

Track Cable Cylinder

1001-0232_08

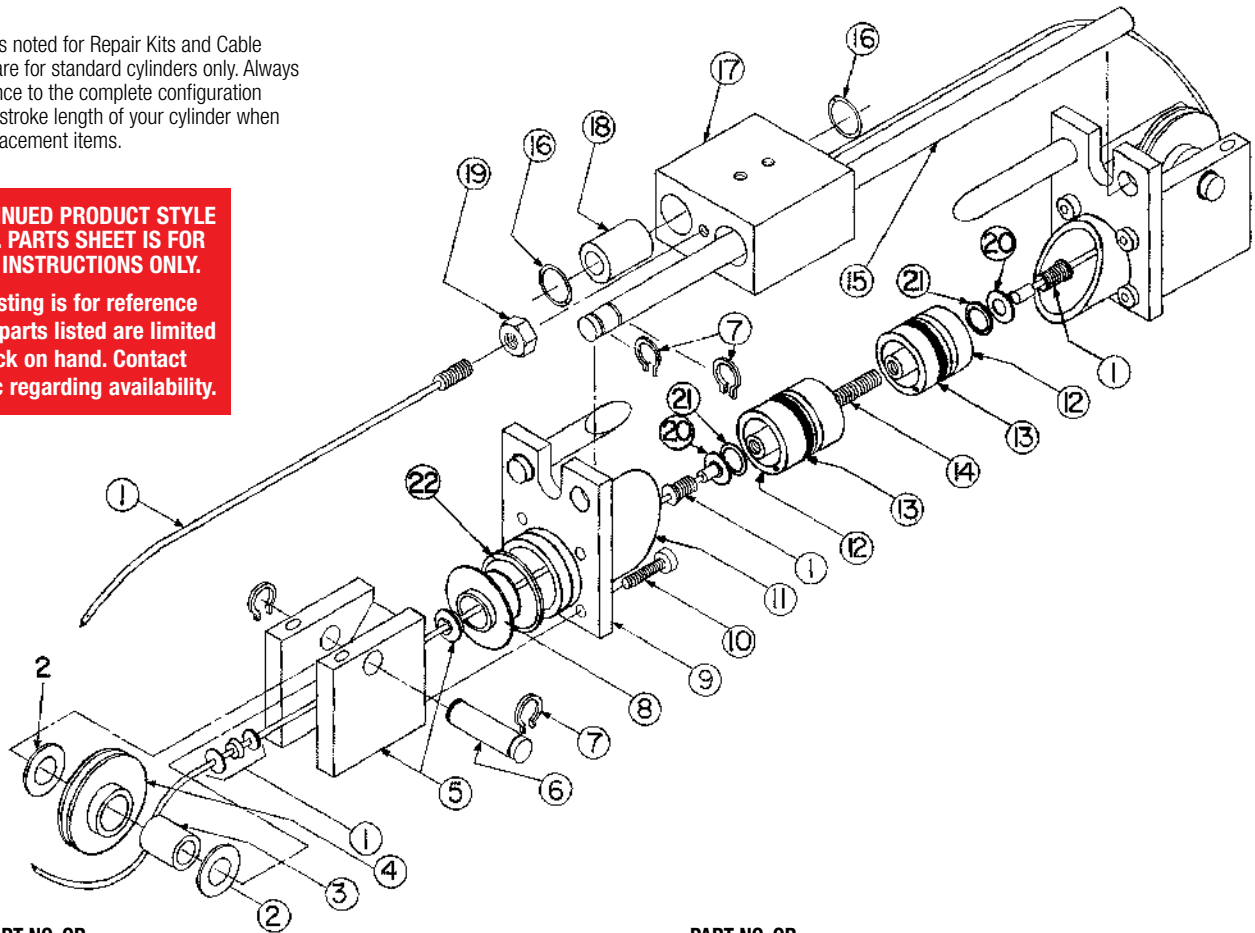
TC10 1" Bore

MODEL: TC10

Part Numbers noted for Repair Kits and Cable Assemblies are for standard cylinders only. Always make reference to the complete configuration number and stroke length of your cylinder when ordering replacement items.

**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.



ITEM	PART NO. OR CONFIG. CODE	DESCRIPTION	QTY
2,31.	CATC10SK_	CABLE ASSEMBLY	2
	CATCM10SK_	CABLE ASSEMBLY, W/MAGNET OPTION	2
2.	0100-1306	THRUST RACE	4
3.	1001-1055	NEEDLE BEARING	2
4.	1050-9005	PULLEY ASSEMBLY	2
5.	1001-9104	HEAD ASSEMBLY (INCLUDES GLAND INSERT), SINGLE PORT	2
6.	1001-1052	PULLEY SHAFT	2
7.	1001-1056	EXTERNAL RETAINING RING	8
38.	1001-1276	CUSHION SPEAR, BUNA-N MATERIAL	2
9.	1001-1190	CLAMP PLATE	2
10.	1085-1075	SOCKET HEAD CAP SCREW	8
111.	RTBTC10SK_	ALUMINUM TUBE	1
	RTBTCM10SK_	ALUMINUM TUBE, W/MAGNET OPTION	1
	RTBTCS10SK	STEEL TUBE	1

ITEM	PART NO. OR CONFIG. CODE	DESCRIPTION	QTY
12.	1001-1040	PISTON	2
³ 13.	1001-1020	PISTON U-CUP, BUNA-N MATERIAL	2
	1001-1119	PISTON U-CUP, VITON® MATERIAL	2
14.	1001-1194	PISTON SPACER	1
¹ 15.	NGSTC10SK_	GUIDE SHAFT	2
	NGSTCM10SK_	GUIDE SHAFT, W/MAGNET OPTION	2
16.	1001-1199	INTERNAL RETAINING RING	4
17.	1001-1197	BEARING BLOCK	1
18.	1001-1192	LINEAR BEARING	4
19.	1004-1188	JAM NUT	2
³ 20.	1001-1013	PISTON WASHER	2
³ 21.	1001-1021	O-RING CUSHION, BUNA-N MATERIAL	2
	0701-1043	O-RING CUSHION, VITON® MATERIAL	2
22.	1001-1044	EXTERNAL RETAINING RING	2

¹ Replacement Tube (RTB) & Guide Shaft (NGS) ordering method:

EXAMPLE:

R	T	B	T	C
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V	M	1	0	S	K	2	1	·	2	5
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²Repair Kit (RK) & Cable Assembly (CA) ordering method: **T** **C** **I** **0** **S** **K**

EXAMPLE: R K T C V M I O S K 2 1 · 2 5

Repair Kit — Model — Viton® — Size — Stroke Length — Seals⁵

³ Repair Kit (RK) includes: Piston U-Cups, O-Rings, Cable Assembly, Cushion Spear, Piston Washer

⁴ Steel tubes (S) are incompatible with switches and magnets.

⁵ **V** refers to optional seals of Viton® material.

M is for optional switch magnet, which is required for switches to function. Since the Magnet Option adds length to the piston and the tube length, it must be included when ordering.

INSTALLATION

When unpacking a track cable cylinder, BE EXTRA CAREFUL NOT TO SCRATCH OR MAR THE NYLON COVERING ON THE CABLE. The cylinder may be mounted by use of the bolt holes in head. When attaching the bearing block to a driven mechanism, be sure it is in perfect alignment and that the load does not exceed the specifications listed in the catalog.

Pretensioning Instructions

All track cable cylinders are shipped without being pretensioned. They must be tensioned after mounting to insure the maximum service life of the unit.

To pretension a track cylinder, remove one of the guide shafts to gain access to the terminals to adjust the cable tension. Block the load some distance from the end of travel to keep the cylinder from bottoming. Next, apply pressure 15 to 20 percent higher than the actual pressure required to move the load. When the load is stopped externally before the piston bottoms, the relief valve or regulator setting becomes the load pressure.

When pressurized, one cable will become tight while the other becomes slack. Manually take up the slack in the cable. Release the pressure and block the load from the other side. Repeat the manual adjustment on the other cable. Release pressure and remove the blocks. Reinstall the guide shaft which had been removed. Return the regulator to its original setting.

Additional manual adjustment should not be needed initially, after the cylinder has been pretensioned. It is suggested, however, that the cable tension be checked periodically, from a preventive maintenance standpoint.

To Rebuild Cylinder

1. Remove the cylinder from machinery.
2. Remove the guide shafts, then disconnect cables from bearing block and remove pulleys on both ends of cylinder.
3. Remove one head from cylinder by removing the four cap screws.
4. Pull piston towards the removed head and remove from the tube.
5. Disconnect cables from piston. (See Cable Assembly/Disassembly Instructions at right.) Then remove the other cylinder head from tube and disengage cable from it.
6. Install new U-cups and O-rings on pistons.
7. See Cable Assembly/Reassembly Instructions below. Always lubricate seals with oil when installing.
8. Put one cable end through each cylinder head. Reattach one head to tube and connect the end of one cable to the piston. Then connect the other cable to the piston.

9. Push piston back into tube by gently tucking in the U-cup. Mount head back on cylinder with the cap screws. Replace pulleys and connect cables to bearing block.
10. Pretension cables according to the pretensioning instructions.
11. Operate cylinder back and forth by hand several times to be sure it is properly assembled before applying pressure.
12. Reinstall cylinder on machinery.

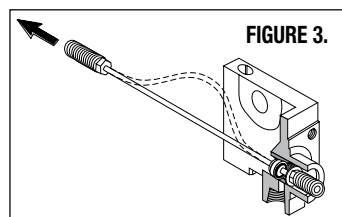
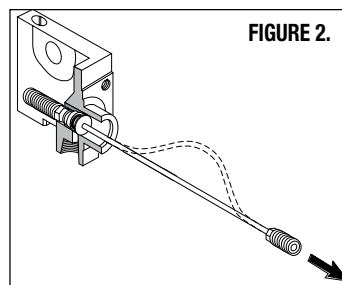
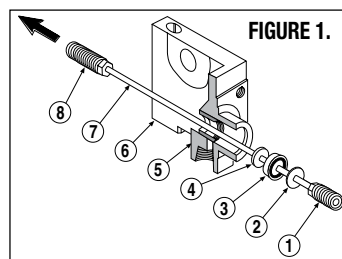
If the cylinder identification tag is missing, measure the overall length of cylinder, including the heads on both ends. Then refer to catalog dimensional drawing to determine stroke length

SNAP IN/OUT CABLE ASSEMBLY INSTRUCTIONS

Your Tolomatic Track Cable Cylinder has been designed to allow assembly and disassembly of cable assemblies from the cylinder heads without the use of tools.

Disassembly (Refer to Figure 1 & 2):

1. Holding onto cylinder Head (6), pull Piston Terminal (1) until Bearing Block Terminal (8) is against Washer (4).
2. Put a small amount of slack in Cable (7) as shown in Figure 2.
3. Impart a "snap" action to Piston Terminal (1).
4. With the imparting "snap" action, Washer (2) will release allowing the removal of the complete cable assembly.

**Reassembly (Refer to Figure 1 & 3):**

1. Holding onto cylinder Head (6), string Bearing Block Terminal (8) through Gland (5) until Washer (2), U-cup (3) and Washer (4) are held flush against one another by Piston Terminal (1).
2. Put a small amount of slack in Cable (7) as shown in Figure 3.
3. Impart a "snap" action to Bearing Block Terminal (8).
4. With the imparting "snap" action, Washer (2) will snap into Gland (5).
5. Move the Cable (7) in the opposite direction as shown in Figure 2, to verify if Washer (2) is seated in Gland (5). If not, repeat steps 1-4.

MAINTENANCE

Cylinder should be kept as clean as possible around the pulleys, glands, guide shafts, etc. Always use air that is adequately lubricated with SAE 10 or 20 non-detergent oil. Pulleys have permanently lubricated bearings and require no maintenance.

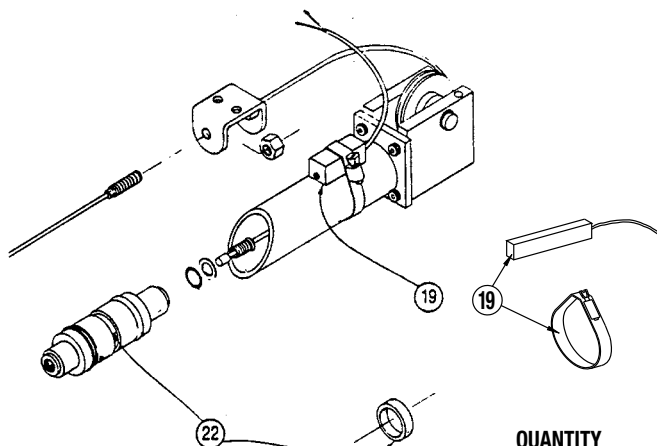
Your Tolomatic Track Cable Cylinder will give you many cycles of trouble free service. However, should a leak occur, a rebuilding kit can be obtained which enables you to replace all seals in the cylinder to return it to its proper operating condition.

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 Tolomatic.

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 switch. Switch ratings must not be exceeded at any time

CONFIG. CODE ORDERING		
MOUNTING HARDWARE & FE CONN. INCLUDED		
ITEM	CODE	DESCRIPTION
19.	BT	SWITCH KIT, REED, FORM C, 5M
	BM	SWITCH KIT, REED, FORM C, QD MALE CONN.
	RT	SWITCH KIT, REED, FORM A, 5M
	RM	SWITCH KIT, REED, FORM A, QD MALE CONN.
	CT	SWITCH KIT, TRIAC, 5M
	CM	SWITCH KIT, TRIAC, QD MALE CONN.



			QUANTITY		
ITEM	PART NO.	DESCRIPTION	TC10	TCS10	TCM10
22.	1001-1202	MAGNET			1

NOTE: When ordered female connector & all mounting hardware is included

To Order Retrofit Kits

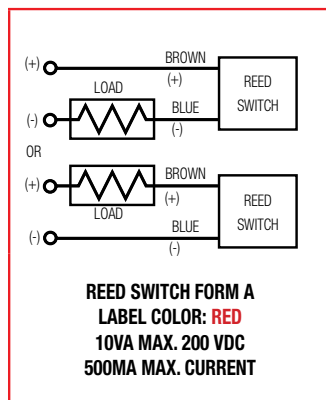
All Switch Kits come with 1 switch and mounting hardware.

Retrofit ordering method: **SWTC**

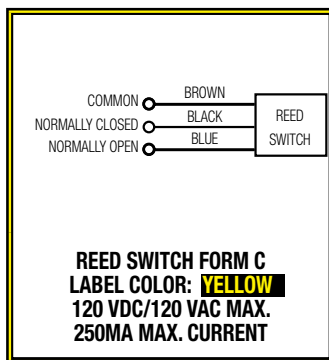
EXAMPLE: **SWTC** 10 **RT**

Switch Kit Model Size Switch Type Code

Universal Switch Wiring Diagrams and Label Color Coding

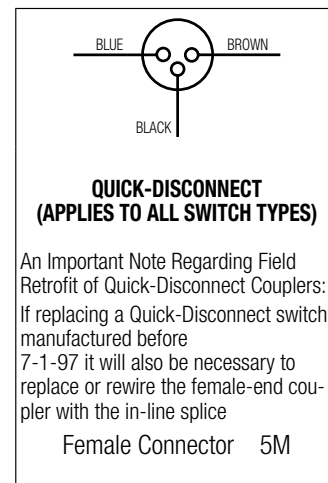
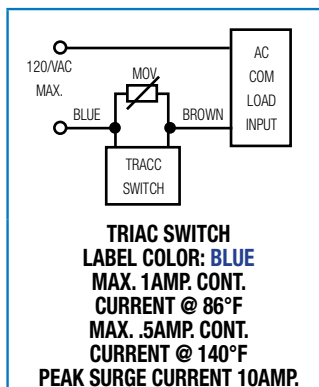


NOTE: The side of the switch with the groove indicates the sensing surface. This must face toward the magnet.



For complete Reed and TRIAC Switch Performance Data, refer to the [Tolomatic Pneumatic Products Catalog](http://www.tolomatic.com).

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Viton® is a registered trademark of the E.I. Du Pont de Nemours Co., www.dupont.com



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

SWITCH TYPE CODE	
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

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EXCELLENCE IN MOTION

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