



E/M Switch Kit Installation and Operating Instructions

Bulletin: 21430- 08/01. This bulletin provides information on the option indicated for your Bettis TorqPlus EM-Series Actuator. Bettis recommends that all Kits be installed by an authorized Valve Automation Center to insure the actuator's performance and full warranty. A copy of bulletin 21077, Installation & Operating Instructions, was included with the actuator. If not available, contact the Valve Automation Center or Bettis Electric Division, Mansfield, Ohio U.S.A. 419-529-4296.

1.0 Caution

Electrical shock and/or explosion hazard. To avoid serious personal injury, death, or property damage due to electrical shock and/or ignition of hazardous atmospheres, **turn off all power to the actuator before removing the actuator cover.**

2.0 Actuator Series	Kit Number (Change TOTAL Switch Qty)	Kit Number		
		From 2 to 4	From 4 To 6	From 6 To 8
100 Series	Auxiliary Switch Kit (*)	301443-K	N/A	N/A
300/212 Series	Auxiliary Switch Kit	2212	301353-1-K	N/A
500/800/400 Series	Auxiliary Switch Kit	2400	301354-1-K	301354-2-K
300/212 Series	Three Position Switch Kit (**)	6212	N/A	N/A
500/800/400 Series	Three Position Switch Kit (**)	11400	N/A	N/A

*Kit may be used for Reversible or Unidirectional Actuators

**Modifies Std. Bi-Directional Actuator to be used for 3 Position Operation

3.0 Inspection

Because this optional product is being supplied as a Kit, review of the actuator's nameplate and the Kit utilization information is recommended to insure compatibility before use.

4.0 Documentation

Bettis maintains accurate records on every actuator sold. Completion and transmittal of a Product Modification Report (form #ESO-01) is required.

5.0 Cover Removal

Using bulletin #21077 titled TorqPlus EM-Series Installation & Operating Instructions, which was supplied with the basic actuator, follow section 7.0.

6.0 Installation Instructions

- % Remove existing round head machine screws holding the 2 limit switches to midplate.
- % Place Auxiliary switches (#4) on top of existing switches and secure to midplate with screws (#3).
- % Slide switch cams (#1) over shaft and tighten cam set screws (#2) when in desired position.
- % Move switches toward cams so switch is fully engaged.
- % Secure additional terminal strip (if supplied) to midplate.

7.0 Wiring Instructions

- % Route auxiliary switch wiring through conduit entries to terminal strip per schematic supplies with switches.
- % Route all wiring carefully so not to make contact with moving parts and secure with ties.
- % Wiring and conduit connections must be made in accordance with local and national codes and consistent with good practices.
- % Securely tighten all screws and check all other connections at this time.

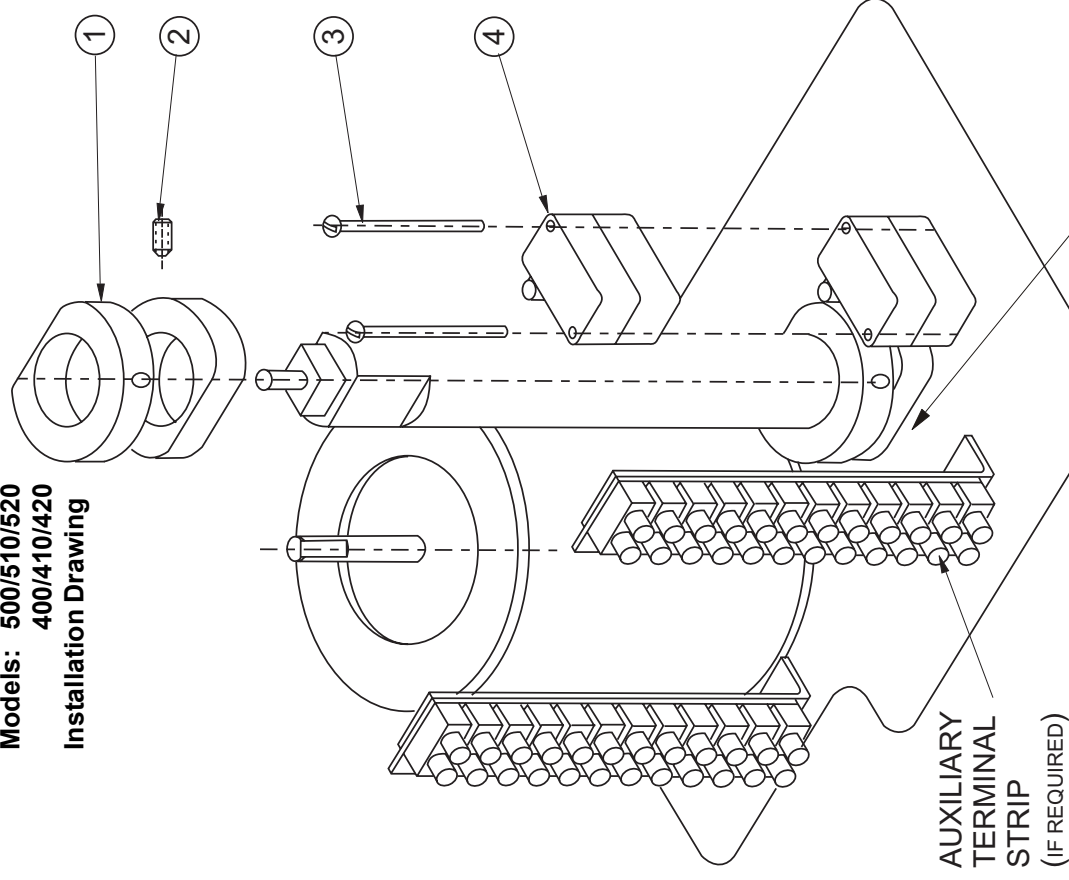
8.0 Cover Replacement

Using bulletin #21077 titled TorqPlus EM-Series Installation & Operating Instructions, which was supplied with the basic actuator, follow section 9.0.



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**Models: 500/510/520
400/410/420**
Installation Drawing



Models: 300/212
Installation Drawing

