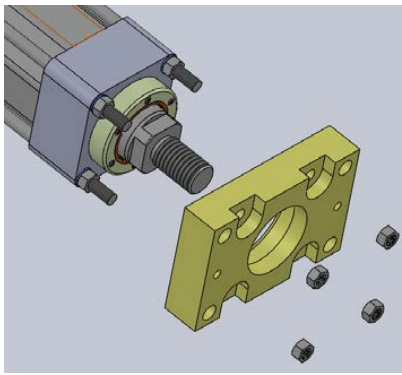


### RSX080 Extreme Force Electric Linear Actuator 80mm Series

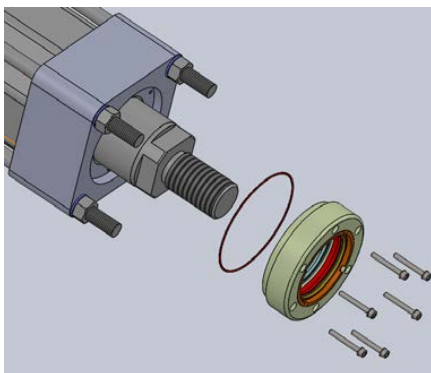
**Tolomatic recommends returning the RSX for most repairs. There are a few procedures that can be done in the field. See the following instructions:**

#### RSX Seal Cartridge Replacement

1. Lock out/Tag out and safely secure the actuator
2. Retract the Thrust Tube if possible
3. Remove tooling from the Rod End of the actuator
4. Remove Front Flange mount if equipped



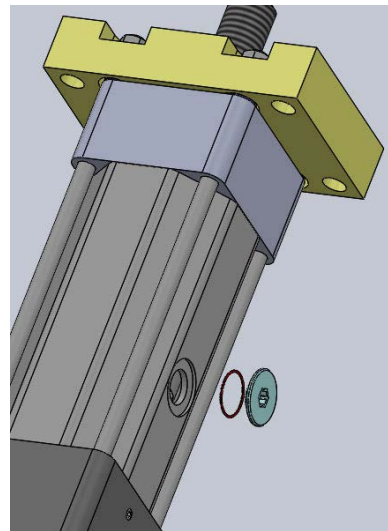
5. Remove any debris from around the Seal Cartridge
6. Remove the six Cartridge Retainer Bolts and Sealing Washers from the Seal Cartridge
7. Slide the old Seal Cartridge off the Thrust Tube
8. Install new O-Ring on new Seal Cartridge
9. Carefully slide the new Seal Cartridge onto the Thrust Tube and align to the bolt holes in the Head
10. Carefully install new Sealing Washers on the new Cartridge Retainer Bolts
11. Apply Loctite 242 to Cartridge Retainer Bolts and install into new Seal Cartridge



12. Torque Cartridge Retainer Bolts to 50 in-lbf (6 N-m)
13. Reinstall the Front Flange if applicable
  - a. Apply Loctite 271 to the tie rod threads
  - b. RSX080, torque to 50 ft-lbf (68 N-m)

#### RSX Relubrication

1. Remove the Lube Access Cover from the Cylinder Body



2. Extend or retract the Thrust Tube so that the Grease Zerk on the Nut Assembly is accessible through the access port
3. Pump grease into the Grease Zerk See instructions on next page for lubrication interval and quantity
  - a. Standard grease type is Mobilith 220 unless otherwise specified
4. Fully extend and retract the Thrust Tube to distribute the grease
5. Verify the O-Ring is in place then reinstall the Tube Access Cover onto the Cylinder Body

(Continues)

**RE-LUBRICATION RECOMMENDATION:**

Lubrication requirements for electric actuators depend on the motion cycle (velocity, force, duty cycle), type of application, ambient temperature, environmental surrounding and various other factors.

For many general purpose applications, Tolomatic ball screw actuators are typically considered lubricated for life unless otherwise specified, such as those actuator models outfitted with a re-lubrication feature. For roller screw or ball screw actuators outfitted with a re-lubrication feature, Tolomatic recommends to re-lubricate the actuator at least once per year or every 1,000,000 cycles, whichever comes first, to maximize service life. For more demanding applications such as

pressing, high frequency or other highly stressed applications, the re-lubrication interval for these actuators will vary and will need to be more frequent. In these demanding applications, it is recommended to execute at least 5 full stroke moves every 5,000 cycles of operation (or more frequent if possible) to re-distribute the grease within the actuator.

Re-lubricate with Tolomatic Grease into the grease port located on the side of the actuator.

	RSX080
Quantity (g)	8.0 + (0.020 x Stroke <sup>mm</sup> )
Quantity (oz)	0.28 + (0.018 x Stroke <sup>in</sup> )

Stroke<sup>mm</sup> = Stroke length in millimeters    Stroke<sup>in</sup> = Stroke length in inches

**\* = YMH VARIABLE PART**

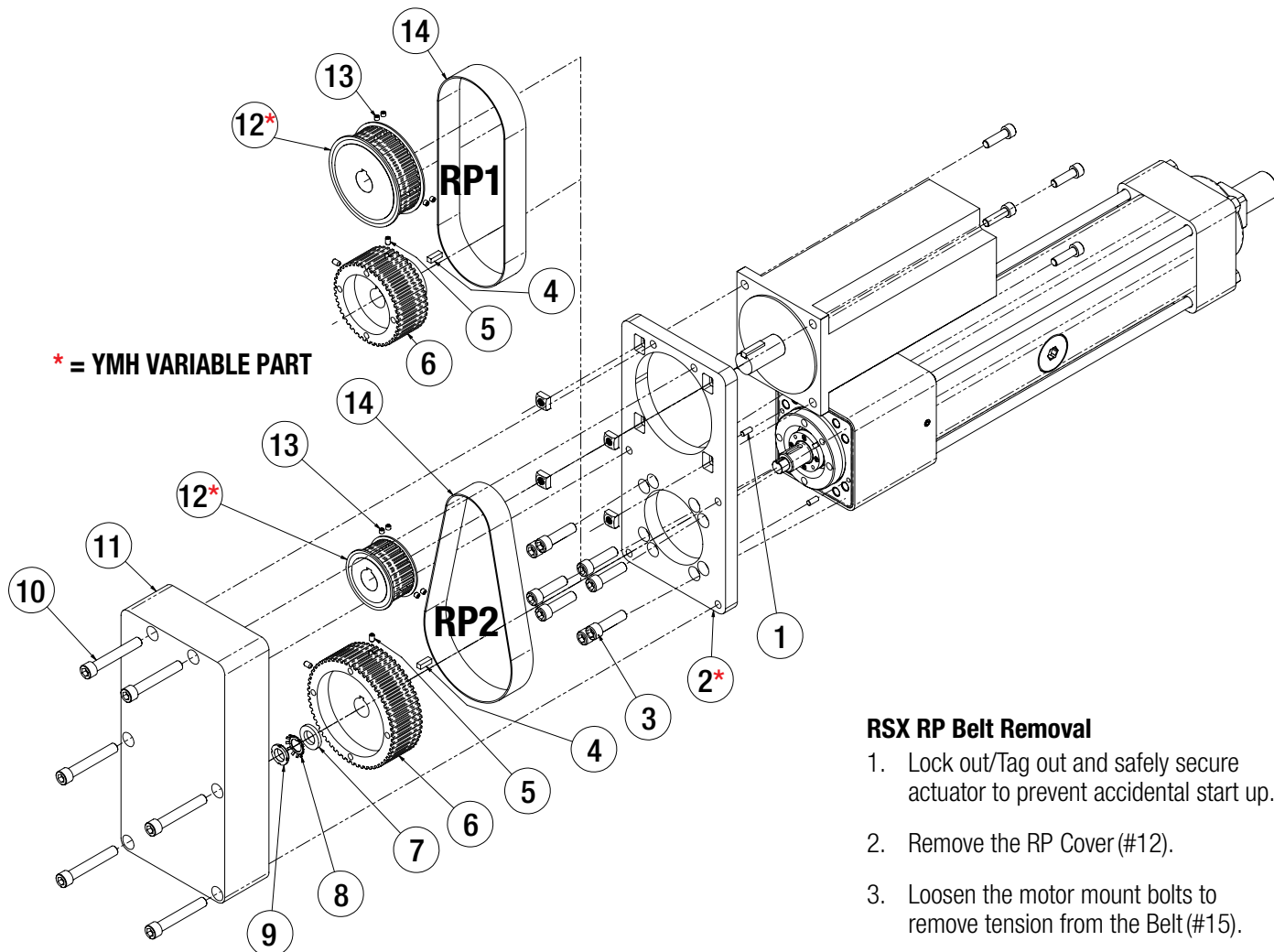
**RSX LMI Parts List**

ITEM	PART NO	DESCRIPTION	Qty.
1	*	Motor Spacer	1
2	2170-1088	Socket Head Cap Screw	12
3	2170-1118	Dowel Pin	2
4	*	Coupler Half	1
5	1310-1014	Set Screw	4
6	2170-1035	Coupler Insert	1
7	2170-1032	Coupler Half	1
8	2170-1036	Coupler Cover	1
9	0610-1008	Key	1

\*YMH Variable Parts

**RSX RP Parts List**

 See Tolomatic document [3600-4212](#) for RP motor assembly and belt tension procedure



\* = YMH VARIABLE PART

**RSX RP Belt Removal**

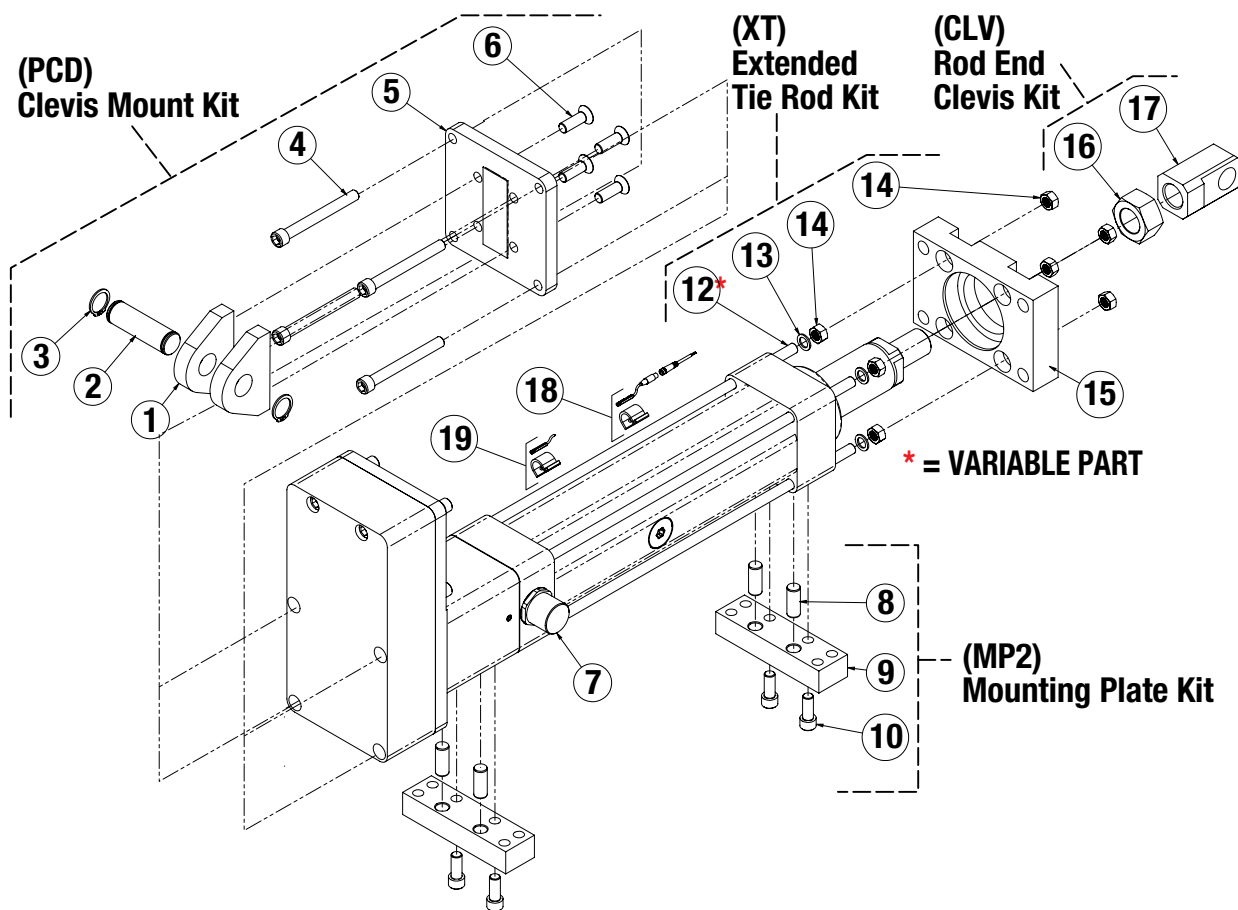
1. Lock out/Tag out and safely secure actuator to prevent accidental start up.
2. Remove the RP Cover (#12).
3. Loosen the motor mount bolts to remove tension from the Belt (#15).
4. Remove the old Belt (#15).

**RSX RP Parts List**

ITEM	PART NO	DESCRIPTION	QUANTITY	
			RP1	RP2
1	4410-1026	Dowel Pin	2	2
2	*	RP Plate	1	1
3	2170-1088	Socket Head Cap Screw	8	8
4	2170-1103	Key	1	1
5	1164-1597	Set Screw	2	2
6	2170-1026	Actuator Pulley RP1	1	-
	2170-1025	Actuator Pulley RP2	-	1
7	2133-1017	Spacer	1	1
8	2133-1065	Lock Washer	1	1

ITEM	PART NO	DESCRIPTION	QUANTITY	
			RP1	RP2
9	2133-1064	Lock Nut	1	1
10	2170-1087	Socket Head Cap Screw	6	6
11	2170-1046	RP Cover	1	1
12	*	Motor Pulley	1	1
13	8350-1008	Set Screw	4	4
14	2170-1069	Belt	1	1

\*YMH Variable Parts

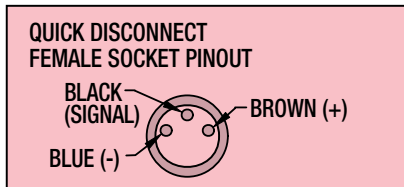
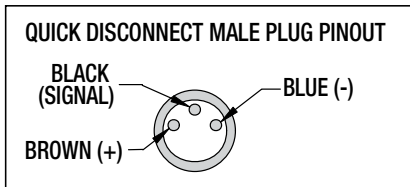
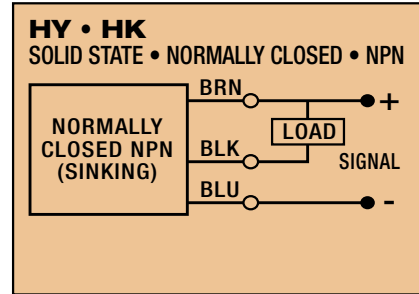
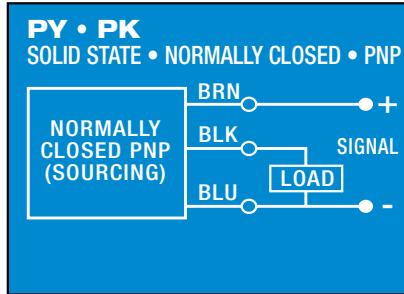
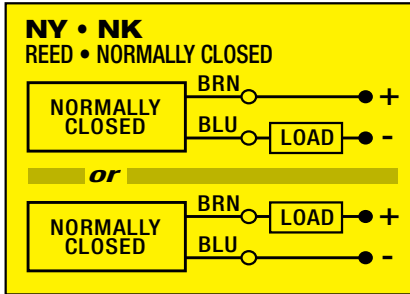
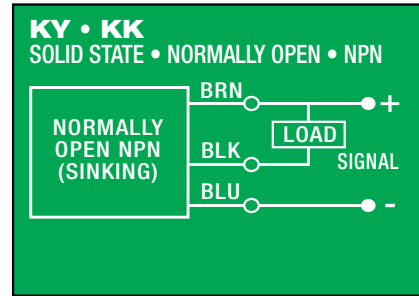
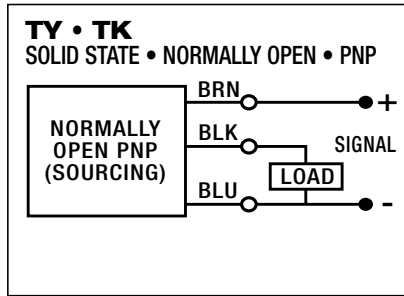
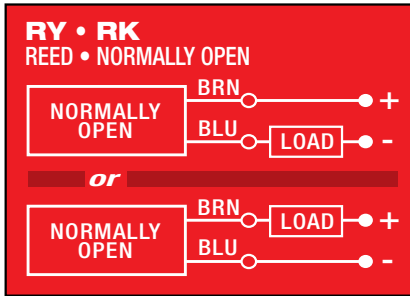


ITEM or Code	PART NO	DESCRIPTION	QTY
<b>PCD</b>	<b>2170-9019</b>	<b>Clevis Mount Kit</b>	
1	2170-1084	Bracket	2
2	2170-1091	Pin	1
3	2170-1093	Retaining Ring	2
4	2170-1101	Socket Head Cap Screw	4
5	2170-1090	Plate	1
6	2170-1112	Flat Head Cap Screw	4
<b>TRR</b>	<b>2170-1085</b>	<b>Trunnion Mount Option</b>	
7	2170-1085	Trunnion Plate	1
<b>MP2</b>	<b>2170-9017</b>	<b>Mounting Plate Kit</b>	
8	2170-1110	Dowel Pin	4
9	2170-1109	Bracket	2
10	2170-1088	Socket Head Cap Screw	4
<b>XT</b>	*	<b>Extended Tie Rod Kit</b>	
12	*	Tie Rod	4
13	2170-1142	Washer	4
14	2170-1047	Hex Nut	4
<b>FFG</b>	<b>2170-1062</b>	<b>Front Flange Option</b>	
15	2170-1062	Flange Plate	1
<b>CLV</b>	<b>2170-9013</b>	<b>Rod End Clevis Kit</b>	
16	2170-1114	Hex Nut	1
17	2170-1113	Clevis	1

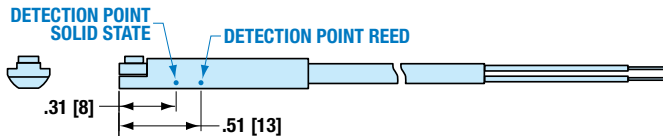
ITEM	Config. Code	DESCRIPTION
SWITCHES WITH QUICK-DISCONNECT COUPLERS		
18	SWRSX080RK	Reed Switch, SPST Normally Open
	SWRSX080NK	Reed Switch, SPST Normally Closed
	SWRSX080TK	Solid State Switch, PNP (Sourcing) Normally Open
	SWRSX080KK	Solid State Switch, NPN (Sinking) Normally Open
	SWRSX080PK	Solid State Switch, PNP (Sourcing) Normally Closed
	SWRSX080HK	Solid State Switch, NPN (Sinking) Normally Closed
NOTE: Includes retained hardware & female connector for quick-disconnect		
SWITCHES WITHOUT QUICK-DISCONNECT COUPLERS		
19	SWRSX080RY	Reed Switch, SPST Normally Open
	SWRSX080NY	Reed Switch, SPST Normally Closed
	SWRSX080TY	Solid State Switch, PNP (Sourcing) Normally Open
	SWRSX080KY	Solid State Switch, NPN (Sinking) Normally Open
	SWRSX080PY	Solid State Switch, PNP (Sourcing) Normally Closed
	SWRSX080HY	Solid State Switch, NPN (Sinking) Normally Closed

\*Variable Parts

**SWITCH WIRING DIAGRAMS AND LABEL COLOR CODING (CE and RoHS Compliant)**



**SWITCH DETECTION POINT**



Dimensions in inches [brackets indicate dimensions in millimeters]

**SWITCH INSTALLATION**



Place switch bracket onto any one of the four tie rods that run the length of the extruded tube. Insert the switch with set screw and the word "Tolomatic" facing up and slide it the mating slot on the bracket. Position the bracket with the switch to the exact location desired, with the bracket tight to the surface of the extrusion, then lock the bracket securely into place by tightening the set screw with the Allen wrench provided. Then tighten the switch into the bracket with a small slotted screwdriver.



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