



ITT

Unlimited Distribution

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

For more than 45 years, ITT Night Vision has provided the military with premier vision-enhancing solutions. As the world's leading manufacturer of Generation 3 (Gen 3) image intensification technology, ITT continues to work hand-in-hand with customers to expand night vision and vision-enhancing capabilities, technologies, and resources. ITT also provides technical support, service, training, and maintenance for our products to maximize customer benefits and usability.

ITT Night Vision offers the AN/AVS-9 (ITT 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

Engineered for life

The information contained in this document is approved for unlimited distribution per 07-S-2340.

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Description

First developed by ITT 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.

ITT's 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.

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	$\leq 1^\circ$ convergence $\leq 0.3^\circ$ 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 25 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
Eyepiece 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



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Export of this product is regulated by the U.S. Dept. of State in accordance with guidelines of "International Traffic in Arms Regulations (ITAR)" per Title 22, Code of Federal Regulations, Parts 120-130.

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Specifications subject to change without notice.
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