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# **TRANSFLOW**

## **Transmission Cooling System**

*J-45096*



## **Operation Manual**

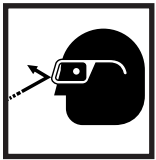
# Safety Precautions



**WARNING: TO PREVENT PERSONAL INJURY AND/OR DAMAGE TO EQUIPMENT:**



- **ALLOW ONLY QUALIFIED PERSONNEL TO OPERATE THE UNIT.** Before operating the unit, read and follow the instructions and warnings in this manual. If the operator cannot read English, operating instructions and safety precautions must be read and discussed in the operator's native language.
- **Do not use this equipment in a manner not specified by the manufacturer.**
- **Wear eye protection that meets OSHA standards.**
- **Correctly connect power supply cord to the vehicle 12V DC battery and chassis ground.**
- **Use only GM Approved Dexron VI® Automatic Transmission Fluid.**
- **Do not overfill the supply vessel with automatic transmission fluid (ATF).**



- **A minimum of 90 psi of shop air is required to operate this machine.**
- **Operate and store this machine in an upright position.**
- **Disconnect the machine from the shop air supply at the conclusion of each day to ensure correct operation of the water separator.**
- **Dispose of waste ATF in accordance with all applicable federal, state and local requirements.**

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## Introduction

The TransFlow machine is a product designed to measure the transmission oil cooler (T.O.C.) oil flow capability and to remove contaminated oil from the T.O.C. system after a transmission repair. Measuring the transmission cooler system oil flow rate determines if the cooler meets the current GM flow rate specification.

## Glossary of Terms

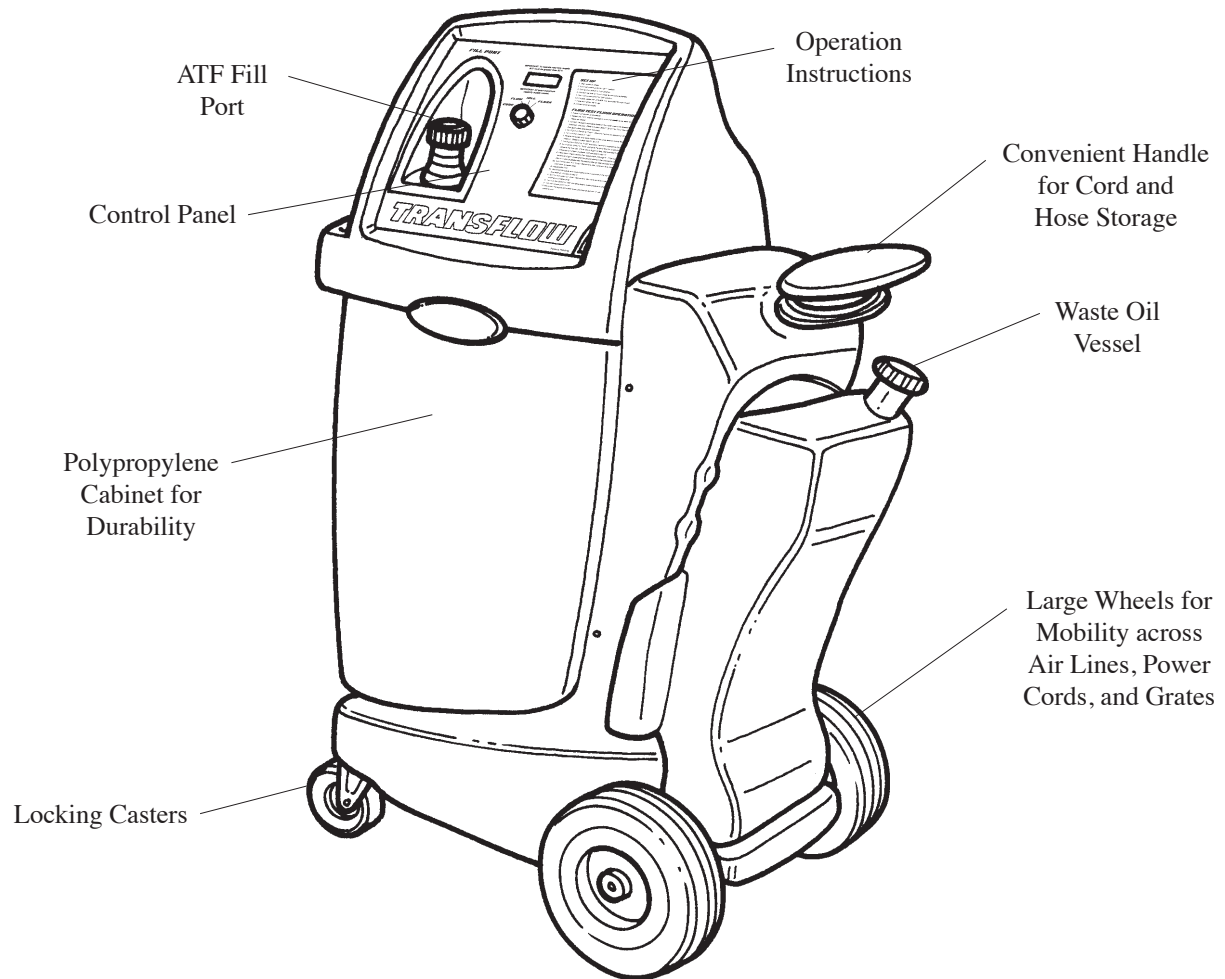
ATF	Automatic Transmission Fluid, Dexron VI® ATF or equivalent
GPM	Gallons per Minute
T.O.C.	Transmission Oil Cooler

## Equipment Specifications

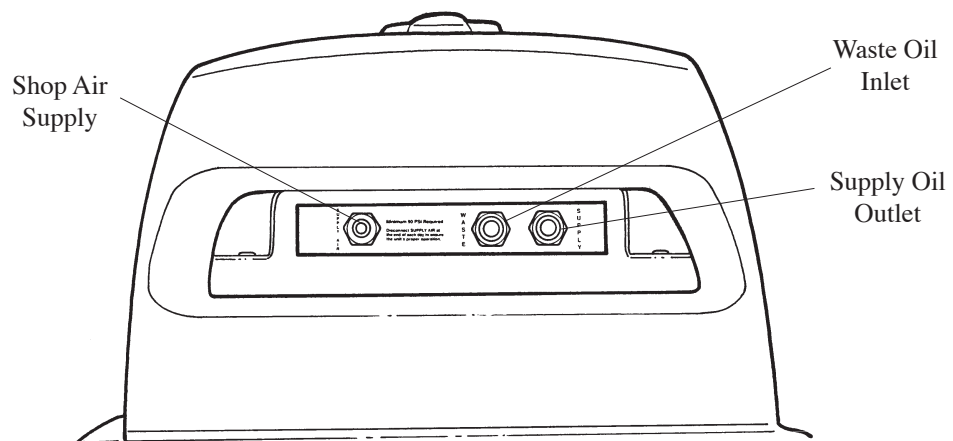
Component	Specification
TransFlow Part Number	J-45096
Power Supply Operating Voltage	11 Volts DC–16 Volts DC
Air Pressure	90 PSI (Minimum)
Minimum ATF Temperature	65° F
Supply Vessel Capacity	32 Quarts US
Waste Vessel Capacity	34 Quarts US
Flow Rate	0.5-2.5 gpm

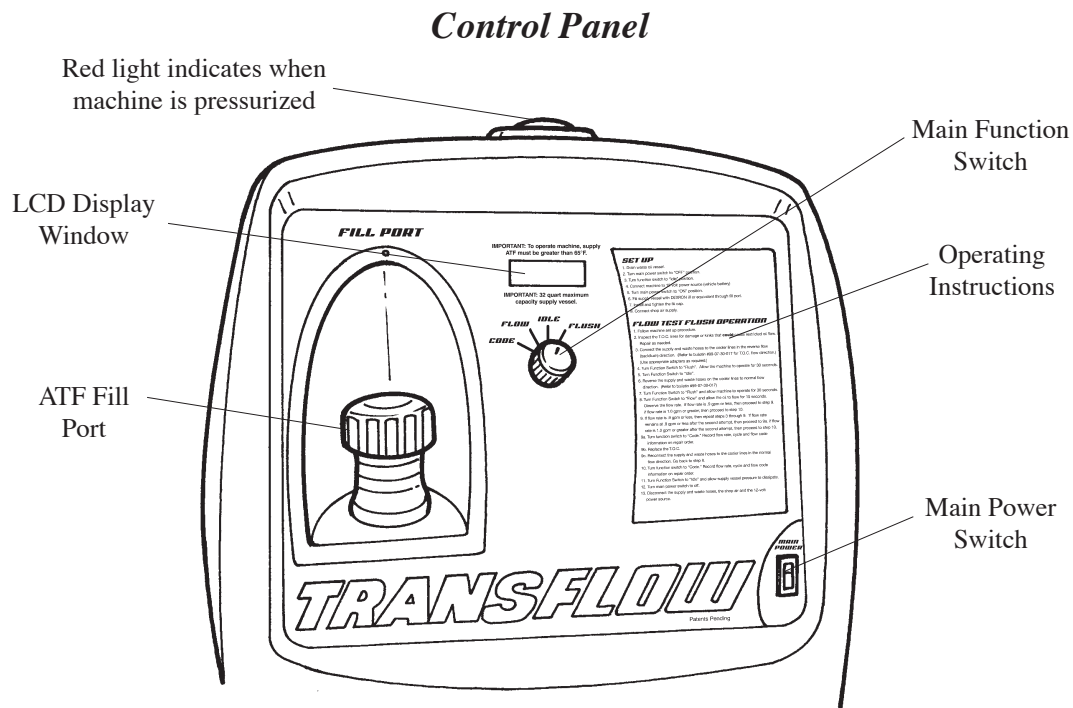
## Component Location Overview

### *Front View*



### *Rear View*





## Main Function Switch

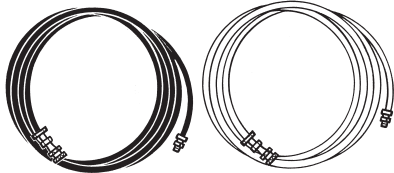
The following table provides a quick reference for the main function switch positions:

Switch Position	Description
Flush	Allows pressurized automatic transmission fluid with a high pressure pulse of air to flush the contaminated oil from the T.O.C. If any debris exists in the T.O.C., it will also be flushed when the machine is in this mode.
Idle	Standby mode; zero pressure applied to the T.O.C. and cooler lines.
Flow	Tests the flow rate of the T.O.C. and cooler lines.
Code	Provides a seven-character, encrypted warranty code following a successful flow test. Note: The flow test must run for a minimum of 8–10 seconds and be above 0.5 gpm for a code to be generated.

# Set-Up Instructions

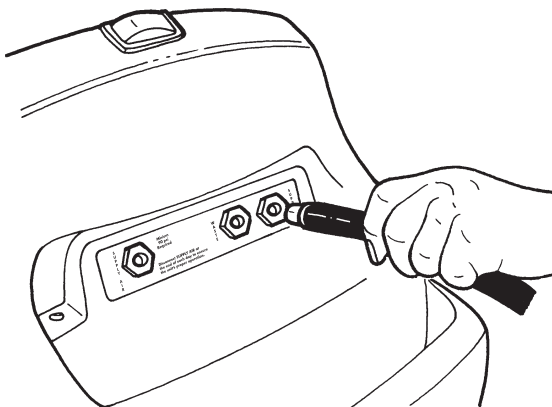
## Initial Set-Up

1. Remove the TransFlow unit from the packaging.
2. Locate the accessory package and remove the black supply hose and the clear waste hose. **See Figure 1.** Also locate and remove the two hose storage brackets.



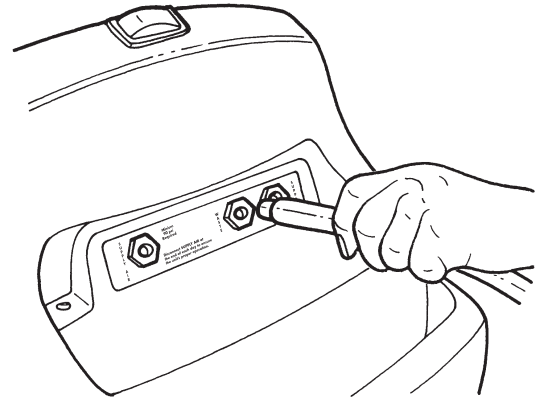
**Figure 1**

3. Apply Loctite® 565 sealant (supplied) to the threaded male end of the black supply hose.
4. Thread the supply hose clockwise onto the TransFlow fitting, located on the rear panel of the TransFlow unit, marked SUPPLY. **See Figure 2.**



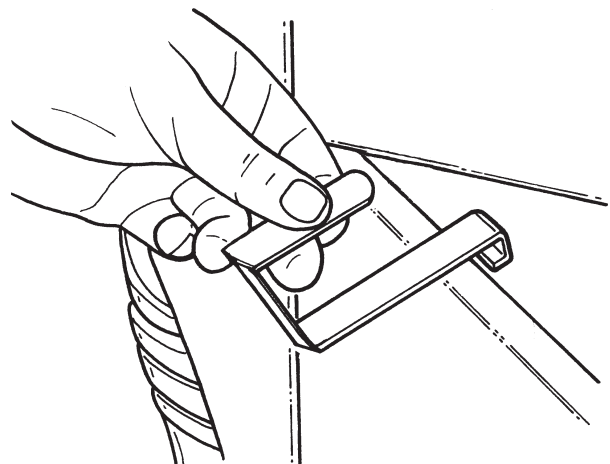
**Figure 2**

5. Tighten the fitting.
6. Apply Loctite® 565 thread sealant to the threaded male end of the clear waste hose.
7. Thread the waste hose clockwise onto the TransFlow fitting, located on the rear panel of the TransFlow unit, marked WASTE. **See Figure 3.**



**Figure 3**

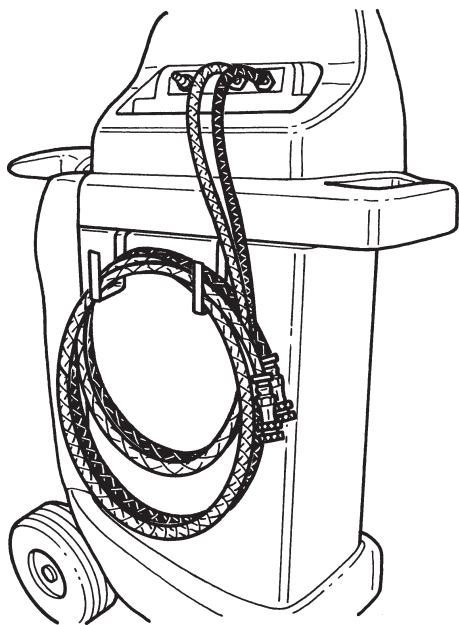
8. Tighten the fitting.
9. Apply Loctite® 565 thread sealant to the threads of an air line quick-disconnect fitting (customer supplied).
10. Thread the quick-disconnect fitting clockwise onto the TransFlow fitting, located on the rear panel of the TransFlow unit, marked Supply AIR.
11. Tighten the quick-disconnect fitting.
12. Open the door on the unit by using a screwdriver to turn the fasteners counterclockwise about a quarter-turn. Snap one hose storage bracket over the top of the door as shown in **Figure 4**, and position the other hose storage bracket 8"–10" away from the first.



**Figure 4**

## Set-up Instructions contd.

The waste and supply hoses can be stored on these brackets when not in use. See **Figure 5**.



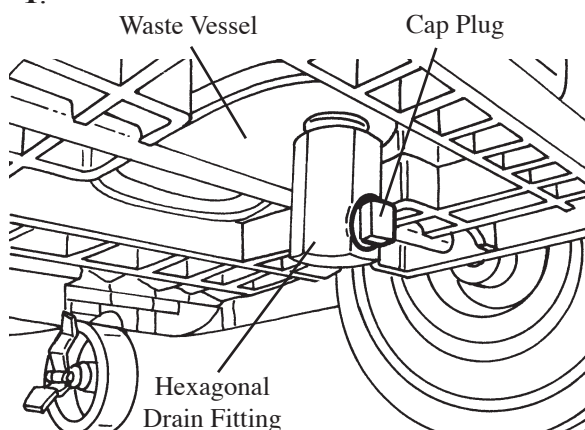
**Figure 5**

### Waste Vessel Drain Set Up

Before TransFlow is used, it is recommended to consider a draining strategy for the waste ATF that will be stored in the waste vessel on the side of TransFlow. The waste vessel may be drained through a fitting at the bottom or by removing the waste vessel cap at the top of the vessel to use an oil transfer pump to evacuate the oil. This section describes a procedure to outfit the drain fitting at the bottom of the waste vessel with a standard 1/2" pipe to make it more convenient for you to adapt to. It is your responsibility to either cap this 1/2" pipe once installed, or to adapt a fitting or hose to it to allow you to drain the waste vessel.

**IMPORTANT: Dispose of the waste ATF in accordance with all applicable federal, state and local requirements.**

1. If draining from the bottom of the waste vessel, first remove the drain fitting cap plug by turning the cap plug counterclockwise while supporting the hexagonal drain fitting. **Note:** Be sure to support the hexagonal drain fitting while removing the cap plug to prevent potential damage to equipment. See **Figure 1**.



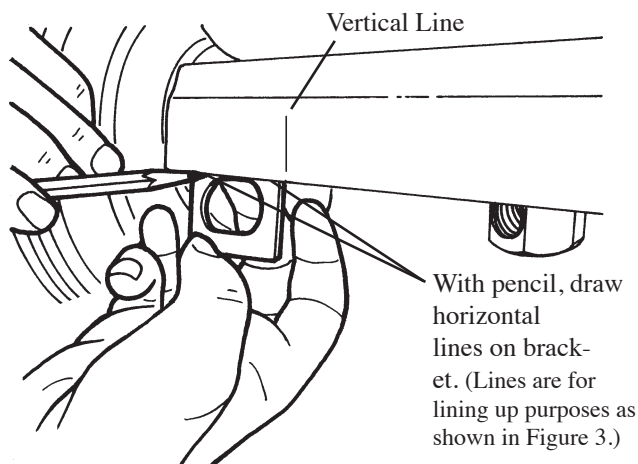
**Figure 1**

2. Locate the drain support bracket and screws from the accessory kit. Place the drain support bracket underneath the plastic lip of the left side base of the TransFlow machine (or towards front of TransFlow). The drain support bracket should be flat against the inside plastic lip and the hole in the drain support bracket should be clearly below the plastic.



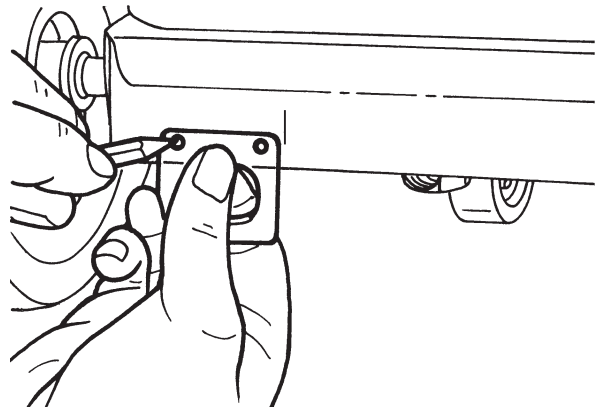
## Set-up Instructions contd.

3. Use a pencil to trace the drain support bracket's position at the three indicated locations. You should have two horizontal lines drawn on the bracket and one vertical line drawn on the plastic base to indicate the vertical and horizontal location of the bracket. See **Figure 2**.



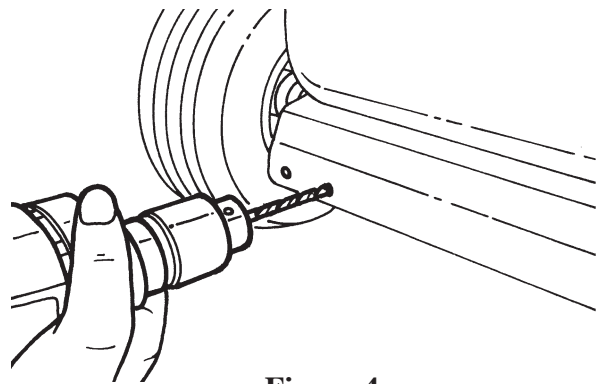
**Figure 2**

4. Bring the drain support bracket out from underneath the plastic lip of the plastic TransFlow base. Place the drain support bracket on the outside of the plastic base so the horizontal lines drawn on the bracket are in line with the bottom of the plastic TransFlow base. The right edge of the drain support bracket should line up with the vertical line that was drawn on the plastic base.
5. Mark the two points on the plastic base where the holes for the fasteners will be drilled so the drain support bracket can be secured to the plastic TransFlow base. See **Figure 3**.



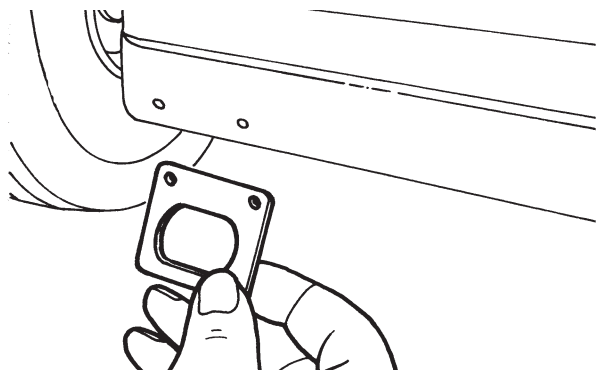
**Figure 3**

6. Drill the two holes (approximately 3/16" diameter) in the plastic base. The hole shall be drilled completely through the plastic lip of the plastic base. See **Figure 4**.



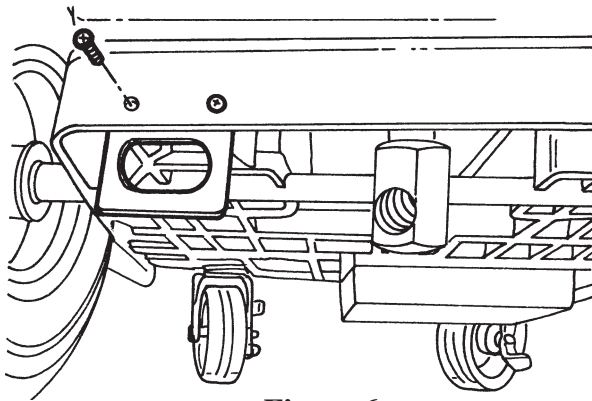
**Figure 4**

7. Place the drain support bracket behind the plastic lip of the base and line up the holes in the bracket with the holes in the base. See **Figure 5**.



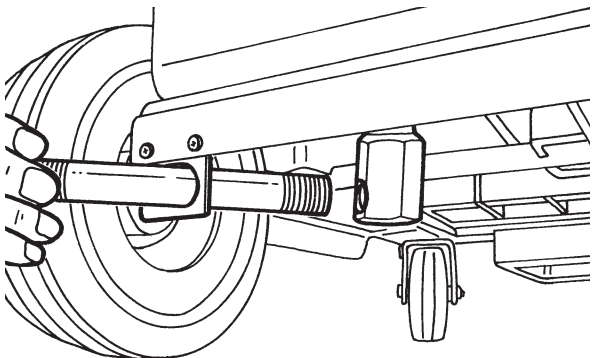
**Figure 5**

8. Secure the drain support bracket with the two screws included in the accessory package. See **Figure 6**.



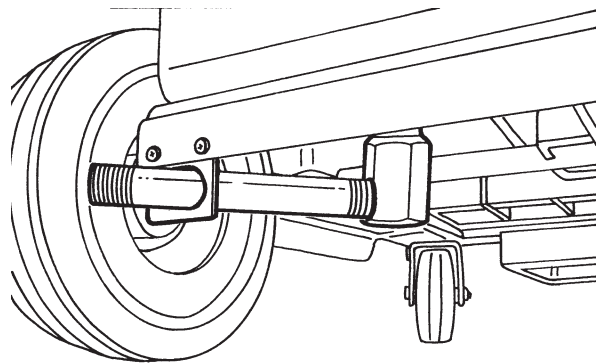
**Figure 6**

9. Rotate the drain fitting so it is facing the general direction of the drain support bracket.  
10. Locate the drain pipe. Apply any remaining Loctite 565 thread sealant to one end of the 1/2" drain pipe. Slide the drain pipe through the drain support bracket so the end of the drain pipe with thread sealant can be threaded into the hexagonal drain fitting.  
11. Turn the drain pipe clockwise so it threads into the drain fitting. Tighten the drain pipe while supporting the hexagonal drain fitting. See **Figure 7**.



**Figure 7**

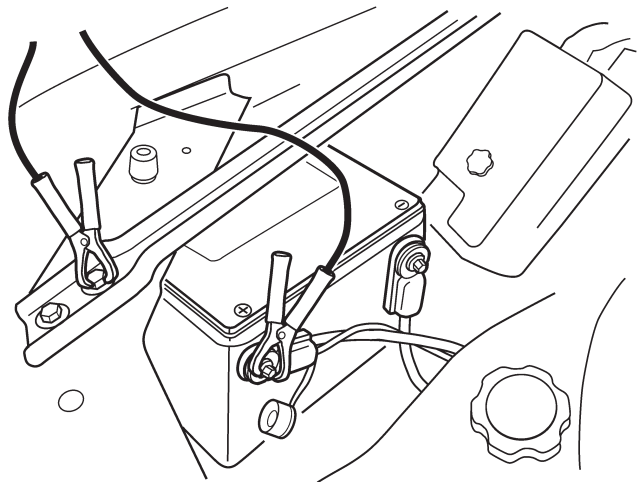
12. To complete the waste vessel drain set up, connect the fitting of your choice to the male 1/2" pipe that is now installed. See **Figure 8**.



**Figure 8**

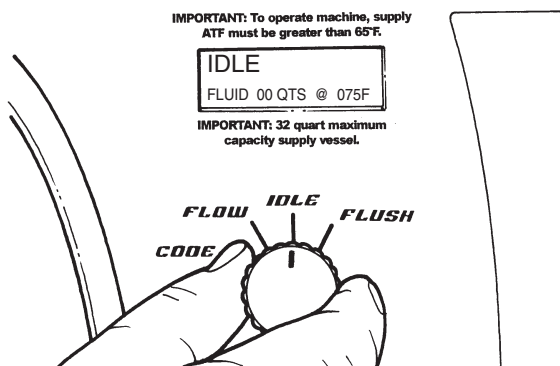
### Power Up

1. Connect the red battery clip to the positive (+) battery post on the vehicle, and connect the negative lead to a known good chassis ground. See **Figure 1**.



**Figure 1**

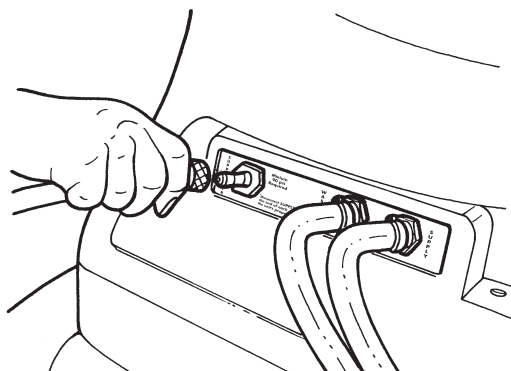
2. Verify that the main function switch is in the IDLE position. Place the main power switch (see *Control Panel* graphic on page 4 for its location) in the ON position, and wait for the IDLE screen to initialize. See **Figure 2**.



**Figure 2**

3. Connect an air hose from your compressed air supply to the quick-disconnect on the rear panel marked SUPPLY AIR. See **Figure 3**.

**Note:** Using an accurate pressure gauge, ensure there is a minimum 90 psi of Supply Air at the quick-disconnect.

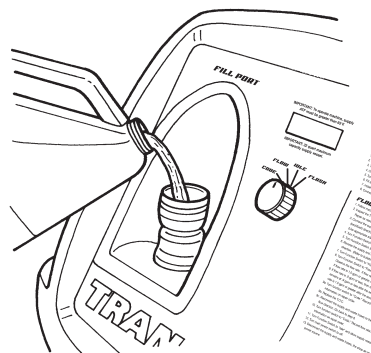


**Figure 3**

## TransFlow Self-Test

**Important:** Whenever a cooler fails the flow test, disconnect from the cooler lines and run the self-test procedure to verify flow is 2.0 gpm or greater. If less than 2.0 gpm, ensure the shop air supply maintains a minimum of 90 PSI when connected to the tester. The entire self-test should take no more than one to two minutes to complete. For additional information, refer to "Useful Information/Helpful Hints" in this manual.

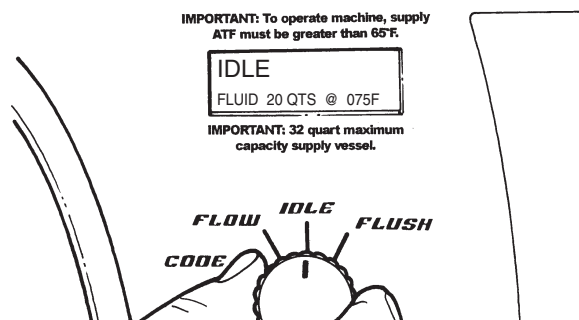
1. Remove the fill port cap.
2. Add two gallons of Dexron VI® ATF, or equivalent, to the supply vessel through the fill port. See **Figure 1**.



**Figure 1**

**Caution:** Do not overfill the supply vessel. Damage to the unit may result. To verify the fluid level, view the LCD screen display while filling the unit to ensure that the fluid level does not exceed 32 US quarts.

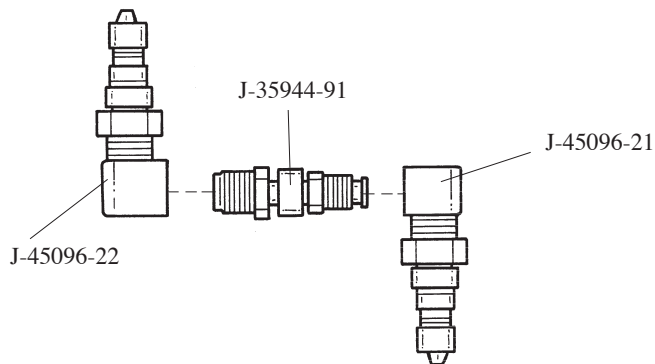
**Note:** If the Self-Test has already been carried out, verify the fluid level by viewing the LCD screen display. See **Figure 2**.



**Figure 2**

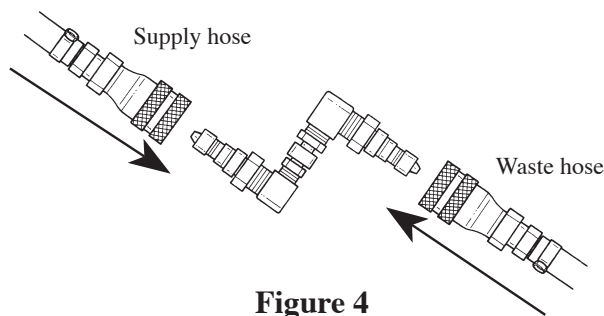
## TransFlow Self-Test contd.

3. Reinstall and tighten the fill port cap.
4. Locate the 5/16" TransFlow adapter (J-45096-21) and the 3/8" TransFlow adapter (J-45096-22) from the accessory package.
5. Connect and tighten the 5/16" adapter to one end of J-35944-91 (previously released essential tool, see Transmission Cooling System Service Tool Adapters on page 17) and the 3/8" adapter to the other end of J-35944-91. **See Figure 3.**



**Figure 3**

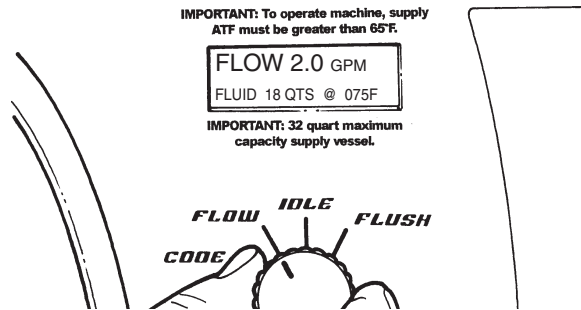
6. Connect the quick-connect couplers on the black supply hose and the clear waste hose to the newly created fitting assembly so that the machine is connected in a closed loop configuration. **See Figure 4.**



**Figure 4**

7. Verify that the tester is correctly connected to the vehicle power supply, the main power switch is in the ON position, and that the compressed air supply is connected.

8. Place the main function switch in the FLOW position. After the tester pressurizes, the LCD display should indicate a flow rate. **See Figure 5.**



**Figure 5**

9. Verify that the flow rate stabilizes at least at 2.0 gpm, then place the main function switch in the IDLE position. If the self-test flow rate is less than 2.0 gpm, follow Hints 8 and 9 on "Useful Information/Helpful Hints" page.
10. Disconnect the quick-connect couplers from the fitting assembly and the shop air supply from the rear panel of the unit.

**Note:** A small amount of water may drain from the bottom of the unit when the air supply is disconnected. This is a normal operation of the built-in water separator.

11. Disconnect the TransFlow power supply cables from the vehicle 12V power supply.

# Operating Instructions

## Machine Set-Up

1. Drain the waste oil vessel. (Refer to the Waste Oil Removal procedure on page 15.) If the waste oil vessel is empty, proceed to step 2.
2. Verify that the main power switch is in the OFF position.
3. Place the main function switch in the IDLE position. See Figure 1.

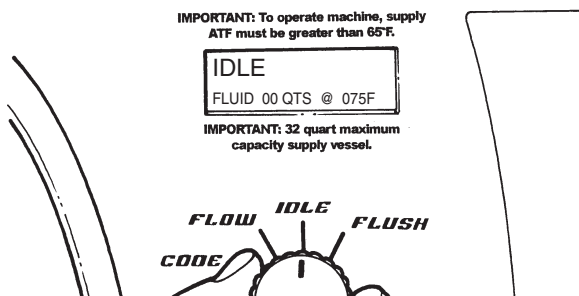


Figure 1

4. Connect the TransFlow machine to the vehicle 12V DC power source by connecting the red battery clip to the positive (+) battery post on the vehicle and connect the negative lead to a known good chassis ground. See Figure 2.

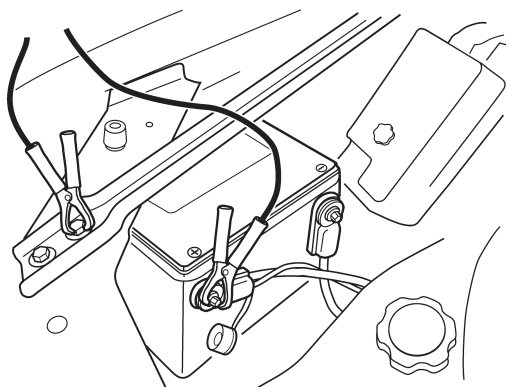


Figure 2

5. Turn the main power switch to the ON position.

6. Fill the supply tank with Dexron VI® ATF, or equivalent, through the fill port. See Figure 3.

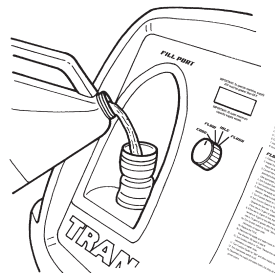


Figure 3

**Caution:** Do not overfill the supply vessel. Damage to the unit may result. To verify the fluid level, view the LCD screen display while filling the unit to ensure that the fluid level does not exceed 32 US quarts. See Figure 4.

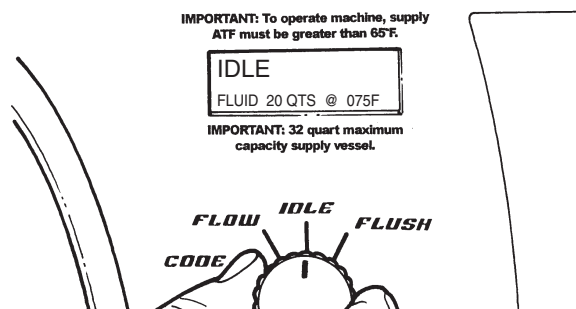


Figure 4

7. Reinstall and tighten the fill cap.
8. Connect a shop air supply hose to the quick-disconnect on the rear panel marked SUPPLY AIR. See Figure 5.

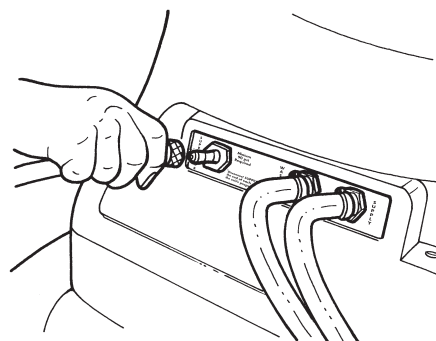


Figure 5

## Flow Test/Flush Operation

1. Follow the machine set-up procedure on page 11.
2. From the machine display, identify the temperature of the automatic transmission fluid that is stored in the supply vessel of Trans-Flow.

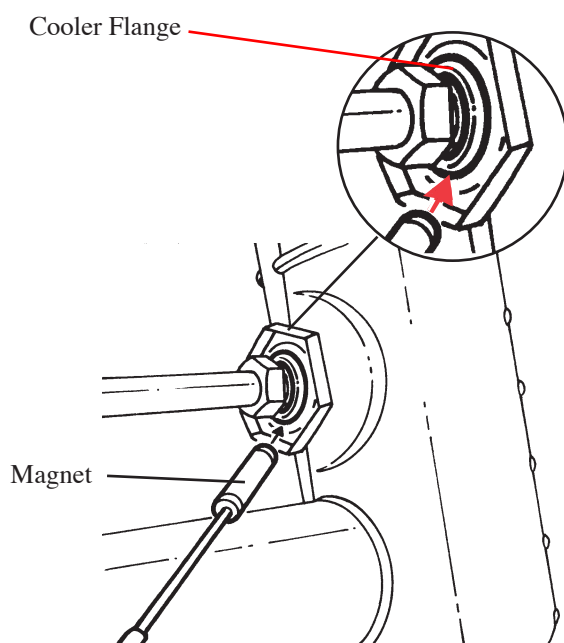
### Example:

IDLE  
FLUID 18 QTS @ 075F

075F

Degrees Fahrenheit

3. Determine whether the T.O.C. is steel or aluminum by using a magnet at the cooler flange at the radiator. See Figure 1.



**Figure 1**

4. Using the temperature from step 2, locate on either the Steel MINIMUM Flow Rate chart or the Aluminum MINIMUM Flow Rate chart the MINIMUM flow rate in gallons per minutes (GPM). Then record the MINIMUM Flow Rate in GPMs and the supply fluid temperature for further reference.

## STEEL T.O.C.

MINIMUM Flow Rate (gpm)	
Temperature Range (Degrees Fahrenheit)	Steel
65 to 66	0.6
67 to 70	0.7
71 to 75	0.8
76 to 80	0.9
81 to 84	1.0
85 to 89	1.1
90 to 94	1.2
95 to 98	1.3
99 to 103	1.4
104 to 108	1.5
109 to 112	1.6
113 to 117	1.7
118 to 120	1.8

## ALUMINUM T.O.C.

MINIMUM Flow Rate (gpm)	
Temperature Range (Degrees Fahrenheit)	Aluminum
65 to 66	0.5
67 to 70	0.6
71 to 75	0.7
76 to 80	0.8
81 to 84	0.9
85 to 89	1.0
90 to 94	1.1
95 to 98	1.2
99 to 103	1.3
104 to 108	1.4
109 to 112	1.5
113 to 117	1.6
118 to 120	1.7

### Example:

Fluid temperature: 75 degree Fahrenheit  
Cooler type: STEEL

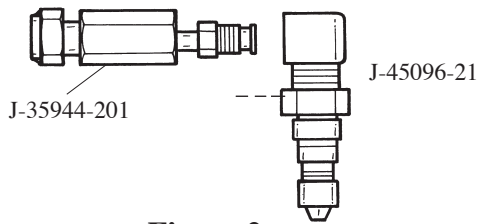
The MINIMUM flow rate for this example would be 0.8 GPM.

5. Inspect T.O.C. lines for damage or kinks that **could** cause restricted oil flow. Repair as needed. (Refer to the appropriate GM service manual procedures.)



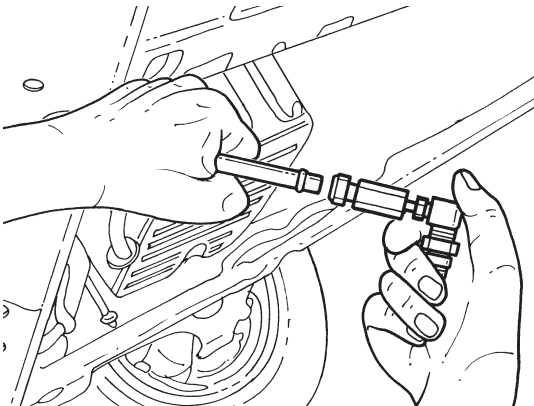
## Flow Test/Flush Operation contd.

6. Locate the adapters as required for the vehicle being tested. **Refer to Transmission Cooling System Service Tool Adapters on page 17 for a complete list of adapters.**
7. Connect the appropriate adapter(s) (J-35944-201 shown as an example) to the supplied TransFlow adapter J-45096-21. **See Figure 2.**



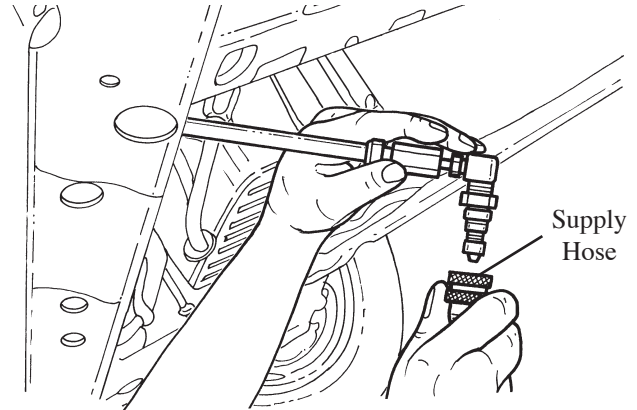
**Figure 2**

8. Repeat step 7 to build a second adapter assembly if required.  
**Note:** Most vehicle applications will require two sets of adapter assemblies except those vehicle applications that use J-45806 or J-35944-440.
9. Connect the assembled adapters to the vehicle's T.O.C. supply and return lines at the transmission. **See Figure 3.**

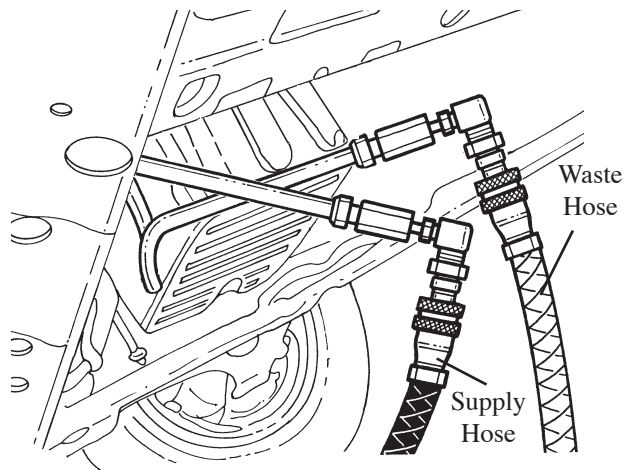


**Figure 3**

10. Connect the black supply hose and clear waste hose to the vehicle cooler lines in the reverse flow (backflush) direction. Refer to bulletin #02-07-30-052 for T.O.C. flow direction. **See Figure 4 and 5.**

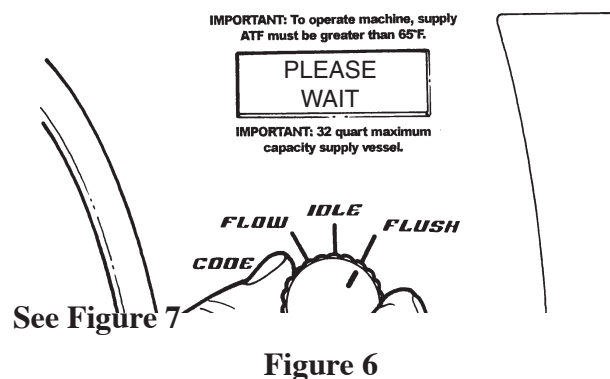


**Figure 4**



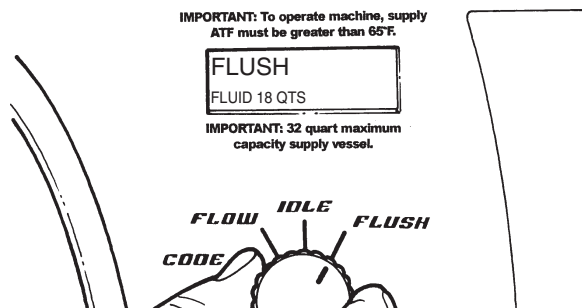
**Figure 5**

11. Turn the main function switch to the FLUSH position. Allow the machine to operate for 30 seconds. **See Figure 6.**



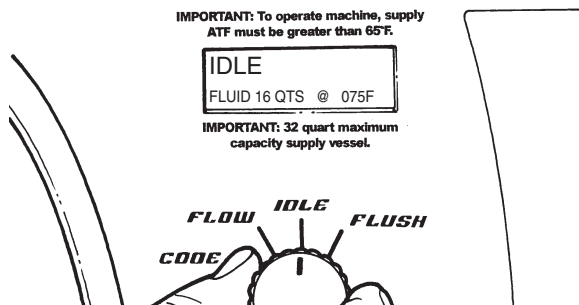
**Figure 6**

## Flow Test/Flush Operation contd.



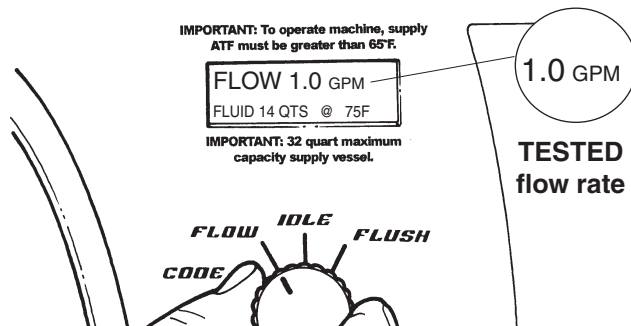
**Figure 7**

12. Turn the main function switch to the IDLE position and allow the supply vessel pressure to dissipate. See Figure 8.



**Figure 8**

13. Disconnect the supply and waste hoses from the vehicle cooler lines. Reverse the supply and waste hoses to provide a normal flow direction. (Refer to bulletin #02-07-30-052).
14. Turn the main function switch to the FLUSH position and allow machine to operate for 30 seconds.
15. Turn the main function switch to the FLOW position and allow the oil to flow for 15 seconds. Observe and note the flow rate; this is the TESTED flow rate. See Figure 9.



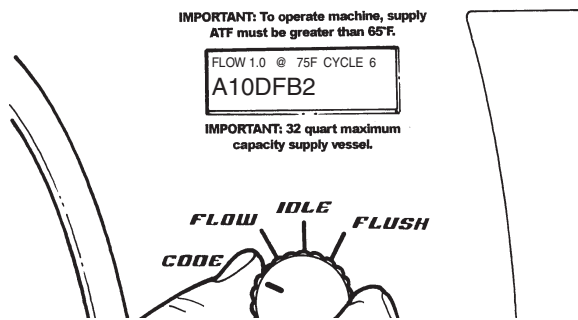
**Figure 9**

**Note:** If the flow rate is less than 0.5 gpm, the LCD displays an error message. Refer to the Troubleshooting section of this manual.

16. Compare the TESTED flow rate to the MINIMUM flow rate information you recorded in step 4.
  - 16a. If the TESTED flow rate is equal to or **greater** than the MINIMUM flow rate recorded in step 4, the oil cooling system is functioning properly. Go to step 18.
  - 16b. If the TESTED flow rate is **less** than the MINIMUM flow rate recorded in step 4, repeat steps 10 through 16. If TESTED flow rate is **less** than the MINIMUM flow rate after the second test, go to step 17.
17. Turn the main function switch to the CODE position. Record TESTED flow rate, temperature, cycle and seven-character flow code information on repair order.
  - 17a. Replace the T.O.C.
  - 17b. Reconnect supply and waste hoses to the cooler lines in the normal flow direction. Go back to step 15.
18. Turn the main function switch to the CODE position. Record TESTED flow rate, temperature, cycle and seven-character flow code information on repair order. See Figure 10.



## Flow Test/Flush Operation contd.



**Note:**

**Figure 10**

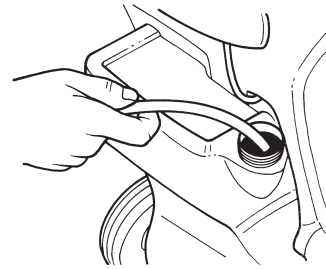
- If power is interrupted prior to the recording of the seven-character code, the code will be lost and the flow rate test will need to be repeated. Go to step 15.
  - The flow test must run for a minimum of 8–10 seconds and be above 0.5 gpm for a code to be generated.
19. Turn the main function switch to IDLE and allow supply vessel pressure to dissipate.
  20. Turn the main power switch to the OFF position.
  21. Disconnect the supply and waste hoses and the 12-volt power source from the vehicle. Disconnect the air supply hose from the TransFlow unit.
- Note:** A small amount of water may drain from the bottom of the unit when the air supply is disconnected. This is a normal operation of the built-in water separator.
22. Drain the waste oil vessel. Refer to the Waste Oil Removal procedure, which follows.

**Note:** Wipe down the TransFlow unit with a cloth to remove any ATF or other substances. Store the TransFlow machine in an upright position.

## Waste Oil Removal

Dispose of the waste ATF in accordance with all applicable federal, state, and local requirements. You may use one of two methods to drain the waste oil from the waste oil vessel. The first method is to allow the waste oil to gravity drain, and the second is to use a pump (not supplied) to pump the waste oil out of the waste oil vessel.

1. Draining the waste vessel can be done by using gravity or by using a pump.
  - **If using gravity**, refer to Waste Vessel Drain Set Up on page 6.
  - **If using a pump**, remove the waste vessel cap at the top of the vessel to use an oil transfer pump to evacuate the waste ATF. See Figure 1.



**Figure 1**

2. Wipe down the TransFlow unit with a cloth to remove any ATF or other substances.
3. Store the TransFlow machine in an upright position.

# Maintenance

- 1. Drain the waste oil vessel following each use.  
Follow the Waste Oil Removal procedure on page 15.
- 2. Wipe down the unit with a cloth to remove any ATF or other substances from the unit.
- 3. Store upright in a clean, dry location.

# Service Parts

TransFlow Adapter (5/16") . . . . .	J-45096-21
TransFlow Adapter (3/8") . . . . .	J-45096-22
Main Function Switch Knob . . . . .	.90512
Waste Hose Assembly . . . . .	.90513
Supply Hose Assembly . . . . .	.90514
Female Quick Coupler for Waste or Supply Hose . . . . .	.90515
Fill Port / Waste Vessel Cap . . . . .	.90516
Waste Vessel . . . . .	.90517
Operator Manual . . . . .	.515054

# Accessories

**Transmission Oil Cooler Line Adapters Kit**  
**J-45096-KIT:** Contains J-35944-91, J-35944-200, J-35944-440 and a storage case.

For part numbers of previously essential T.O.C. line adapters, see page 17.

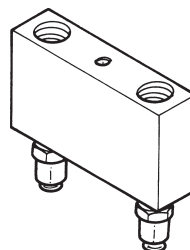
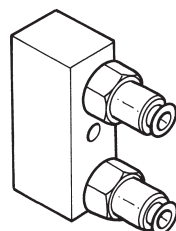
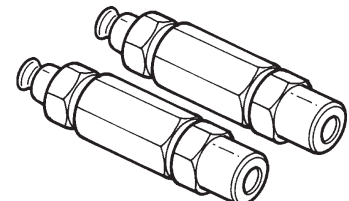
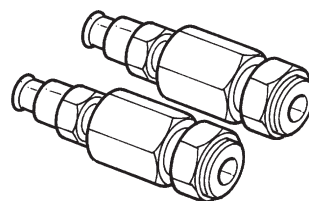
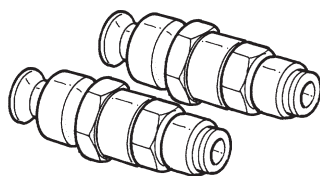
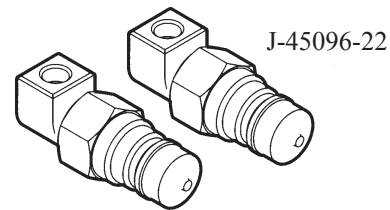
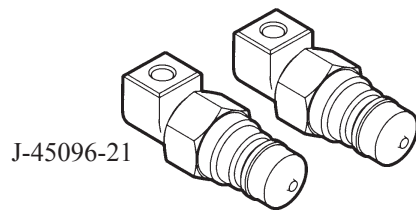
## Transmission Cooling System Service Tool Adapters

Transmission Oil Cooler (T.O.C.) Line Adapters: Adapters that connect directly to the T.O.C. lines.

TransFlow Adapters: Adapters that connect the T.O.C. line adapter to the TransFlow machine.

**Note:** Certain vehicle's cooler lines will thread directly onto the TransFlow Adapter without the need for a T.O.C. line adapter.

Part No.	Qty.	Description	Part No.	Qty.	Description
<b>Included with the J-45096 TransFlow :</b>			<b>Included with optional J-45096-KIT :</b>		
J-45096-21	2	5/16" TransFlow Adapters	J-35944-91	2	5/16" & 3/8" Adapters
J-45096-22	2	3/8" TransFlow Adapters	J-35944-200	2	Quick-connect Adapters
<b>Previously released essential T.O.C. line adapters :</b>			J-35944-440	1	Block Adapter
J-35944-91	2	5/16" & 3/8" Adapters	Low profile storage case (with extra space to hold additional adapters)		
J-35944-200	2	Quick-connect Adapters			
J-35944-600	2	Quick-connect Adapters - C5			
J-45806	1	Block Adapter			
J-35944-440	1	Block Adapter			



J-45806

J-35944-440

## Useful Information/Helpful Hints

1. If there is a question regarding the transmission oil cooler (T.O.C.) flow direction of a specific vehicle application, please be sure to review General Motors Service Bulletin #02-07-30-052.

2. The Automatic Transmission Fluid (ATF) in the supply vessel of TransFlow must be greater than 65 degrees Fahrenheit in order for TransFlow to operate. During the colder winter months you may want to consider some of these suggestions to keep the ATF at 65 degrees F or higher:

- Fill the TransFlow's supply vessel with ATF at the end of the day and store the machine in the tool crib, parts department or somewhere in the dealership where room temperature is maintained throughout the evening.
- Consider storing a quantity of the ATF in a location where room temperature is maintained throughout the evening.

3. A typical flow test and flush operation on a vehicle uses about 2 gallons (8 quarts) of ATF. If the TransFlow supply vessel is filled to its 32 quart capacity, you will be able to flow test and flush 4 vehicles per each full supply vessel.

4. It is recommended to get in the habit of monitoring the level of waste ATF in the waste vessel to make sure it does not overflow. If it makes sense, it would be recommended to drain the waste vessel at the end of the day if the ATF level is around 3/4 full. This will reduce your chances of overflowing the waste vessel the next day.

5. Build up a few of the T.O.C. line and TransFlow adapter assemblies ahead of time. This will save you setup time. The three most common T.O.C. line adapters are the J-35944-200, the J-35944-91 and J-35944-440.

6. If the TransFlow's ATF fill port fills slowly or will not accept the ATF, remove the screen in the fill port and inspect it for debris. If no restriction is found and the fill port will still not accept ATF, contact Bosch Automotive Service Solutions at 1-800-345-2233 for technical support and service parts ordering.

7. If TransFlow will not roll or cannot be pushed, please make sure the front casters are unlocked.

8. If the TransFlow fails a cooler during the flow test, disconnect from the cooler lines and run the TransFlow self-test procedure to verify flow is 2.0 gpm or greater. If you are having difficulty obtaining the 90 psi of shop air required to run TransFlow, please consider these suggestions:

- Connect an accurate pressure gauge between the TransFlow air inlet and the shop to verify the pressure going into TransFlow from the shop air supply is at least 90 psi and there are no obstructions in the shop line.
- Connect TransFlow to an air line that is closer to the service compressor.
- Check service compressor's pressure.
- Connect to the body shop air line, which may be at a higher pressure.
- Contact compressor supplier for support.

9. To adjust TransFlow internal pressure regulator:

1. Open the rear swinging door.
2. Remove (3) T-30 Torx head screws inside the rear door.
3. Remove (2) T-30 Torx head screws from the front right.
4. Lift up on the front cover to remove it from the bottom of the cart, tip the bottom outward and lower the cover to completely remove it.
5. Reach through the right front of the machine to access the pressure regulator
6. Pull up the regulator knob and turn it counter-clockwise to increase to pressure.
7. Push knob back down to lock it in position
8. During reassembly, be sure to position the front panel up under the hood.
9. Reinstall the (5) Torx screws.

If this procedure does not increase self-test flow rate to minimum of 2.0 gpm, contact Bosch Automotive Service Solutions at 1-800-345-2233 for technical support and service parts ordering.

## Troubleshooting

Problem	Cause	Solution
<b>Main power switch is on, but graphic LCD does not turn on.</b>	<ol style="list-style-type: none"> <li>1. Power supply cable not connected to battery.</li> <li>2. Poor power supply cable connection.</li> <li>3. Power cables are reversed.</li> <li>4. Dead battery.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect power supply cable to battery.</li> <li>2. Check connection at positive terminal and chassis ground by wiggling the clamps.</li> <li>3. Check polarity of battery clamps.</li> <li>4. Verify battery is fully charged.</li> </ol>
<b>Flow code unavailable.</b>	<ol style="list-style-type: none"> <li>1. Flow rate test too short.</li> </ol>	<ol style="list-style-type: none"> <li>1. Carry out the flow rate test for a minimum of 8 seconds.</li> </ol>
<b>Flush operation is inoperative, solenoid clicks.</b>	<ol style="list-style-type: none"> <li>1. No air pulse.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify that the shop air supply is greater than 90 PSI.</li> </ol>
<b>LOW FLUID TEMP message appears on the graphic LCD.</b>	<ol style="list-style-type: none"> <li>1. Supply ATF is below 65 degrees Fahrenheit.</li> </ol>	<ol style="list-style-type: none"> <li>1. Warm up supply ATF to 65° F.</li> </ol>
<b>TANK EMPTY message appears on the graphic LCD.</b>	<ol style="list-style-type: none"> <li>1. Supply vessel is empty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Add appropriate amount of ATF to supply vessel in order to continue testing.</li> </ol>
<b>LOW VOLTAGE message appears on the graphic LCD.</b>	<ol style="list-style-type: none"> <li>1. Less than 11V DC supplied to unit.</li> </ol>	<ol style="list-style-type: none"> <li>1. Charge and test vehicle battery.</li> <li>2. Check for secure battery + and vehicle ground connections.</li> </ol>
<b>FLOW &lt; 0.5 GPM message appears on the graphic LCD.</b>	<ol style="list-style-type: none"> <li>1. Restriction to the vehicle T.O.C. system or transmission cooler lines.</li> <li>2. Shop air supply less than 90 PSI.</li> <li>3. Air supply hose not connected.</li> <li>4. Possible equipment failure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Follow the Flush Operation/Flow Test procedure.</li> <li>2. Repair vehicle T.O.C. system. Refer to GM diagnostic service procedure.</li> <li>3. Verify that the shop air supply is greater than 90 PSI.</li> <li>4. Connect shop air supply hose to the TransFlow unit.</li> <li>5. Complete the self-test procedure. If the self-test fails, adjust TransFlow internal pressure regulator. See "Useful Information/Helpful Hints" for regulator adjustment procedure.</li> </ol>

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# **Warranty Information/ Technical Support**

The J-45096 TransFlow machine is warranted against defects in materials and workmanship for one year.

Contact Bosch Automotive Service Solutions for all warranty and technical concerns at:

**1-800-345-2233**



# **BOSCH**

## **Automotive Service Solutions**

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28635 Mound Road  
Warren, MI 48092-3499  
USA

**Form No. 515054  
Rev. E (10/17)**