

MBS-410 Maxa Beam Handheld Searchlight

rev. 09/24



MBS-410 Maxa Beam Handheld Searchlight

NSN 6230-01-392-8382

The world's most powerful handheld searchlight.

Key Features

- 12,000,000 Peak Beam CandlePower Output
- 6.9 km Range (ANSI/NEMA FL1)
- 85 Watt Xenon Short Arc Lamp
- Infrared Illumination Capability (filter sold separately)
- Motorized Beam Width Adjustment
- Strobe Mode
- Lightweight Rechargeable Batteries (sold separately)
- Control via Onboard Switches or Wired Controller



MBS-410 Handheld Searchlight Packages

- The MBS-410 is the searchlight body only. This model is typically purchased as part of a Handheld Searchlight Package.
- Handheld Searchlight Packages include one MBS-410 plus accessories.

Model #	Package Name	Package Contents*
MBPKG-B	Maxa Beam Basic Package <i>NSN 6230-01-392-8379</i>	One searchlight, one battery, AC charger
MBPKG-GO	Maxa Beam Go Package	One searchlight, one battery, AC charger, searchlight 12V vehicle adapter, storage case
MBPKG-SK	Maxa Beam Starter Kit	One searchlight, one battery, infrared (IR) filter, AC charger, storage case
MBPKG-D	Maxa Beam Deluxe Package <i>NSN 6230-01-392-8382</i>	One searchlight, two batteries, IR filter, AC/DC charger, storage case
MBPKG-EOF	Maxa Beam Escalation of Force Package	One searchlight, two batteries, IR filter, AC/DC chargers, spare lamp/lens, storage case
MBPKG-F	Maxa Beam Force Protection Package <i>NSN 6230-01-485-7838</i>	One searchlight, three batteries, IR & amber filters, AC/DC chargers, spare lamp/lens/connectors, storage case
MBPKG-C	Maxa Beam Search and Rescue Package	One searchlight, two batteries, amber & collimating filters, AC/DC charger, storage case
MBPKG-MP	Maxa Beam Motion Picture Package	One searchlight, two batteries, color correction filters, AC charger, storage case

*Summary of contents is shown. For complete package contents, visit www.peakbeam.com or consult the individual package's datasheet.

Typical Applications

- Long Range Illumination (visible/infrared)
- Border Security
- Maritime and Harbor Security
- Surveillance (visible/infrared)
- Shipboard Protection

Maxa Beam Searchlight End-Users Include

- U.S. Armed Forces (all branches)
- U.S. Border Patrol
- U.S. Department of Energy
- U.S. Secret Service
- Federal Law Enforcement (FBI, U.S. Marshals)

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PERFORMANCE

Output	12,000,000 Peak Beam CandlePower (no maximum threshold; -10% minimum threshold)
Range	0.25 lux @ 6,925 meters 1 lux @ 3,500 meters 12 lux @ 1,000 meters <i>Visible ranges per ANSI/NEMA FL1: Flashlight Basic Performance Standard</i>
Lamp	85 Watt Xenon Short Arc, Instant cold start and hot restrike

USER CONTROLS

Beam Width	Motorized Adjustment from 1° Spot to 40° Flood	<p><i>Default 4-Way Switch Functions</i></p>
Beam Intensity	3 Levels; Optional Low Beam is User-Programmable	
Disorienting Strobe Function	Default Frequency of 10Hz and Duty Cycle of 38%. User-Adjustable Frequency from 1-31Hz User-Adjustable Duty cycle from 3-63%	
Controllable Functions	On/Off, Beam Intensity, Beam Width, Strobe	
Customizable Settings	Start-Up Beam Mode and Beam Width Spot and Flood Limits Strobe Frequency and Duration Continuous (Latched) High and Strobe	
<i>Consult the Operation Manual for complete programming and control options.</i>		

ENVIRONMENTAL

Ingress Protection	IP66 per CEI/IEC 60529:2001
Operating Temperature	-15°C to +60°C
Housing	Polyester Powder-Coated Aluminum with Corrosion-Resistant Conversion Coating and Impact-Resistant PC/ABS

MAINTENANCE

Lamp	Replacement Kit # MBA-2400 Sold Separately
Lens	Replacement Kit # MBA-2420 Sold Separately
MTBF	1500 hours (Lamp); Maintenance/Replacement Recommended at 1000 hours
Warranty	90 days (Lamp); 1 year (All Other Components)

POWER

INPUT POWER REQUIREMENTS			
Parameter	Value	Unit	Notes
Operating Voltage	10.0-13.5	Volts	Over Voltage/Reverse Polarity Protected to ±36V
Lamp Off, Standard Lights	<1	µAmp	25°C, 12VDC Input
Low Beam Mode	3.35 ± 0.07	Amps	25°C, 12VDC Input
Normal Beam Mode	4.29 ± 0.08	Amps	25°C, 12VDC Input
High Beam Mode	8.29 ± 0.09	Amps	25°C, 12VDC Input
Peak Current at Lamp Start	20.5 ± 3.2	Amps	25°C, 12VDC Input
Peak Current Pulse Duration	8.1 ± 1.6	mS	Time spent above high beam mode current draw.

Battery	Rechargeable Battery # MBP-1308 Sold Separately (115 minute run time on regular beam level)
Power Supply	100-240VAC Power Supply # MBP-4000 Series Sold Separately

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PHYSICAL CHARACTERISTICS



Connects to Peak Beam batteries and mounts
Do not remove mounting lugs to access threaded holes.

Dimensions are in inches.

Weight	3.2 lbs.
Mount Interface	Proprietary four-point locking mechanism; allows quick attachment with no tools required to: Maxa Beam Batteries (# MBP-1308 Series Sold Separately) Maxa Beam Mounts (# MBA-3600 Series Sold Separately)

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CONNECTOR PIN-OUTS

Control Connector (8-Pin Plastic, # CN-014)	
Function	Pin
12VDC Out	1
Ground	2
On/Off	3
High/Normal Beam	4
Focus Narrow	5
Focus Wide	6
Strobe/Low Beam Mode	7
Blank – not normally used	8

Power Connector (4-Pin Plastic, # CN-004M1)	
Function	Pin
Positive Supply Voltage	1
Positive Supply Voltage	2
Negative Supply Voltage	3
Negative Supply Voltage	4

SAFETY WARNINGS

ANSI Risk Group 3. Warning.
Visible and infrared radiation emitted from this searchlight.
Permanent eye damage can result. Avoid direct exposure to the beam.

Do not look directly into the searchlight beam. Exposure of the eye to either the direct searchlight beam or a beam reflected from a flat mirror-like surface can cause permanent eye injury to the unprotected eye. Follow the same precaution even when an Infrared Filter is installed on the searchlight.

Nominal Ocular Hazard Distance (NOHD), Visible Light: 10 meters
NOHD, Infrared Light: 30 meters for exposures greater than 10 seconds

Do not operate searchlight if the front lens is damaged or removed. Ultraviolet injury to skin and cornea can occur if the searchlight is operated with a damaged front lens or if the lens is removed.

Do not allow the concentrated beam of light to be focused on flammable materials at close distances for prolonged periods of time.

Do not operate light in an explosive environment.

Do not touch lamp connections during operation as high voltage is present.

Do not touch the quartz envelope of the lamp. If the lamp is accidentally touched, clean with rubbing alcohol and allow it to dry completely before operating the searchlight.

Always wear protective eyewear, long sleeves, and gloves if removing the front lens cover. The lamp is under positive pressure and should be handled with care.

Always disconnect searchlight from power cord when not in use, when placed in storage or when being transported to prevent accidental activation.

REVISION HISTORY

4/2006	Searchlight output increased from 6,000,000 CandlePower to 7,500,000 CandlePower (G3-12).
1/2010	Searchlight updated to add control connector (G3-12R).
3/2011	Output increased from 7,500,000 CandlePower to 12,000,000 CandlePower (G3-20).
6/2013	Searchlight front lens upgraded to Spyder Lens (G3-20Y).
5/2016	Searchlight continuous high beam function added (G3-26).
1/2023	New reflector coating with improved visible and infrared reflectivity released (G3-26A).
9/1/2024	Searchlight programmable settings updated, including power-up on high beam option (G3-34). Input power requirements updated.



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