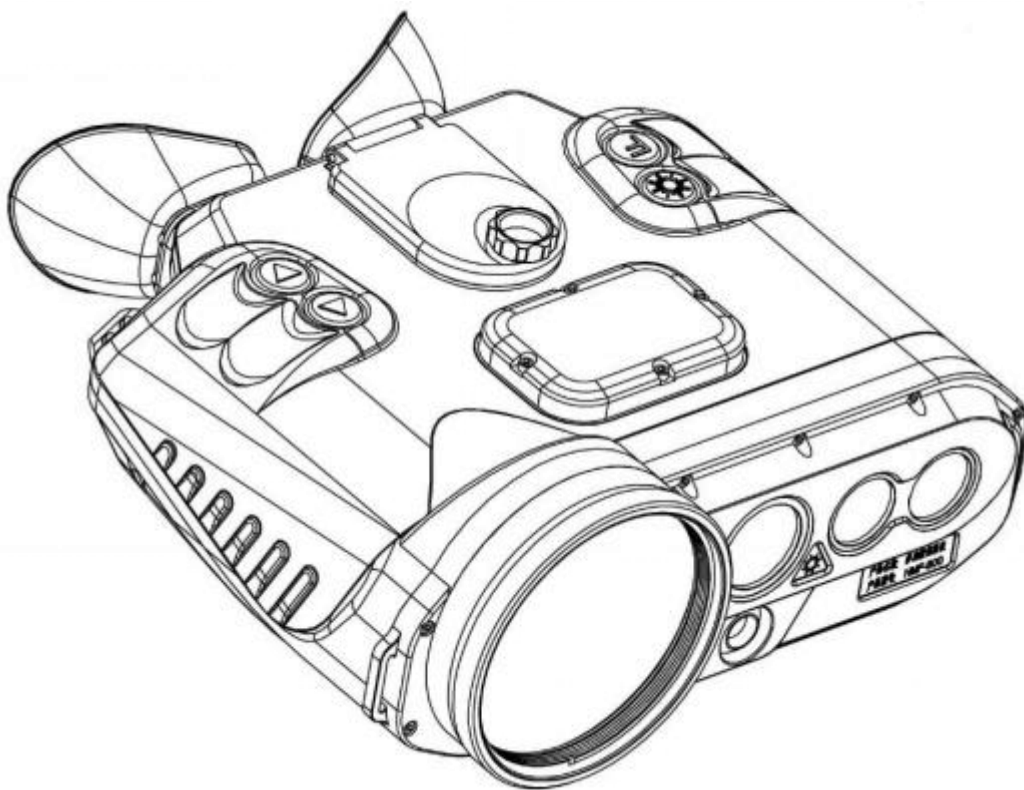


HM-90F MUTI-FUNCTION BINOCULARS INSTRUCTIONS



The HM-90F series is multi-purpose reconnaissance system, advanced hand-held, fully integrated muti-function thermal imager binocular, which allows the user to detect and located target. It can get the coordinates and directions of the targets in day and night with thermal image or day light Camera. HM-90F series equipped with a latest UN-cooled thermal imager, eye safe laser range finder, integrated GPS/GNSS, digital magnetic compass (DMC) and visible light camera. The system provides silent operation, advanced target location and image storage capability to work well in a wide variety of battlefield conditions.

HM-90F Specifications:

Model: HM-90F	
Thermal Imager	
Detector Type	Uncooled-VoX
Array Size/Resolution	640×512
Spectral Band	8 ~ 12μm
Detector Pitch	12μm
Frame Rate	50Hz(PAL)
Polarity	White hot/Black hot (Pseudo-color)
NETD	≤50mK@300°C,F#1.0
Contrast/Brightness	Auto/Manual
Image Processing	
Image Denoise	Digital filter
Image Enhancement	Digital Detail Enhancement
E-Zoom	1×~8×
Infrared Optical	
Focus mode	Motorize Focus
IR Lens	f=85mm, F# 1.0
Field of view	5.2°×4.1°
Focus Range	8m ~ ∞
Micro Display	2×0.5' OLED (1024×768 pixels)

Eyepiece Magnification	12×
VN&Day Camera	
Sensor	1/3' Colour CMOS
Effective pixels	4220×3190
Focal Length	f = 50mm
E-Zoom	1×~16×
Specialty	WDR\3Ddenoise\Automatic shutter
Laser Range Finder	
Wave Length	1.54μm (Eye safety)
Range distance	50m ~ 5000m (Max 8000m)
Accuracy	< ±1m
Accuracy Rating	> 98%
GPS /BDII/GNNS	
Accuracy	CEP<2m
Digital Magnetic Compass	
Azimuth	≤0.5° (RMS)
Pitch	≤0.1° (RMS)
System Parameters	
Target Localization	<Range×1.5% CEP
Secure Me	Optional
External interface	USB2.0/RS-232C/Analog Video

Mount Adaptor		1/4' Standard tripod mounting
Power Supply		
Battery		7.2V/3500mAH; 2×18650 Lithium ion
Average Power		< 4W (Observation mode)
Operating Time		≥ 5 hours (Observation Mode)
Environmental		
Protect standard		MIL STD 810F
Operating Temperature		-25°C ~ +55°C
Storage Temperature		-40°C ~ +60°C
Humidity		5%~95%(Non-Condensing)
Vibration		Sweep frequency: 5-200-5Hz,Acceleration 2.5g
Impact		10g/11ms Half sine wave
Physical parameters		
Dimension (mm)		255×230×95 (L×W×H)
System weight		< 2.0Kg
Housing		Magnesium alloy/Poly-carbon/Rubber
Suitcase Dimension (mm)		460×350×180 (L×W×H)
Observation Distance		
Man (1.8×0.92m)	Detection	~4500m (IR)
	Recognition	~1300m (IR)

Vehicle	Detection	~7500m (IR)
(2.3×2.3m)	Recognition	~3000m (IR)

