

Night Vision Goggle / Image Intensifier Set AN/AVS-9 (F4949 Series)

For more than 50 years, Exelis has provided the military with premier vision-enhancing solutions. As the world's leading manufacturer of Generation (Gen) 3 image intensification technology, Exelis continues to work hand-in-hand with customers to expand night vision and vision-enhancing capabilities, technologies, and resources.

Exelis also provides technical support, service, training, and maintenance for our products to maximize customer benefits and usability.

Exelis offers the AN/AVS-9 (Exelis F4949 Series) Night Vision Goggle/Image Intensifier Set with various objective lens filter options and various flight helmet-mount configurations - all designed to meet individual customer requirements.

FEATURES AND BENEFITS

- Gen 3 tube performance offering high resolution, high gain, photoresponse to near infrared, and exceptional reliability.
- Class A, B, C, and UK 645 minus-blue filters for objective lens available to suit all types of cockpit lighting, including color displays and fighter HUDs.
- Helmet mount configurations designed for fixed-wing and rotary-wing applications, adapting to most aviator helmets (U.S. HGU-55/P, HGU-56/P, HGU-84/P, SPH-4AF, SPH-4B, SPH-5; British Alpha 202 and Mk4; French OS and CGF). Other mounts available upon request.
- 25-mm eye-relief eyepieces easily accommodate eyeglasses.
- Low-profile battery pack improves aviator head mobility and increases battery life.
- Other features include flip-up/flip-down capability, simple binocular attachment, individual interpupillary adjustment, tilt, vertical and fore-aft adjustments to fit all aviators.



STANDARD ACCESSORIES

- Carrying Case tailored to system
- Lens caps
- Lens paper
- Operator's Manual
- Helmet attachment instructions
- Neck cord (rotary-wing versions)
- Low-profile battery pack (rotary wing versions)

OPTIONAL ACCESSORIES

- Battery pack adapter (fixed-wing versions)
- Low profile battery pack (fixed-wing versions)
- Clip-on power source

Night Vision Goggles/Image Intensifier Set AN/AVS-9 (F4949 Series)

SPECIFICATIONS

| | |
|-----------------------------|---|
| Spectral Response | Visible to 0.90 μm (IR) |
| Field of View | 40° nominal |
| Magnification | Unity |
| Resolution | 1.3 cy/mr, minimum (1.36 typical) |
| Brightness Gain | 5000 fL/fL, minimum |
| Collimation | ≤1° convergence ≤0.3° dipvergence/divergence |
| Interpupillary Adjustment | Independent, 51 to 72 mm total |
| Vertical Adjustment | 25 mm, range |
| Fore-and-Aft Adjustment | 27 mm, range |
| Tilt Adjustment | 10°, range |
| Objective Lens | EFL 27 mm F/1.23, T/1.35 |
| Objective Lens Filters | Class A, B, C, UK 645 available |
| Objective Lens Focus | Range 41 cm to infinity |
| Eyepiece Lens | EFL 27 mm |
| Exit Pupil/Eye Relief | On-axis: 14 mm @ 25-mm distance Full-field: 6 mm @ 25-mm distance |
| Eyepiece Adjustment | +2.0 to -6.0 Diopters |
| Flip-up/Flip-down | Button release |
| Automatic Breakaway | 11 to 15 g |
| Battery Type | Fixed wing: 2 ea. 1/2 AA size, lithium, Rotary wing: 4 ea. AA size, alkaline |
| Weight of Binocular | 550 grams |
| Weight of Mount | |
| Fixed Wing | 250 Grams |
| Rotary Wing | 330 Grams |
| Operating Temperature Range | -32°C to +52°C |

DESCRIPTION

First developed by Exelis in 1992, the F4949 night vision system continually has improved and is now designated the AN/AVS-9(V) by the U.S. Government. The (V) indicates there are many versions in service. The F4949 series is the standard night flying system for the air crews of the U.S. Air Force and Navy. Over 26,000 F4949 systems are in service in 34 nations, worldwide.

Rotary-wing versions of the F4949 feature a rear-mounted, low-profile battery pack, which uses four AA alkaline batteries, allowing operation for more than 50 hours. Power is provided by a cable extending from the battery pack, over the helmet, and into a connector in the mount.

Fixed-wing versions feature a front-mounted battery pack, which uses two 1/2 AA lithium batteries that allow operation for more than 16 hours. An optional battery pack adapter enables connection of the fixed-wing F4949 to the rear-mounted battery pack, providing the same operational time as the rotary-wing versions when ejection is not a consideration. An optional clip-on power source enables hand-held operation of the binocular without use of a flight helmet.

Exelis' F4949 series of aviator's night vision systems is available in over 40 different configurations. The type of aircraft and type of helmet being used will determine which configuration – existing or customized – will best meet our customer's requirements.

Night Vision & Communications Solutions
7635 Plantation Road
Roanoke, Virginia 24019-3222
Attention: Business Development
Telephone: 800-448-8678 or
540-563-0371
Fax: 540-362-4979
E-mail: nv.orderadmin@exelisinc.com
www.exelisinc.com

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Specifications subject to change without notice.
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