

## MP516A Unit Ventilator Damper Operator

### Installation Instructions



### Before Installation

When mounting the MP9516A, allow enough clearance for installation of RP417C EP Relay, if used. Installation instructions and dimensions are contained in Form No. 95-6009.

### Installation

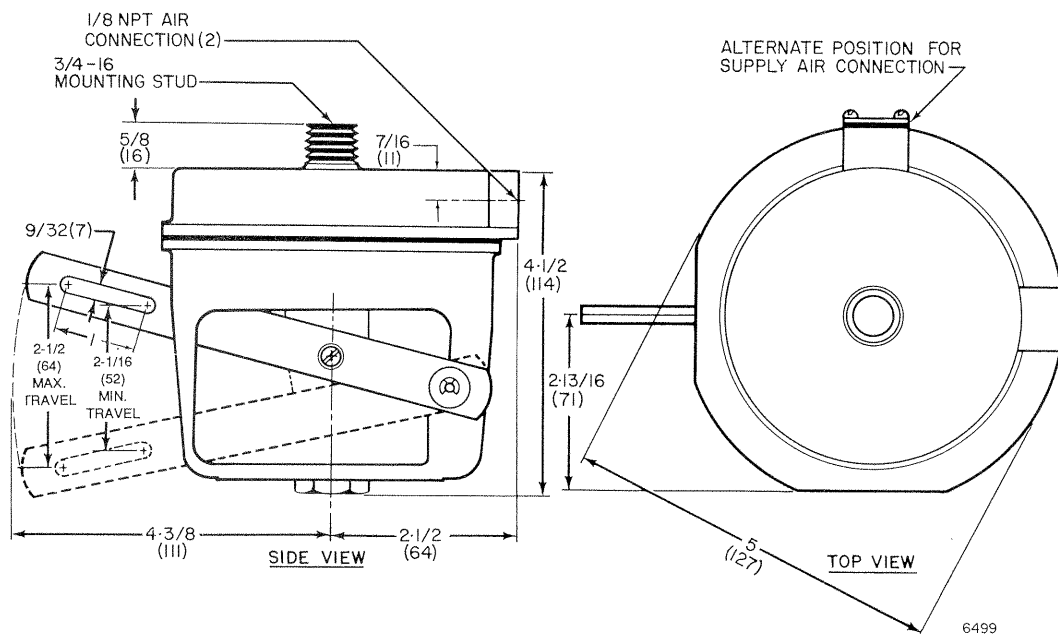


Fig. 1. MP516A Approximate Dimensions in Inches (Millimeters).

## Mounting

The MP516A operates in any position. A 3/4-16 (SAE standard) stud is cast in the center of the MP516A base plate for mounting on a bracket or unit ventilator compartment partition. This mounting arrangement permits 360-degree rotation for convenient connection of air piping and damper linkage.

NOTE: The bracket or mounting plate should be a maximum of 1/4 in. (6 mm) thick to allow sufficient thread for securing the nut and lockwasher.

## Piping

Fig. 4 illustrates adding an RP417C to an MP516A. Use the mounting bracket (shown) in adapter kit 14003638-001 to mount the relay to the operator. Insert a barb fitting into the air connection boss and pipe the rest of the system as shown in Fig. 5. For more complete information, refer to Form No. 77-2361.

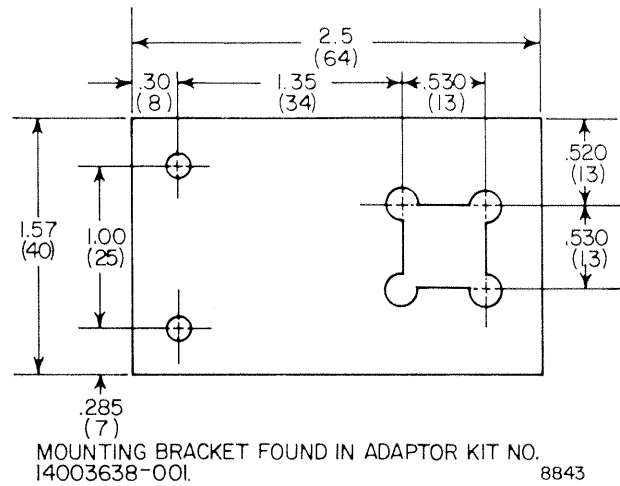


Fig. 2. Mounting Bracket Found in Adapter Kit No. 14003638-001 Approximate Dimensions in Inches (Millimeters).

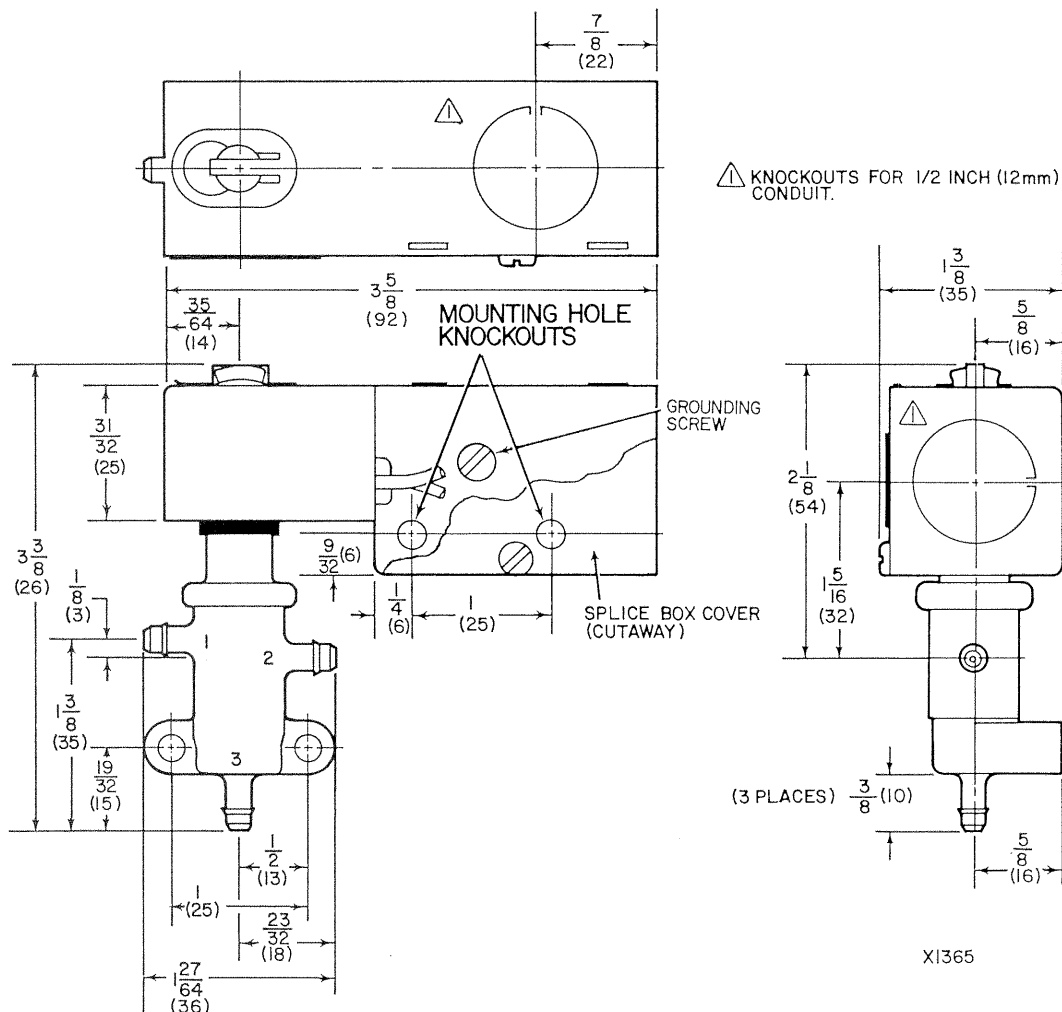


Fig. 3. Approximate Dimensions in Inches (Millimeters).

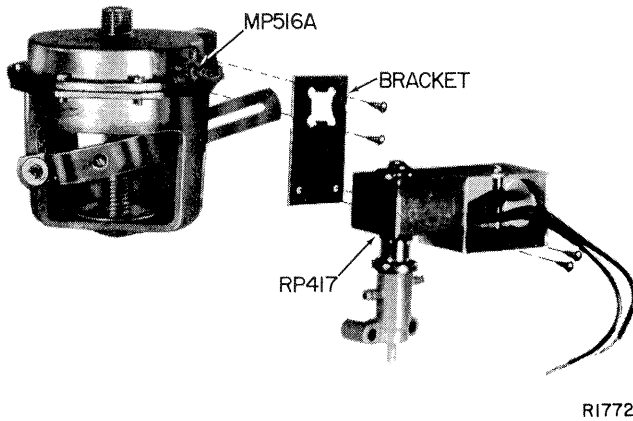


Fig. 4. RP417C Relays Mount Directly to an MP516A Operator Using the Mounting Bracket Contained in Adapter Kit No. 14003638-001.

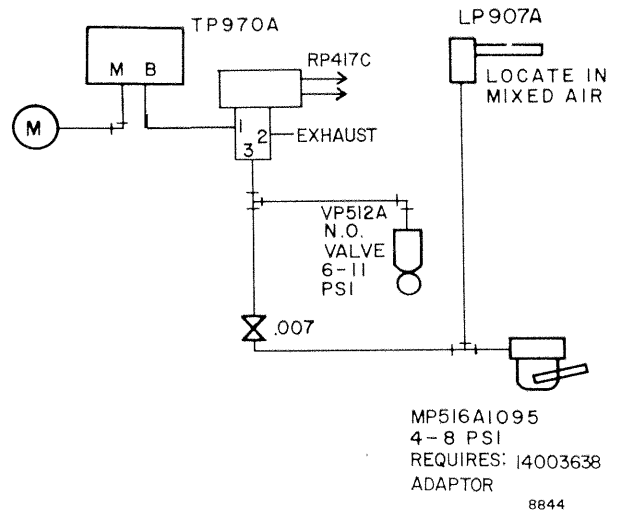


Fig. 5. Typical Piping Diagram of MP516A Cycle III Hot Water Heating System.

## Checkout and Test

1. Install a 0 to 30 psi (207 kPa) gage in the supply air line.
2. With all linkage removed, slowly run the lever arm through its entire stroke and return it to the "at rest" position. If the lever arm travel is not smooth and complete, or if reversal loss is greater than 1/2 psi (3.5 kPa), check for binding of the lever arm.

### MP516 Without Hesitation Feature (Fig. 6).

1. Increase air pressure and note start-point pressure.
2. Relieve pressure.
3. If pressure at start point was too high (for desired start point between 3 and 8 psi (21 and 55 kPa), turn adjustment screw clockwise; if it was too low, turn it counterclockwise.
4. Check start-point pressure and make further adjustments, if necessary.

### MP516 With Hesitation Feature (Fig. 6).

The lever arm moves to the desired minimum position as air pressure increases from 0 to 4 psi (28 kPa), hesitates during increase from 4 to 8 psi (28 to 55 kPa), and completes its travel upon a further increase in pressure.

1. Increase air pressure to 4 psi (28 kPa). The arrow on the lever and the scale on the operator frame indicates the percent of travel.
2. Relieve the pressure.
3. If travel is too low, turn adjustment screw clockwise; if too high, turn it counterclockwise.
4. Check the hesitation pressure and adjust further, if necessary.

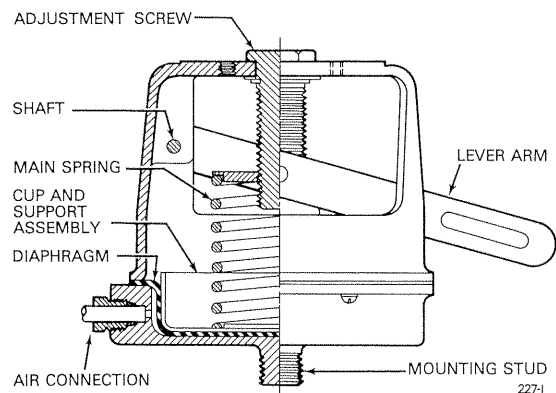


Fig. 6. MP516A Adjustment Screw Position.