

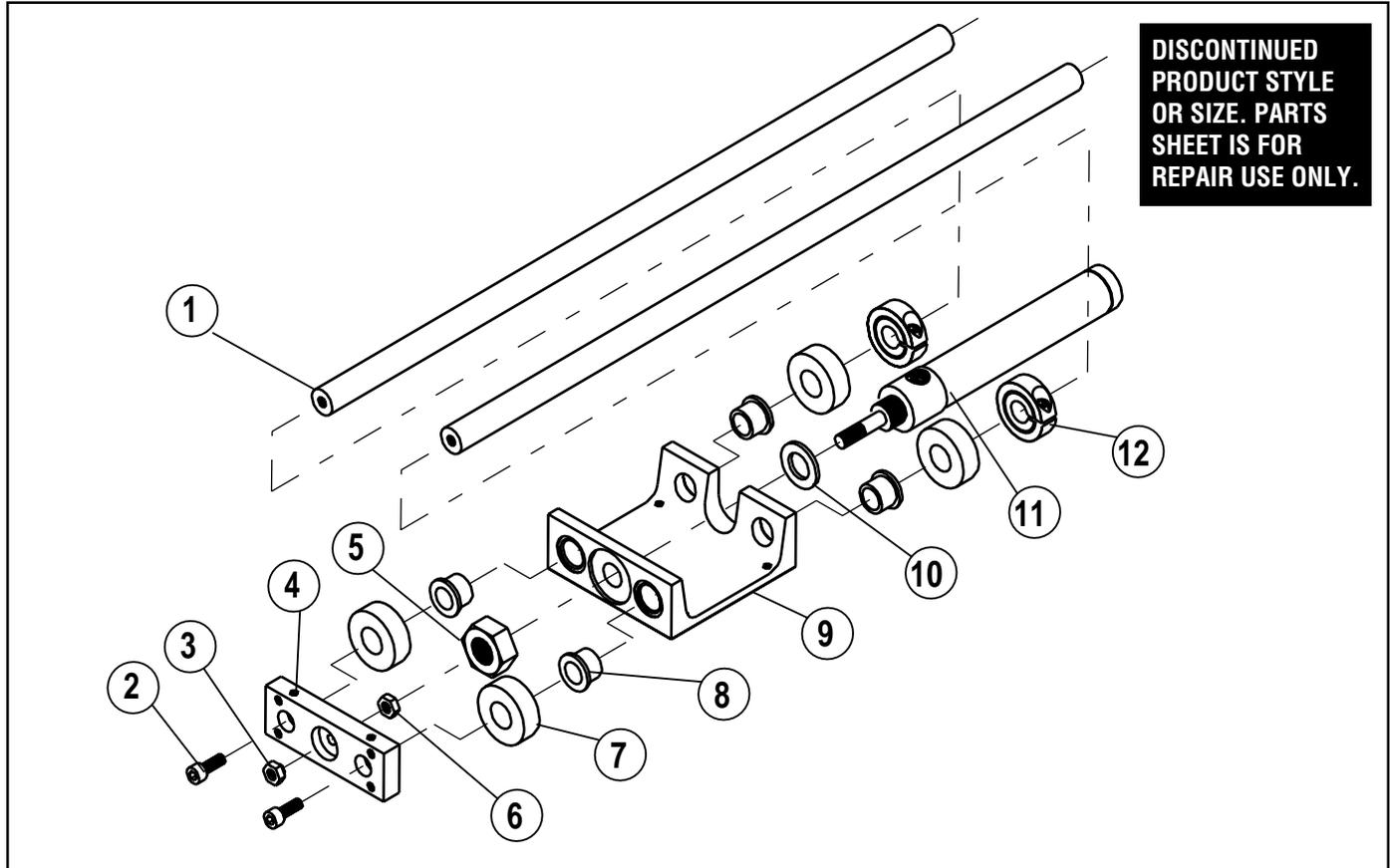


Channel Block Rod Cylinder Slide

CB09 (9/16" Bore)

CB12 (3/4" Bore)

CB17 (1-1/16" Bore)



List of Parts

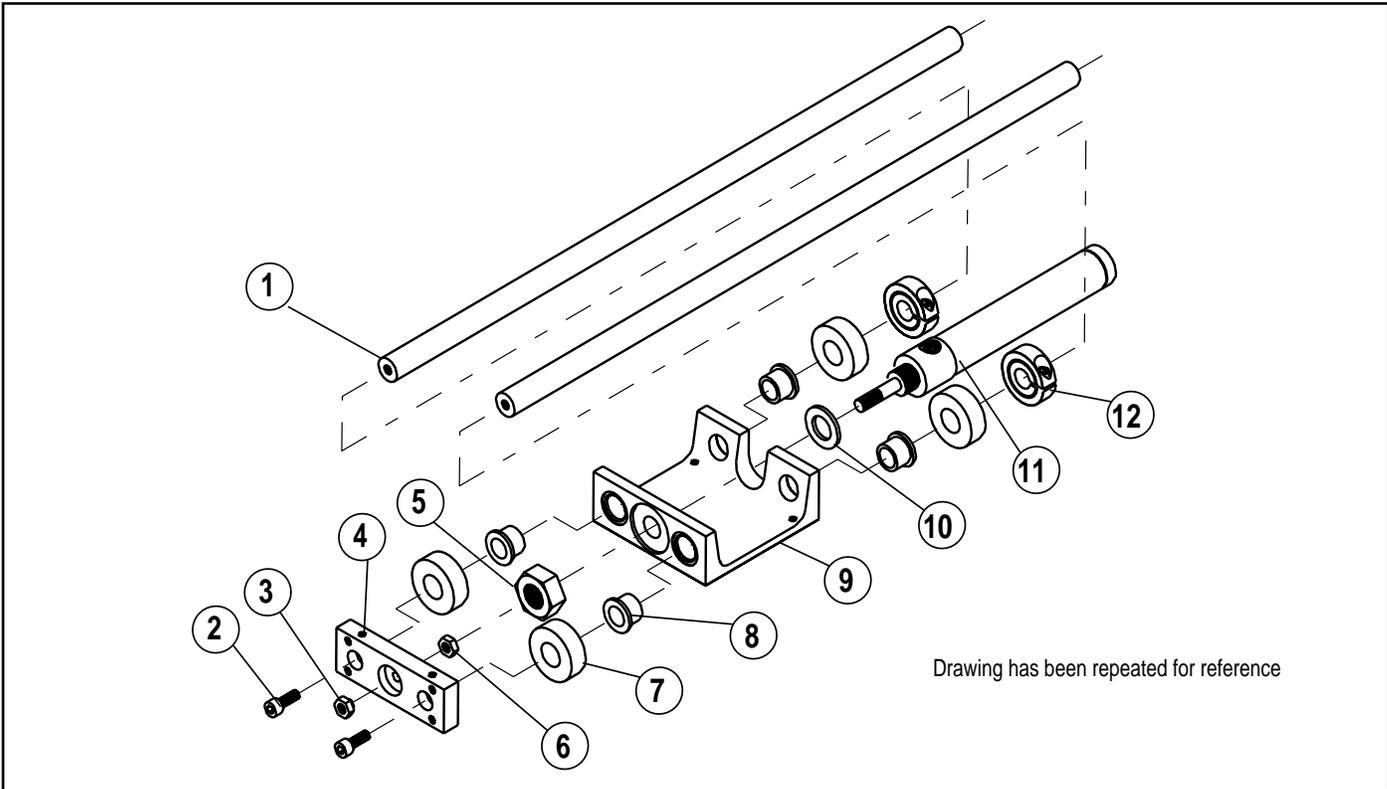
ITEM	PART NO.	DESCRIPTION	CB09	CB12	CB17
1.	2309-1017	Shaft (Specify Stroke)	2		
	2312-1024	Shaft (Specify Stroke)		2	
	2317-1046	Shaft (Specify Stroke)			2
2.	0915-1016	Socket Head Cap Screw	2		
	0801-1251	Socket Head Cap Screw		2	
	1004-1064	Socket Head Cap Screw			2
3.	2309-1060	Shouldered Nut	1		
	2312-1060	Shouldered Nut		1	
	2317-1060	Shouldered Nut			1
4.	2309-1015	Tooling Plate	1		
	2312-1023	Tooling Plate		1	
	2317-1044	Tooling Plate			1
5.	NA	Cylinder Nut (Included/w cylinder)	1	1	1
6.	2307-1007	Jam Nut	1		

ITEM	PART NO.	DESCRIPTION	CB09	CB12	CB17
	1004-1188	Jam Nut		1	
	0701-1054	Jam Nut			1
7.	2307-1006	Bumper	4		
	2312-1006	Bumper		4	
	2317-1006	Bumper			4
8.	2309-1018	Bearing	4		
	2312-1025	Bearing		4	
	2317-1047	Bearing			4
9.	2309-1013	Mounting Block	1		
	2312-1021	Mounting Block		1	
	2317-1042	Mounting Block			1
10.	NA	Spacer Ring	0		
	2312-1027	Spacer Ring		1	1

*Note: Cylinders are available in 1" stroke increments. Last two digits of cylinder assembly number determine stroke length.

Important Note: Cylinder stroke must be ordered 1" longer than base model stroke length.

Example: Model CB09SK10 replacement cylinder is 2309-1411 (11 inch) stroke.



Drawing has been repeated for reference

List of Parts (Cont.)

ITEM	PART NO.	DESCRIPTION	CB09	CB12	CB17
*11.	2309-14xx	Cylinder w/mag (Specify Stroke)	1		
	2312-14xx	Cylinder w/mag (Specify Stroke)		1	
	2317-14xx	Cylinder w/mag (Specify Stroke)			1
12.	2307-1005	Collar	2		
	2312-1005	Collar		2	
	2317-1005	Collar			2
**13.	BT	Form C Reed Switch, 5 meter lead	AR	AR	AR
	BM	Form C Reed Switch, 5m lead, Quick-Disconn.	AR	AR	AR
	RT	Form A Reed Switch, 5 meter lead	AR	AR	AR
	RM	Form A Reed Switch, 5m lead, Quick-Disconn.	AR	AR	AR
	CT	ac Triac Reed Switch, 5 meter lead	AR	AR	AR
	CM	ac Triac Reed Switch, 5m lead, Quick-Disconn.	AR	AR	AR
	KT	Hall-Effect (Sinking) Switch, 5 meter lead	AR	AR	AR
	KM	Hall-Effect (Sinking), 5m lead, Quick-Disconn.	AR	AR	AR
	TT	Hall-Effect (Sourcing) Switch, 5 meter lead	AR	AR	AR
	TM	Hall-Effect (Sourcing), 5m lead, Quick-Disconn.	AR	AR	AR

ITEM	PART NO.	DESCRIPTION	CB09	CB12	CB17
	3600-9082	Reed (Form A) Switch, 5 meter lead	1	1	1
	3600-9083	Reed (Form A) Switch, Male Conn.	1	1	1
	3600-9084	Reed (Form C) Switch, 5 meter lead	1	1	1
	3600-9085	Reed (Form C) Switch, Male Conn.	1	1	1
	3600-9088	Hall Effect Switch, Sourcing 5 meter lead	1	1	1
	3600-9089	Hall Effect Switch, Sourcing Male Connector	1	1	1
	3600-9090	Hall Effect Switch, Sinking 5 meter lead	1	1	1
	3600-9091	Hall Effect Switch, Sinking Male Connector	1	1	1
	3600-9086	Triac Switch, 5 meter lead	1	1	1
	3600-9087	Triac Switch, Male Connector	1	1	1
14.	2309-9999	Switch Clamp	1	1	1
*	2503-1025	Connector, Female, 5 meter lead	1	1	1

*Note: Cylinders are available in 1" stroke increments. Last two digits of cylinder assembly number determine stroke length. **Important Note: Cylinder stroke must be ordered 1" longer than base model stroke length.** Example: Model CB09SK10 replacement cylinder is 2309-1411 (11 inch) stroke.

**Not pictured, Kits include Switch and Clamp, Quick-disconnect Kits include both male and female end connectors

TO ORDER RETROFIT SWITCH KITS:

SW (then the model number and base size, and code for type of switch as needed: **EXAMPLE: SWCB09RT**

Disassembly

1. Remove Switches (if present) and set aside.
2. Remove Collars (12) and Bumpers (7).
3. Loosen Screws (2) and Shouldered Nut (3) securing Tooling Plate (4). Remove Tooling Plate.
4. Remove Jam Nut (6) from Cylinder Rod.
5. Loosen Cylinder Nut (5) and remove Cylinder (11).

Assembly

1. Clean work bench and work area. Check that all parts are present and have no visual defects.
2. Apply Loctite® #242 to the threaded portion of the Cylinder Head. Insert Cylinder through the Channel into the center hole. With mounting surface of Channel facing down and Cylinder port pointing straight up, thread on Cylinder Nut (5) and tighten.
3. Apply Loctite #242 to the internal threads of both the Jam Nut (6) and the Shouldered Nut (3). Thread Jam Nut onto cylinder rod. With the large counter bore facing away from the Cylinder, slide the Tooling Plate (4) onto the Cylinder Rod. The Cylinder Rod should be flush to just under the outside surface of the Tooling Plate. Thread the Shouldered Nut (3) onto the Cylinder Rod and tighten.
4. Insert the Shafts (1) into the Bearings so that the drilled and tapped holes are on the same end as the Cylinder Rod. If Bumpers are to be used, push a Bumper (7) onto each end of the two shafts.
5. With the Tooling Plate up against the Channel, insert the Shafts into the counter bores. Apply Loctite #242 to the Screws (2) then insert them through the Tooling Plate into the Shafts. Tighten the screws.
6. Collar Assembly. Slide a Collar (12) with groove side out onto the end of the shaft with approximately .030" extending out the back of the Collar. Tighten the Collar at this position. Extend the Cylinder to the maximum length allowed by the Collar. Install the second Collar (12), groove side out, up tight to the Bumper and Channel. Tighten in this position.
7. Check length by extending the assembly to the maximum length and measure the distance between the Bearing Flange and the front of the Bumper. The dimension should be the desired stroke length.
8. Clamp the assembled Channel Block into a vise. Cycle the unit two times and check for leakage. Leakage should be zero. Check for smooth operation at 10 PSI.

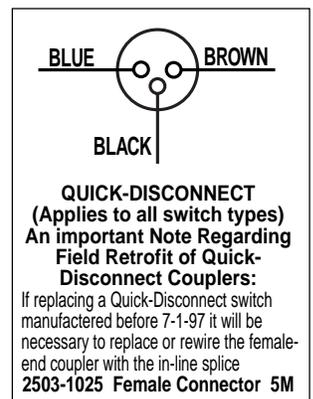
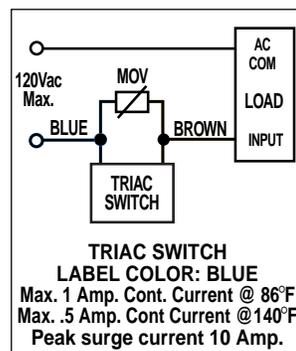
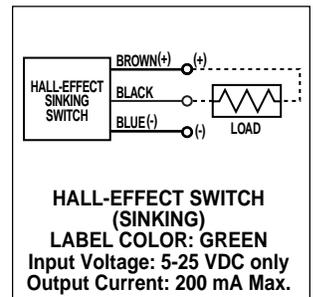
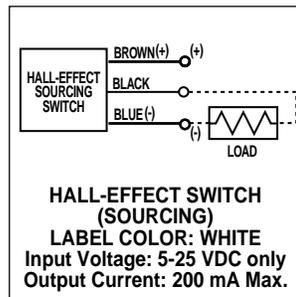
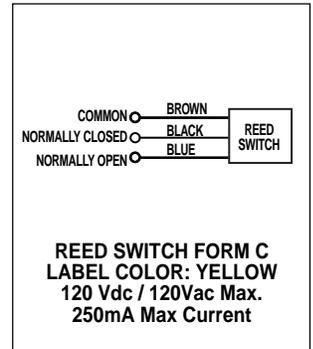
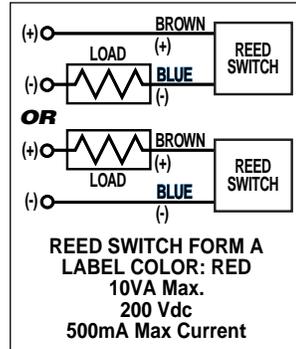
9. SWITCHES

On assembled rod cylinder slide, secure Switch to Rod Cylinder with a Clamp.

Hall Effect switches can provide a sinking or sourcing signal. When used as a sinking switch, cap off the RED source lead. When used as a sourcing switch, cap off the GREEN sink lead.

NOTE: Using Hall Effect switches to operate a relay is NOT recommended. (Call the factory for more information)

UNIVERSAL SWITCH WIRING DIAGRAMS AND LABEL COLOR CODING



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

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



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



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.