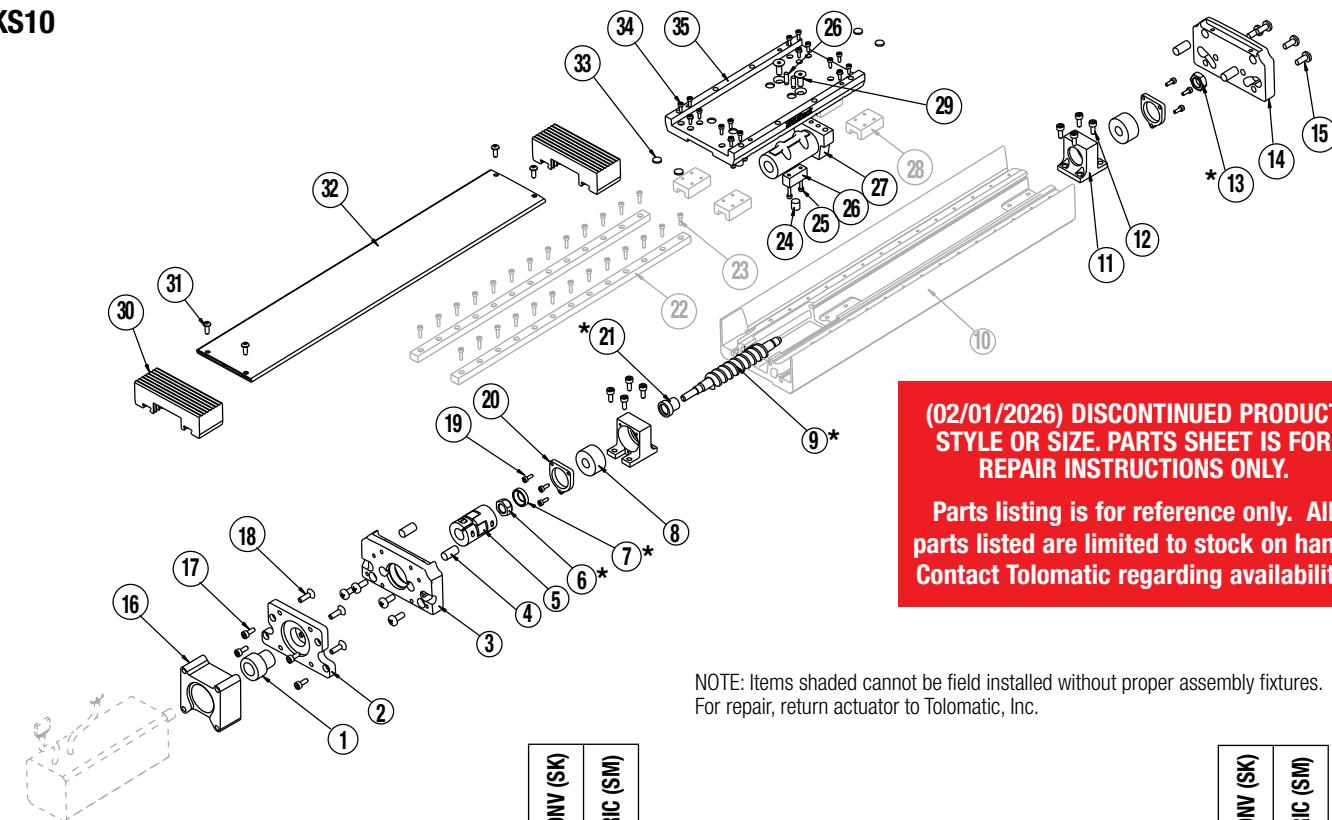


### TruTrack Screw-Drive Actuator

TKS10



NOTE: Items shaded cannot be field installed without proper assembly fixtures. For repair, return actuator to Tolomatic, Inc.

ITEM	PART NO.	DESCRIPTION	US CONV (SK)	METRIC (SM)
1.	CONFIGURED	EXTENSION SHAFT ASSEMBLY	1	1
2.	0601-1072	ADAPTER, PLATE	1	1
<sup>2</sup> 3.	CONFIGURED	HEAD, DRIVE	1	1
4.	0601-1049	BUMPER	4	4
<sup>2</sup> 5.	CONFIGURED	COUPLER ASSEMBLY	1	1
<sup>16</sup> 6.	0601-1651	SPHERICAL NUT	1	1
<sup>17</sup> 7.	1107-1014	SPHERICAL WASHER	1	1
8.	4510-1060	BEARING, DBL ROW ANGULAR	2	2
<sup>1,3</sup> 9.	RLSTKS10_SK_	LEAD SCREW (US CONV)	1	
	RLSTKS10_SM_	LEAD SCREW (METRIC)		1
10.	0601-1001	BASE, MACHINED	1	1
11.	0601-1014	BEARING, BLOCK	2	2
12.	2212-1090	SHCS	8	8
<sup>1</sup> 13.	0601-1642	NUT	1	1
14.	0601-1008	HEAD, IDLE	1	1
15.	0601-1096	SHCS, M4 X 20MM, SST.	8	8
<sup>16</sup> 16.	CONFIGURED	SPACER		1
<sup>17</sup> 17.	CONFIGURED	SCREW	4	4
18.	0510-1062	SFHCS	4	4
19.	0601-1032	SHCS, M2 X 8, SST	6	6

ITEM	PART NO.	DESCRIPTION	US CONV (SK)	METRIC (SM)
20.	0601-2095	CLAMP, BEARING	2	2
<sup>1</sup> 21.	0601-1641	TAPER SLEEVE	1	1
22.	0601-1005	RAIL, MACHINED	2	2
23.	0601-1032	SHCS	AR	AR
24.	2224-1016	MAGNET, ROD	2	2
25.	0601-1032	SHCS	4	4
26.	0601-1020	MAGNET BLOCK	2	2
<sup>2</sup> 27.	CONFIGURED	ASSY. CONNECTOR, ACME/BALL NUT	1	1
28.	0601-1006	BLOCK, THK LINEAR	4	4
29.	0601-1080	SFHCS	2	2
30.	0601-9830	BELLOWS KIT	1	1
31.	0601-1095	SCREW	4	4
32.	0601-1003	COVER, MACHINED	1	1
33.	0601-2090	PAD	4	4
34.	0601-1031	SHCS	16	16
35.	0601-1004	CARRIER	1	1
	0601-1081	PIN, DOWEL, SST	2	2

\*Not backward compatible with units manufactured before 08/01/2003

<sup>1</sup> Part number varies depending on YMH (Your Motor Here). Contact help@tolomatic.com for replacement part number. NOTE: Items shaded cannot be field installed without proper assembly fixtures. For repair, return actuator to Tolomatic, Inc.

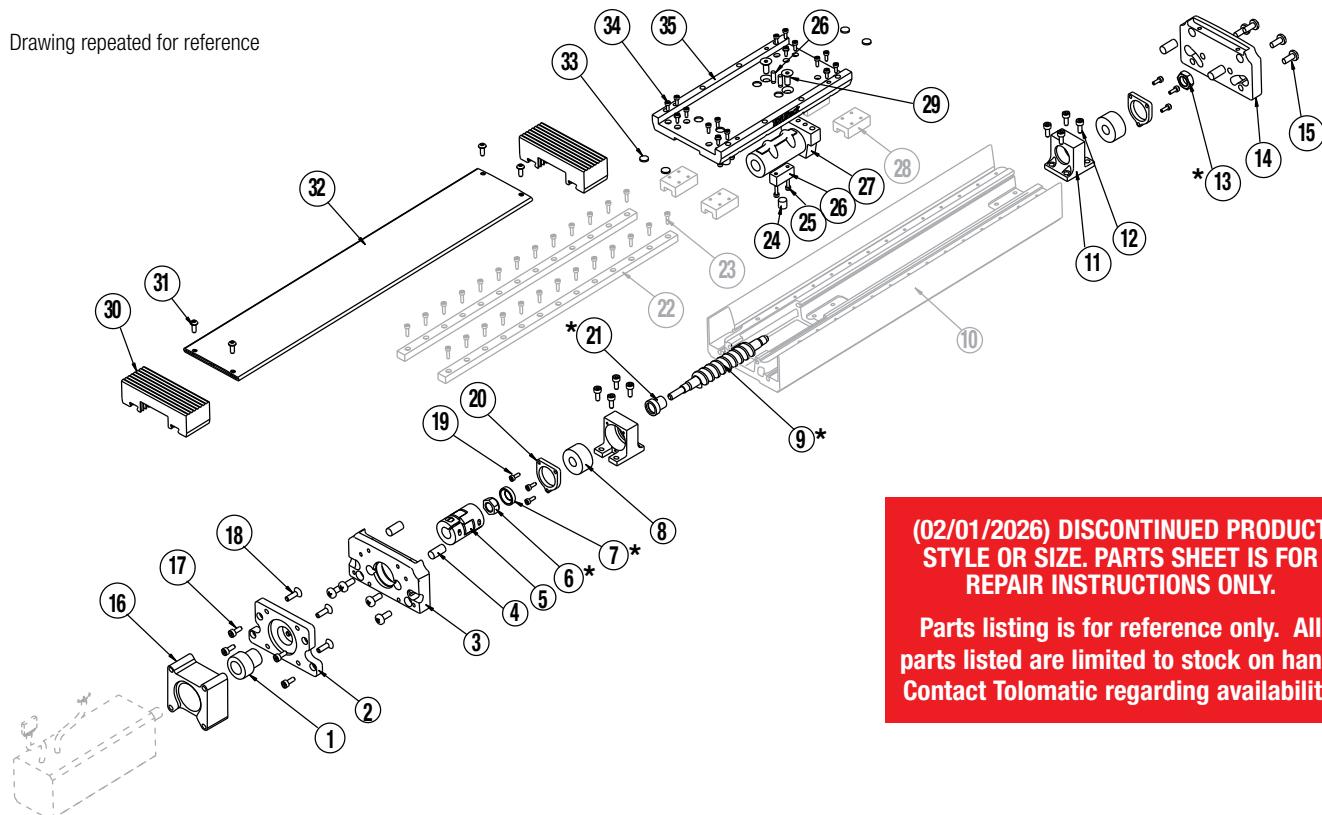
<sup>3</sup> Replacement Lead Screw ordering method: R L S T K S 1 0 S K Y M

EXAMPLE: R L S T K S 1 0 S N O 1 S K 2 1 . 2 5 Y M 1 1 0 0 1

Replacement Lead Screw      Model & Size      Nut Style & Size      Stroke Length      Motor Code

Auxiliary Carrier Option Note: If replacing a Lead Screw (9.) on an actuator that has an Auxiliary Carrier, be sure to add "DC \_ \_ \_" to the end of the configuration string when ordering. "DC" indicates the need for additional length and " \_ \_ " indicates the measurement of space between carriers (in inches [SK] or millimeters [SM] as indicated earlier in the configuration string).

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.

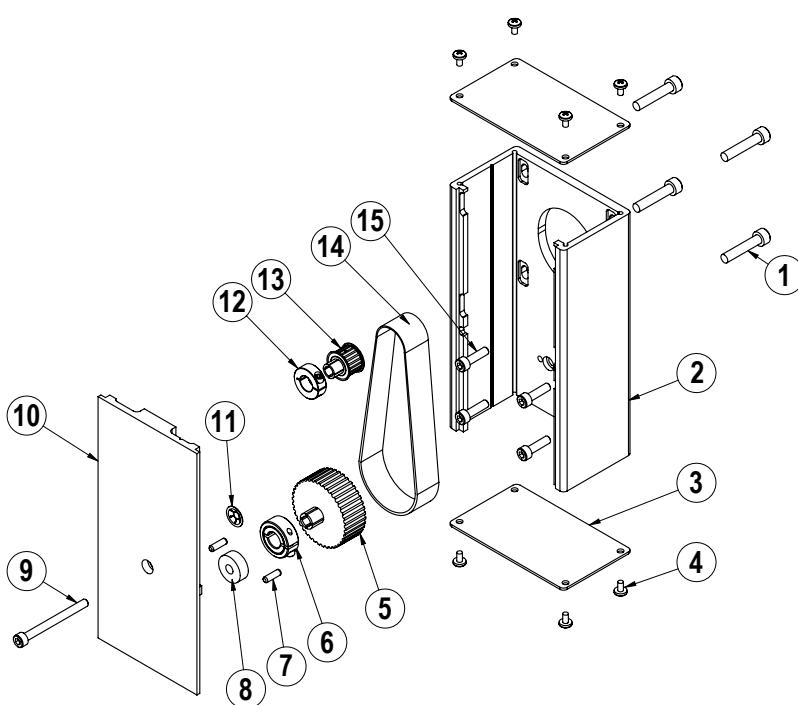
#### 2. Bearing Alignment.

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).

## Reverse Parallel (RP) Mounting Option



ITEM	PART NO.	DESCRIPTION	QTY.
1	CONFIGURED	SHCS	A/R
2	CONFIGURED	RP HOUSING	1
3	CONFIGURED	CAP, END, RP HOUSING	2
4	CONFIGURED	SCREWS, TAPPING	8
5	CONFIGURED	PULLEY	1
6	CONFIGURED	COLLAR, SHAFT	1
7	CONFIGURED	DOWEL PIN	2
8	CONFIGURED	BEARING	1
9	CONFIGURED	SHCS	1
10	CONFIGURED	RP COVER	1
11	CONFIGURED	RETAINING RING	1
12	CONFIGURED	COLLAR, SHAFT	1
13	CONFIGURED	PULLEY	1
14	CONFIGURED	BELT	1
15	CONFIGURED	SCREW	4

◊ Part number varies depending on YMH (Your Motor Here). Contact [help@tolomatic.com](mailto:help@tolomatic.com) for replacement part number.

### Reverse Parallel Disassembly Instructions

1. Remove End Caps (3), and release the tension on the belt (14) by breaking loose the motor fasteners (1)
2. Remove the RP Cover (10)
3. The Belt (14) can now be removed along with the Motor.
4. Remove both pulleys (13) and (5) from their respective shafts.
5. Remove the RP Housing (2) from the actuator head by removing the screws (15)

### Reverse Parallel Assembly Instructions

\*Apply Loctite #242 to all fasteners upon installation

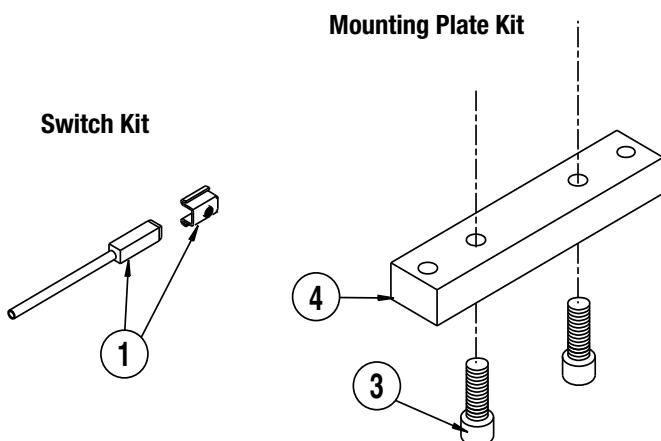
1. Install RP Housing (2) onto the actuator Head with fasteners (15). Do not fully tighten the fasteners at this time and verify that the RP case can move with respect to the head.
2. Temporarily install the RP Cover (10) with Bearing (8) onto the RP case, positioning the bearing over the leadscrew shaft. Hold the cover in place while tightening all of the fasteners (15).

3. Remove the RP Cover (10) and finish tightening all fasteners attaching the RP case to the head
4. Install the Motor to the RP Housing with fasteners (1). Do not tighten the fasteners at this time.
5. Locate the Belt (14) over the Pulleys (13) and (5) and slide both pulleys over their respective shafts. Tighten each pulley to its shaft with the Collar Clamps (12) and (6).
6. Tension the belt following the procedures found in [Electric Actuator Motor Mounts Technical Note 3600-4203](#).
7. Verify that there is clearance between the inside of the RP case and each pulley. Verify the pulleys are aligned to each other.
8. Position the Cover (10) in the mating slot of the RP case and install the SHCS (9) to hold it in place. Take care not to overtighten. If the cover is deflected, it can interfere with the leadscrew.
9. Install both end caps (3) with the screws (4) to finalize the assembly.

(02/01/2026) DISCONTINUED PRODUCT  
STYLE OR SIZE. PARTS SHEET IS FOR  
REPAIR INSTRUCTIONS ONLY.

Parts listing is for reference only. All parts listed are limited to stock on hand. Contact Tolomatic regarding availability.

## OPTIONAL ACCESSORY ASSEMBLY INSTRUCTIONS



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

**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)

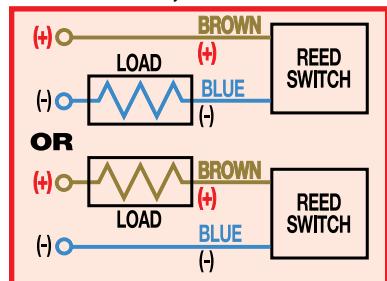
**(02/01/2026) DISCONTINUED PRODUCT  
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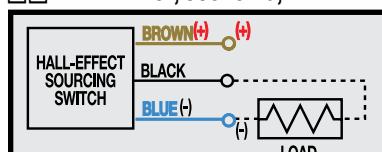
## Universal Switch Wiring Diagrams and Label Color Coding

### WIRING DIAGRAMS

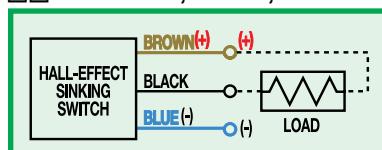
#### R[T] DC REED, FORM A



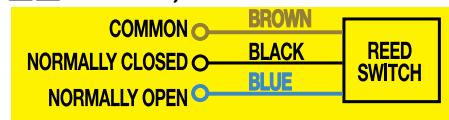
#### T[T] HALL-EFFECT, SOURCING, PNP



#### K[T] HALL-EFFECT, SINKING, NPN



#### B[T] 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](mailto:help@tolomatic.com) for details.

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