

MH-1 ACCESSORY

Low Light Panning Arms: Expanding Your Field of View

A mechanical accessory for the MH-1 that pans each optical tube outward to pre-set positions, expanding your effective field of view from 40 degrees to 69 degrees.

How Panning Arms Work

In a standard binocular configuration, both tubes point straight ahead in parallel, and the two images overlap almost completely. You get binocular depth perception, but your total field of view is essentially the same 40 degrees you would get from a single tube.

Panning arms change the geometry. By rotating each tube outward, you reduce the overlap between the two images and increase the total area of your visual field. Each tube now covers slightly different territory, with some overlap in the center for depth perception and a wider total spread across your peripheral vision. With the LLPA fully panned, your effective field of view expands from 40 degrees to 69 degrees.

The LLPA uses mechanical detents to lock each tube at pre-set angular positions. These are firm, repeatable stops that hold position under movement, vibration, and operational stress.

Why Field of View Matters

At 40 degrees, you see roughly one-ninth of the full 360-degree environment around you. Everything outside that cone requires a head turn. In dynamic environments where threats, terrain features, or team members can appear from the periphery, a narrow field of view creates blind spots.

Wider field of view means faster reaction to lateral stimuli, better spatial orientation, reduced neck fatigue from constant scanning, and a more natural visual experience that more closely approximates unaided human vision.

Panning Arms vs. Wide-Angle Optics

	Panning Arms (LLPA)	Wide-Angle Optics
Method	Mechanical repositioning	Optical expansion
FOV Achieved	69 deg (from 40 deg std.)	50 deg (fixed)
FOV Adjustable?	Yes (zero to max pan)	No (fixed at 50 deg)
Weight Impact	+39g / 1.4 oz over std. arms	No weight change
Binocular Overlap	Reduced at edges	Full across FOV
Works with std optics?	Yes	Replaces them
Price	\$399	\$1,400 to \$2,000

Panning arms with standard optics deliver a wider total field of view (69 degrees) than wide-angle optics alone (50 degrees), at a fraction of the cost and using the optics you already own.

Note: LLI does not recommend using wide-angle optics in combination with panning arms. Results may vary, and some users may experience issues with eye relief in this configuration.

Installation and Compatibility

The LLPA is designed for user installation on the MH-1. The arms replace the standard arms and integrate directly with the existing bridge and pod assembly. No permanent modifications required. The LLPA maintains the MH-1’s compact profile when not panned outward. Professional installation is available through authorized distributors for a \$100 service fee.

Compatibility: MH-1 only. The LLPA is not compatible with the UH-1, MH-14, or any other LLI housing. The MH-1 was designed with the n

Specifications

Specification	Value
Product	Low Light Panning Arms (LLPA)
Compatibility	MH-1 only
FOV (Fully Panned)	69 degrees
Weight	82g per set
Weight Over Standard Arms	+39g / +1.4 oz
Adjustment Type	Mechanical detent positions
Installation	User-installable or professional (\$100)
Price	\$399
Reversible	Yes (standard arms can be reinstalled)