INSTRUCTIONS

Carrier
A United Technologies Company

99TA526459 (for RCD use only)

Instruction Sheet Number: **99TA526459**

Description: Actuator Replacement kit

Author: J.L.

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Part Number: HF680026

Instructions for Replacing Existing Belimo HF23BJ050 or HF23BJ065 Actuator with HF23BL006 Siemens 160-in lb. Modulating Actuator on the following economizers:

Factory Installed Econos
50HE402445
50HE402446
50HE403850
50HE403851

Note: This list of economizers is a sample listing and may not include all economizer models. Use this kit for any other economizers using the HF23BL006 actuator.

Required parts: MicroMetl kit part number: KIT-HE1825Z-SMNMNT

Included in this kit are the following parts:

Qty	Part Number	Description
1	EC400	Motor bracket w/ strap (EC924) and stand-off (EC948)
1	9901-2272	HF23BL006 Siemens 160 in-lb modulating actuator
4	9910-0321	Self-drilling screws

General: This kit includes all the parts to replace the Belimo modulating actuator on the listed economizers with a new Siemens HF23BL006 160 in-lb modulating actuator.

Instructions:

Note: if your existing economizer already has a Siemens HF23BL006 actuator, the motor bracket provided in this kit will not be used, and the existing actuator can simply be removed and discarded, and the new actuator in this kit installed. Read instructions below.

1. Disconnect all power to economizer and HVAC unit. Follow all local and other applicable codes.
2. In some applications it may be necessary or desirable to remove the hood, hood filters and / or economizer from the unit to access the economizer actuator.
3. Unplug the existing actuator from the economizer harness. See figure 6 for typical electro-mechanical economizers. This diagram is shown for actuator wire connections only and other details may vary.
4. Loosen the (2) nuts on the Belimo actuator's drive rod clamp.
5. Loosen the EC150 bracket holding the drive rod to the damper blade. See figure 3.
6. With the drive rod now loose from the EC150 and actuator clamp, slide it to the left in figure 2 and 3 – towards the EC150. This will allow for removal of Belimo actuator.
7. Unscrew the existing motor mount (figure 4) from the economizer. Now slide the existing motor mount with actuator attached out of economizer, and discard.

FIGURE 1: HF23BL006 Actuator Attached to Motor Mount

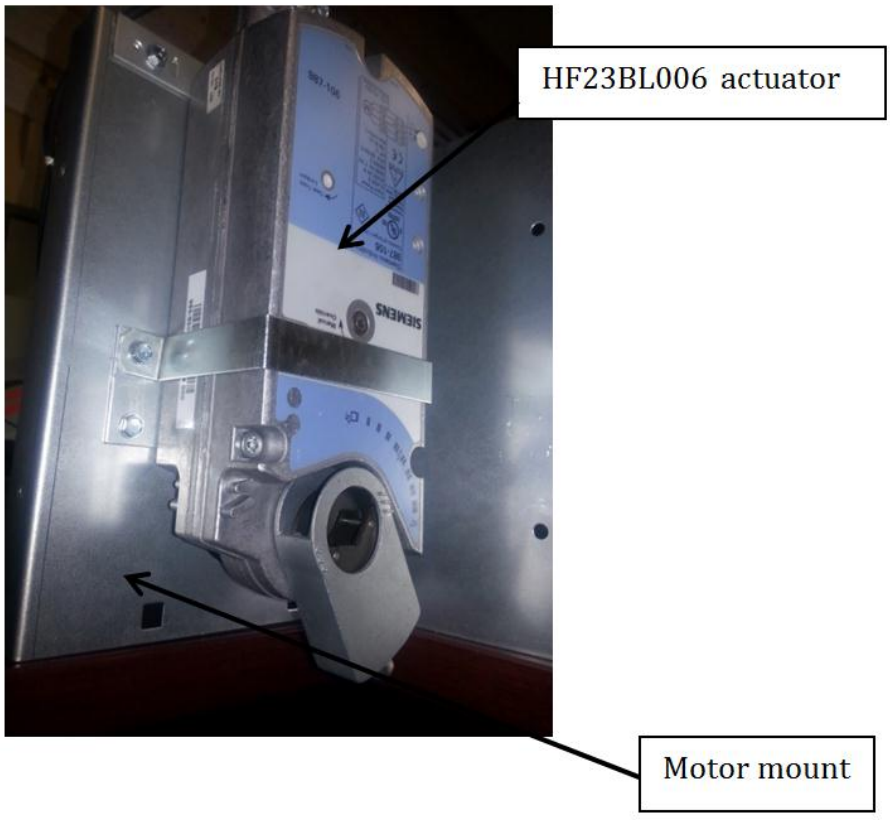


FIGURE 2: Economizer with Actuator

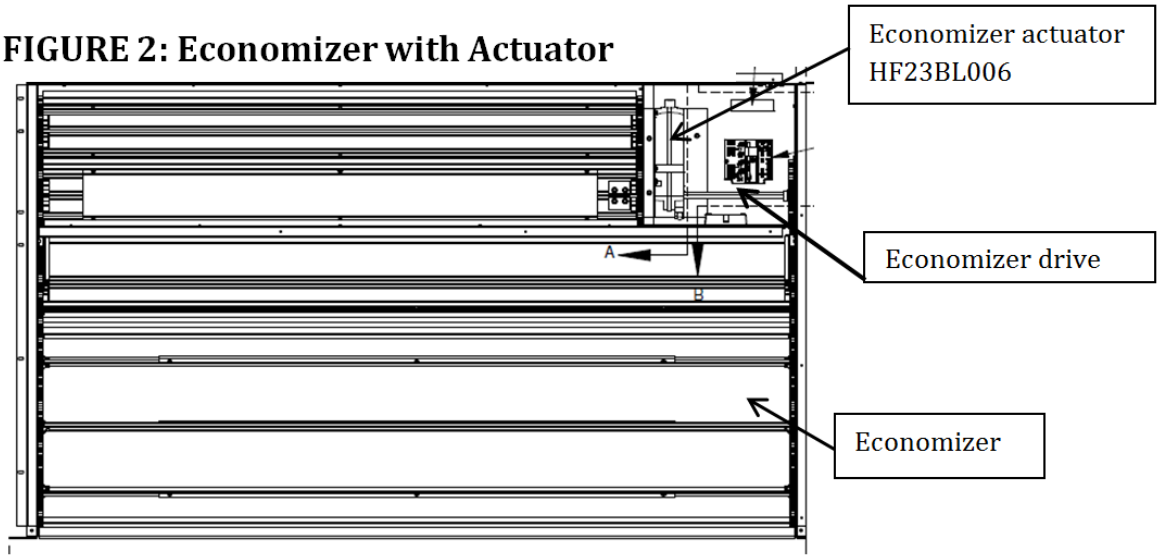


FIGURE 3 – Actuator Compartment Front View

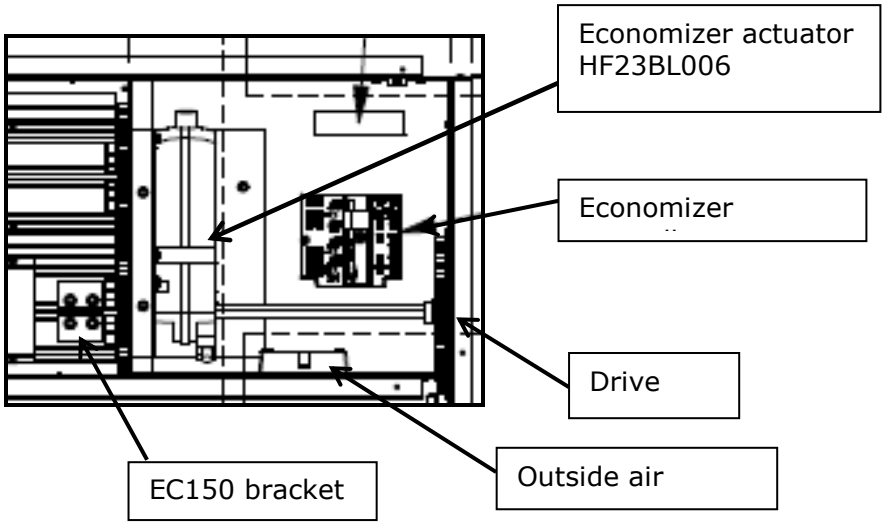
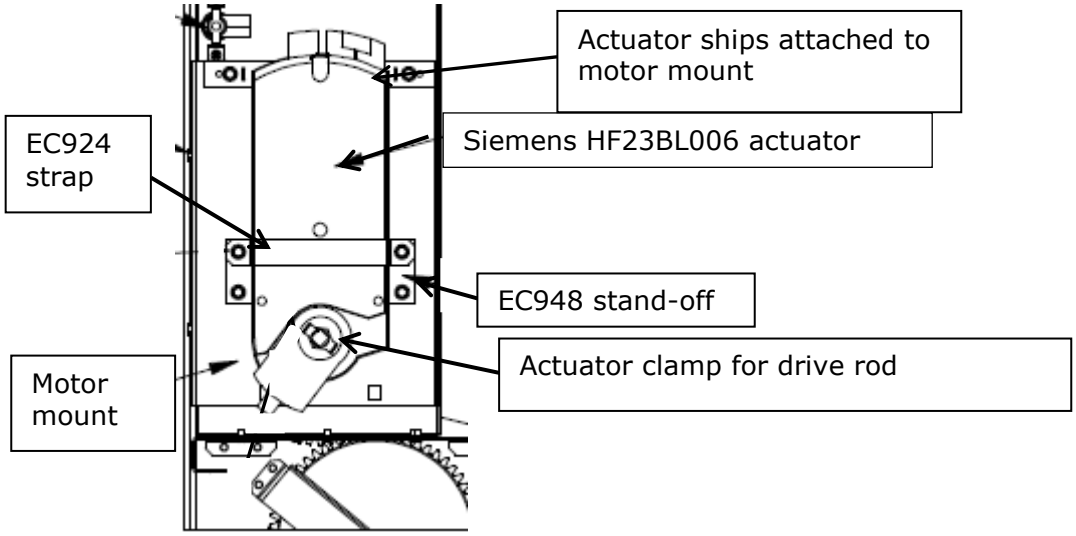
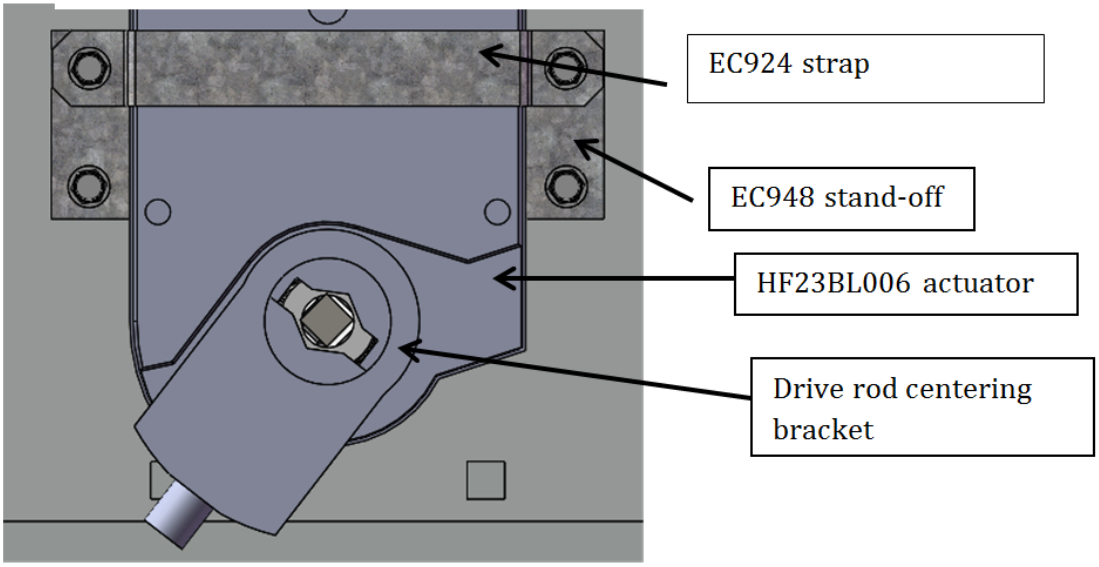


FIGURE 4: Actuator Compartment Side View



8. Install the new motor mount with Siemens actuator attached to economizer. Drive rod should be centered in actuator clamp. Reinsert screws through motor mount and into same economizer holes. Note: actuator clamp is self-centering with drive rod.
9. Slide drive rod back to the right in figures 2 and 3, and re-insert it into the drive gear.
10. Re-tighten EC150 bracket to economizer damper blade. See figure 3.
11. Tighten the Siemens actuator clamp to the drive rod. Drive rod must be center in actuator clamp once it is tightened down. See figure 4 and 5.

FIGURE 5 – Typical Drive Rod Alignment



12. Connect the wires from the new HF23BL006 actuator to the existing economizer harness, using the same wire color connections as on the old Belimo actuator. Note the Siemens actuator will have a green wire that is not used for these applications.
13. Re-install economizer in unit if applicable, and connect power to unit.
14. Test cycle actuator ensuring a full and complete cycle.
15. Re-install economizer hood and filters.

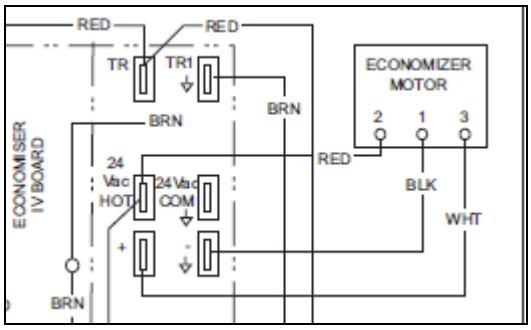


FIGURE 6 – WIRING TO ACTUATOR ON TYPICAL ELECTRO-MECHANICAL ECONOMIZERS