



*Safety by Design*

# "DFE 1"

## Differential Fluid Exchange System



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# Operation Service Manual

Version 062913

# "DFE 1"

## Differential Fluid Exchange System

### WARNING:

DO NOT use the DFE 1 to dispense or extract any fluids other than differential fluid and approved differential fluid additives.

NEVER use the DFE 1 to dispense or extract brake fluid. Doing such will VOID warranty and result in excessive repairs to internal pump.

### PRIOR TO OPERATION:

1. Attach DFE 1 to the top shelf of the power cart by inserting four cap screws through the top shelf and inserting into their appropriate attachment points.
2. Connect the power cord from the DFE to the power cart battery enclosure by inserting the appropriate male or female connections and locking connections by turning outer locking barrel clockwise. Connect to 110VAC power source using supplied power cord.
  - The DFE 1 battery charging system will operate from any 110VAC power source. When charging system is plugged into a 110 VAC power source, a RED led will illuminate through the rear of battery enclosure to indicate that system is charging, GREEN light indicates that battery is at full charge.
  - A three prong, grounded, heavy duty extension cord or receptacle is recommended if power cord is not of sufficient length to connect to a 110VAC receptacle.
  - The battery charger should only be operated in temperature range of 15° to 100° F.
  - The battery charging system should only be operated when relative humidity is below 90%.
  - The battery charging system should only be operated with the Symtech power cord (Part number: 30110317) provided with the DFE 1 Power Cart accessory kit.



Power Cord



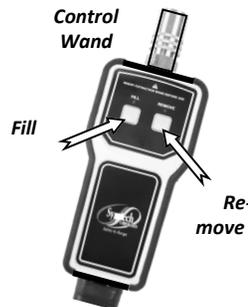
Flashing Light

### Preparation Before Service:

- Vehicle should have the emergency brake placed on.
- Check NEW fluid container for adequate differential fluid to perform service.
- Check USED fluid container to assure of adequate space for used fluid removal.

### OPERATION, "DFE 1" with Power Cart:

1. Make sure that DFE 1 is connected to power cart battery via power cord and battery is fully charged. Connect extraction wand hose into control wand.



Control Wand

Fill

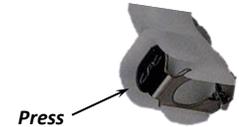
Remove

NOTE: If power cart battery is weak, RED light on DFE will flash when ON / OFF button is pushed. Charge power cart battery before proceeding .

2. Connect shop air to shop air receptacle located on rear of DFE 1.
  3. With engine off, insert extraction wand hose into differential housing and extract all differential fluid from housing reservoir by pressing and holding REMOVE button on extraction wand.
  4. Refill differential housing reservoir by pressing FILL button on extraction wand.
  5. Replace access cap on housing.
- Repeat step 3 through 5 as many times as necessary to achieve a desired total fluid exchange.

### NEW / USED HOSE CONNECTION REMOVAL:

To remove NEW and USED hose connectors to fluid tanks, depress small lever on connector and lift upward.



Press

### FILTER SERVICE:

1. Remove USED fluid container, filter is located inside case, towards the bottom.
2. Unscrew filter bowl counterclockwise and remove filter bowl and screen.
3. Clean screen filter and bowl and replace, tighten clockwise securely.
4. Replace USED fluid tank and attach used fluid hose to tank.

### REPLACEMENT COMPONENTS:

New Fluid Tank	_____	33010300
Used Fluid Tank	_____	33010400
Extraction Wand Hose	_____	33010500
Filter Bowl w/ Gasket	_____	33010106
Filter Screen	_____	33010107

### WARRANTY

All Symtech Corporation DFE 1, Differential Service system is 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 Corporation. The sole obligation under this warranty shall be to repair, or replace any defective product, or components thereof which upon examination are deemed to the manufacturer's 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.**