

# 234037 Repair Kit

309575E

## REPLACEMENT MOTOR BRUSHES FOR ALL REACTOR PROPORTIONERS WITH ELECTRIC MOTORS

Rev. A

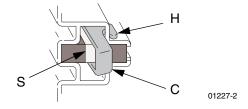
ALWAYS USE GENUINE GRACO PARTS AND ACCESSORIES



To reduce the risk of serious injury including fluid injection, splashing in the eyes or on the skin, injury from moving parts, or electric shock, always shut off and unplug the equipment and trigger the gun to relieve pressure before changing brushes.

### **Brush Removal**

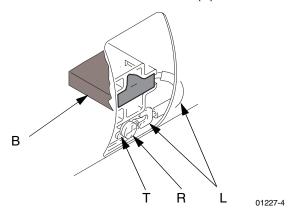
- 1. Turn Reactor main power OFF Disconnect power supply. Wait 5 min for stored voltage to discharge (E-30 and E-XP2 models only).
- 2. Relieve pressure. See Reactor manual.
- 3. Remove motor cover, screws, and washers. Remove inspection covers, screws, and gaskets from left end of motor.
- 4. Push in spring clip (C) to release hooks (H) from brush holder. Pull out clip and spring (S).



PROVEN QUALITY. LEADING TECHNOLOGY.

**Graco Inc. P.O. Box 1441 Minneapolis, MN 55440-1441**Copyright 2003, Graco Inc. is registered to I.S. EN ISO 9001

- One brush has a wire on top for brush wear signal. Note which side of motor it is on. Unplug at spade connector provided.
- Loosen terminal screw (R). Pull away brush lead (L), being careful motor lead terminal (T) remains in place. Remove and discard brush (B).

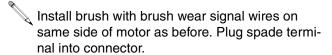


- Inspect commutator for excessive pitting, burning, or gouging. Black color on commutator is normal. Have commutator resurfaced by qualified motor repair shop if brushes wear too quickly, or replace motor.
- Repeat for other side.

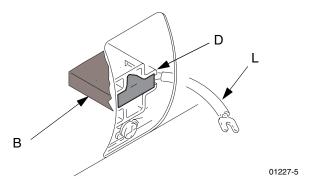
### **Brush Installation**

### **A** CAUTION

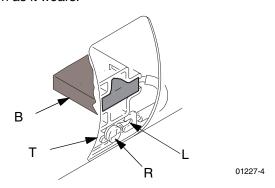
When installing brushes, follow steps carefully. Improper installation damages parts beyond use.



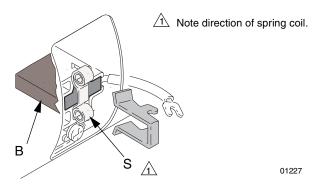
1. Install new brush (B) so lead (L) is in long slot (D) of holder.



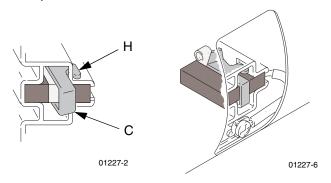
2. Slide terminal (L) under terminal screw (R). Make sure motor lead terminal (T) is still connected at screw. Tighten screw. Be sure brush is free to move down as it wears.



2 309575A 3. Install spring (S) so it will uncoil onto brush (B), as shown. Spring will be damaged if installed backwards.



4. Install spring clip (C) and push in until hooks (H) catch slots in housing. Incorrect installation may jam clip.







Do not touch brushes, leads, springs, or brush holders while equipment is plugged in, to reduce the risk of electric shock and serious injury.

### **CAUTION**

Do not run pumps dry for more than 30 sec while checking brushes, to avoid damaging pumps.

- 5. Reinstall brush inspection covers, gaskets, and screws. Reinstall motor cover, screws, washers, and drive housing/pump assemblies.
- 6. Test brushes with both pump pins disconnected, see Reactor repair manual.

Select J 1 (jog mode). Press motor



to start

motor. Slowly increase jog setting to J 6. Inspect brush and commutator contact area for excessive arcing. Arcs should not "trail" or circle around commutator surface.

Run motor for 20-30 min at J 6 to seat brushes.

7. Reconnect pump rods and pins, see Reactor repair manual.

309575A 3

### **Graco Standard Warranty**

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT

MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

### **FOR GRACO CANADA CUSTOMERS**

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

### **Graco Phone Numbers**

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you:

1-800-367-4023 Toll Free 612-623-6921 612-378-3505 Fax

All written and visual data contained in this document reflects the latest product information available at the time of publication.

Graco reserves the right to make changes at any time without notice.

Sales Offices: Minneapolis, Detroit International Offices: Belgium, Korea, Hong Kong, Japan