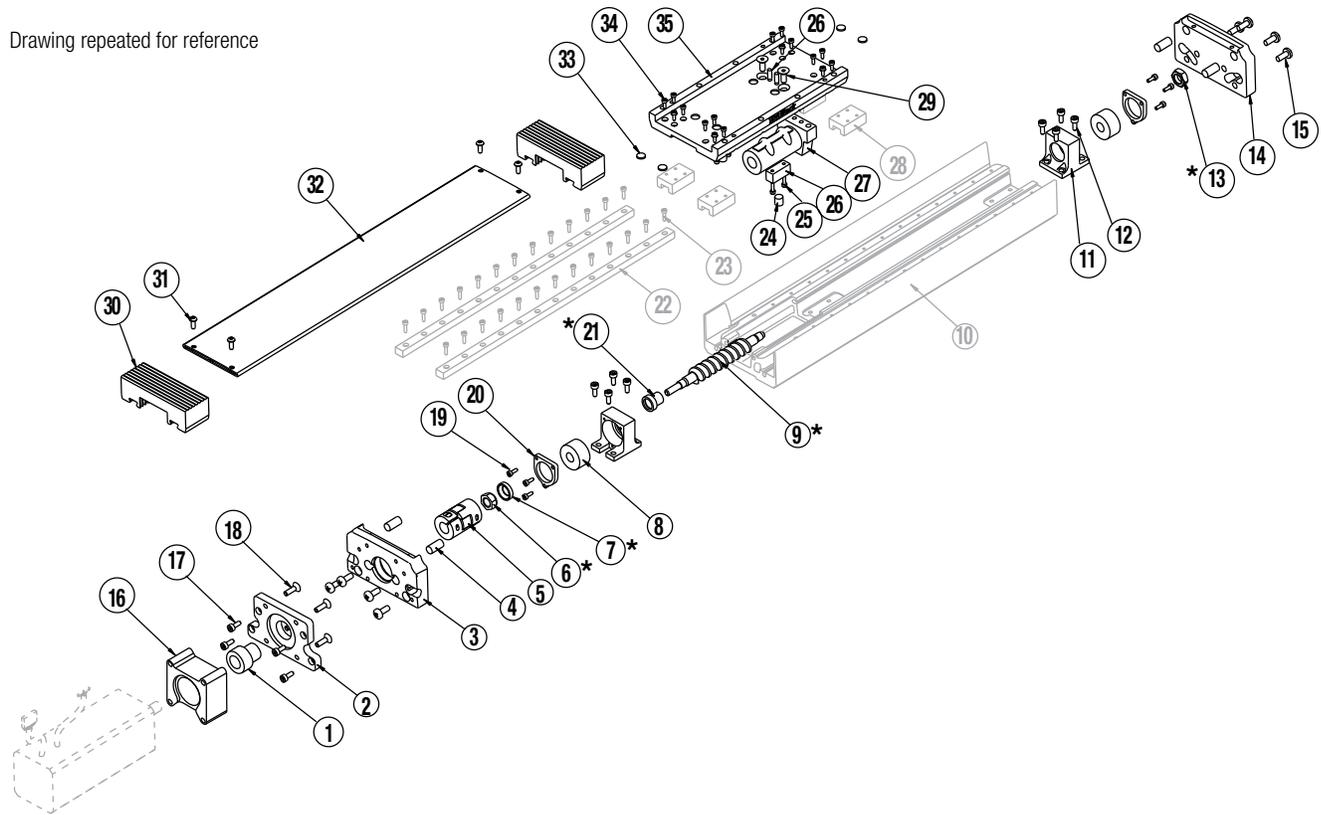


Drawing repeated for reference



General Cylinder Disassembly Instructions

Begin with a clean work area. Be sure all replacement parts present and have no visual damage or defects. The following tools are recommended for proper disassembly and assembly.

- Metric Allen Wrench Set
- Torx bit set
- Metric Socket Set
- Metric Combination Wrench Set

1. Carrier and Head Removal.

Remove Cover Screws (31) and remove the Cover (32). Remove all Cap Screws (34) that attach Carrier (35) to THK Blocks (28). Remove Cap Screws (29) that attach Carrier to Nut Connector (27). Lift carrier from THK Blocks and Nut Connector. Note that there are dowel pins locating the Carrier to Nut Connector. Remove Head Screws (15) to remove Heads (3, 14).

2. Remove Lead Screw sub-assembly.

On the non-motor end of the actuator remove Nut (13) from Lead Screw (9). Remove the locknut on the motor end as well. Remove the Cap Screws (12) attaching Bearing Blocks (4) to the Base (10), and remove the non-motor end bearing block. The lead screw assembly can now be removed from the base. The motor end bearing is a press fit on the leadscrew journal. The use of a press may be required to get the bearing off. Remove the Bearing Clamps (20) from the bearing blocks in order to remove the Bearings (8).

Ball nut style: Caution is required if removal of the nut is necessary. Contact the factory for available parts and procedures.

Plastic nut style: Plastic nuts are factory pinned into the Nut Connector and cannot be removed. If nuts are worn, a new Nut Connector Assy must be ordered.

General Cylinder Assembly Instructions

1. Install Lead Screw assembly and Carrier.

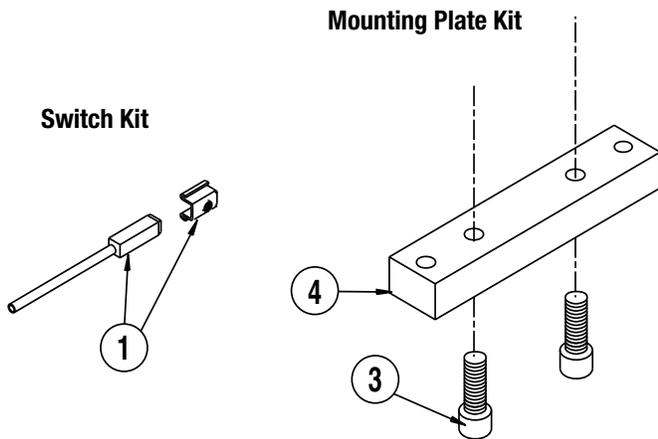
Thoroughly clean the Taper Sleeve (21) and tapered portion of Lead Screw (9). With nut connector assembly and bearing block on the Lead Screw slide the Tapered Sleeve (21) onto the motor end of screw, then slide bearing up to leadscrew journal. The bearing must be pressed on to the leadscrew journal up to the tapered sleeve. Take caution to only apply press to the inner race of the bearing. Locate Spherical Washer (7) over exposed threads, apply Loctite 242 to the threads and locknut, and thread the locknut (38) onto the screw. Torque locknut to 65 in-lbs. Locate the bearing block over the bearing and install the bearing clamp, do not torque fasteners at this time. Slide the non-motor end bearing assembly over the end of the lead screw, and locate this assembly on the base. Secure both Bearing Blocks to the Base (10). Torque Bearing Block Fasteners (12) to 10 in-lbs. Verify that all bearing clamp fasteners are loose. Attach Carrier (35) to the nut connector, locating on the dowel pins. Secure the fasteners attaching Carrier to the THK Bearing Blocks.

2. Bearing Alignment.

Position the carrier near the motor end of the actuator. Torque the bearing clamp fasteners to 4 in-lbs. Re-position the carrier near the non-motor end of actuator, and torque the bearing clamp fasteners to 4 in-lbs. Apply Loctite 242 to the nut (13) and thread onto the non-motor end of lead screw. Torque this nut to 96 oz-in.

3. Install Heads and Cover.

Attach Heads (3, 14) to the Base (10) with head screws (14). Install Cover (32) and attach with Screws (31).



ITEM	PART NO.	DESCRIPTION	QTY.
SWITCH KIT			
1.	SWTKS10RT	SWITCH, REED, FORM A, 5M WIRE	AR
	SWTKS10BT	SWITCH, REED, FORM C, 5M WIRE	AR
	SWTKS10TT	SWITCH, SOURCE, HALL, 5M WIRE	AR
	SWTKS10KT	SWITCH, SINKING, HALL, 5M WIRE	AR
	NOTE: SWITCH BRACKET WITH SET SCREW IS INCLUDED		
MOUNTING PLATES			
3.	0602-1027	SHCS M4 X 16	2
4.	0601-1105	MOUNTING PLATE	1

AR = as required

OPTIONAL ACCESSORY ASSEMBLY INSTRUCTIONS

1. MOUNTING PLATES. Mounting Plates should be secured at the required distances determined for the application to prevent tube deflection. Apply Loctite #242 to Screws and secure Mounting Plates to tube, aligning holes in tube with holes in Mounting Plates.

2. 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 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.

TO ORDER RETROFIT KITS:

SW (then the model number and base size, and code for type of switch needed).

EXAMPLE: SWTK10BT

Where SW is the switch kit, TK is the model, 10 is the 1/2" size, and BT is a Form C Reed Switch with 5-meter lead.

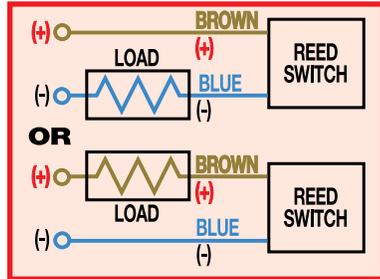
SWITCH TYPE CODE

- BT (Form C Reed Switch with 5-meter lead)
- RT (Form A Reed Switch with 5-meter lead)
- KT (Hall-effect Switch (Sinking) 5-meter lead)
- TT (Hall-effect Switch (Sourcing) 5-meter lead)

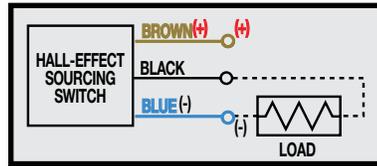
Universal Switch Wiring Diagrams and Label Color Coding

WIRING DIAGRAMS

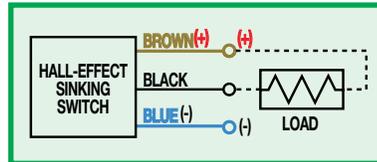
RT DC REED, FORM A



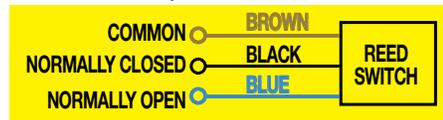
TT HALL-EFFECT, SOURCING, PNP



KT HALL-EFFECT, SINKING, NPN



BT DC REED, FORM C



INSTALLATION INFORMATION



The Notched face of the switch indicates the sensing surface and must face toward the magnet.

Some actuators may require switch mounting on a specific side of the assembly. Contact email help@tolomatic.com for details.

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

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