



Maintenance Manual (*EXCERPT – Tim Benedict*)  
Section 3 - [REDACTED]

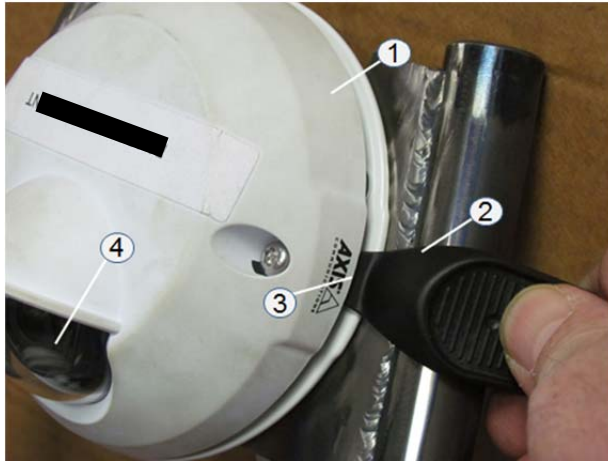


Figure 18. Side View Camera Cover

4. Remove four (4) screws/nuts (3, Figure 19) holding camera (1) to mount (2). Remove camera.

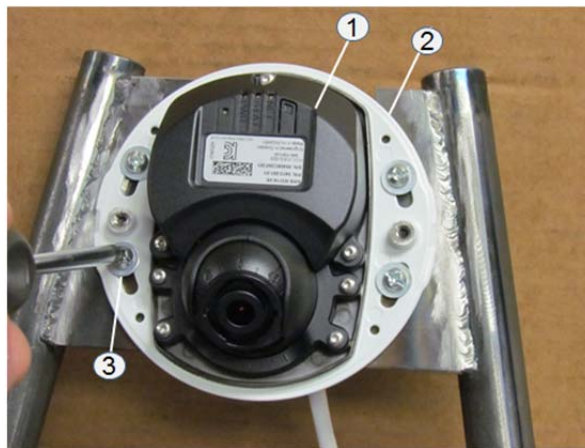
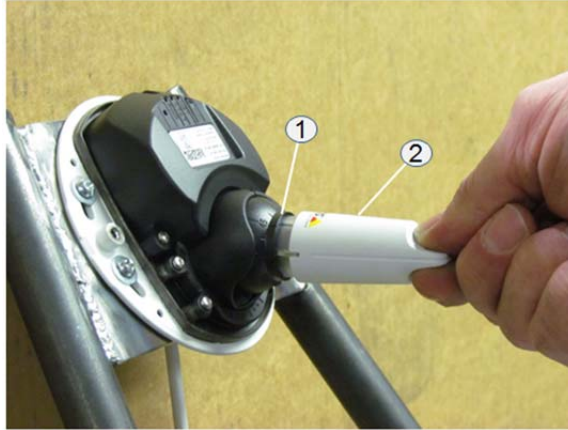


Figure 19. Camera Mounting

5. Install new camera in base with four (4) screws/nuts (Figure 19).
6. Plug cable to CAT 5 coupler (Figure 16).
7. Advise Control Room Operator that installation is complete and camera is ready for adjustment.
8. Adjust camera position, as directed by Control Room Operator, using special adjusting tool (2, Figure 20) placed over camera lens (1).



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**Figure 20. Adjusting Lens Position**

9. Replace cover (2, Figure 17) and secure with two (2) pin star screws (1).

### 3.7.3 Replace Point/Tilt/Zoom (PTZ) Camera

**NOTICE**

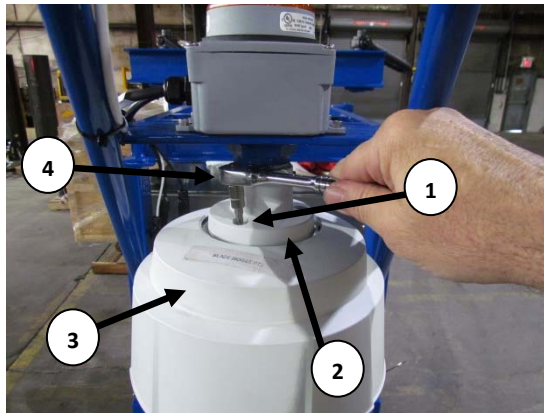
Each [REDACTED] camera has been assigned specific network IP address. A control room network technician must program this address and configure the camera for proper video operation prior to installation. See Appendix D of Control System manual.



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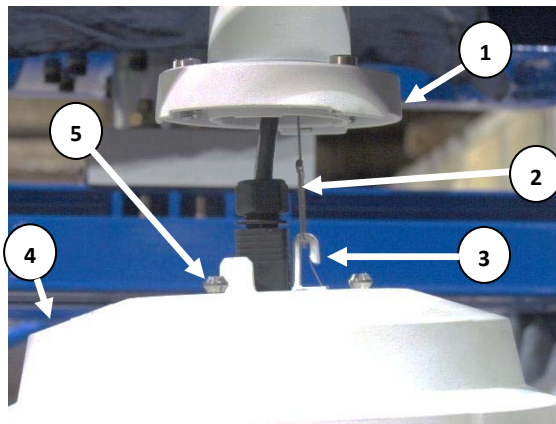
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1. Loosen three (3) mounting screws (1, Figure 21) holding camera (3) to mounting bracket (2). Use the supplied T30 star socket and ¼” ratchet driver (4).



**Figure 21. PTZ Camera Mounting**

3. Turn camera and sun shield (4, Figure 22) clockwise (CW when viewed from above) to release it from mounting bracket (1). Camera supported by lanyard (2) and clip (3) so it will not fall. Alignment pins (5) are exposed.

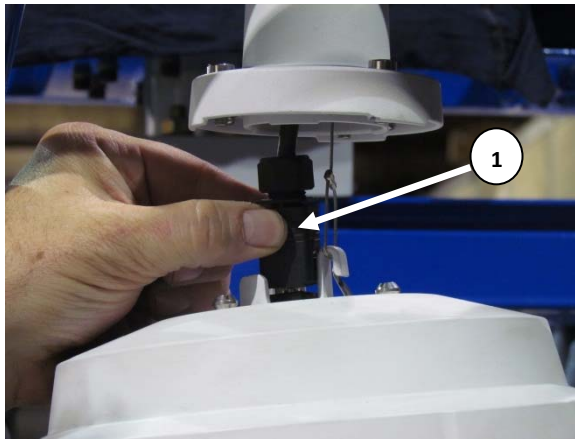


**Figure 22. PTZ Camera Lanyard**

4. Remove connector by pulling up on outer case (1, Figure 23) from camera (3).



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**Figure 23. PTZ Camera Connection**

5. Lift camera and sun shield (4, Figure 22) to remove clip (3) from lanyard (2).
6. Discard old camera and sun shield (Figure 24).



**Figure 24. PTZ Camera and Sun Shield**

7. Attach clip (3, Figure 22) of new camera and sun shield to lanyard (2).
8. Connect cable (1, Figure 23) to new camera.
9. Insert alignment pins (5, Figure 22) of new camera into mounting bracket (1) and turn counterclockwise (CCW).
10. Tighten three (3) mounting screws (1, Figure 21) in mounting bracket (2) with supplied star socket and ¼" ratchet driver (4).
11. Advise Control Room Operator installation is complete.



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12. Control technician sets presets per Control Manual.

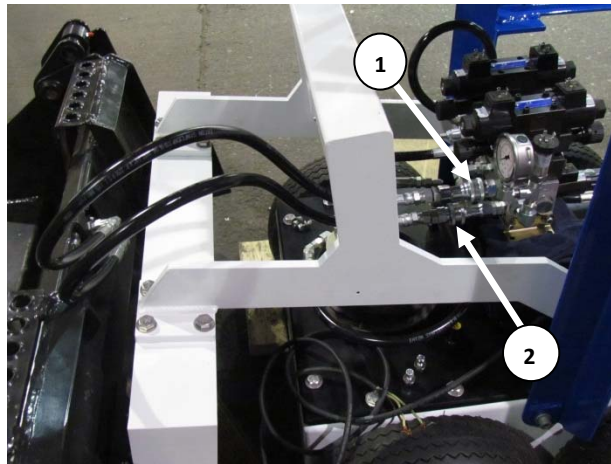
#### 3.7.4 Remove Blade and Clamshell

##### NOTICE

If Clamshell and/or Blade is to be repaired or replaced, it is recommended that both be removed together, decontaminated, and further service be performed in maintenance shop.

The following procedure outlines the best method for removal.

1. Request control room operator lower blade to ground or to blocking.
2. Request Control Room Operator to disable Blade MOOSE movement
3. Disconnect Blade hydraulic lines via two quick-disconnect fittings (1, 2, Figure 25 ). Place a rag underneath fittings to absorb a drop that may fall from the fittings as the automatic internal valve engages.



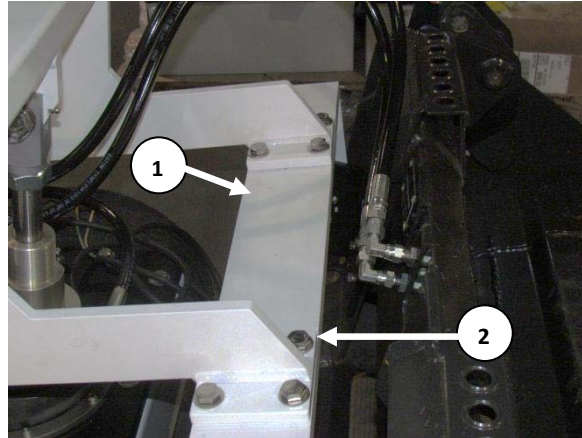
**Figure 25. Hydraulic Quick-Disconnect Fittings**

4. Remove the eight (8) ½ - 20 x 1 inch long hex head cap-screws (2, Figure 28) holding blade mounting bolts to yoke arms (1). There are four (4) bolts per side.



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**Figure 26. Remove Blade/Clamshell at Yoke**

5. Request Control Room Operator lift yoke.
6. Request Control Room Operator to disable [REDACTED] movement
7. Remove Blade/Clamshell assembly from, [REDACTED].
8. Following Service, position (align) Blade/Clamshell assembly for mounting on yoke arms. Request Control Room Operator move yoke, if needed.
9. Replace eight (8) blade mounting bolts.
10. Request that control room operator raise and lower blade and clamshell to test operation.

#### 3.7.5 Replace Clamshell

#### NOTICE

The following procedure assumes that Blade/Clamshell assembly has been removed from [REDACTED] as above.

Clamshell is held to blade with four (4) pins, two (2) pins, on each side, all secured with clips.

1. Remove spring clips from both sides of mounting pins (1 and 2, Figure 27), using neck ring pliers.