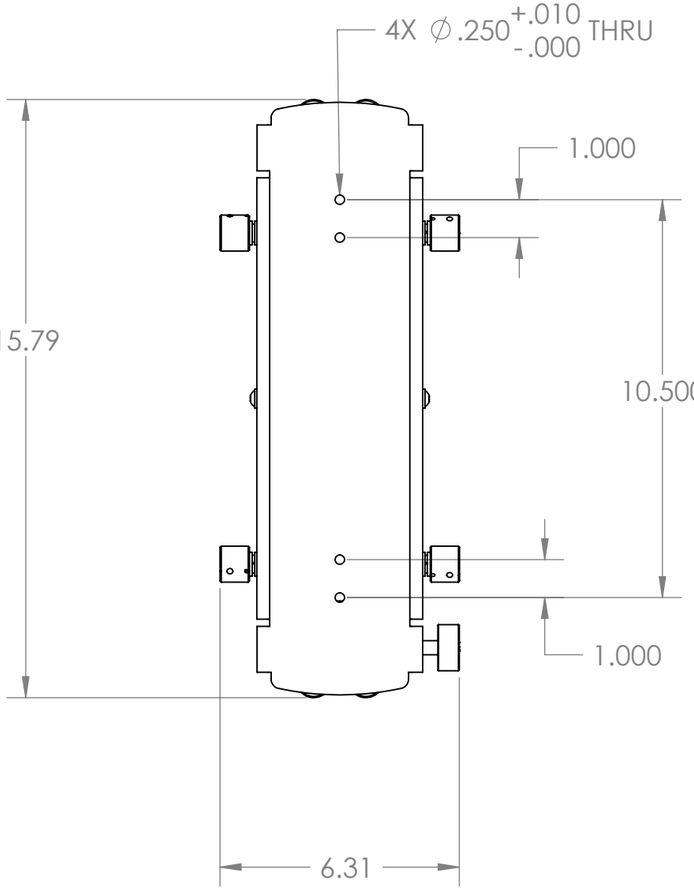
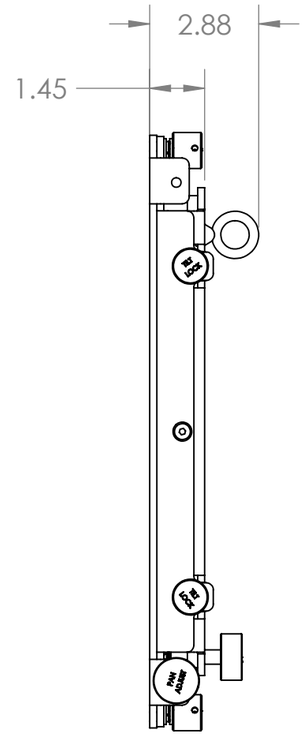
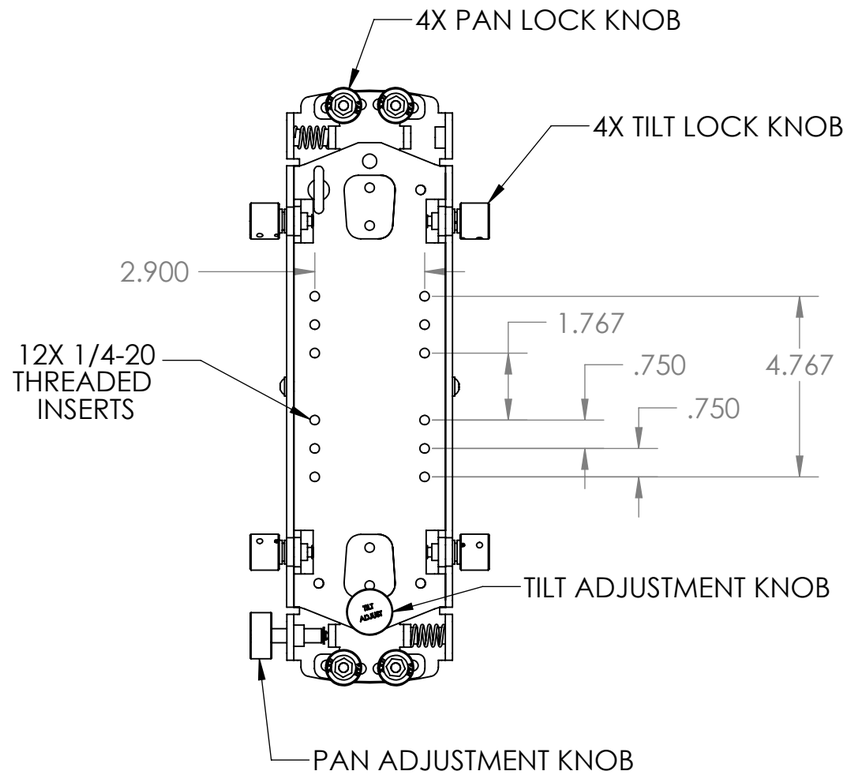
NOTES: (UNLESS OTHERWISE SPECIFIED)

PAN / TILT KNOB ADJUSTMENT RESOLUTION
1 ROTATION = .4°
1/10 ROTATION = .04°
1/50 ROTATION = .008°
1/100 ROTATION = .004°

REVISIONS					
ZONE	REV.	DESCRIPTION	ECO	DATE	DRWN
	A	INITIAL DRAWING		04/22/2011	
	B	ADDED RESOLUTION NOTE		5/20/2011	







UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± 1° BEND ± 1°
ONE PLACE DECIMAL ± .03
TWO PLACE DECIMAL ± .010
THREE PLACE DECIMAL ± .005
SURFACE FINISH 63

DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994
DO NOT SCALE DRAWING

	DATE	NAME
DRAWN	4/22/11	GD
ENG.	4/22/11	AL
PROD.		

THIRD ANGLE PROJECTION

RVision A COBHAM COMPANY
2365A Paragon Drive San Jose, 95131

TITLE:
ASSY, BORE SIGHT, CARBIDE

SIZE	DWG. NO.	REV
B	800330	B

SCALE: 1:4 SHEET 1 OF 1

NOTE: For instructions on controlling the Carbide-150™ refer to "VIDOS Control Software" on page 25.

4. Hold the Carbide-150™ stationary. At the control station, toggle between the images of the T200-10M day camera and Extreme-X thermal camera.

5. The person at the Carbide-150™ adjusts the horizontal and vertical position of the thermal camera via the Bore Sighting Bracket until the toggled images – day camera and thermal camera – are superimposed as viewed through the control station monitor.

How to Adjust the RVision Bore Sighting Bracket

To adjust the Bore Sighting Bracket perform the following procedure.

1. Refer to Figure 21 for the locations of the adjustment thumb knobs on the Bore Sighting Bracket.

2. Loosen, but not completely, the four thumb screws labeled TILT LOCK that are located on the sides of the Bore Sighting Bracket.

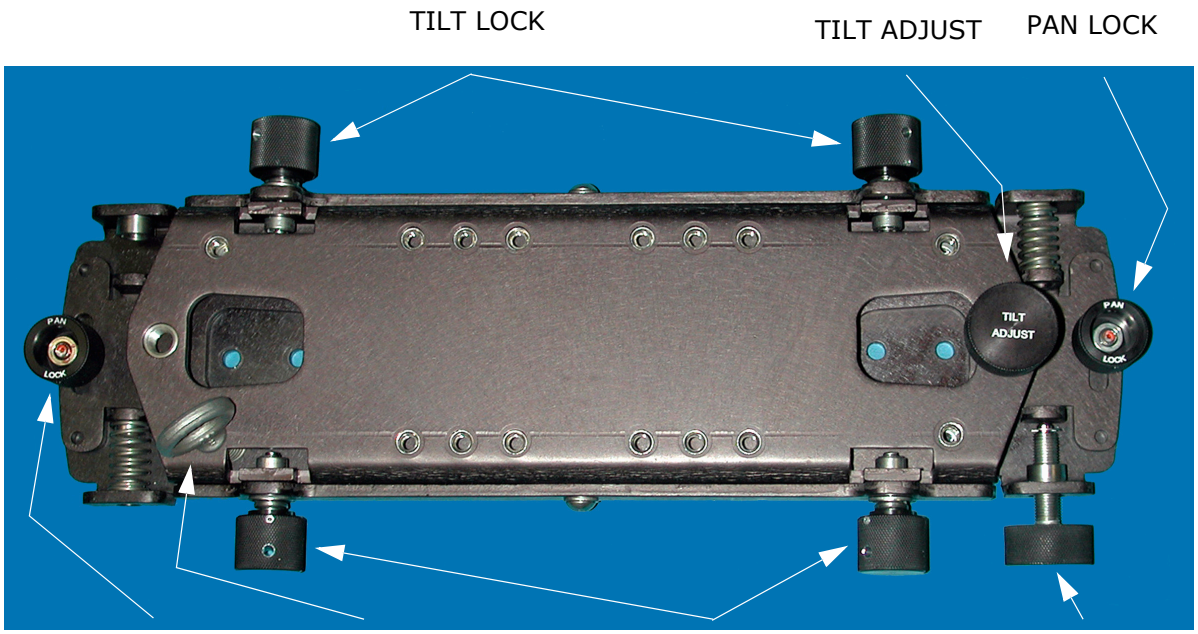


Figure 21: Bore Sighting Bracket adjustment screws

WARNING: Do not loosen the TILT LOCK thumb screws when the PAN LOCK thumb screws are loose.

3. Adjust the large thumb screw labeled PAN ADJUST in the direction of the target.

   The person stationed at the control should communicate to the person stationed at the Carbide-150™ the position of the thermal camera view relative to the target.

4. When the pan position of the Bore Sighting Bracket has been adjusted to the approximate position of the target, tighten the four screws labeled PAN LOCK.

5. Loosen the four thumb screws labeled TILT LOCK that are located on the front and rear sides of the Bore Sighting Bracket.

   WARNING: Do not loosen the PAN LOCK thumb screws when the TILT LOCK thumb screws are loose.

6. Adjust the large thumb screw labeled TILT ADJUST in the direction of the target.

   The person stationed at the control determines when the thermal camera has been correctly bore sighted to the dayt camera. Determination is made by toggling between the two images – day camera and thermal camera – until the two images are superimposed.

7. If the two images – day/night camera and thermal camera – are not superimposed begin the bore sighting procedure again at step a. Repeat the procedure until the two images are superimposed.

8. Verify that the bore sighting was correctly executed.

   NOTE: Assuming the Carbide-150™ configuration does not have a video switch, bore sighting the Carbide-150™ is easiest if two monitors are connected to the Carbide-150™ – one monitor for viewing through the day camera, and one monitor for viewing through the thermal camera.

   WARNING: The eyebolt attached to the Bore Sighting Bracket is designed only to hoist the Quick Mount Bracket-Bore Sighting Bracket-thermal camera assembly. Do not hoist the Carbide-150™ with this eye bolt.

Parallel Path Bore Sighting

Parallel path alignment adjusts the payloads such that the paths, or focus, of the payloads are parallel and do not converge. The procedure requires a bore sighting station that is a flat vertical surface for mounting a bore sighting target, for example the side of a building. The T200-10M camera is aligned to the parallel path bore sighting target through VIDOS commands on the Carbide-150™, and the Extreme- X camera, mounted on the Bore Sighting Bracket, is aligned by adjusting the bracket.