



## AV-8B Night Attack Replacement Camera

The AV-8B Harrier, Head Up Display (HUD) camera is an internal reconfiguration of the Litton camera, Part Number 452275-2. The new PSI Part Number is 93-4040-100 and reflects a Litton Part Number of 452275-3.



**Part Number: 452275 - 3**  
**NSN: 7RH 5836 - 01 - 498 - 0557 - A8**

The internal workings of the Litton camera have been changed to incorporate current state of the art electronics. The changes include:

- New printed circuit board assembly
  - New lens
  - New drive motor/gear head assembly
- ◆ The former test connector used only during the manufacturing process, has been replaced with a BNC video connector which enables the output video of the camera to be viewed on a monitor.
  - ◆ The input connector to the camera utilizes the same connector type and the same pin function as the Litton camera.
  - ◆ The body of the camera is the same size and utilizes the same mechanical mounting provisions used on the prior Litton Camera.
  - ◆ The new camera does not use the Night Vision Goggles (NVG) prism assembly previously mounted atop the Litton camera. That assembly is obsolete due to the U.S Marines utilizing a different NVG system.
  - ◆ The camera looks into the existing Smith's designed optical periscope to combine the outside world with the HUD symbology.
  - ◆ The optical periscope limits the resolution of the new camera system to the point where the system resolution is close to that of the existing system, even though the new camera has a significantly higher resolution than the older Litton camera.



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### Photo-Sonics, Inc.

WORLD LEADERS IN AIRBORNE IMAGING SYSTEMS

820 South Mariposa Street Burbank CA 91506 U.S.A.  
TEL 818-531-3212 FAX 818-842-2610  
www.photosonics.com Request Information: mail@photosonics.com

## FEATURES

- ◆ Automatic Exposure Control with lens iris
- ◆ Adjustable air-to-ground exposure lock (0-10 sec)
- ◆ Visual event mark
- ◆ +28 VDC operating voltage
- ◆ Internal or external sync
- ◆ Pickup device: Interline-transfer hyper HAD CCD, 1/2"
- ◆ Horizontal resolution:
  - ◇ NTSC: 470 TV lines
  - ◇ PAL: 460 TV lines
- ◆ Picture elements:
  - ◇ NTSC: 768(h) x 494(v)
  - ◇ PAL: 752(h) x 582(v)
- ◆ S/N ratio:
  - ◇ NTSC: >-48dB
  - ◇ PAL: >-46dB
- ◆ Sensitivity: 2000 Lux at f/5.6
- ◆ Minimum sensitivity: 4.5 Lux at f/1.2
- ◆ Shutter speeds: 1/60th second, 1/100,000 second, flickerless, and CCD iris (AEC), Off for A/O-10A
- ◆ Automatic AGC
- ◆ Gamma: 0.45/1
- ◆ White balance: ATW, 3200K, 5600K, and Manual
- ◆ Video formats: Y/C component and NTSC composite
- ◆ Weight: 1 lb 12 oz
- ◆ 12 month warranty

## ENVIRONMENTAL SPECIFICATIONS

|                       |   |
|-----------------------|---|
| Operating Temperature | -25°C to +71°C  |
| Storage Temperature   | -55°C to +80°C  |
| Altitude              | 43,000 feet   |
| Over Pressurization   | -15,000 feet  |
| Humidity Operating    | +90% RH, 60°C, 2 hours  |
| Humidity Storage      | 48 hours (two 24 hour cycles) <ul style="list-style-type: none"> <li>◇ 95% RH, +50°C, 6 hours</li> <li>◇ 85% RH, +38°C, 16 hours</li> </ul> |
| Vibration duration    | Random, 6 G rms, 5 minutes  |
| Shock axes            | 9 Gs, 11 msec., 1/2 sine wave, 3  |
| Acceleration          | Lateral (Nx): 6 Gs<br>Longitudinal: 6 Gs<br>Normal (+Nz): +8 Gs<br>Normal (-Nz): 6 Gs   |

## OPTICAL SPECIFICATIONS

| Lens<br>Focal Length | FOV Degrees |       | FOV Milliradians |       | Application |
|----------------------|-------------|-------|------------------|-------|-------------|
|                      | Horiz       | Vert  | Horiz            | Vert  |             |
| 16.42mm, f1.4        | 22.06       | 16.63 | 384.9            | 290.3 | HUD-Special |



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