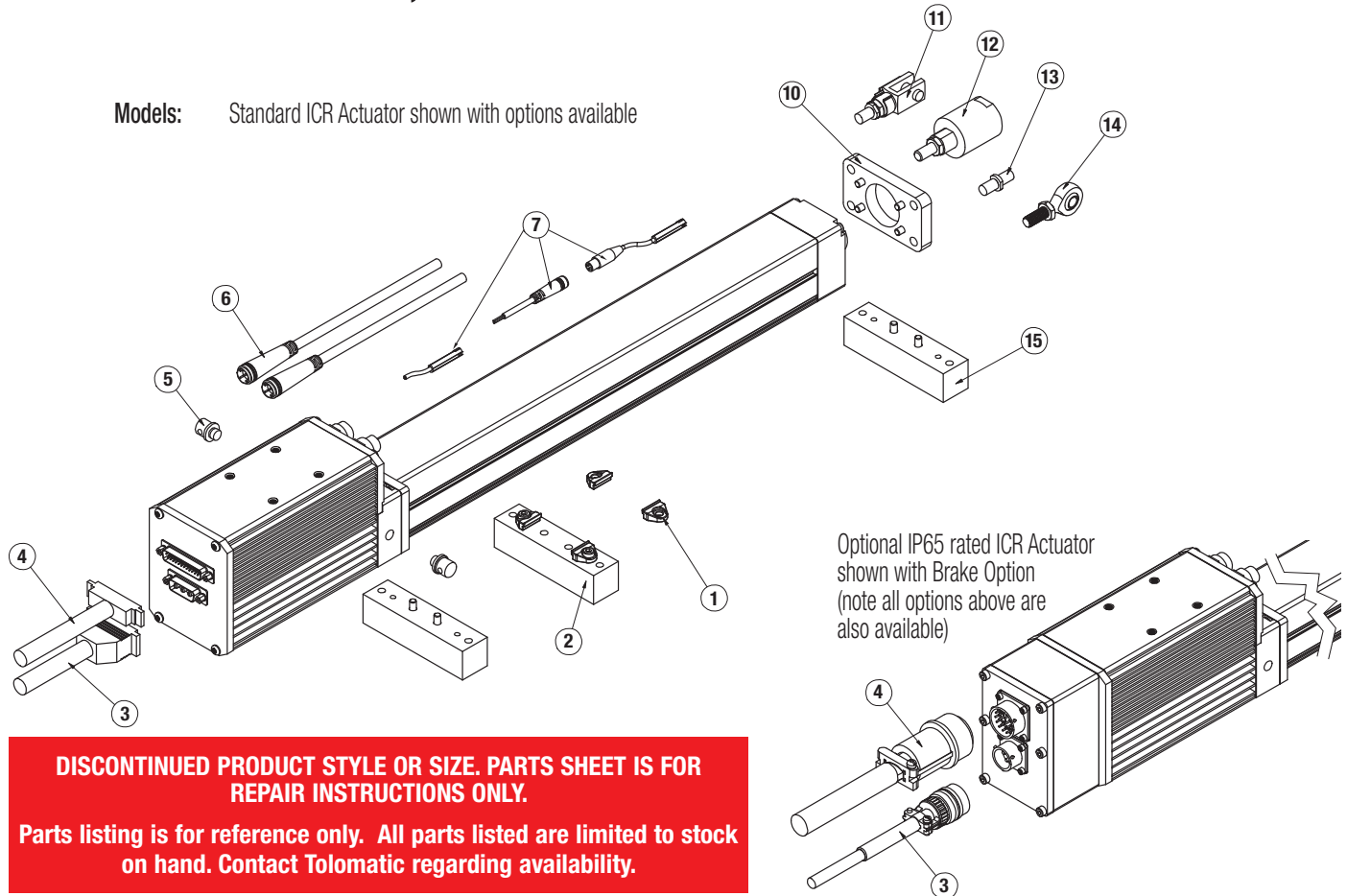


ICR Basic & ICR Plus, SmartActuator Series

Models: Standard ICR Actuator shown with options available



Optional IP65 rated ICR Actuator shown with Brake Option (note all options above are also available)

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.

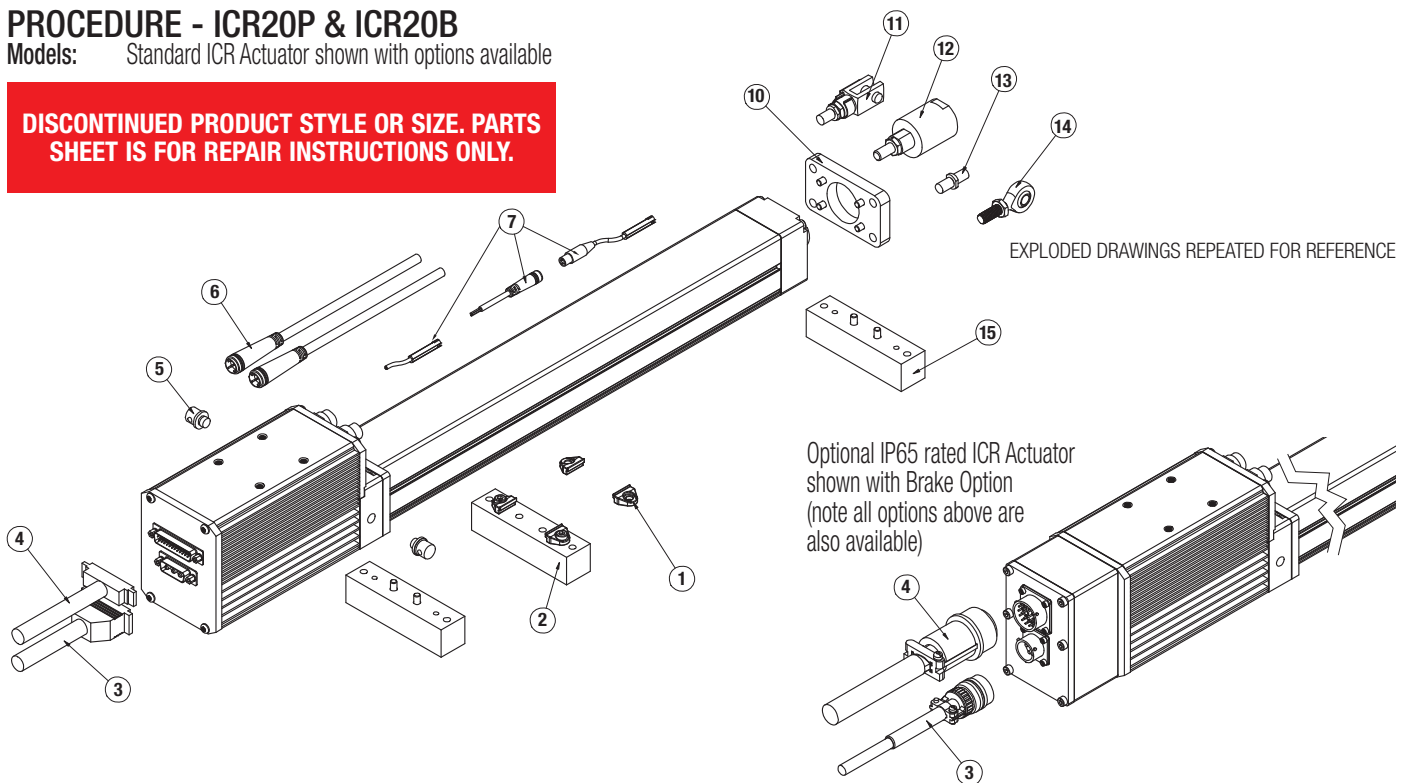
ITEM	PART NO	DESCRIPTION	
1	8125-1050	Tube Clamp	
2	2180-9002	MOUNTING PLATE KIT	
		2180-1044	Mounting Plate
		8125-1050	Tube Clamp
		8125-1071	Low Head Cap Screw
3	3604-1649	Power Cable, IP65 Rated	
	3604-1641	Power Cable, Standard	
4	3604-1648	Signal Cable, IP65 Rated	
	3604-1640	Signal Cable, Standard	
5	2107-1066	Trunnion	
6	3604-1659	Comm Cable, 1m	
	3604-1660	Comm Cable, 5m	
7	SWITCH KIT		
	RY Reed, SPST Normally Open		
	NY Reed, SPST Normally Closed		
	TY Solid State, PNP (sourcing) Normally Open		
	KY Solid State, NPN (sinking) Normally Open		
	PY Solid State, PNP (sourcing) Normally Closed		
	HY Solid State, NPN (sinking) Normally Closed		
	RK Reed, SPST Normally Open		
	NK Reed, SPST Normally Closed		
	TK Solid State, PNP (sourcing) Normally Open		
	KK Solid State, NPN (sinking) Normally Open		
(cont.)	PK Solid State, PNP (sourcing) Normally Closed		
	HK Solid State, NPN (sinking) Normally Closed		

ITEM	PART NO	DESCRIPTION	
10	2124-9032	FRONT FLANGE MOUNT KIT	
		2124-1062	Flange
		0603-1016	Socket Head Cap Screw
11	2112-9020	CLEVIS KIT	
		2112-1058	Threaded Rod End
		2124-1020	Hex Nut
12	2180-9024	ALIGNMENT COUPLER KIT	
		2180-1097	Alignment Coupler
		2124-1020	Hex Nut
13	2112-1058	Threaded Rod End	
14	2180-9058	BALL JOINT ROD END KIT	
		2180-1075	Ball Joint
		2124-1020	Hex Nut
15	2180-9026	HEAD MOUNTING PLATE KIT	
		2180-1044	Mounting Plate
		2212-1099	Socket Head Cap Screw

PROCEDURE - ICR20P & ICR20B

Models: Standard ICR Actuator shown with options available

DISCONTINUED PRODUCT STYLE OR SIZE. PARTS SHEET IS FOR REPAIR INSTRUCTIONS ONLY.



Optional IP65 rated ICR Actuator shown with Brake Option (note all options above are also available)

TUBE CLAMP OPTION (TC):**DISASSEMBLY**

Remove fasteners securing the Tube Clamp (1) to mounting surface.
Remove Tube Clamp (1) from groove in actuator.

ASSEMBLY

Insert Tube Clamp (1) into lower groove in actuator and secure to mounting surface using fasteners.

MOUNTING PLATE OPTION (MP):**ADJUSTING POSITION**

The Mounting Plate(s) (2) will arrive already installed on actuator. To move Mounting Plate(s) (2) simply loosen the fasteners holding down the Tube Clamps (1) then slide the Mounting Plate(s) (2) to desired location and tighten the fasteners. NOTE: Check before tightening fasteners that the Tube Clamp (1) is properly inserted into the groove along the side of the tube.

DISASSEMBLY FROM ACTUATOR

To remove the Mounting Plate (2) from the actuator, remove the fasteners holding down each tube clamp then tilt up on Tube Clamp (1) to remove from actuator.

ASSEMBLY

Place actuator on top of all Mounting Plates (2) to be installed. Insert Tube Clamp (1) into groove in side of tube and secure to Mounting Plate (2) with fasteners. Repeat on other side of tube.

HEAD MOUNTING PLATE OPTION (HM)**DISASSEMBLY**

The Mounting Plates (15) will arrive already installed on actuator. From underneath, remove the fasteners securing the Mounting Plates (15) to the front and back of actuator.

ASSEMBLY

Align holes on the bottom and at each end of actuator with the Mounting Plate (15) counterbored holes then secure with fasteners.

FRONT FLANGE MOUNT (FFG):**DISASSEMBLY**

Remove four fasteners securing the Front Flange Mount (10) to the head of the actuator.

ASSEMBLY

Align the Front Flange Mount (10) with threaded hole pattern in head of actuator. Secure with four fasteners.

TRUNNION MOUNT OPTION (TRN):**DISASSEMBLY**

Insert tool small enough to fit in the cross-hole in the Trunnion Mount (5) then unthread Trunnion Mount (5) from actuator.

ASSEMBLY

Thread the Trunnion Mounts (5) into the actuator then tighten by inserting a tool small enough to fit in the cross-hole in the Trunnion Mount (5).

METRIC EXTERNAL THREADED ROD (MET):**DISASSEMBLY**

Unscrew the Metric External Threaded Rod (13) from rod end.

ASSEMBLY

Thread and tighten the Metric External Threaded Rod (13) onto rod end.

ALIGNMENT COUPLER (ALC):**DISASSEMBLY**

Loosen the Hex Nut (12) and unscrew the Alignment Coupler (12) from rod end.

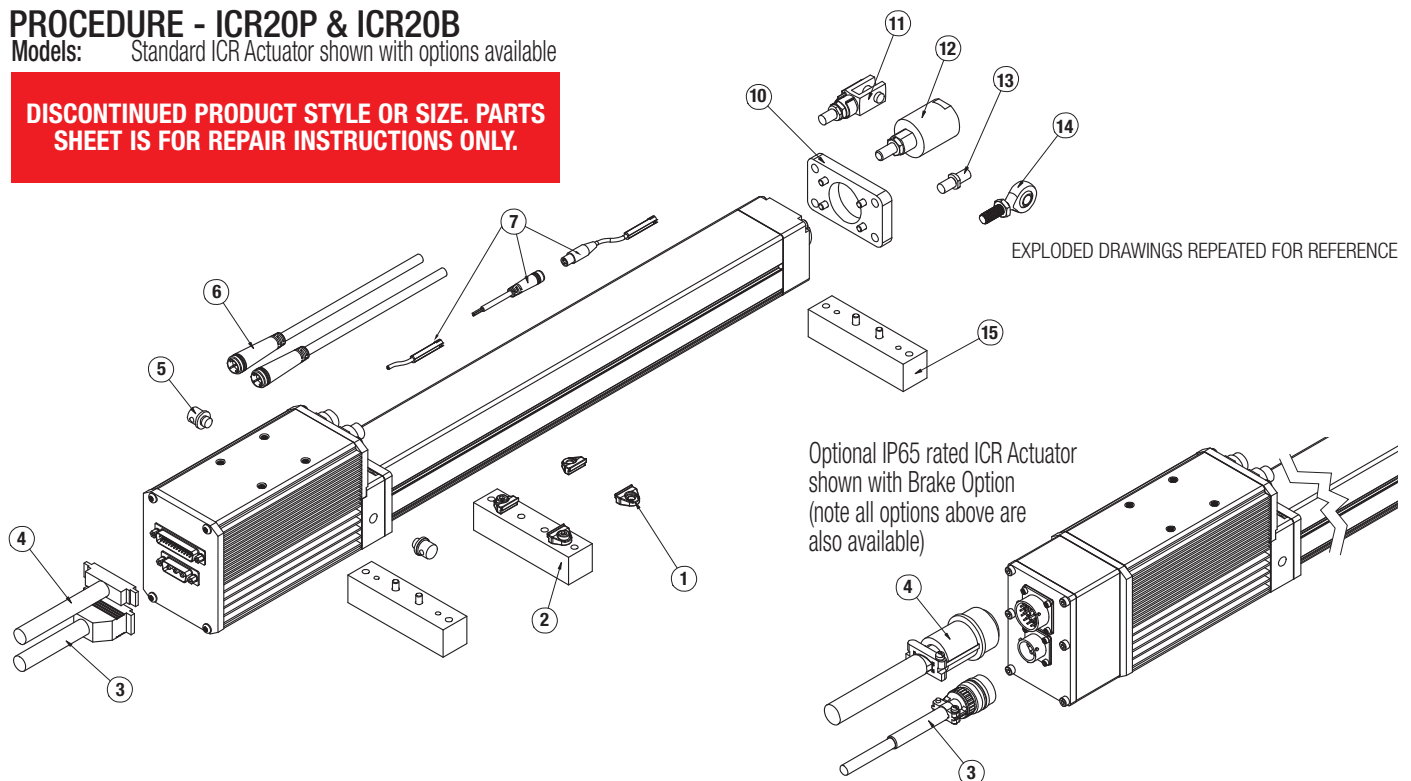
ASSEMBLY

Thread Hex Nut (12) onto the Alignment Coupler (12) then thread in the Alignment Coupler (12) into threads of rod end. Tighten the Hex Nut (12) against the rod end. Note: The female end of the Alignment Coupler (12) will be exposed.

PROCEDURE - ICR20P & ICR20B

Models: Standard ICR Actuator shown with options available

DISCONTINUED PRODUCT STYLE OR SIZE. PARTS SHEET IS FOR REPAIR INSTRUCTIONS ONLY.

**ALIGNMENT COUPLER (ALC) WITH METRIC EXTERNAL THREADED ROD (MET):****DISASSEMBLY**

Loosen the Hex Nut (12) on Metric External Threaded Rod (13) and unscrew the Alignment Coupler (12) from Metric External Threaded Rod. Unscrew the Metric External Threaded Rod (13) from the rod end.

ASSEMBLY

Thread the Metric External Threaded Rod (13) onto the rod end. Thread a Hex Nut (12) onto the Metric External Threaded Rod (13) then thread the female end of the Alignment Coupler (12) onto the Metric External Threaded Rod (13). Tighten the Hex Nut (12) against the Alignment Coupler (12). NOTE: The male end of the Alignment Coupler (12) will be exposed.

SPHERICAL ROD END OPTION (SRE):**DISASSEMBLY**

Loosen the Hex Nut (14) and unscrew the Spherical Rod End (14) from rod end.

ASSEMBLY

Thread the Hex Nut (14) onto the threads of the Spherical Rod End (14). Screw Spherical Rod End into rod end and tighten the Hex Nut (14).

CLEVIS ROD END OPTION (CLV)**DISASSEMBLY**

Loosen the Hex Nut (11) on the external threaded rod then unscrew the Clevis Rod End (11) from the external threaded rod. Unscrew the external threaded rod from the rod end.

ASSEMBLY

Install the external threaded rod into rod end then thread the Hex Nut (11) onto the external threaded rod. Thread the Clevis Rod End (11) onto the external threaded rod and tighten the Hex Nut (11).

STANDARD SIGNAL AND POWER CABLE OPTION (CPS)**DISASSEMBLY**

Use screwdriver to unthread the two screws of Standard Signal Cable (4) then pull on connector to remove from actuator. Unthread the two screws of the Standard Power Cable (3) then pull on connector to remove from actuator.

ASSEMBLY

Align and insert connector of Standard Power Cable (3) into matching connector on actuator and secure with two screws. Align and insert connector of Standard Signal Cable (4) into matching connector on the actuator and secure with two screws.

IP Rated Signal and Power Cable Option (CIP)**DISASSEMBLY**

Rotate housing of IP Rated Signal Cable (4) until able to pull from actuator. Rotate housing of IP Rated Power Cable (3) until able to pull from actuator.

ASSEMBLY

Align and insert connector of IP Power Cable (3) into matching connector on actuator and secure by rotating the IP Power Cable (3) housing until connector pins engage holes in housing. Align and insert connector of IP Signal Cable (4) into matching connector on actuator and secure by rotating the IP Signal Cable (4) housing until connector pins engage holes in housing.

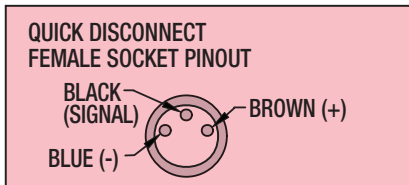
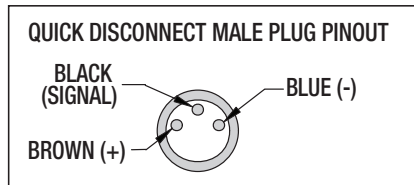
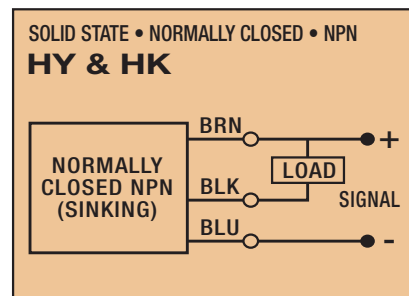
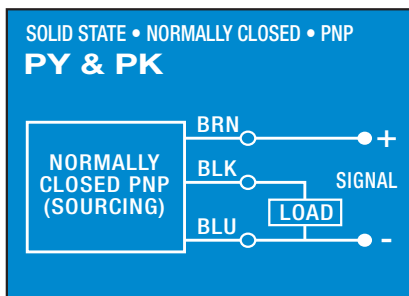
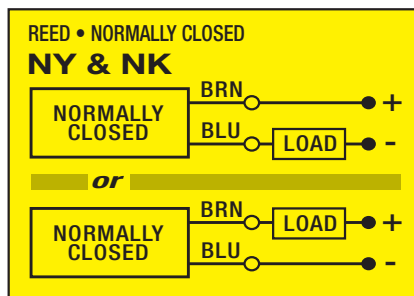
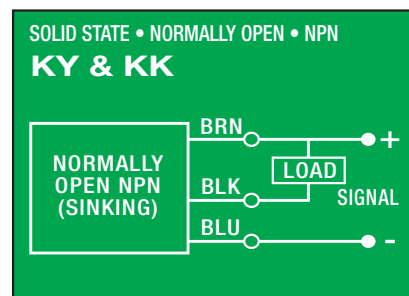
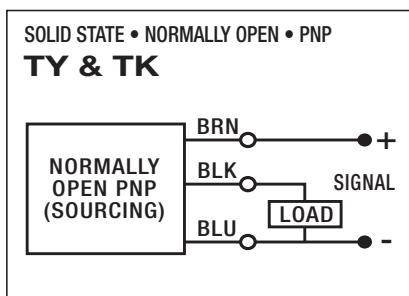
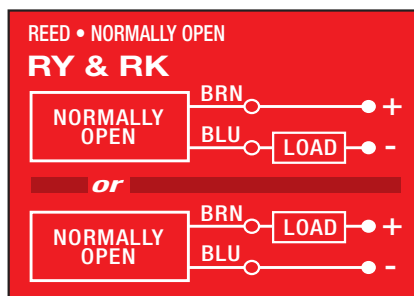
CAN/DEVICENET COMMUNICATION CABLES (CDC)**DISASSEMBLY**

Unscrew and pull out connector housing of CAN/DeviceNet Communication Cable (6) from connector on actuator.

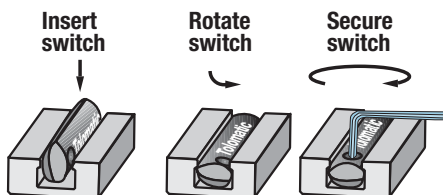
ASSEMBLY

Align and insert CAN/DeviceNet Communication Cable (6) into matching connector on actuator.

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

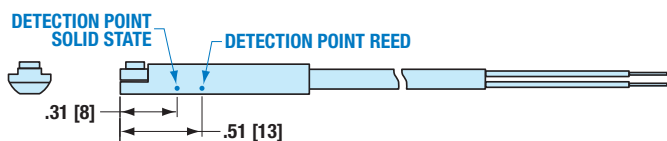


SWITCH INSTALLATION AND REPLACEMENT



Place switch in side groove on tube at desired location with "Tolomatic" facing outward. While applying light pressure to the switch, rotate the switch halfway into the groove. Maintaining light pressure, rotate the switch in the opposite direction until the switch is fully inside the groove with "Tolomatic" visible. Re-position the switch to the exact location and lock it securely in place by tightening the screw on the switch.

SWITCH DETECTION POINT



Dimensions in inches [brackets indicate dimensions in millimeters]

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