

## INSTRUCTIONS

### Model Q9033 Mounting Arm and Collar Attachment



Q9033B Mounting Arm  
with Collar Attachment



#### DESCRIPTION

The Model Q9033 Mounting Arm is an approved accessory for installation of X-Series flame detectors. It allows easy pan and tilt adjustments for sighting of the detector.

The optional Collar Attachment is used in conjunction with the Mounting Arm to add a third dimension for detector sighting by allowing it to also be rotated. The Collar attachment is recommended for use in applications that require the detector to be panned to extreme angles.

In a typical installation, the detector is pointed down. When a detector is pointed down, panning to either side of center results in some degree of rotation — the greater the pan amount, the greater the rotation. See Figure 1. Since the cone of vision of the X3301/X3302 is not round, but truncated on the upper half, rotation results in an unbalanced field of view. The Collar Attachment enables the detector to be adjusted level to the horizon, thereby ensuring a balanced field of view.

#### FEATURES

##### Mounting Arm

- Compatible with all X-Series flame detectors
- FM and DNV performance approved for use with X-Series detectors
- Allows easy detector sighting
- Heavy duty, Aluminum or Stainless Steel construction
- Vibration and resonant frequency resistant

##### Collar Attachment

- Compatible with all X-Series flame detectors
- FM performance approved with X-Series detectors
- Adds increased versatility to the Mounting Arm
- Allows rotation of the detector to ensure optimum detector performance
- Stainless steel construction (suitable for use with either aluminum or stainless steel detectors and mounting arms)

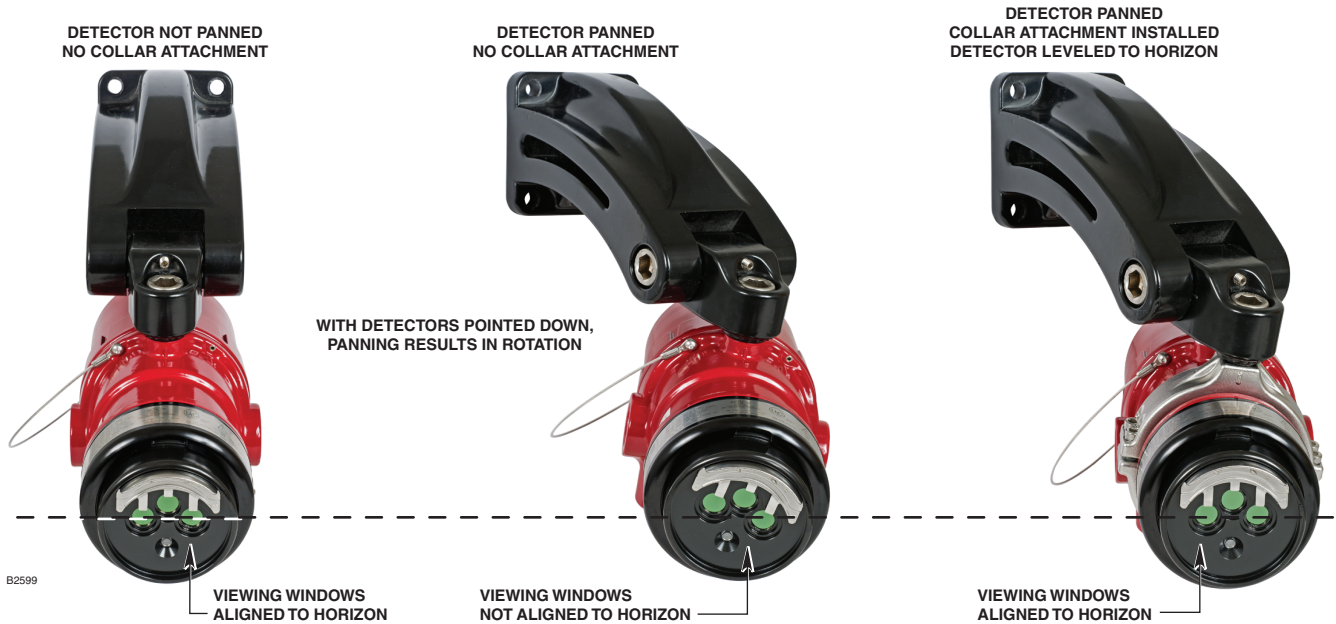


Figure 1—X3301 Detectors Mounted with and without Collar Attachment

## INSTALLATION

### MOUNTING ARM (Required)

1. Determine the best mounting location for the detector following the guidelines in the detector instruction manual.

#### NOTE

Refer to the detector instruction manual for detailed information regarding detector positioning, orientation, and mounting.

2. Install the Mounting Arm using 1/4 inch (M6) bolts with a length of at least 1 inch (25 mm). Refer to Figures 2 and 3 for dimensions.

#### NOTE

Ensure that the mounting surface is suitable to hold the weight of the detector and mounting arm.

3. If a Collar Attachment is being used, proceed with step 4. If no Collar Attachment will be used, go to step 6.

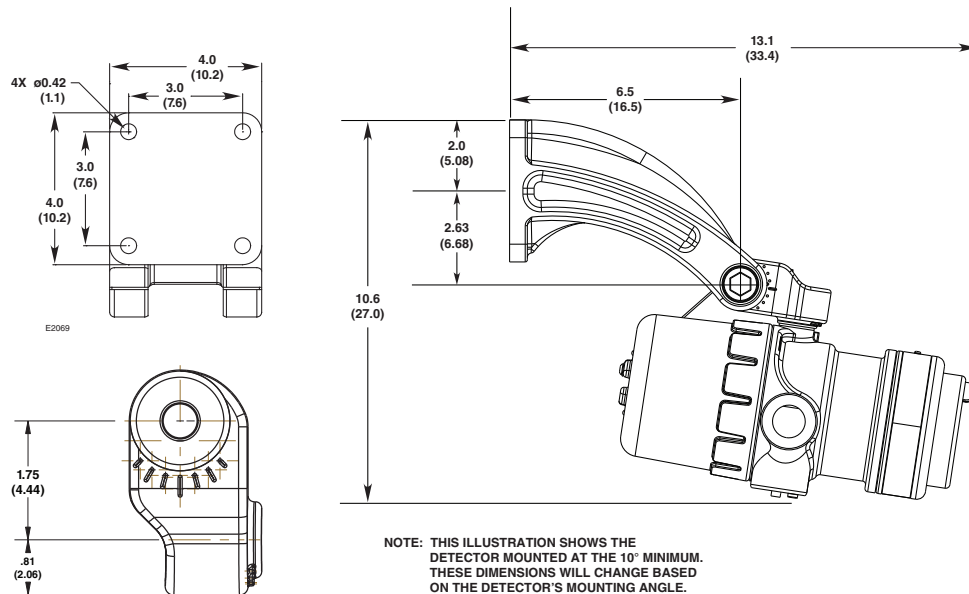
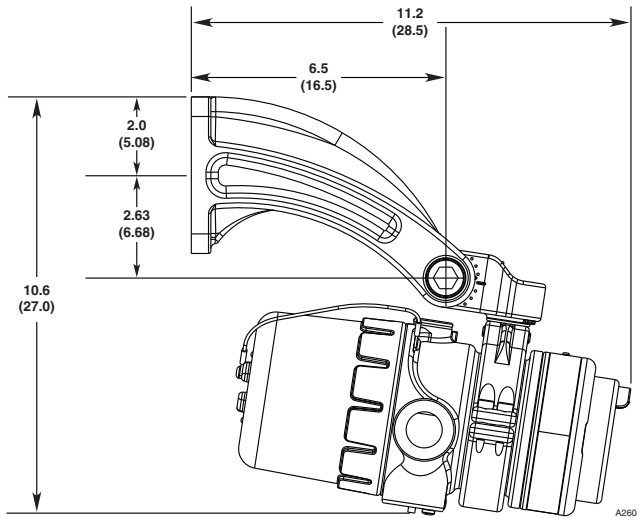


Figure 2—Q9033 Mounting Arm Dimensions in Inches (cm)



NOTE: THIS ILLUSTRATION SHOWS THE DETECTOR MOUNTED AT THE 10° MINIMUM. THESE DIMENSIONS WILL CHANGE BASED ON THE DETECTOR'S MOUNTING ANGLE.

Figure 3— Q9033 Mounting Arm with Collar Attachment Dimensions in Inches (cm)

### COLLAR ATTACHMENT (Optional)

#### NOTE

Prior to installing the collar attachment, note the location of the Mag o<sub>i</sub> label. Apply the magnet to the detector housing at this location to initiate a mag o<sub>i</sub> test. The collar attachment will cover the label, but will not interfere with the mag o<sub>i</sub> test.

- The Collar Attachment assembly is made up of two halves — one installed on top, and the other under the detector bulkhead. With the four socket cap screws (provided) held in place with O-rings as shown in Figure 4, place the top half in position on the detector. Then place the bottom half under the detector and tighten the screws using a 5 mm hex wrench (not included). Do not fully tighten the screws at this time.
- Using the 5 mm hex wrench, remove the bulkhead plug from the top half of the collar attachment and install it in the detector bulkhead mounting hole (to prevent corrosion). See Figure 5.

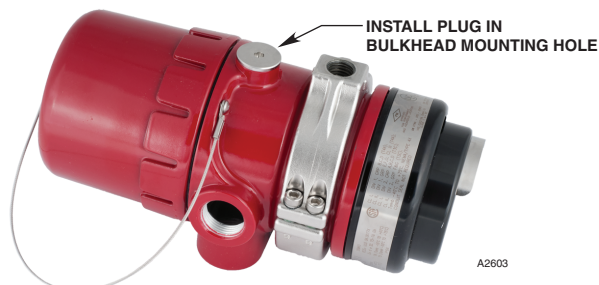


Figure 5—Correct Installation of Collar Attachment to Detector

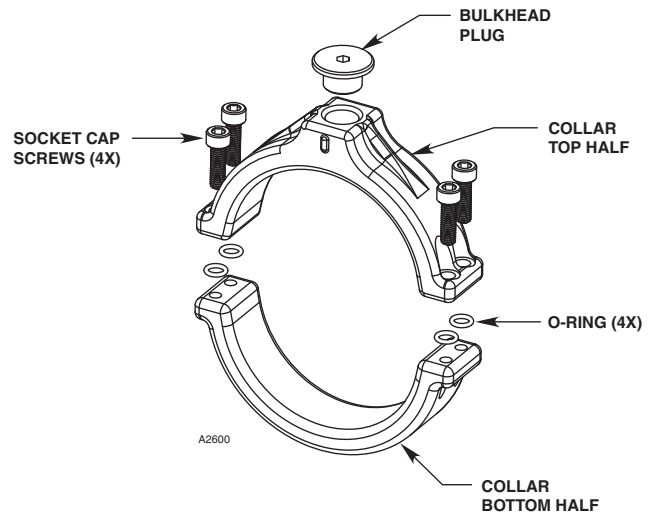


Figure 4—Collar Attachment Assembly, part #011385-001 shown

#### NOTE

Socket cap screws enter from the bottom in part #011385-002.

### ATTACH DETECTOR TO MOUNTING ARM

- Raise the detector to insert the large bolt on the Mounting Arm into the detector bulkhead or the Collar Attachment (see Figure 6).

#### NOTE

It is possible that two people may be needed to complete this step, especially when dealing with the heavier stainless steel flame detector models.

- Aim the detector at the area to be protected, then use a 14 mm hex wrench to tighten the detector mounting bolt and clevis bolts just tight enough to hold the detector in this position. See Figure 7.

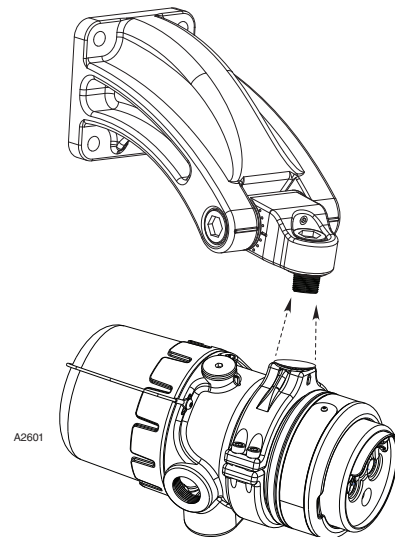


Figure 6— Connecting a Detector with Collar Attachment to Mounting Arm



Figure 7—Location of Three Bolts on Mounting Arm  
(Shown without Collar Attachment)

## DETECTOR ALIGNMENT

8. If a Collar Attachment is used, ensure that the detector viewing windows are correctly aligned (parallel) with the horizon. See Figure 8. Adjust as necessary, then tighten the four collar screws.
9. For optimum alignment accuracy, attach a Q1201C Laser Holder with Laser to the detector. Align the detector following the procedure in the Q1201C instruction manual (number 95-8596). When correct alignment is achieved, use a 14 mm hex wrench to tighten the detector mounting bolt and the two clevis bolts.

## ORDERING INFORMATION

When ordering, please specify:

Part Number	Description
007290-001	Q9033B Mounting Arm - Stainless Steel
007290-002	Q9033A Mounting Arm - Aluminum
011385-001	Collar Attachment (screws enter from the top of the assembly)
011385-002	Collar Attachment (screws enter from bottom of the assembly)
007255-001	Q1201C Laser Holder for X-Series Flame Detectors
006097-001	Laser
103578-001	Anti-Seize Grease

For assistance in ordering a system to meet the needs of a specific application, please contact:

Detector Electronics Corporation  
6901 West 110th Street  
Minneapolis, Minnesota 55438 USA  
Operator: (952) 941-5665 or (800) 765-FIRE  
Customer Service: (952) 946-6491



Figure 8—Optimal Alignment of Viewing Windows  
(X3301 with Collar Attachment)

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