240-3090 SOLENOID EXPANSION KIT
INSTALLATION INSTRUCTIONS
In this part sheet, the words **WARNING, CAUTION** and **NOTE** are used to emphasize important safety information as follows:

---

**WARNING**

Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

---

**CAUTION**

Hazards or unsafe practices which could result in minor personal injury, product or property damage.

---

**NOTE**

Important installation, operation or maintenance information.

---

Read the following warnings before using this equipment.

**WARNING**

READ THE MANUAL

Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.

OPERATOR TRAINING

All personnel must be trained before operating finishing equipment.

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.

LOCK OUT / TAG-OUT

Failure to de-energize, disconnect, lock out and tag-out all power sources before performing equipment maintenance could cause serious injury or death.

AUTOMATIC EQUIPMENT

Automatic equipment may start suddenly without warning.

PRESSURE RELIEF PROCEDURE

Always follow the pressure relief procedure in the equipment instruction manual.

KEEP EQUIPMENT GUARDS IN PLACE

Do not operate the equipment if the safety devices have been removed.

KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY

WEAR SAFETY GLASSES

Failure to wear safety glasses with side shields could result in serious eye injury or blindness.

INSPECT THE EQUIPMENT DAILY

Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.

NEVER MODIFY THE EQUIPMENT

Do not modify the equipment unless the manufacturer provides written approval.

NOISE HAZARD

You may be injured by loud noise. Hearing protection may be required when using this equipment.

---

**PROJECTILE HAZARD**

You may be injured by venting liquids or gases that are released under pressure, or flying debris.

**STATIC CHARGE**

Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.

**ELECTRIC SHOCK / GROUNDING**

Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.

**PINCH POINT HAZARD**

Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.

**HIGH PRESSURE CONSIDERATION**

High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the spray gun, hose leaks, or ruptured components can inject fluid into your body and cause extremely serious injury.

**WEAR RESPIRATOR**

Toxic fumes can cause serious injury or death if inhaled. Wear a respirator as recommended by the fluid and solvent manufacturer’s Material Safety Data Sheet.

**TOXIC FLUID & FUMES**

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, injected or swallowed. LEARN and KNOW the specific hazards or the fluids you are using.

**PLURAL COMPONENT MATERIALS HAZARD**

Because of the vast number of chemicals that could be used and their varying chemical reactions, the buyer and user of this equipment must determine all facts relating to the materials used, including any of the potential hazards involved.

**EXPLOSION HAZARD**

Halogenated hydrocarbon solvents can cause an explosion when in contact with aluminum components of a pressurized or closed fluid system.

**FIRE AND EXPLOSION HAZARD**

Improper equipment grounding, poor ventilation, open flame or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

**PROP 65 WARNING**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

---

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT. FOR FURTHER SAFETY INFORMATION REGARDING THIS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).

Binks reserves the right to modify equipment specification without prior notice.

2 / 6  77-3093-R1.0 (8/2015)
Solenoid Expansion Kit

The Solenoid Expansion Kit is used to add the following functions to a basic 10-solenoid GEMS™ system:

- 5 color compatibility
- Gun flush boxes
- Air Cut Off control – if flush boxes are not used

⚠️ CAUTION

Flush Boxes and ACO control must be enabled in the system configuration, accessible only by distributor. Contact distributor for installation and proper accessory functionality.

Installation

To install the expansion kit, be sure to first depressurize the GEMS system and disconnect electric power. For more information regarding this procedure, see 1.1: System Depressurization Procedure of the Maintenance and Repair Manual 77-2983. Never attempt to touch any electrical componentry when power is supplied.

Unscrew and remove each of the 5 solenoid blank plates inside the control enclosure. These plates will be replaced with the 5 new valves in the kit.

Install the valve labeled A4 in the 11th slot (from right) on the manifold. Tighten the screws so gasket will seal against manifold.
Connect the solenoid A4 black wire to D11 terminal position and the red wire to the C11 terminal position. Tighten the terminal screw so the wire will not slip out once installed. Repeat with A5, TRG2, TRG1 and ACO valves and associated wiring. For clearance, it may be necessary to remove the manifold from the DIN rail by loosening the two Philips screws at each end of the manifold.

If the rail assembly was removed, reinstall when wiring has been secured. Manifold should be mounted to back panel configuration, ready for new pneumatic tubing to be connected.

After wiring is hooked up, pneumatic tubing should be run to the bulkheads. Remove the spiral wrap so new tubing can be grouped with existing tubing.
Colors 4 and 5 blue pneumatic tubing should be run from the A4 and A5 solenoids to the bulkhead array. TRG2 and TRG1 black pneumatic tubing should also be run to the bulkheads. Finally, the ACO natural colored tubing should be run to the bulkheads if an ACO valve(s) will be used without flush boxes. If gun flush boxes will be used the ACO valve and tubing will not be used.

<table>
<thead>
<tr>
<th>ACO/GIB2</th>
<th>GIB1</th>
<th>TRG1</th>
<th>TRG2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A5</td>
<td>A4</td>
<td>A3</td>
<td>A2</td>
</tr>
<tr>
<td>A1</td>
<td>A0</td>
<td>A7</td>
<td>AE</td>
</tr>
<tr>
<td>B4</td>
<td>B3</td>
<td>B2</td>
<td>B1</td>
</tr>
</tbody>
</table>

Bulkhead array as viewed from the inside of the enclosure

Replace spiral wrap around pneumatic tubing bundle so that tubing is held away from stepper motor and lead screw. Finally hook up the outside bulkheads to added features, or plug the bulkheads with plugs provided with the system.

⚠️ CAUTION

Gun Flush Boxes and ACO control must be enabled in the system configuration, accessible only by distributor. Contact distributor for installation and proper activation of these accessories.
WARRANTY POLICY

Binks products are covered by Finishing Brands one year materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Finishing Brands, will void all warranties. For specific warranty information please contact the closest Finishing Brands location listed below.

Finishing Brands reserves the right to modify equipment specifications without prior notice. DeVilbiss®, Ransburg®, BGK®, and Binks® are registered trademarks of Carlisle Fluid Technologies, Inc., dba Finishing Brands. ©2015 Carlisle Fluid Technologies, Inc., dba Finishing Brands. All rights reserved.

Binks is part of Finishing Brands, a global leader in innovative spray finishing technologies. For technical assistance or to locate an authorized distributor, contact one of our international sales and customer support locations below.

USA/Canada
www.binks.com
info@carlisleft.com
Tel: 1-800-992-4657
Fax: 1-888-246-5732

United Kingdom
www.finishingbrands.eu
info@carlisleft.eu
Tel: +44 (0)1202 571 111
Fax: +44 (0)1202 573 488

China
www.finishingbrands.com.cn
mkt@carlisleft.com.cn
Tel: +8621-3373 0108
Fax: +8621-3373 0308

Mexico
www.carlisleft.com.mx
ventas@carlisleft.com.mx
Tel: 011 52 55 5321 2300
Fax: 011 52 55 5310 4790

France
www.finishingbrands.eu
info@carlisleft.eu
Tel: +33(0)475 75 27 00
Fax: +33(0)475 75 27 59

Japan
www.ransburg.co.jp
overseas-sales@carlisleft.co.jp
Tel: 081 45 785 6421
Fax: 081 45 785 6517

Brazil
www.devilbiss.com.br
vendas@carlisleft.com.br
Tel: +55 11 5641 2776
Fax: 55 11 5641 1256

Germany
www.finishingbrands.eu
info@carlisleft.eu
Tel: +49 (0) 6074 403 1
Fax: +49 (0) 6074 403 281

Australia
www.finishingbrands.com.au
sales@carlisleft.com.au
Tel: +61 (0) 2 8525 7555
Fax: +61 (0) 2 8525 7500