

# VIPAK INSTRUCTIONS

## **Contents**

General Installation Instructions	2
Mounting Kits	3-5
Mounts and Brackets	6
Steam and Electric Heaters	7
Electric Heater Wiring Diagrams	8
Installing Fittings Without Plates	8

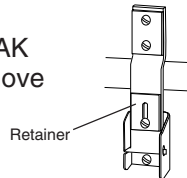


# Instructions

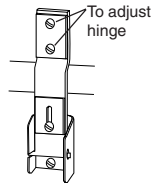
The VIPAK® is designed for maximum flexibility in mounting. This flexibility prevents specific instructions for every possible configuration. These instructions provide the general procedures to be followed.

## General Instructions

1. Use model number on tag to identify options supplied.
2. Read *all* instructions which apply prior to beginning the assembly of the unit.
3. Drill holes in enclosure with wood working tools.
4. Use silicone RTV to seal field openings if necessary. Available from O'Brien as option **SK**.
5. Level enclosure before tightening set screws on enclosure mount.
6. Process lines must be supported independently of enclosure.
7. By repositioning the retainer, VIPAK hinges can be disengaged to remove the lid or door.



8. Hinges may also be adjusted by loosening the two screws attaching the hinge arm to the lid or door, pushing the two halves together and retightening the mounting screws.

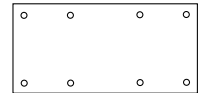


## Mounting Hardware Installation

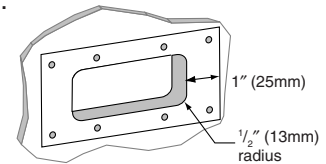
1. VIPAK mounting consists of interior instrument BRACKETS and exterior enclosure MOUNTS connected by metal to metal supports.
2. Mount instruments on bracket.
3. Position instrument and bracket in enclosure as required and mark holes in bottom of bracket on enclosure.
4. Check hole placement with exterior mount before drilling.
5. Drill  $1\frac{1}{16}$ " (18mm) holes as marked.
6. Assemble BRACKET and MOUNT from the outside as shown. DO NOT OMIT SPACERS.

## Installing Surface Plates

1. Locate as desired with a minimum of  $1\frac{1}{4}$ " (34mm) from all edges and parting plates on enclosure. Use surface plate as template to mark outline and screw holes.



2. Measure 1" (25mm) inward from outline for cutout. Use  $\frac{1}{2}$ " inside radius corners.

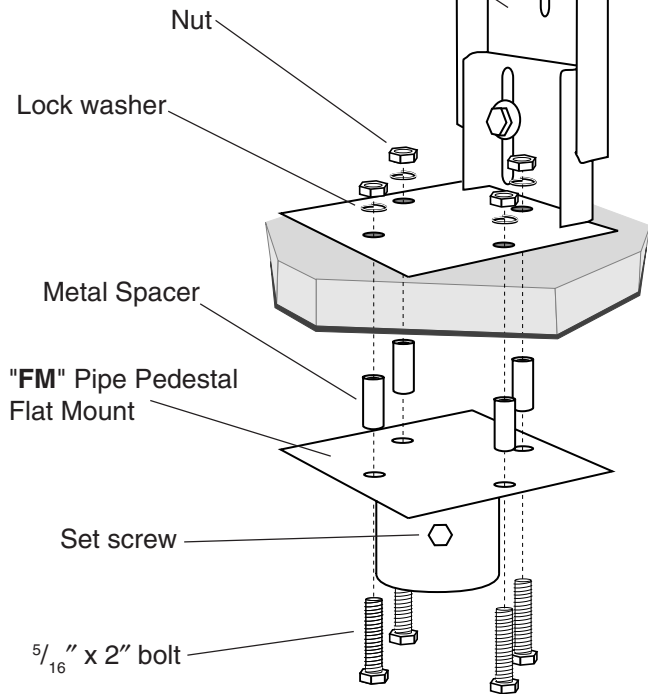


3. Make cut out with wood working saw and drill  $\frac{7}{32}$ " (6mm) screw holes.
4. Assemble surface plate from outside.
5. Place screws through the plate from the outside and thread into 1" (25mm) wide SS pierced and tapped plate inside. Face pierce points into wall of enclosure.

# MK1

Adjustable portion  
may be turned 180°

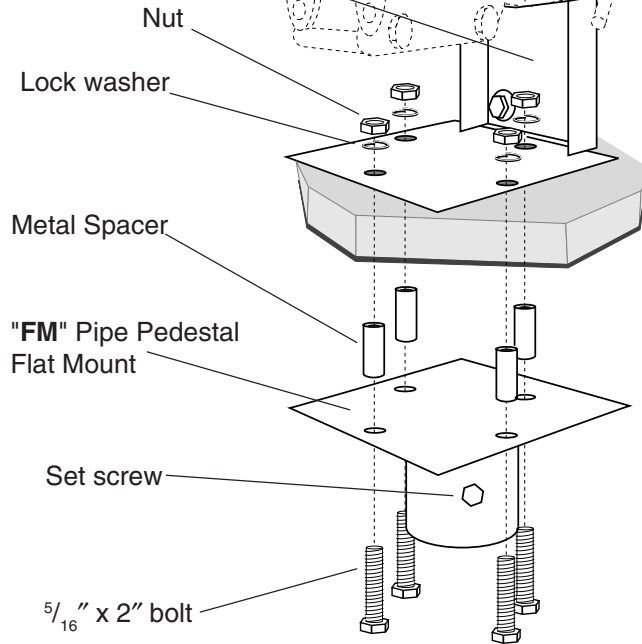
"UB" Universal Bracket  
Top may be adjusted up &  
down to position instrument in  
enclosure.



# MK2

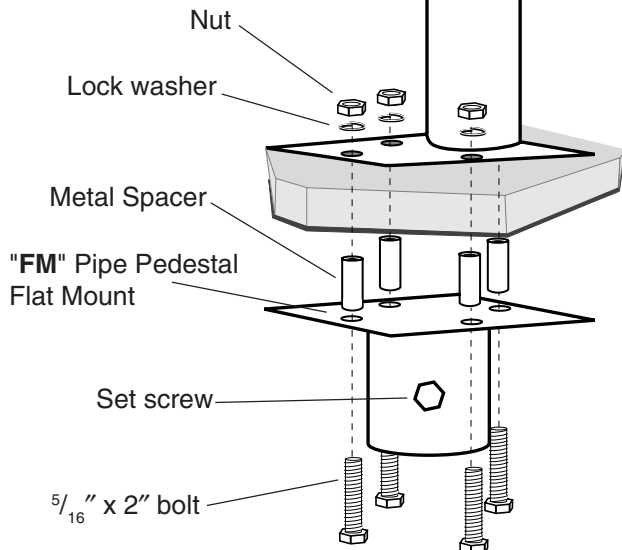
Adjustable portion  
may be turned 180°

"MSB" Manifold  
Support Bracket  
Top may be adjusted up &  
down to position instrument  
in enclosure.



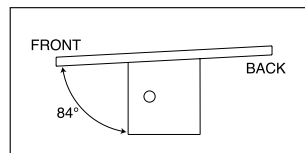
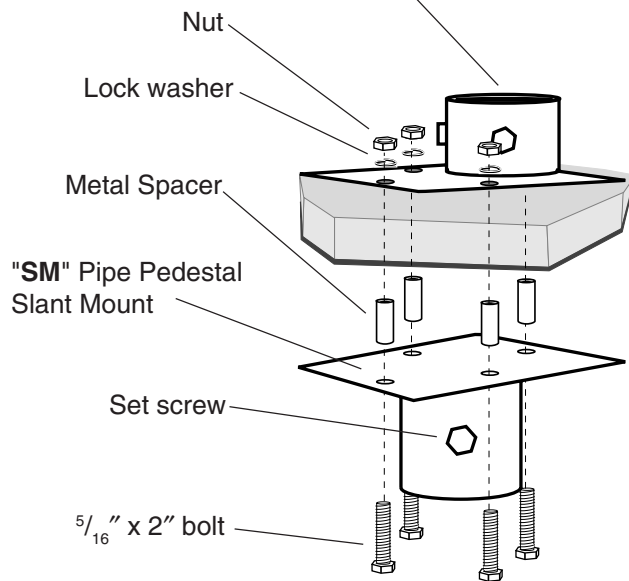
# MK3

"IPBOF12" Internal Pipe  
Bracket Offset

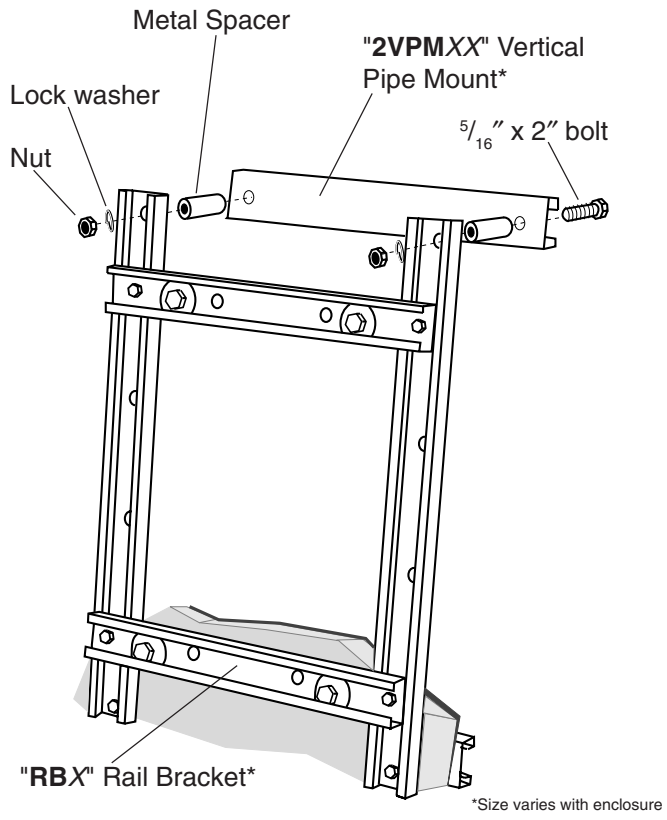


# MK4

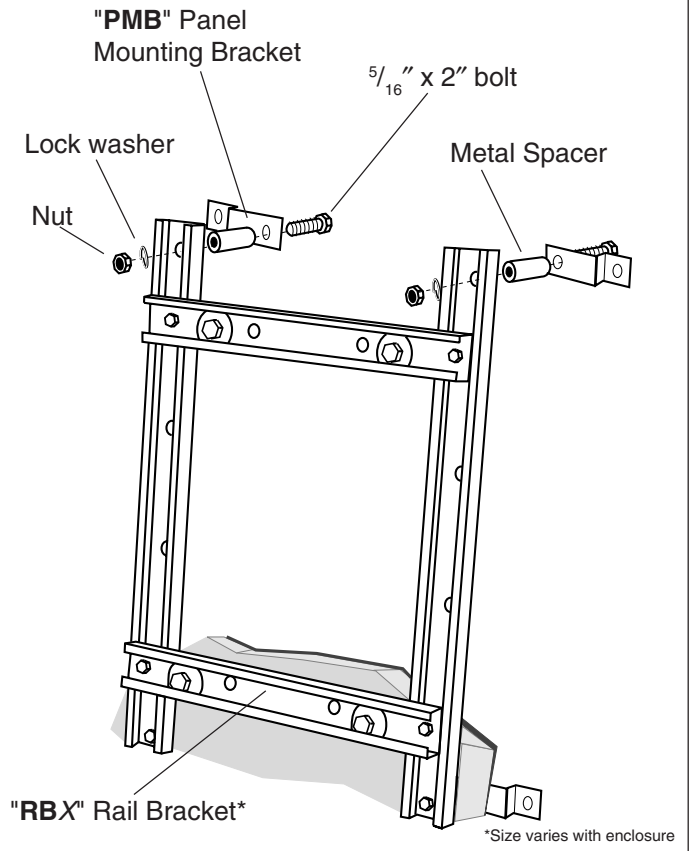
"SRPBO" Removable  
Pipe Bracket Offset



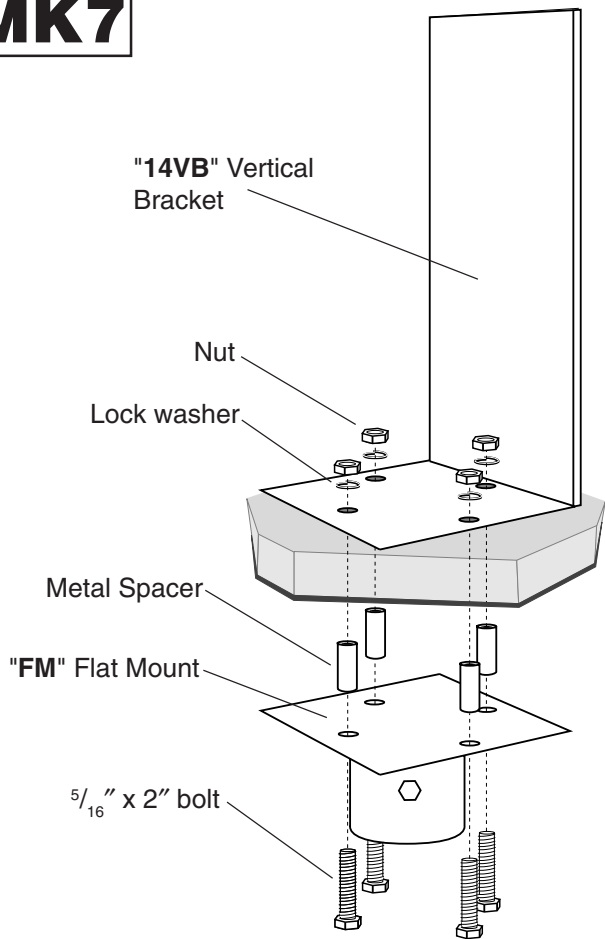
# MK5X



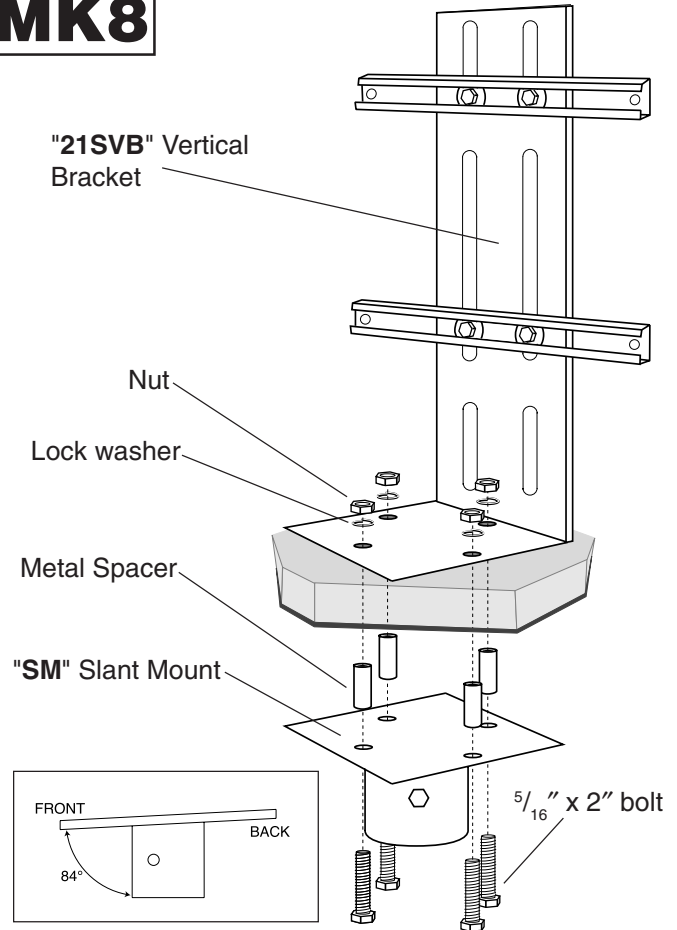
# MK6X



# MK7



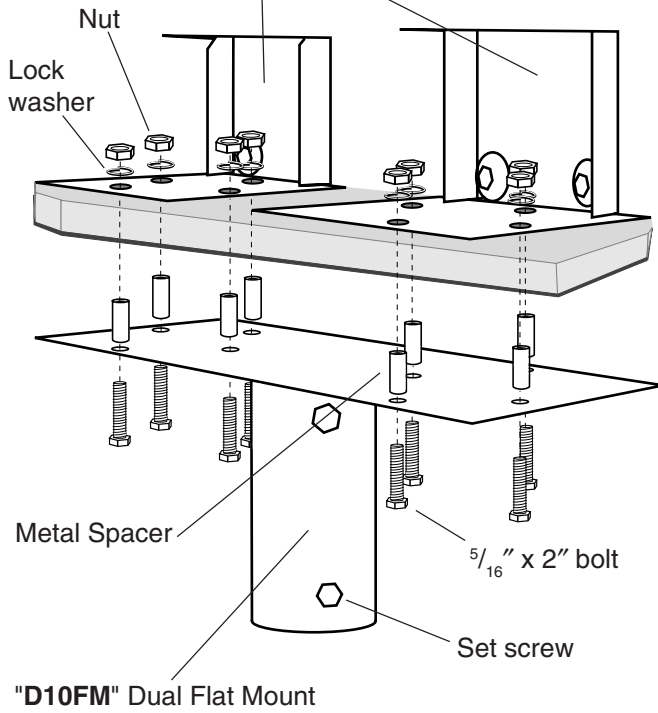
# MK8



# MK9

"MSB" Manifold Support Bracket

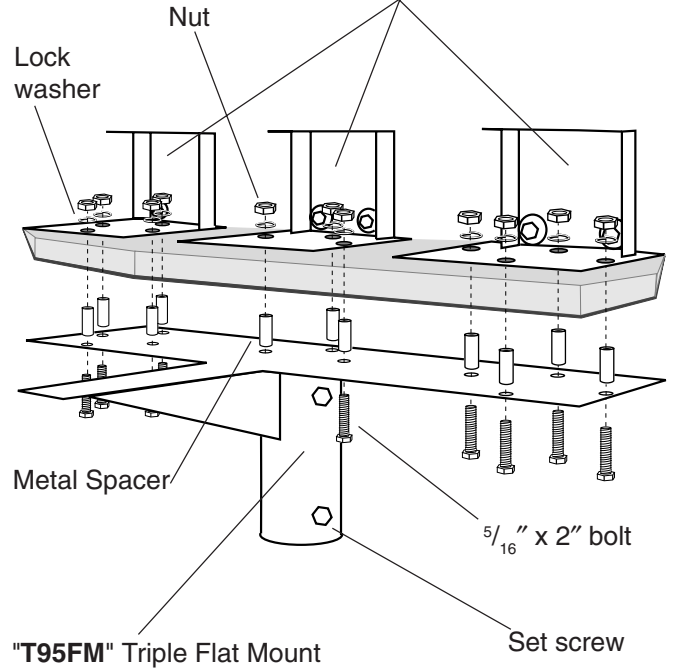
*Brackets must be installed on 10" (255) centers to align with mount*



# MK10

*Brackets must be installed on 9 1/2" (240) centers to align with mount*

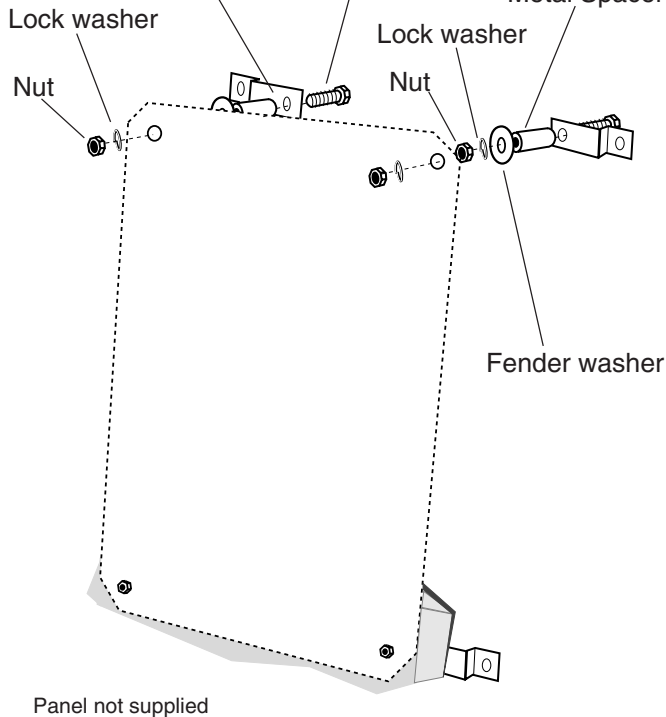
"MSB" Manifold Support Bracket



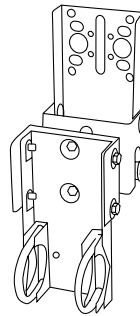
# PMB

"PMB" Panel Mounting Bracket

5/16" x 2 1/2" bolt

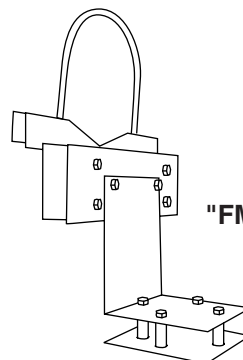
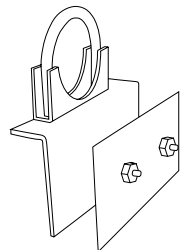


## Factory Installed Mounting Kits



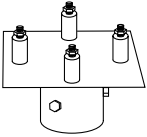
"UMB" Universal Mounting Bracket

"OMB" On Line Mounting Bracket

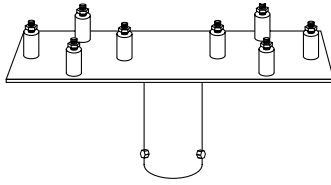


"FMB" Flange Mounting Bracket

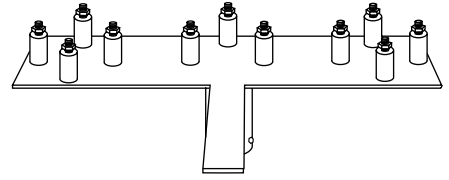
# Mounts



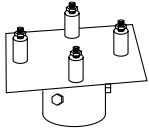
"FM" Flat Mount



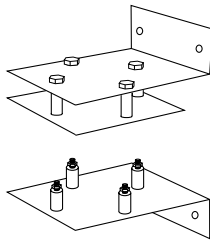
"D10FM" Dual Flat Mount



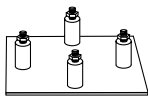
"T95FM" Triple Flat Mount



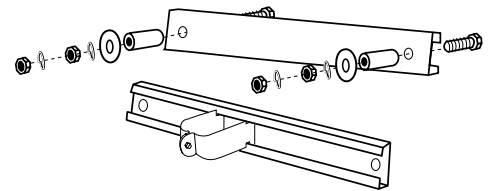
"SM" Slant Mount



"WM" Wall Mount

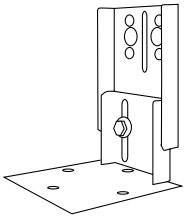


"FPM" Flat Plate Mount

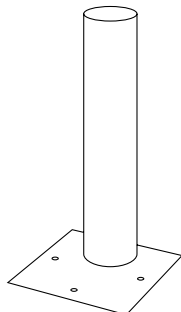


"2VPM" Vertical Pipe Mount

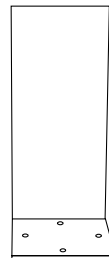
# Brackets



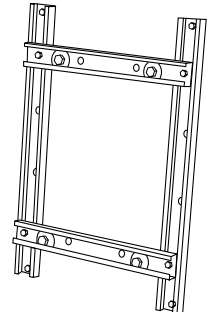
"UB" Universal Bracket



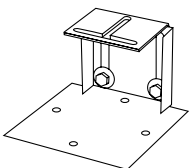
"IPBO" Internal Offset Pipe Bracket



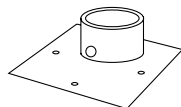
"14VB" Vertical Bracket



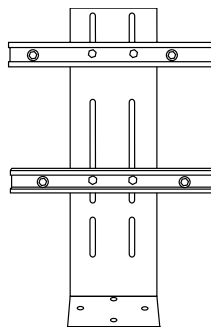
"RB" Rail Bracket



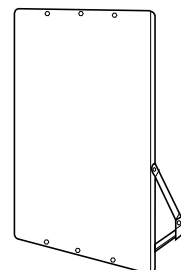
"MSB" Manifold Support Bracket



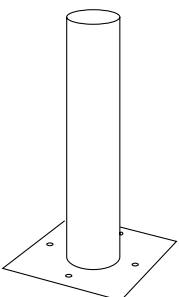
"RPBO" Removable Offset Pipe Socket



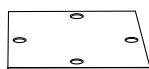
"21SVB" Vertical Bracket



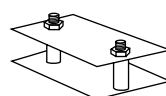
"22PB" Panel Bracket



"IPB" Internal Pipe Bracket



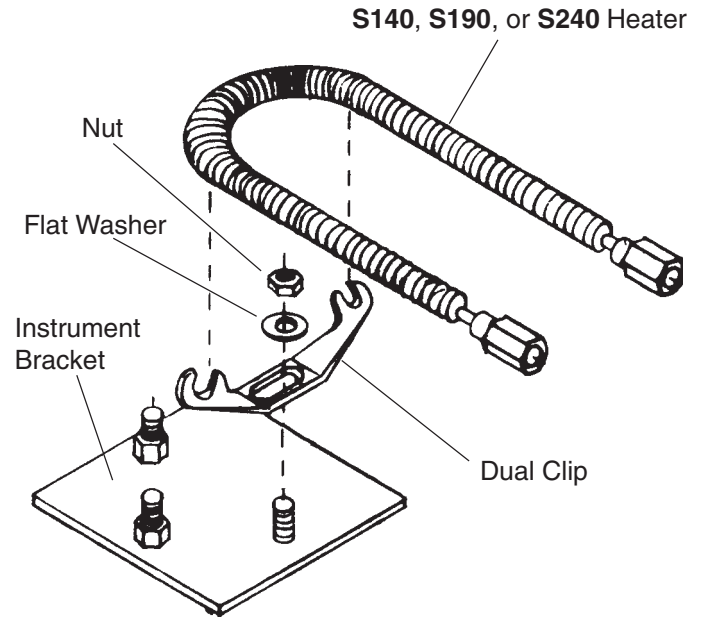
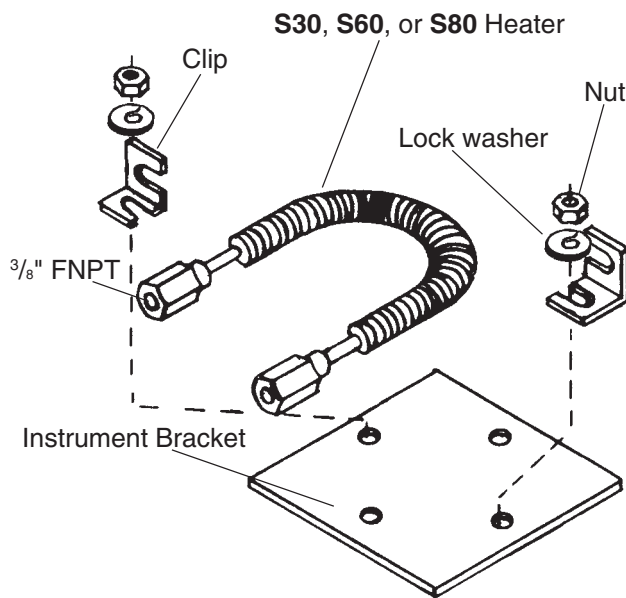
"FPB" Flat Plate Bracket



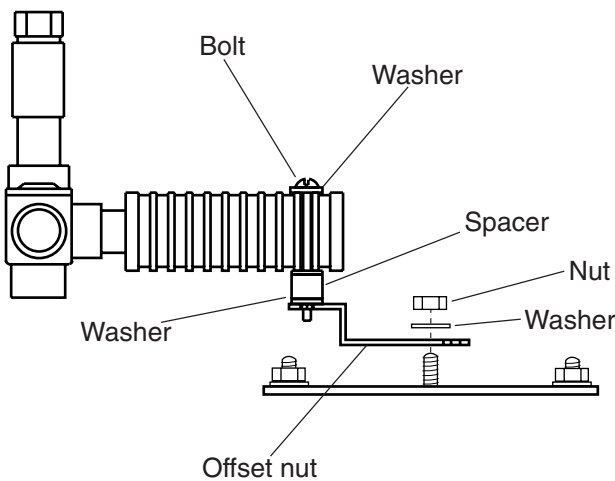
"HB" Heater Bracket

# Steam and Electric Heaters

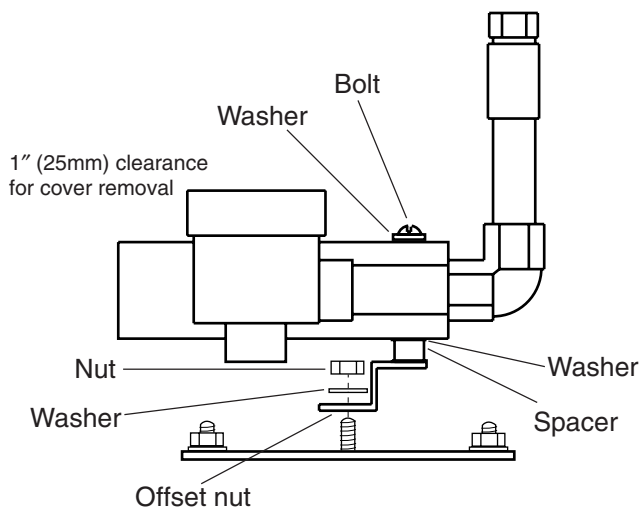
## S Series



## LE Series



## E & EEX Series



### CAUTION:

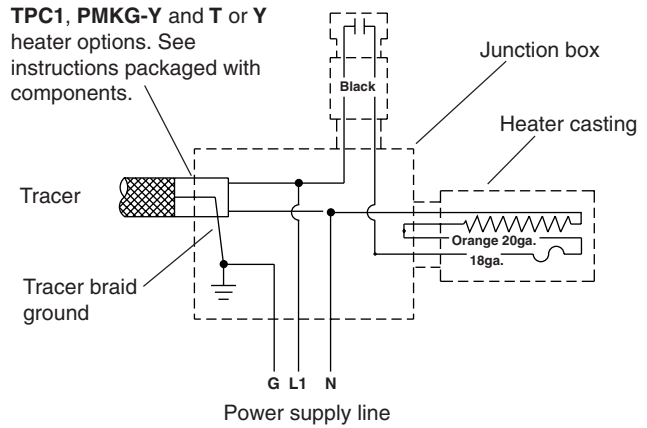
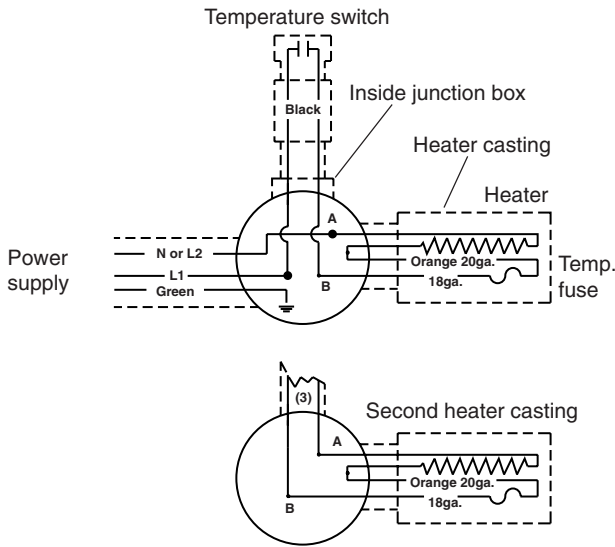
150 PSIG (10 BAR) maximum pressure. Steam heaters may cause overheating of the enclosure under certain conditions; consult catalog data for resulting temperatures in various enclosures.

### Heater Installation

1. Assemble mounting feet and insulating spacers as illustrated
2. Bolt heater mounting feet to inside bracket using mounting hardware bolts provided with enclosure mount or HB bracket.
3. Position heater on bracket as required maintaining a minimum of 1" (25mm) from any enclosure wall and keeping the fins in a vertical position
4. **Steam heaters-** Connect to supply and return with 3/8" MNPT fittings.

**Electric heaters-** Connect heater to power in a manner consistent with local codes using type THHN wire or wire rated for 90°C service and connectors rated for 105°C. Refer to heater name plate for power supply voltage, thermostat set point, and maximum surface temperature.

# Electric Heater Wiring Diagrams



## Replaceable Components

Temperature Switch (Part No. W662-Setpoint)  
Heater cartridge and fusible link of "E" series heaters are replaceable.

Fuse Leads	Model Number
Orange/Yellow-White	W0915-358

Watts	115 VAC Part No.	230 VAC Part No.
100	W0914-100	W2335-100
150	W0914-150	W2335-150
200	W0914-200	W2335-200

## CAUTION-EXPLOSION HAZARD-CAUTION

For Installation in hazardous areas

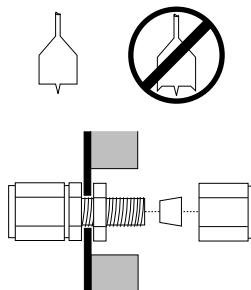
Do not install in environments having gas or vapor to air mixtures with an ignition temperature lower than maximum surface temperature stated on heater nameplate.

# Installing Fittings Without Plates

## Installing Bulkhead fittings on VIPAK

Metal surface plate must be used to support bulkhead fittings for process temperatures exceeding 150°F (65°C).

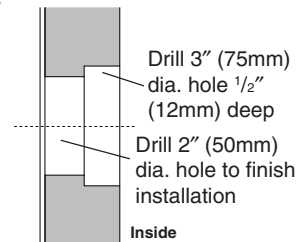
- From inside of enclosure, drill a hole using a wood working spade bit large enough for the socket required to tighten the jam nut on the bulkhead fitting. **DO NOT USE A SPADE BIT WITH OUTSIDE SPURS!**



- Stop the hole at the inside surface of the ABS shell.
- Drill the mounting hole for the fitting and install it as usual.

## Installing ES4 fittings on VIPAK

- With a 3" (75mm) diameter hole saw, drill a hole from the inside of the box about 1/2" (12mm) deep.
- With a 2" (50mm) diameter hole saw, finish the mounting hole through the wall of the enclosure.
- Install fitting with mounting ring seated in the recess created by the 3" (75mm) diameter hole.



## Installing ES5 fittings on VIPAK

- With a 3 1/2" (92mm) diameter hole saw, drill hole from the inside of the box.
- Install fitting.