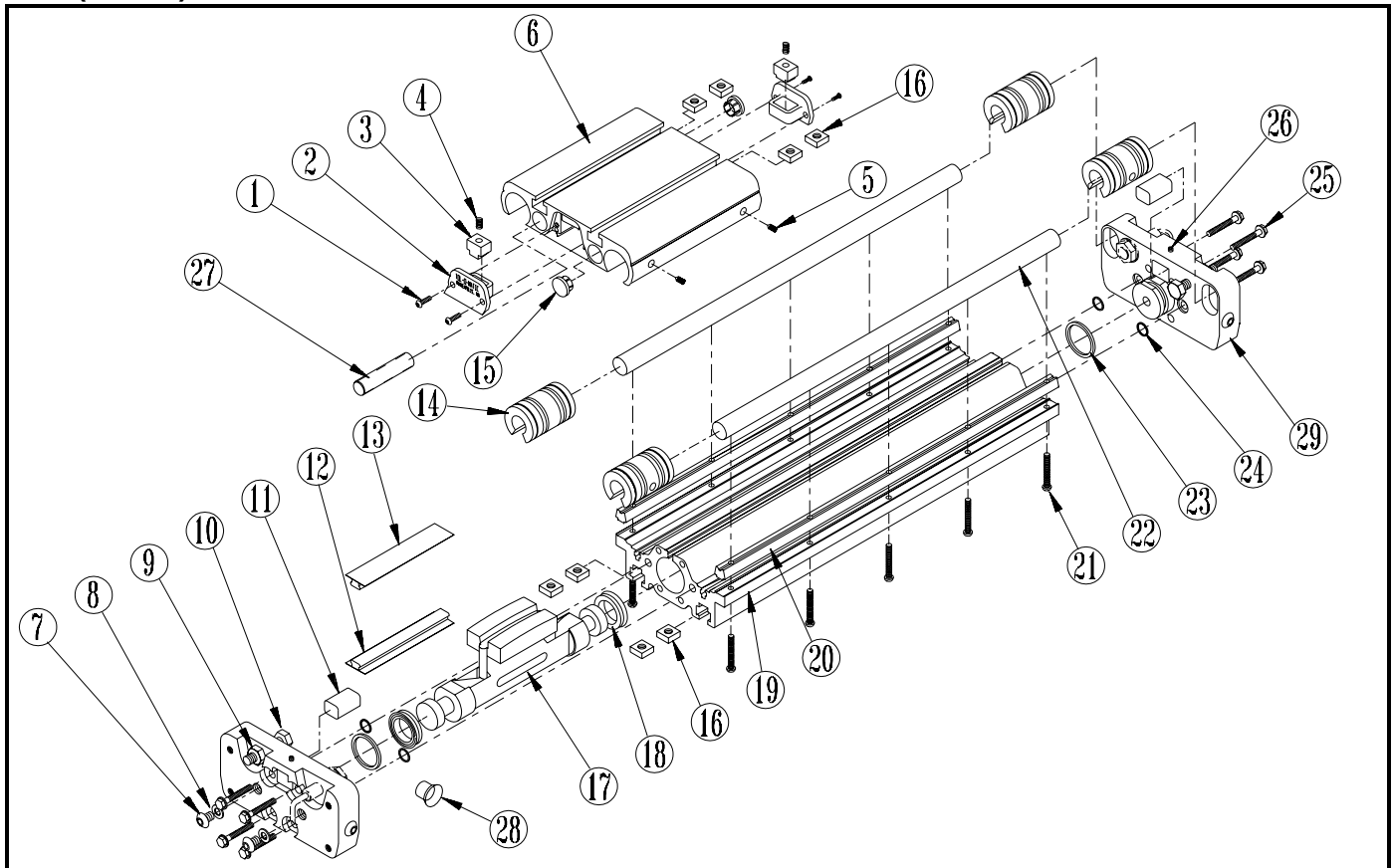




LS05 & LSMM05 Linear Slide

1/2" (12mm) Bore

Replaced Parts Sheets
0600-0003 & 0600-0004



List of Parts

ITEM	PART NO.	DESCRIPTION	LS05	LSMM05	ITEM	PART NO.	DESCRIPTION	LS05	LSMM05
1.	¹ 0910-1172	Screw	4	4	16.	5605-1042	Square Nut	-	8
2.	¹ 0605-1012	End Cap	2	2	17.	0905-1010	Piston-Bracket	1	1
3.	¹ 0605-1013	Band Insert	2	2	18.	¹ 0905-1015	U-Cup	2	2
4.	¹ 0605-1008	Spring, Compression	2	2	19.	0605-1001	Cylinder Tube (specify stroke)	1	1
5.	0605-1102	Screw	4	4	20.	0605-1031	V-Block Machined (specify stroke)	2	2
6.	⁵ 0605-9000	Carrier Sub-Assembly	1	1	21.	0605-1101	Cap Screw (Qty. depends on stroke)	A/R	-
7.	^{1,2} 0605-1016	Button Head Cap Screw	4	-		0605-1035	Cap Screw (Qty. depends on stroke)	-	A/R
	^{1,2} 5605-1016	Button Head Cap Screw	-	4	22.	0605-1004	Shafting, Machined (specify stroke)	2	2
8.	^{1,2} 0605-1021	Gasket, Buna-N	4	4	23.	¹ 0905-1005	O-Ring, Buna-N	2	2
9.	³ 0605-1010	Nut, Hex	2	2	24.	¹ 0701-1003	O-Ring, Buna-N	4	4
10.	³ 0605-1034	Screw, Hex	2	2	25.	0605-1011	Screw, Self Tapping	8	8
11.	0605-1017	Band Wedge	2	2	26.	² 0905-1006	Set Screw	2	2
12.	¹ 0905-9001	Sealing Band (specify stroke)	1	1	27.	0605-1066	Stop Screw	2	2
13.	¹ 0905-9003	Dust Band (specify stroke)	1	1	28.	0605-1015	Plug, Head	2	2
14.	0605-1103	Composite Bearing	4	4	29.	0605-9002	Head Sub Assembly	2	-
15.	⁴ 0605-1032	Hole Plug, Chrome	4	4		5605-9002	Head Sub Assembly, Metric	-	2
16.	0605-1042	Square Nut	8	-					

¹Parts are included in repair kit RKLS(MM)05SK____. ²Parts are part of Head Assembly 0605-9002 (5605-9002 metric).

³Items are part of Button Head Screw Assembly 0605-9003. ⁴Hole Plug is only used with Proximity Sensors.

⁵Carrier Sub Assemblies prior to 7/9/97 are not interchangeable with current bearings. Actuators purchased prior to 7/9/97 will require ordering 0605-9000-Carrier (#6), in addition to 0605-1103-Bearing (#14), and 0605-1102-Screw (#5).

Disassembly

1. Remove Slide Cylinder from machinery.
2. Remove Screws (#1), and End Caps (#2). *Use care as End Caps (#2) are spring loaded.
3. Loosen set screws in Head Assemblies (#29).
4. Remove eight Screws (#25), and two Head Assemblies(#29).
5. Slide Piston/Bracket (#17) and Carrier (#6) out end of Tube/Base (#19).
6. Remove Screws (#5), and Bearings (#14), from Carrier (#6).
7. Remove Top Dust Band (#13).
8. Remove Inside Sealing Band (#12) by passing a screw driver or similar tool through the slot in the Tube/Base (#19) to dislodge the band. **NOTE:** Take care to ensure NO SCRATCHES ARE MADE in the Tube/Base (#19) bore or slot.

Assembly

1. Thoroughly clean all components, particularly the bore, slot, and bands. **Carefully lubricate the tube and all rubber parts including the rubber on both the inside and outside bands with MAGNALUBE® "G" grease.**
2. Insert new Sealing Band (#12) into the Tube/Base (#19) bore (with rubber portion facing up into slot), centering the band along its entire length. **CAUTION:** The metal edges of the band are very sharp. Exercise caution when installing both the Inner and Top Bands to avoid injury to yourself or the Band and Tube/Base (#19).
3. Install the Piston/Bracket (#17), with new U-Cups (#18) in place, in the Tube/Base by passing the Inner Sealing Band through the Piston/Bracket.
4. Push the Piston/Bracket (#17) along the cylinder length to position the Inner Band (#12) properly into the slot.
5. Cut Sealing Band (#12) to leave 1/2" overhang at either end of the Tube/Base. Remove rubber portion of overhanging band with a razor blade.
6. Install the Top Dust Band (#13) with the rubber sealing portion facing down into the slot and centering the band along its entire length. The band should lay over the center of the Piston/Bracket.
7. Cut Dust Band (#13) to leave 1/2" overhang at either end of the Tube/Base. Remove rubber portion of overhanging band with a razor blade.
8. Place two Bearings (#14) on each shaft (#22).
9. Install Carrier (#6) over Piston/Bracket (#17) with one bearing (#14) per Shaft (#22) on either side of the Carrier (#6).
10. Push Bearings (#14) in Carrier (#6) as far as Carrier (#6) bores will permit.
11. Apply **LOCTITE® #242** to Screws (#5) and screw them into Carrier (#6).
12. Install Springs (#4) and Band Inserts (#3) into End Caps (#2) and install in Carrier (#6) ends. Push Springs (#4) down to clear underside of Carrier (#6). Use Screws (#1) to hold End Cap (#2) in place.
13. Place Band Wedges (#11) between Bands (#12,#13) at both ends of cylinder.
14. Install new O-Rings (#23,#24) on Head Assemblies (#29) and install Head Assemblies to cylinder. If using Square Nuts (#16) be sure they are installed in Tube/Base before Heads are installed.
15. Install Screws (#25) and tighten Head Assemblies (#29) in place.
16. Push Carrier (#6) to one end and tighten Set Screw in Head Assembly on that end. Push Carrier (#6) to the other end of Slide Cylinder to remove any slack in Bands (#12,#13) and tighten Set Screw in Head Assembly.

17. Run Carrier back and forth along the full stroke to make certain that the slide is properly assembled.
18. Re-mount the completed Slide Cylinder.

Shaft and Bearing Replacement Instructions

NOTE: Shaft alignment is critical to assure proper function of the slide cylinder.

1. Remove Slide Cylinder from machinery.
2. Loosen two Set Screws in Head Assembly (#29) on one end of Cylinder.
3. Remove four screws (#25), and Head Assembly (#29) from same end of Cylinder.
4. Remove Screws (#21) from one shaft (#22).
5. Slide Shaft (#22) out of Carrier (#6).
6. Remove and replace Set Screws (#5) and Bearing (#14) from open side of Carrier (#6). Use **LOCTITE® #242** on Set Screws (#5) and screw them into Carrier (#6).
7. Slide new Shaft (#22) through Bearings (#14). Replace Screws (#21) loosely, use **LOCTITE® #242** on Screws (#21).
8. Hold Top Dust Band (#13) at open end of Cylinder and slide Carrier (#6) to opposing end.
9. Tighten Screws (#21) below Carrier (#6) to 15 inch-pounds minimum.
10. To align Shaft (#22) properly, slide carrier over next Screw (#21) and tighten to 15 inch-pounds minimum. Repeat this until all Screws (#21) are tight.
11. Repeat steps 5 through 11 for second Shaft (#22).
12. Place Band Wedge (#11) between Bands (#12,#13) at open end of Cylinder.
13. Be sure O-rings (#23,#24) are on Head Assembly (#29) and install Head Assembly (#29) to Cylinder. If using Square Nuts (#16) be sure they are installed in Tube/Base (#19) before Head is installed.
14. Install four Screws (#25) and tighten to 45 inch-pounds.
15. Position Carrier (#6) to the end of Cylinder with non-removed Head Assembly (#29). Push Carrier (#6) back to other end to remove any slack from Bands (#12,#13) and tighten Set Screws in Head Assembly (#29).
16. Run Carrier back and forth along the full stroke to make certain the Slide is properly assembled before applying air.
17. Re-mount the completed SLIDE CYLINDER.

OPTIONAL ACCESSORIES**Shock Absorbers (sold individually)**

Description	Part No.
1/2"/12mm – Light Duty	0605-9008
1/2"/12mm – Heavy Duty	0605-9009

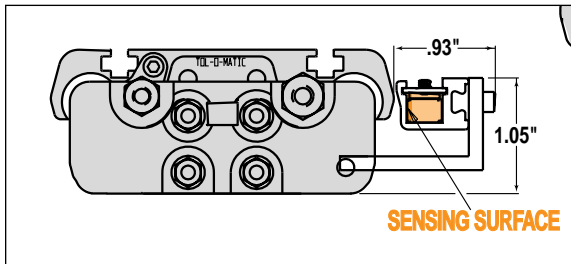
Inductive DC Proximity Sensors (sold individually)

Description	Part No.
DC 10-24 NPN NO Sink	0605-1023
DC 10-24 PNP NO Source	0605-1024

NOTE: NO=Normally Open

Loctite® is a registered trademark of the Loctite Corporation, www.loctite.com
 Magnalube®-G is a registered trademark of the Carleton-Stuart Corporation, www.magnalube-g.com
 Viton® is a registered trademark of the E.I. Du Pont de Nemours Co., www.dupont.com.

SWITCH AND HARDWARE LISTING



ITEM	PART NO.	DESCRIPTION	LS(MM)05
1.	3600-9082	Switch, Reed, Form A, 5M Wire	AR
	3600-9083	Switch, Reed, Form A, Male Connect	AR
	3600-9084	Switch, Reed, Form C, 5M Wire	AR
	3600-9085	Switch, Reed, Form C, Male Connect	AR
	3600-9086	Switch, Triac, 5M Wire	AR
	3600-9087	Switch, Triac, Male Connect	AR
	3600-9088	Switch, Hall, Sourcing, 5M	AR
	3600-9089	Switch, Hall, Sourcing, Male	AR
	3600-9090	Switch, Hall, Sinking, 5M	AR
	3600-9091	Switch, Hall, Sinking, Male	AR
2.	0605-9999	Hardware Only Kit	AR
3.	0605-9100	Rail and Rail Hardware (specify stroke)	AR

REED SWITCHES

NOTE: Form A Reed Switches should not be used in TTL logic circuits. A voltage drop caused by the L.E.D. indicator will result. For applications where TTL circuits are used, please contact the factory.

WARNING: An ohmmeter is recommended for testing Reed Switches. NEVER use an incandescent light bulb as a high current rush may damage the switch.

Reed and TRIAC switches are only recommended for signalling position, not directly powering solenoids. For shifting a solenoid, a relay or resistor is recommended between it and the Reed Switch. Switch ratings must not be exceeded at any time.

NOTE: The side of the switch with the groove indicates the sensing surface. This must face toward the magnet.

NOTE: For Hall Effect Switch Magnet, be sure the S pole of the magnet (indicated with black dot) is facing toward the switch (down).

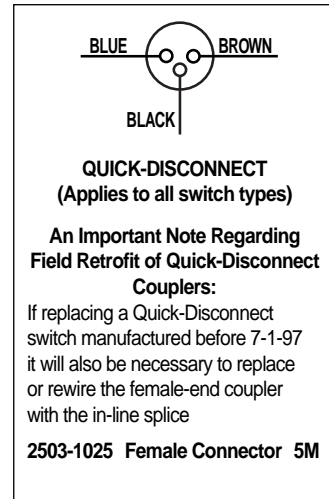
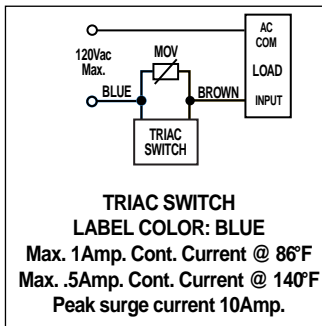
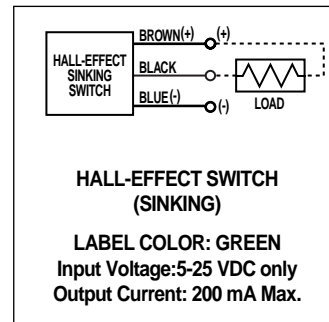
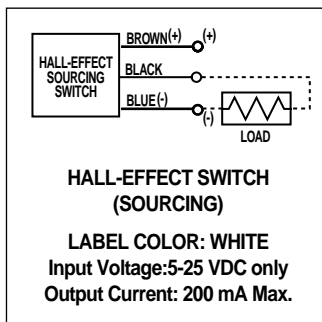
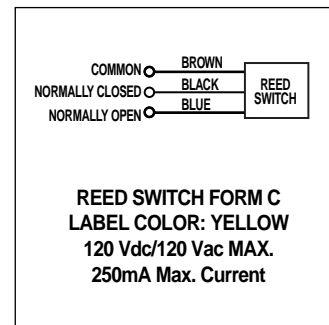
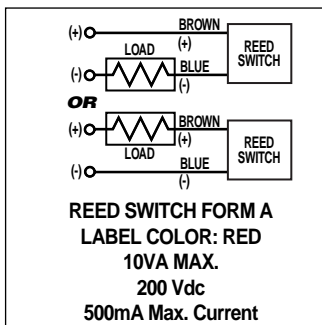
TO ORDER RETROFIT KITS: SW (then the model number and base size, and code for type of switch needed).

EXAMPLE: SWLS05BT

Where **SW** is the switch kit, **LS** is Linear Slide, **05** is the 1/2" size, and **BT** is a Form C Reed Switch with 5-meter lead.

All Switch Kits come with 1 switch and mounting hardware.

UNIVERSAL SWITCH WIRING DIAGRAMS AND LABEL COLOR CODING



For complete Switch Performance Data, refer to the Tol-O-Matic Fluid Power Catalog #9900-4000

SWITCH TYPE CODE

- BT** (Form C Reed Switch with 5-meter lead)
- BM** (Form C Reed Switch with 5-meter lead and QD)
- RT** (Form A Reed Switch with 5-meter lead)
- RM** (Form A Reed Switch with 5-meter lead and QD)
- CT** (TRIAC Switch with 5-meter lead)
- CM** (TRIAC Switch with 5-meter lead and QD)
- KT** (Hall-effect Switch (Sinking) 5-meter lead)
- KM** (Hall-effect Switch (Sinking) 5-meter lead and QD)
- TT** (Hall-effect Switch (Sourcing) 5-meter lead)
- TM** (Hall-effect Switch (Sourcing) 5-meter lead and QD)

Information furnished is believed to be accurate and reliable. However, Tol-O-Matic assumes no responsibility for its use or for any errors that may appear in this document. Tol-O-Matic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.



TOL-O-MATIC, INC.

3800 County Road 116, Hamel, MN 55340
 http://www.Tolomatic.com • Email: Help@Tolomatic.com
 Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

