount to be exchanged is completed from the last REFILL RESUME sequence, the unit will reset to the original power up mode.
- 15) Upon completion of fluid exchange, remove dipstick extraction wand and check vehicle's transmission fluid level as specified. Add or extract fluid to achieve proper fluid level by re-inserting dipstick wand and selecting the appropriate ADD FLUID or REMOVE FLUID buttons on the control panel. Additions are displayed in NEW fluid display while removals are displayed in USED fluid display.

Addition and removal amount defaults to .5 quart. This amount can be increased or decreased using the “ + ” or “ - ” buttons on the control panel. The desired amount will be extracted or added upon depressing ADD FLUID or REMOVE FLUID button the second time. Repeat this procedure until the proper transmission fluid level is maintained.

**NOTE:** If NEW fluid tank does not have enough fluid to perform the ADD FLUID function or USED fluid tank does not have enough capacity to perform the REMOVE FLUID function, the appropriate LED will light and alert will sound indicating LOW TANK LEVEL in NEW tank and/or HIGH TANK LEVEL in USED tank. Take the appropriate action to correct and then repeat Step 15. See page 14 for instructions.

## **AUTOMATIC EXCHANGE MODE**

- 1) Bring vehicle to normal operating temperature. Check vehicle's automatic transmission fluid level. Adjust as required to obtain proper operating level. **TURN OFF VEHICLE!!!**
- 2) Check vehicle's owners manual for specified transmission fluid type and capacity. Fill the **ATF 2i** NEW fluid tank with appropriate amount and type of transmission fluid to perform fluid exchange. General practice is to exchange 20% more fluid than vehicle's capacity. Drain used tank using proper disposal practices as required.
- 3) Remove vehicle's transmission fluid level dipstick. Insert dipstick extraction wand into vehicle's transmission dipstick tube as far as possible until resistance is felt. Remove dipstick extraction wand and verify the wand's tip has accessed the transmission fluid sump. Re-insert dipstick extraction wand.
- 4) Connect the **ATF 2i** to the vehicle's 12v battery, making sure to observe all applicable safety precautions. Should the connection inadvertently be reversed, REVERSE POLARITY light will be lit, along with a steady audible alarm, until the correct connection is made. The on-board battery can be used if it is sufficiently charged from past operation of the unit.

Once correct battery connection is made (or not, if using on-board battery), turn Main Power switch to the ON position. Alarm will sound for two seconds, all of the LED's will momentarily turn on, the POWER and READY lights will turn on and the NEW and USED readouts will display quantities of corresponding fluid in each tank. If fluid in the NEW tank is low or the fluid in the USED tank is high, take the appropriate steps at this time to add NEW, or empty USED fluid(s). See page 14 for instructions.

- 5) Select EXCHANGE AMOUNT. LED light will remain on during the entire process until complete. NEW fluid display default to 12 and USED fluid display goes to 0.
- 6) Enter the total amount of fluid to be exchanged using the increase (+), or decrease (-) buttons until desired amount of fluid to be exchanged is displayed in NEW fluid display.
- 7) Select AUTOMATIC EXCHANGE mode. Drain Pan LED will light and USED fluid will now begin to be removed from vehicle. NEW fluid display will indicate the remaining amount to be exchanged or NEW fluid to be added, and USED fluid display will increase as USED fluid is removed from the vehicle.

Unit will sense that all of the accessible USED fluid has been removed from vehicle when USED fluid level ceases to change for a period of twenty seconds. This step is complete when DRAIN PAN LED turns off.

### **NOTE:**

If NEW fluid tank does not have enough fluid to perform function or USED fluid tank does not have enough capacity to perform function, the appropriate LED will light and alert will sound. The exchange process will not occur until adequate tank capacities are obtained. Reset unit, take the appropriate action to correct then repeat Step #7.

- 8) The RESUME REFILL LED will light and the exchange continues with NEW fluid, equal to the amount extracted, being pumped into vehicle. NEW fluid display will decrease from the amount extracted down to 0 and the USED fluid display is blanked. This step is complete

when RESUME REFILL LED turns off, READY light turns on, the AUTOMATIC LED begins to flash, and the alert sounds.

- 9) **START AND LET VEHICLE RUN.** Depress AUTOMATIC EXCHANGE mode button and 30-second countdown timer begins to allow co-mingling of new fluid in transmission. Shift through gears for at least ten seconds for better exchange.
- 10) Should the amount of USED fluid drained and NEW fluid refilled be less than the total amount to be exchanged entered in Step 6, the NEW fluid display will indicate the total remaining amount of fluid yet to be exchanged. The DRAIN PAN LED will light and USED fluid will now be removed from vehicle. The USED fluid display will increase as USED fluid is removed from the vehicle.

The **ATF 2i** will remove up to 2 quarts of USED fluid, **or**, sense when all accessible USED fluid has been removed from the vehicle when the USED fluid level ceases to change for a period of twenty seconds, **or**, if the remaining amount to be exchanged is obtained, whichever occurs first. This step is complete when the DRAIN PAN LED turns off.

- 11) RESUME REFILL LED will light and the exchange continues. NEW fluid, equal to the amount extracted in step 10, is pumped into the vehicle. NEW fluid display will decrease from the amount extracted down to 0 and USED fluid display is blanked. This step is complete when RESUME REFILL LED turns off.

**Note: The ATF 2i unit has a built in safe guard should the NEW fluid re-filling procedure ever fail: If NEW fluid during the NEW fluid re-filling procedure fails to add more than .1 of a quart in twenty seconds (no NEW fluid level change in 20-seconds), for any reason, the machine will continuously emit alarm and lock-out the control panel until main power is turned off!**

**IMMEDIATELY SHUT-OFF VEHICLE TO AVOID POSSIBLE  
TRANSMISSION DAMAGE!!!**

**Correct vehicle transmission fluid level and correct NEW fluid addition problem before  
proceeding!!**

- 12) A ten-second countdown begins, allowing NEW fluid to co-mingle. Steps 10-12 will repeat automatically until the total amount to be exchanged, entered in step 6, is obtained. Once the total amount to be exchanged is completed from the last REFILL RESUME sequence, the unit will reset to the original power up mode.
- 13) Upon completion of fluid exchange, check vehicle's transmission fluid level as specified. Add or extract fluid to achieve proper fluid level by inserting dipstick wand and selecting the appropriate ADD FLUID or REMOVE FLUID buttons on the control panel. Additions displayed in NEW fluid display while removals are displayed in USED fluid display.

This amount can be increased or decreased using the “ + ” or “ - ” buttons on the control panel. The desired amount will be extracted or added upon depressing ADD FLUID or REMOVE FLUID button the second time. Repeat this procedure until the proper level is maintained.

**NOTE:** If NEW fluid tank does not have enough fluid to perform the ADD FLUID function or USED fluid tank does not have enough capacity to perform the REMOVE FLUID function, the appropriate LED will light and alert will sound indicating LOW TANK LEVEL in NEW tank and/or HIGH TANK LEVEL in USED tank. Take the appropriate action to correct and then repeat Step 13.

## Semi-Automatic Exchange Process, Easy Reference

### Preparation:

- 1) Run vehicle and check transmission fluid level.
- 2) Shut-off vehicle and insert dipstick extraction wand–check for fluid.
- 3) Connect dipstick extraction wand to auto valve female coupler.

### Operation:

- 1) Connect **ATF 2** to vehicle battery.
- 2) Turn on Main Power
- 3) Select EXCHANGE AMOUNT function.
- 4) Enter total amount of fluid to be exchanged.
- 5) Select SEMI-AUTOMATIC mode.
- 6) Select flashing Drain Pan - fluid extraction begins.
- 7) Select flashing Resume-Refill-process will replace fluid extracted
- 8) Start vehicle and run for one minute – Shift through gears for at least ten seconds of run time  
(NOTE: Run Time Formula, Page 8)
- 9) Shut off vehicle.
- 10) Repeat steps **6-9** until total fluid amount entered at start has been exchanged.
- 11) Check fluid level and use ADD or REMOVE functions to adjust.

## Automatic Exchange Process, Easy Reference

### Preparation:

- 1) Run vehicle and check transmission fluid level.
- 2) Shut-off vehicle and insert dipstick extraction wand–check for fluid.
- 3) Connect dipstick extraction wand to auto valve female coupler.

### Operation:

- 1) Connect **ATF 2** to vehicle battery.
- 2) Turn on Main Power.
- 3) Select EXCHANGE AMOUNT function.
- 4) Enter total amount of fluid to be exchanged.
- 5) Select AUTOMATIC EXCHANGE mode.
- 6) AUTOMATIC EXCHANGE flashes-**start vehicle**. 30-second countdown timer begins.
- 7) Auto extraction and re-filling occurs until step 3 amount is reached.
- 8) Check fluid level when READY lights and Alert sounds.
- 9) Use ADD or REMOVE functions to adjust fluid levels.

## Drain Pan, Filter Changes, or Other Services

The DRAIN PAN feature allows the operator to remove fluid to perform transmission filter changes or other service work on the transmission. The on-board battery feature allows RESUME-REFILL amount retention while transmission service is performed. To drain transmission and re-fill:

- 1) Bring vehicle to normal operating temperature. **Turn off vehicle!!!**
- 2) Check vehicle's owners manual for specified transmission fluid type and capacity. Fill the **ATF 2i** new fluid tank with appropriate amount and type of transmission fluid to perform fluid re-filling. Drain used tank using proper disposal practices as required if over half full.
- 3) Remove vehicle's transmission fluid level dipstick. Insert dipstick extraction wand into vehicle's transmission dipstick tube as far as possible until resistance is felt. Remove dipstick extraction wand and verify the wand's tip has accessed the available transmission fluid sump. Re-insert dipstick extraction wand.
- 4) Connect the **ATF 2i** to the vehicle's 12v battery, making sure to observe all applicable safety precautions. Should the connection inadvertently be reversed, REVERSE POLARITY light will be lit along with a steady audible alarm until the correct connection is made. The on-board battery can be used if it is sufficiently charged from past operation of the unit.

Once correct battery connection is made, (or not if using on-board battery), turn Main Power switch to the ON position. Alarm will sound for two seconds, all of the LED's will momentarily turn on, the POWER and READY lights will turn on and the NEW and USED readouts will display quantities of corresponding fluid in each tank. If fluid in the NEW tank is low or the fluid in the USED tank is high, take the appropriate steps at this time to add NEW, or empty USED fluid(s).

- 5) Select DRAIN PAN function and USED fluid is removed. NEW fluid display will blank and the USED fluid display will increase as USED fluid is removed from the vehicle.

Unit will sense that all accessible USED fluid has been removed from vehicle when USED fluid level ceases to change for a period of twenty seconds. This step is complete when DRAIN PAN LED turns off, READY light turns on, amount to RESUME-REFILL is in NEW fluid display, and alert sounds.

**NOTE:** If USED tank reaches 31.8 quarts before DRAIN PAN process is complete, the

DRAIN PAN function will stop and the **ATF 2i** will reset. The process will abort and the USED fluid tank will need to be emptied to continue the process. Please note re-fill amount retention has been lost.

- 6) Filter change or other transmission service can now be performed. REFILL amount will be retained as long as the STOP button or MAIN POWER switch is not disturbed. The on-board battery will retain amount drained.
- 7) Depress RESUME REFILL button and NEW fluid, equal to the amount extracted, is pumped into vehicle. NEW fluid display will decrease from the amount extracted down to 0 and the USED fluid display is blanked. This step is complete when RESUME REFILL LED turns off, READY light turns on, and alert sounds.

- 8) Upon completion of fluid re-filling, check vehicle's transmission fluid level as specified. Add or extract fluid to achieve proper fluid level by selecting the appropriate ADD FLUID or REMOVE FLUID buttons on the control panel. Additions displayed in NEW fluid display while removals are displayed in USED fluid display.

This amount can be increased or decreased using the “ + ” or “ - “ buttons on the control panel. The desired amount will be extracted or added upon depressing ADD FLUID or REMOVE FLUID button the **second** time. Repeat this procedure until the proper level is maintained.

**NOTE:** If NEW fluid tank does not have enough fluid to perform the ADD FLUID function or USED fluid tank does not have enough capacity to perform the REMOVE FLUID function, the appropriate LED will flash and beep indicating LOW TANK LEVEL in NEW tank and/or HIGH TANK LEVEL in USED tank. Take the appropriate action to correct and then repeat Step 8.

## **Empty Used Tank**

The EMPTY USED function is used to empty used transmission fluid into a bulk waste fluid storage tank for proper disposal. Depressing the EMPTY USED button on the control panel starts the process and the flow can be controlled with the manual ball valve at the end of the yellow hose. The internal pump is equipped with an internal pressure switch that shuts off the pump should blockage or “dead-heading” occur.

The USED TANK level sensor will end the process automatically when tank level nears zero in tank. Also, depressing the STOP button on control panel will stop the process.

## **Empty New Tank**

The EMPTY NEW function is used to empty new transmission fluid contained in the NEW TANK into an appropriate storage container. This allows the use of other types of transmission fluid in the unit while minimizing cross contamination of fluid types.

Insert and secure the dipstick extraction wand into the storage container. Depress the EMPTY NEW button on the control panel and the new fluid will begin to pump out of the unit into storage container. The fluid will continue to flow until the level sensor in the NEW TANK nears zero quarts in the tank. Also, depressing the STOP button on the control panel will stop this procedure.

## **Empty Hose and Dipstick Wand Drillage**

The dipstick extraction wand drippings are collected in a small reservoir inside the unit. To periodically empty the waste fluid, (check for high fluid level on dipstick wand) insert DIPSTICK extraction wand all the way into wand storage hole. Select DIPSTICK mode, press DRAIN PAN and the unit will empty the reservoir. After twenty seconds of no fluid level change the unit will stop automatically. Press STOP button to reset unit.

## **WARRANTY STATEMENT**

All Symtech Corporation Transmission Service products are warranted to be free from defects in material and workmanship under normal use and service for a period of one year after the sale of product to service facility. Items including filters, service hoses, adapters and fittings are warranted for a period of ninety (90) days. Exception to this policy will be individually evaluated and must be approved by Symtech Corporate. The sole obligation under this warranty shall be to repair, or replace any defective product, or component thereof which upon examination are deemed to the manufacturers satisfaction to be defective.

Warranty shall not apply to any product which has been subject to misuse, negligence, or accident. Manufacturer shall not be responsible for any special or consequential damages and the warranty as set forth is in lieu of all other warranties, either expressed or implied. However, the manufacturer makes no warranty of merchantability in respect to any products for any purpose other than that stated in literature and any applicable manufacturers shop or service manuals referred to therein, including subsequent service bulletins.

**Proof of purchase MUST accompany all warranty claims.**

## **SERVICE STATEMENT / COMMITMENT**

Symtech Corporation prides itself on personal, in-depth, service communication, if you encounter difficulties in the operation, understanding of procedures or have general service questions we urge you to contact us at **1-888-884-8182** in order that we can be of assistance. This is not an empty statement as our reputation is directly dependent upon your overall satisfaction.

Symtech Corporation designs, builds and markets within North America. It is our commitment to you that your satisfaction and favorable equipment experience is foremost to us, we will endeavor to meet the high standard that you expect and deserve.

## **TECHNICAL SUPPORT**

**1-888-884-8182**  
**Central Standard Time.**

