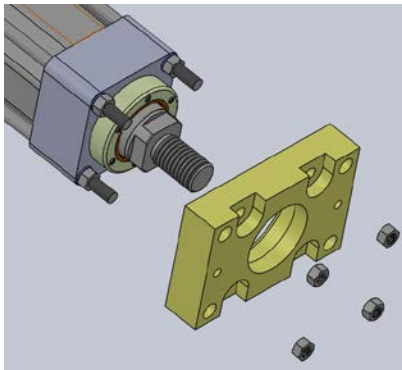


RSX128 Extreme Force Electric Linear Actuator

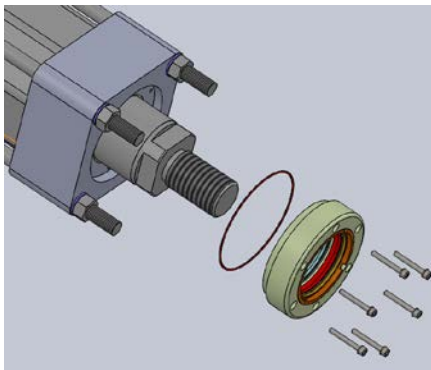
Tolomatic recommends returning the RSX for most repairs. There are a few procedures that can be done in the field. See the following instructions:

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



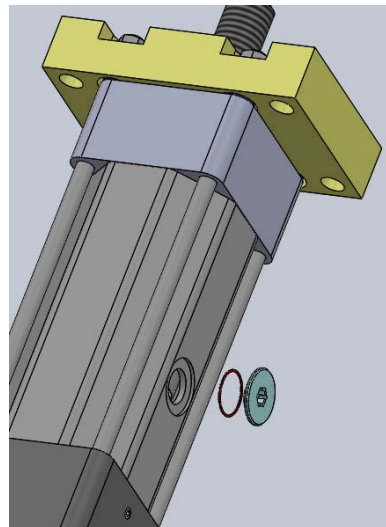
5. Remove any debris from around the Seal Cartridge
6. Remove the six Cartridge Retainer Bolts and Sealing Washers from the Seal Cartridge
7. Slide the old Seal Cartridge off the Thrust Tube
8. Install new O-Ring on new Seal Cartridge
9. Carefully slide the new Seal Cartridge onto the Thrust Tube and 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 80 in-lbf (9 N-m)
13. Reinstall the Front Flange if applicable
 - a. Apply Loctite 271 to the tie rod threads
 - b. RSX128, torque to 220 ft-lbf (298 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.

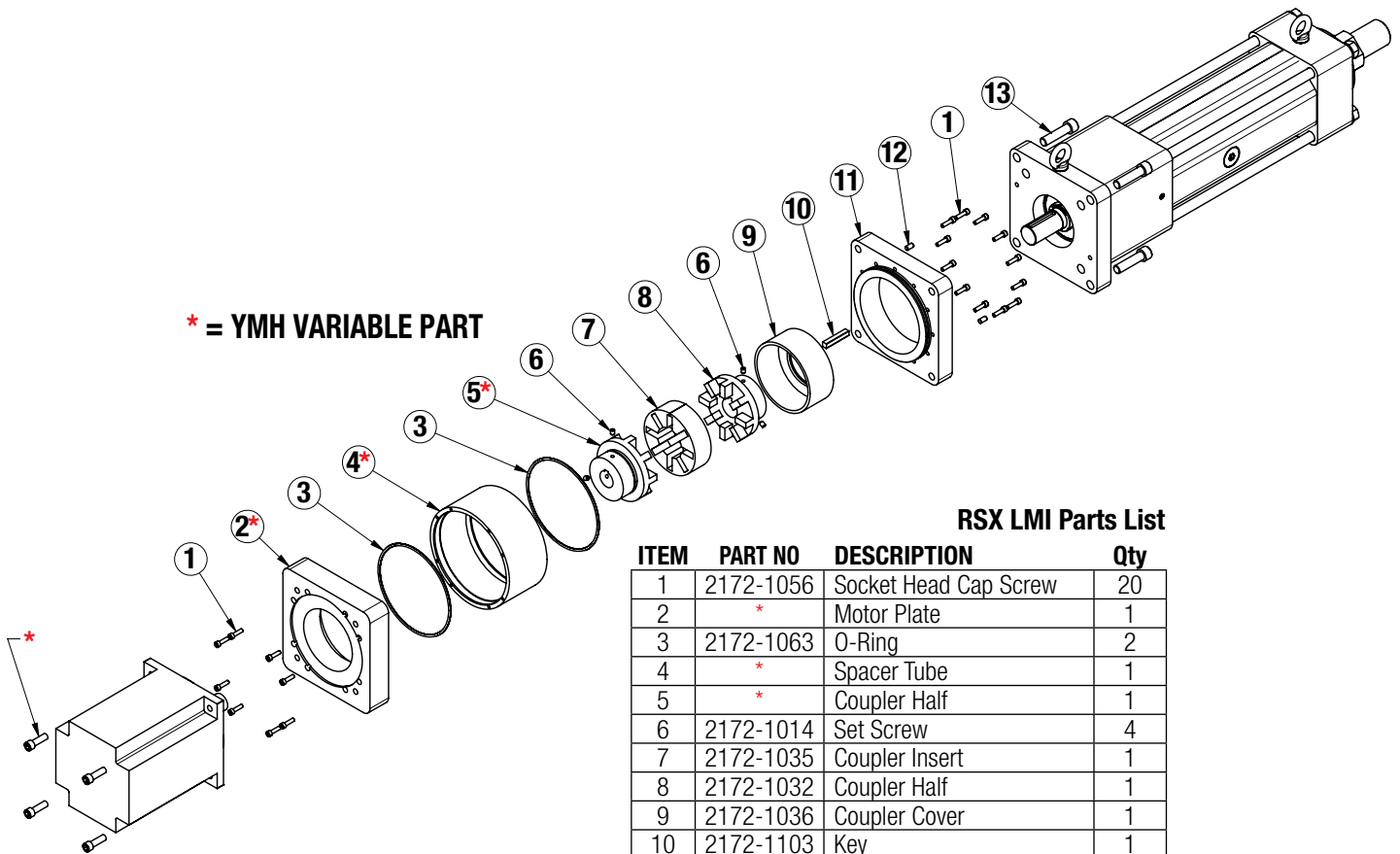
For many general purpose applications, Tolomatic ball screw actuators are typically considered lubricated for life unless otherwise specified, such as those actuator models outfitted with a re-lubrication feature. For roller screw or ball screw actuators outfitted with a re-lubrication feature, Tolomatic 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.

| | |
|---------------|--|
| | RSX128(P) |
| Quantity (g) | 12.0 + (0.027 x Stroke ^{mm}) |
| Quantity (oz) | 0.42 + (0.024 x Stroke ⁱⁿ) |

Stroke^{mm} = Stroke length in millimeters
 Strokeⁱⁿ = Stroke length in inches



* = YMH VARIABLE PART

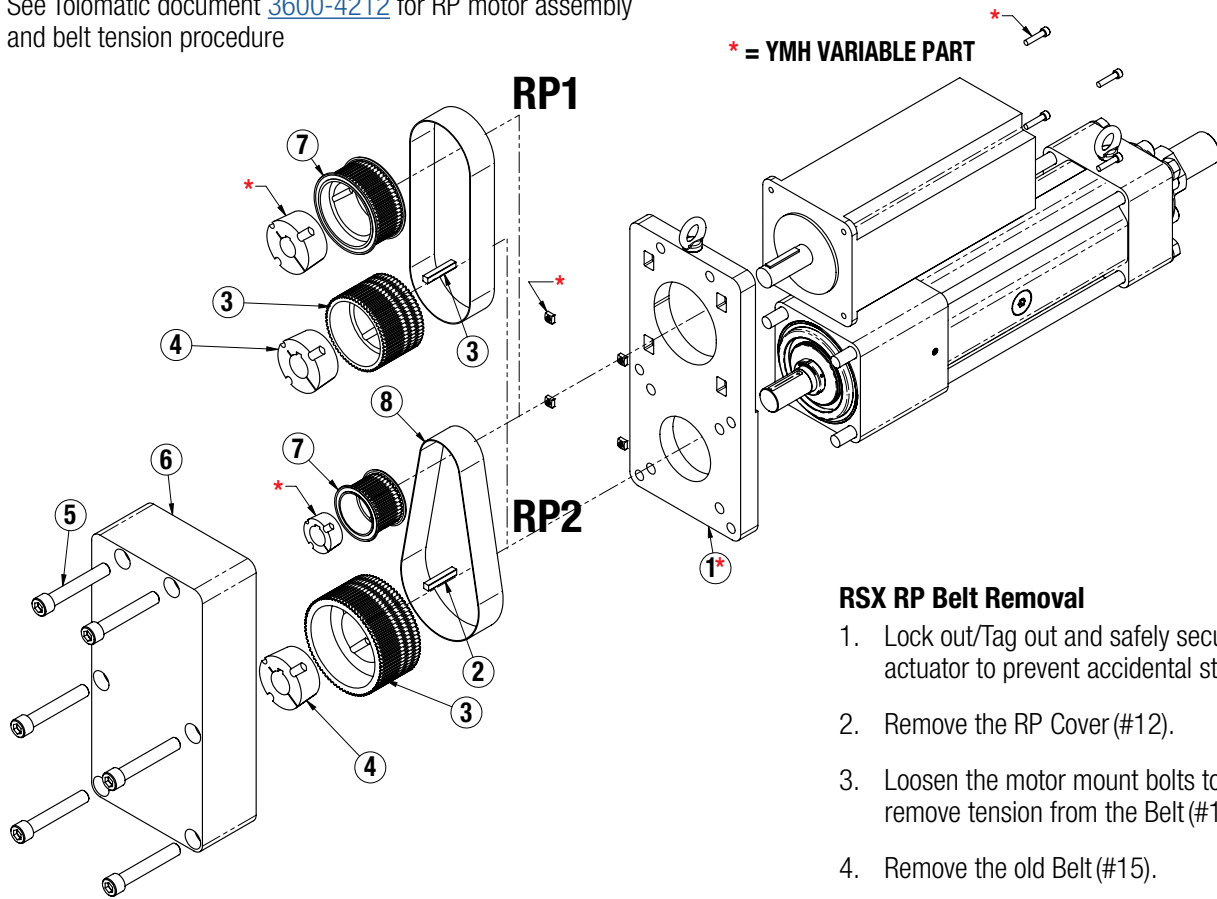
RSX LMI Parts List

| ITEM | PART NO | DESCRIPTION | Qty |
|------|-----------|-----------------------|-----|
| 1 | 2172-1056 | Socket Head Cap Screw | 20 |
| 2 | * | Motor Plate | 1 |
| 3 | 2172-1063 | O-Ring | 2 |
| 4 | * | Spacer Tube | 1 |
| 5 | * | Coupler Half | 1 |
| 6 | 2172-1014 | Set Screw | 4 |
| 7 | 2172-1035 | Coupler Insert | 1 |
| 8 | 2172-1032 | Coupler Half | 1 |
| 9 | 2172-1036 | Coupler Cover | 1 |
| 10 | 2172-1103 | Key | 1 |
| 11 | 2172-1066 | Actuator Plate | 1 |
| 12 | 4420-1004 | Dowel Pin | 2 |
| 13 | 2172-1111 | Socket Head Cap Screw | 4 |

*YMH Variable Parts

RSX RP Parts List

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



RSX RP Belt Removal

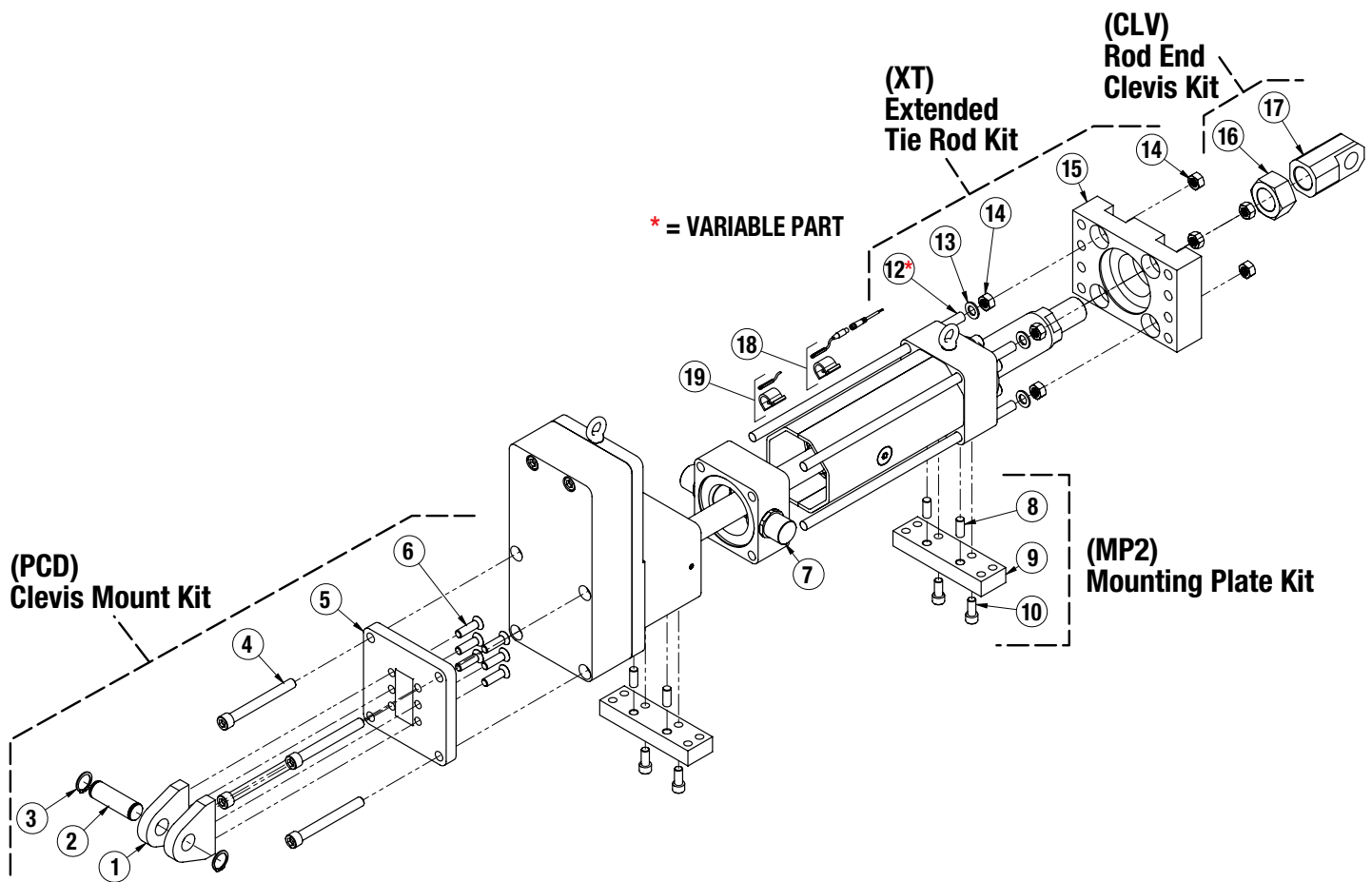
1. Lock out/Tag out and safely secure actuator to prevent accidental start up.
2. Remove the RP Cover (#12).
3. Loosen the motor mount bolts to remove tension from the Belt (#15).
4. Remove the old Belt (#15).

RSX RP Parts List

| ITEM | PART NO | DESCRIPTION | RP1 | RP2 |
|------|-----------|-----------------------|-----|-----|
| 1 | * | RP Plate | 1 | 1 |
| 2 | 2172-1103 | Key | 1 | 1 |
| 3 | 2172-1026 | Actuator Pulley | 1 | |
| | 2172-1025 | Actuator Pulley | | 1 |
| 4 | 2172-1268 | Taper Lock Bushing | 1 | 1 |
| 5 | 2172-1087 | Socket Head Cap Screw | 6 | 6 |

| ITEM | PART NO | DESCRIPTION | RP1 | RP2 |
|------|-----------|--------------|-----|-----|
| 6 | 2172-1446 | RP Cover | 1 | 1 |
| 7 | 2172-1130 | Motor Pulley | 1 | 1 |
| 8 | 2172-1431 | Belt | 1 | 1 |

*YMH Variable Parts

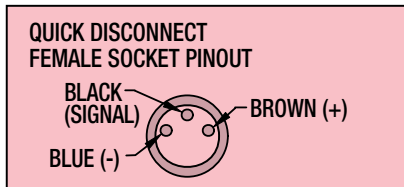
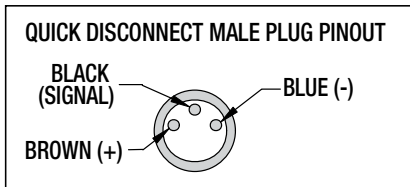
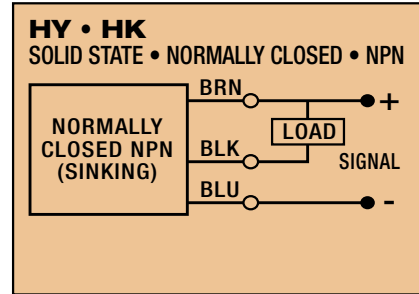
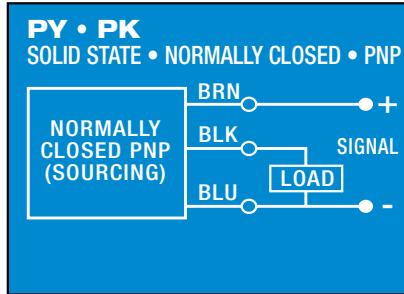
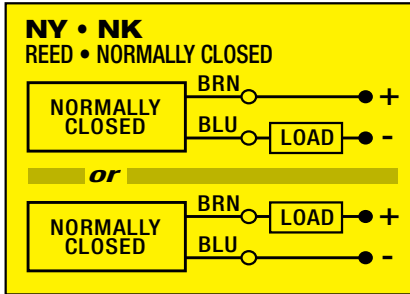
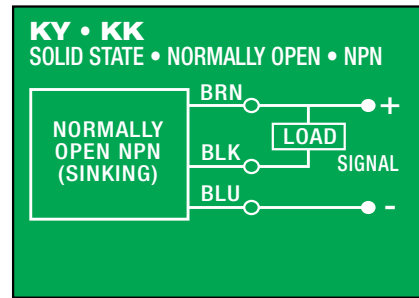
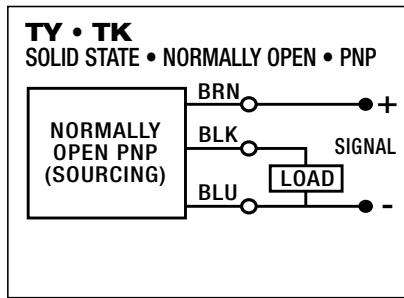
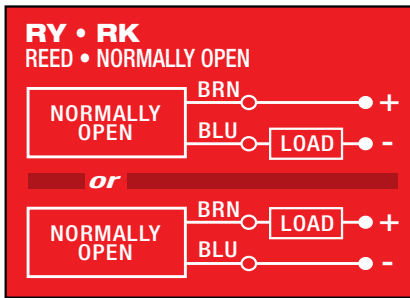


| ITEM or Code | PART NO | DESCRIPTION | QTY |
|--------------|------------------|------------------------------|-----|
| PCD | 2172-9019 | Clevis Mount Kit | |
| 1 | 2172-1084 | Bracket | 2 |
| 2 | 2172-1091 | Pin | 1 |
| 3 | 2172-1093 | Retaining Ring | 2 |
| 4 | 2172-1101 | Socket Head Cap Screw | 4 |
| 5 | 2172-1090 | Plate | 1 |
| 6 | 2172-1112 | Flat Head Cap Screw | 4 |
| TRR | 2170-1085 | Trunnion Mount Option | |
| 7 | 2170-1085 | Trunnion Plate | 1 |
| MP2 | 2172-9017 | Mounting Plate Kit | |
| 8 | 2172-1110 | Dowel Pin | 4 |
| 9 | 2172-1109 | Bracket | 2 |
| 10 | 2172-1088 | Socket Head Cap Screw | 4 |
| XT | * | Extended Tie Rod Kit | |
| 12 | * | Tie Rod | 4 |
| 13 | 2172-1142 | Washer | 4 |
| 14 | 2172-1047 | Hex Nut | 4 |
| FFG | 2172-1062 | Front Flange Option | |
| 15 | 2172-1062 | Flange Plate | 1 |
| CLV | 2172-9013 | Rod End Clevis Kit | |
| 16 | 2172-1114 | Hex Nut | 1 |
| 17 | 2172-1113 | Clevis | 1 |

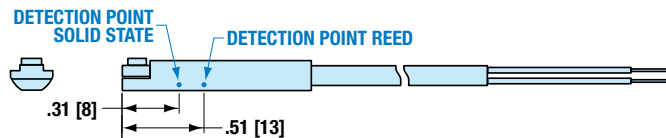
| ITEM | Config. Code | DESCRIPTION |
|--|--------------|--|
| SWITCHES WITH QUICK-DISCONNECT COUPLERS | | |
| 18 | SWRSX096RK | Reed Switch, SPST Normally Open |
| | SWRSX096NK | Reed Switch, SPST Normally Closed |
| | SWRSX096TK | Solid State Switch, PNP (Sourcing) Normally Open |
| | SWRSX096KK | Solid State Switch, NPN (Sinking) Normally Open |
| | SWRSX096PK | Solid State Switch, PNP (Sourcing) Normally Closed |
| | SWRSX096HK | Solid State Switch, NPN (Sinking) Normally Closed |
| NOTE: Includes retained hardware & female connector for quick-disconnect | | |
| SWITCHES WITHOUT QUICK-DISCONNECT COUPLERS | | |
| 19 | SWRSX096RY | Reed Switch, SPST Normally Open |
| | SWRSX096NY | Reed Switch, SPST Normally Closed |
| | SWRSX096TY | Solid State Switch, PNP (Sourcing) Normally Open |
| | SWRSX096KY | Solid State Switch, NPN (Sinking) Normally Open |
| | SWRSX096PY | Solid State Switch, PNP (Sourcing) Normally Closed |
| | SWRSX096HY | 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.



3800 County Road 116, Hamel, MN 55340 USA
<https://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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