

4074EKV Auxiliary Switch for M7405, M7415, M8405 and M8415 Actuators

4074EKV Auxiliary Switch Kit provides switching capability for controlling auxiliary equipment from an M7405, M7415, M8405 or M8415 type actuator.



- Kit includes one spdt snap-acting switch, mounting plate, switch cam, insulating boot and hardware.
- Switch operates as a function of the actuator shaft position.

- One 4074EKV per actuator.
- Switch operating points adjustable over 90° stroke of actuator.

CONTENTS

Specifications	2
Ordering Information	2
Installation	3
Checkout	5

Specifications

IMPORTANT: *The specifications given in this publication do not include normal manufacturing tolerances. Therefore, an individual unit may not exactly match the listed specifications. Also, this product is tested and calibrated under closely controlled conditions and some minor differences in performance can be expected if those conditions are changed.*

MODEL: 4074EKV Auxiliary Switch for M7405, M7415, M8405 and M8415 Actuators. Kit consists of switch mounting plate, spdt snap-acting switch, plastic insulating boot, circular switch cam, two 4-40 screws, two washers and two lock washers, all in a plastic bag.

ELECTRICAL RATINGS:

One Contact ^a	120 Vac	240 Vac
Full load	7.2A	3.6A
Locked rotor	43.2A	21.6A

^a 40VA pilot duty, 120/240 Vac on opposite contact.

WIRE COLORS:

Blue: Normally open.

Yellow: Normally closed.

Red: Common.

Ordering Information

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number, or specify—

1. Model number.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Honeywell Home and Building Control Sales Office (check white pages of your phone directory).
2. Home and Building Control Customer Satisfaction
Honeywell Inc., 1885 Douglas Drive North
Minneapolis, Minnesota 55422-4386 (612) 951-1000

In Canada—Honeywell Limited/Limitee, 740 Ellesmere Road, Scarborough, Ontario M1P 2V9. International Sales and Service offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

Installation

WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings and description given on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in the applicable specifications.



CAUTION

Disconnect power before installation to prevent electrical shock or equipment damage.

MOUNTING

1. Disconnect power to the actuator and the device to be controlled by the 4074EKV Auxiliary Switch.
2. Determine the crank arm stroke range (see Fig. 1) by running the actuator through one complete cycle. Mount the switch on the side opposite of the crank arm stroke range.
3. Assemble the switch and plastic insulating boot (Fig. 2). Attach the switch and plastic insulating boot to the switch mounting plate with the two number 4-40 screws, two washers and two lock washers provided with the switch assembly.

NOTE: The number 4-40 screws provided with the switch assembly are sized to allow the switch mounting plate to mount flush against the actuator side panel.

4. Mark the actuator crank arm position on the actuator panel with a pencil, pen or tape.
5. Remove the actuator crank arm.
6. Based on the determination of the crank arm stroke range in step 2 above, remove the screw from the upper actuator corner where the switch mounting plate is to be assembled. See Fig. 1.
7. Place the switch mounting plate over the actuator drive spindle and fasten it in place with the actuator corner screw from step 6. See Fig. 3. Center the screw in the switch mounting plate slot.
8. Place the actuator crank arm over the switch mounting plate, aligning the crank arm with the placement marks from step 4.
9. Determine at which point in the actuator crank arm rotation the auxiliary switch should close. Install the circular switch cam over the actuator crank arm, positioning one of the small reference holes in the circular switch cam at the switch close point on the actuator crank arm (see Fig. 4). The two small holes in the circular switch cam are references for the make/break point of the switch. The portion of the circular switch cam shown with a dotted line in Fig. 4 identifies the cam area that will close the switch when the actuator crank arm rotates.

NOTE: Two small protrusions on the bottom of the circular switch cam fit into holes on the actuator crank arm to position the cam.

10. Bend the metal arm on the switch arm loop (if necessary) by using a small screwdriver blade to adjust the switch open and close points on each side of the reference hole. See Fig. 5.

Fig. 1—Determine placement of 4074EKV Auxiliary Switch on actuator.

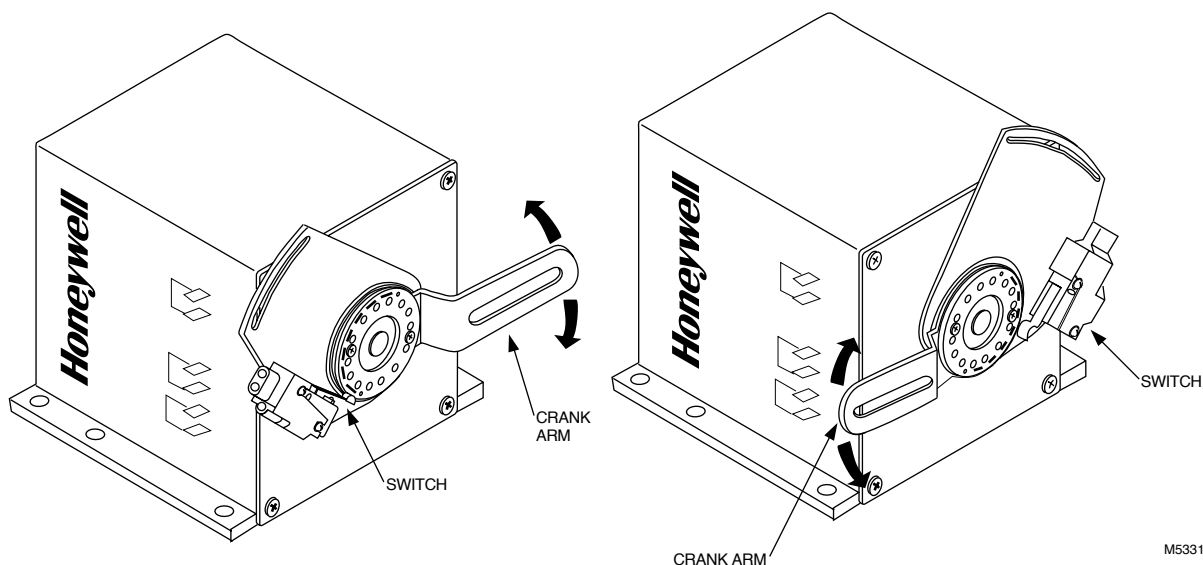


Fig. 2—Assemble switch and plastic insulating boot and attach to switch mounting plate.

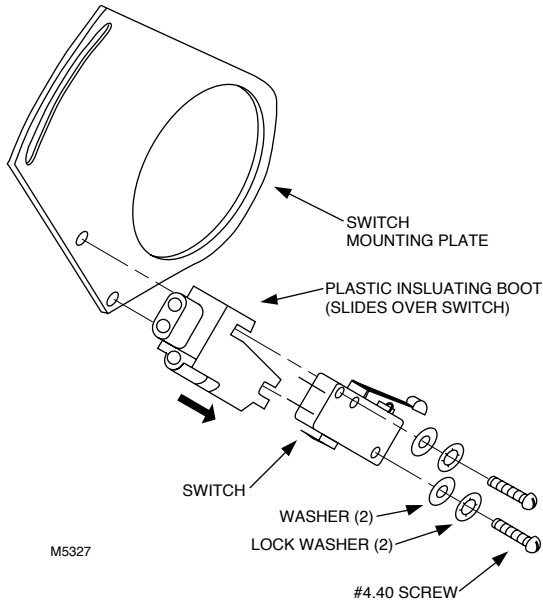


Fig. 3—Mount switch mounting plate on actuator.

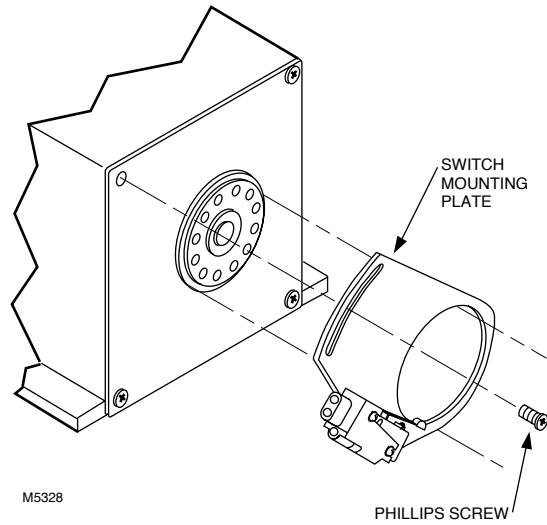


Fig. 4—Set circular switch cam for make/break points.

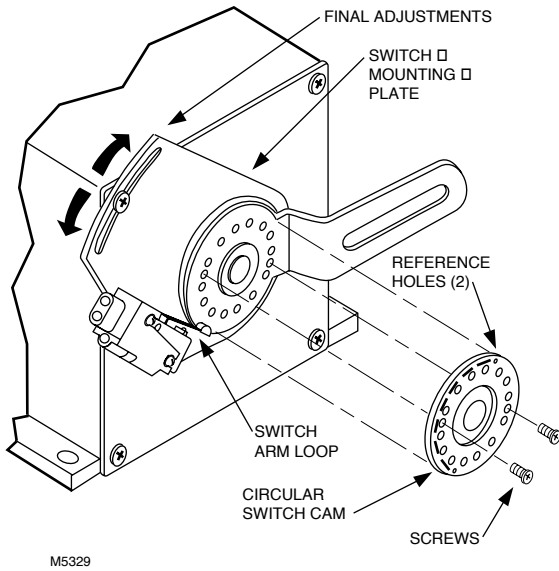
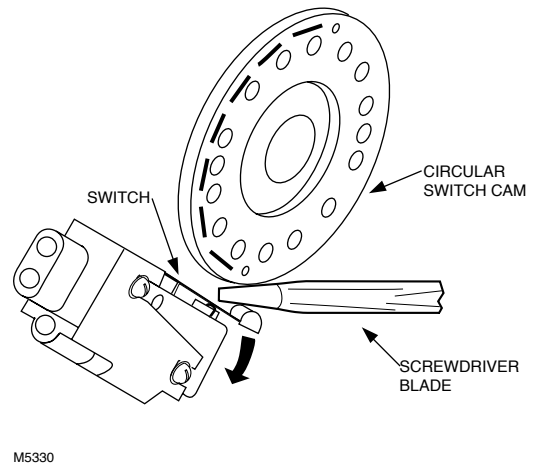


Fig. 5—Bending the metal arm on the switch for adjustment of switch make and break.



ADJUSTMENT

If a finer adjustment is necessary, loosen the screw holding the switch mounting plate on the actuator and move the switch mounting plate to correctly place the switch arm loop on the circular switch cam. Carefully tighten the Phillips screw. Do not over torque the screw to prevent stripping the actuator plastic case threads.

WIRING

Connect switch wires to the device to be controlled according to the device instructions.

After wiring is complete, restore power to the actuator and the controlled device.

Checkout

After installation and adjustment, run actuator through its complete stroke and perform the following checks:

1. Make sure that the 4074EKV does not interfere with actuator operation because of binding or inadequate clearances.
2. Check the make and break points of the switch to see that they correspond to the desired settings.
3. Check the wiring to the switch and the operation of the controlled device.

If the switch does not operate or control properly, make an electrical check as follows:

1. Remove power from the actuator and the controlled device.
2. Disconnect the switch wiring from the controlled device.

3. Use an ohmmeter to check continuity by manually operating the switch:

- a. Set the ohmmeter to the lowest resistance range and zero the meter by shorting the two leads together. Adjust the meter zero point, if necessary.
 - b. Connect the ohmmeter leads to the red and blue leads of the switch.
 - c. Close the switch by pressing the metal switch arm loop.
4. If the ohmmeter does not read zero ohms, replace the switch.
 5. If the ohmmeter does read zero ohms, refer to the controlled device instructions for checkout/troubleshooting procedures.

By using this Honeywell literature, you agree that Honeywell will have no liability for any damages arising out of your use or modification to, the literature. You will defend and indemnify Honeywell, its affiliates and subsidiaries, from and against any liability, cost, or damages, including attorneys' fees, arising out of, or resulting from, any modification to the literature by you.

Honeywell

Home and Building Control

Honeywell Inc.
1985 Douglas Drive North
Golden Valley, MN 55422

Home and Building Control

Honeywell Limited—Honeywell Limitée
740 Ellesmere Road
Scarborough, Ontario
M1P 2V9

Helping You Control Your World



QUALITY IS
KEY

Printed in U.S.A.