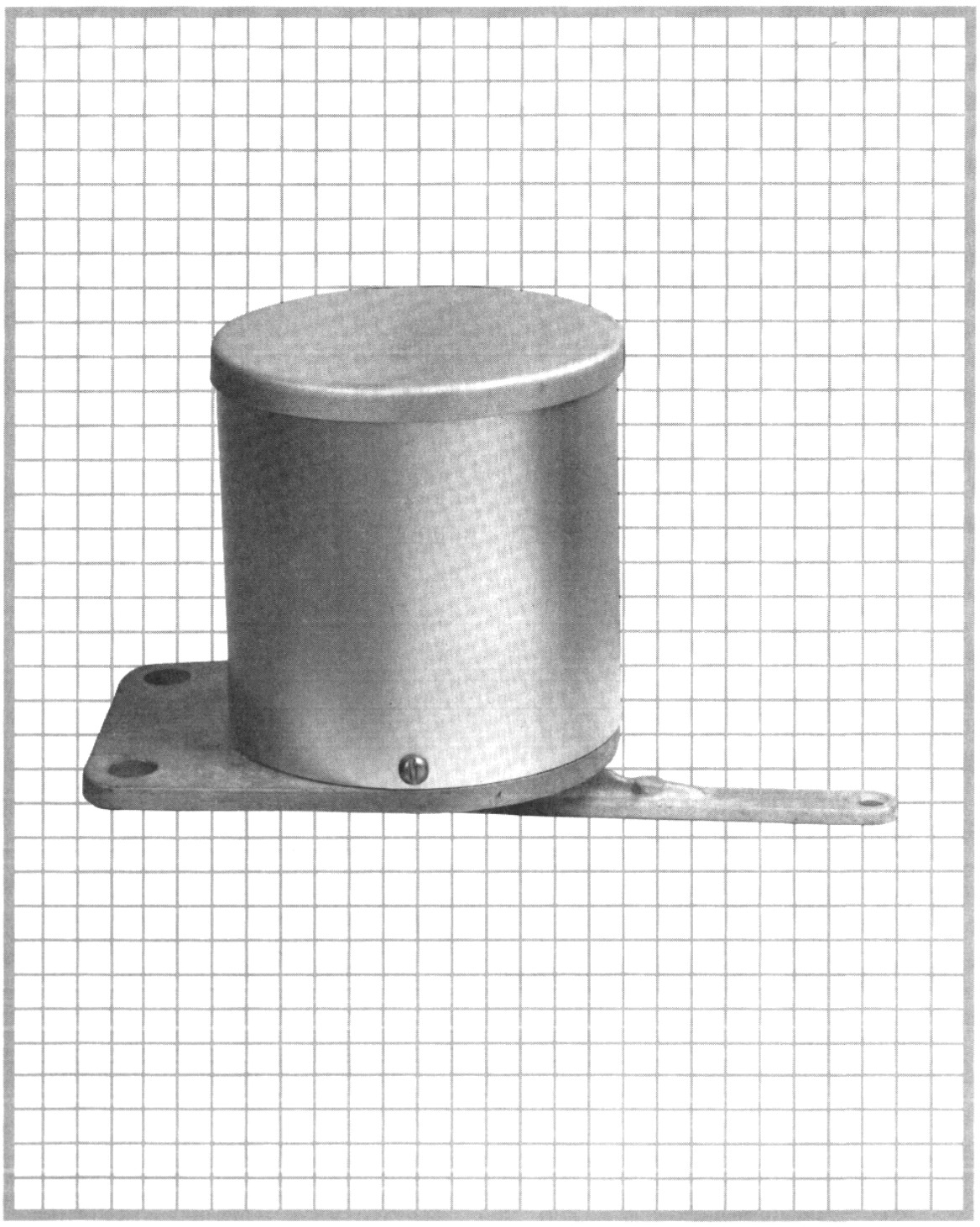
ASEA BROWN BOVERI

IB AUXSW-A

# Installation/Maintenance Instructions

## Outdoor Air Switches

## Drum Switch
## Auxiliary Switch



**IMPORTANT**

Make absolutely sure applicable equipment is de-energized and properly grounded before proceeding with any installation or maintenance.

**A**SEA **B**ROWN **B**OVERI / STATE ROUTE 42 / PO BOX 38 / BLAND, VIRGINIA 24315 / 703 688 3325 / FAX 703 688 4588

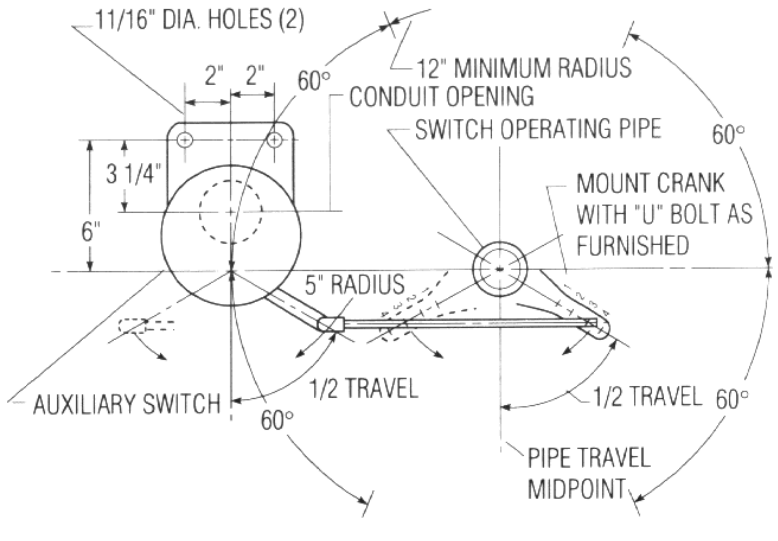



**Fig. 1**
**Auxiliary Switch Location For Operating Pipe Travel Of 70° To 120°, Torsional Operation**

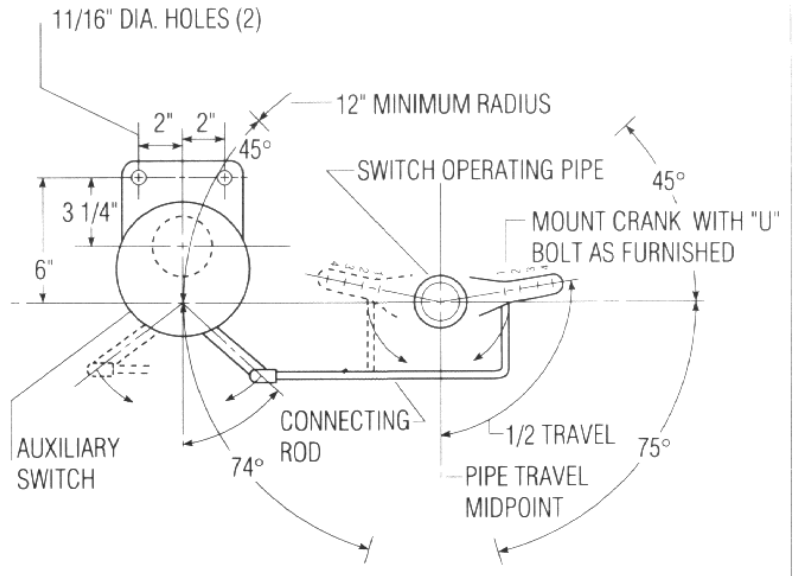



**Fig. 2**
**Auxiliary Switch Location For Operating Pipe Travel Of 120° To 200°, Torsional Operation**

The ABB drum-type auxiliary switch can be furnished in multiples of two circuits, from a minimum of two to a miximum of sixteen. Its over-all enclosure height and conduit opening vary with numbers of circuits as shown in Table 1. It can be mounted to either the right or left of the main switch vertical operating pipe.

When used with a torsional operating mechanisim, it is connected through cranks and a connecting rod to 1 1/2", 2", or 2 1/2" IPS operating pipes that travel in either a 70° to 120° range (Fig.1) or a 120° to 200° range (Fig.2). The connecting rods for the two operating ranges differ as indicated in Figs. 1 and 2. The offset connecting rod for the 120° to 200° rotation must be inverted when the auxiliary switch is located to the right side of the vertical operating pipe. Both connecting rods are available in three standard lengths: One for minimum 12" crank centers; one for 24" centers; and one for the maximum 36" centers. For crank positioning and connection of the rod assembly to the vertical operating pipe crank, see Figs. 1 and 2 and Table 2.

**WARNING WARNING WARNING WARNING**

*Before proceeding, make sure auxiliary switch circuits are de-energized to prevent personal injury or equipment.*

The contact position of each auxiliary switch circuit is adjustable in 15° increments through 360°. To adjust, rotate the moving contact free of the stationary contacts, grasp and lift the rotor contact against the spring to the top of its housing and rotate the contact to the desired angular position. A simple pair of pliers is recommended of this adjustment (see Fig.3). When lifting the contact, apply the force required to raise the entire rotor contact parallel to its base. After adjusting, release the contact and check to make certain that the contact is locked into its operating position.

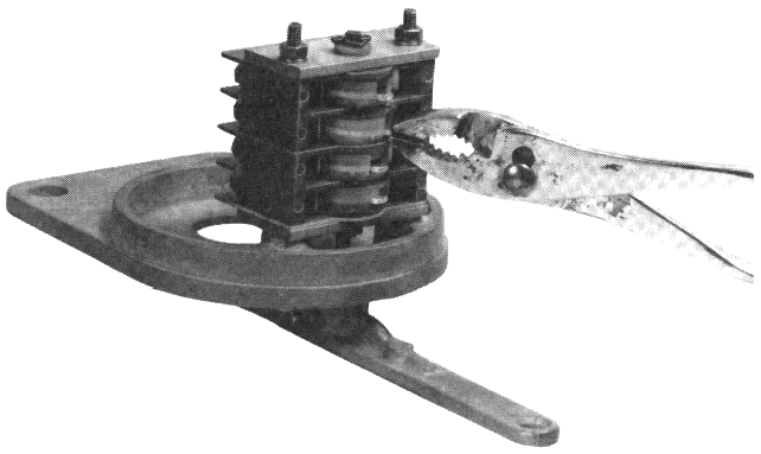


**Fig. 3 Adjusting Contact Position**

The continous current rating is 30 amperes, AC or DC. For interrupting ratings, see Table 2.

The heater, when supplied, is wired per Fig. 4.

The auxiliary switch can also be used with a reciprocating operating mechanism, see Fig. 5 for a typical installation.

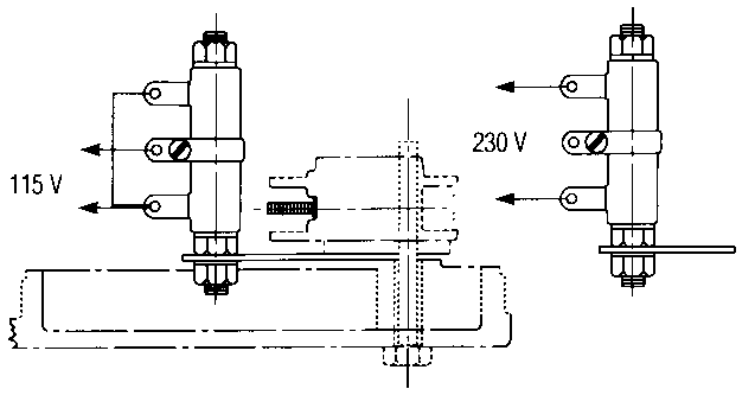



Fig. 4 Heater With Mounting Bracket

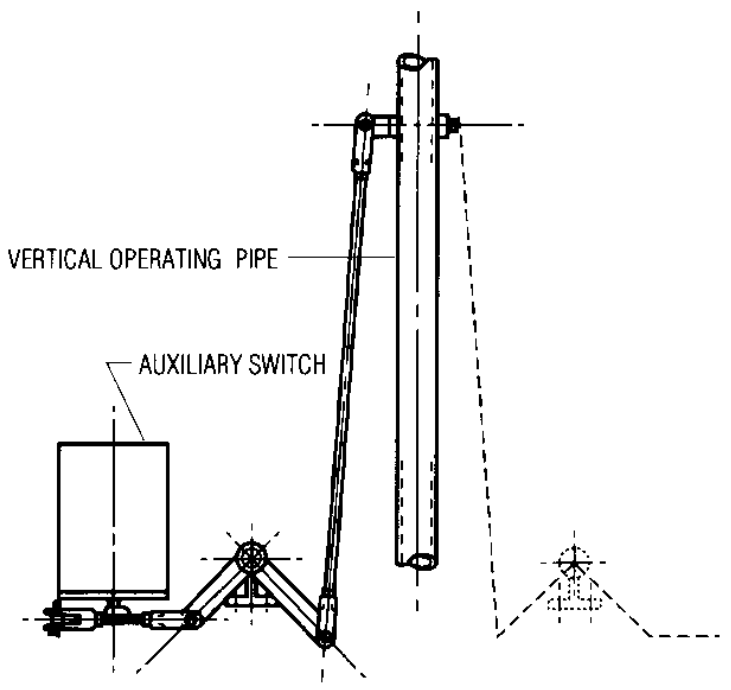



Fig. 5
Auxiliary Switch Used With
Reciprocating Operating Mechanism

**Table 1 -Dimensions**

| Number of Circuits | Enclosure Height, Inches | Conduit Opening Diameter, Inches |
|---|---|---|
| 2,4,6 | 6 7/16 | 1 3/4 |
| 8,10 | 8 15/16 | 2 |
| 12,14,16 | 12 11/16 | 2 7/16 |

**Table 2 - Pipe Crank Hole Connection Number**

| Vertical Operating Pipe, IPS | Pipe Travel | |
|---|---|---|
| | 70° to 120° | 120° to 200° |
| | Crank Hole No. | |
| 1 1/2 | 4 | 2 |
| 2 | 3 | 1 |
| 2 1/2 | 3 | 1 |

**Table 3 - Interrupting Ratings**

| Voltage | Amperes | |
|---|---|---|
| | Non-Inductive | Inductive |
| 24 V dc | 10 | 8 |
| 48 V dc | 8 | 6 |
| 125 V dc | 5 | 4 |
| 250 V dc | 1 | 1 |
| 115 V ac | 30 | 20 |
| 230 V AC | 20 | 12 |

ASEA BROWN BOVERI

**ABB Power T & D Company, Inc.**
**Air Switch Division**
St. Rt. 42 P.O. Box 38
Bland, VA 24315 USA
703/688-3325 FAX 703/688-4588

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