

Maxa Beam Searchlights

Maxa Beam Searchlights are lightweight, compact, high intensity illuminators which use a field replaceable 75 Watt Xenon short arc lamp and a precision electroformed reflector to provide the ultimate source for long range and wide angle portable and remote-controllable illumination.

All Maxa Beam Searchlights Feature:

- 12,000,000 Peak Beam CandlePower Output
- Color rendition similar to daylight (6000°K)
- Motorized Beam Width Adjustment from 1° Spot to 40° Flood (1° to 25° in *Weapon Lights*)
- Strobe Function with Variable Rate and Duty Cycle (*Strobe Sweep in Weapons Lights*)
- Three Beam Intensity Levels (*Two in Weapons Lights*)
- Field-Programmable Operational Characteristics (*start-up beam width, strobe rate, etc.*)
- Visible and Infrared Illumination Capability
- Flexible Mounting Options
- Remote Control of Beam Intensity, Beam Size, Strobe Function and Programming



Handheld Searchlight Systems also include rechargeable NiCad, Lithium-Ion or Lithium Iron Phosphate Battery modules that offer up to 180 minutes of continuous operation from a single battery. The searchlight and li-ion battery weigh just 5.7 lbs.

Remote-Controlled Searchlights feature an optional RS-232 interface that allows the operator to control all functions of the searchlight from a computer. Remote-controlled searchlights are frequently integrated onto camera and sensor platforms for escalation of force applications.

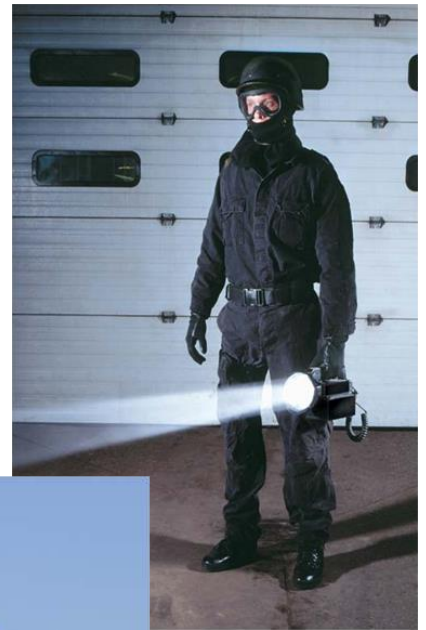
The Maxa Beam Searchlight Product Line consists of four basic searchlight models:

- MBS-410 Handheld Searchlight with Remote Control Capability
- MBS-430-W Crew-Served Weapons Light (CSWL)
- MBS-430-Y Mounted Remote-Controlled Searchlight
- MBPKG-E Computer-Controlled Searchlight in Environmental Housing

Applications:

For over 24 years users in locations ranging from the Sahara Desert to the AlCan Pipeline have come to rely on the Maxa Beam Searchlight for:

- Force Protection
- Perimeter Security
- Search and Rescue
- Border Protection
- Tactical Operations
- Escalation of Force / Ocular Disruption
- Shipboard Protection / Maritime Security



- Night Vision Equipment Enhancement
- Crew-Served Weapon Illumination
- Infrared / Covert Surveillance

without IR illumination

with Maxa Beam using an IR filter

INFRARED

When used with a selective band-pass Infrared filter, the Maxa Beam becomes a powerful IR illuminator at ranges of up to 2,500 meters.

The image shows a circular night vision view of a landscape. Below it are two side-by-side images: the left one is labeled 'without IR illumination' and shows a very dark scene; the right one is labeled 'with Maxa Beam using an IR filter' and shows the same scene brightly lit in green, with a license plate 'UGB 646' clearly visible. Below these images is a yellow box with the word 'INFRARED' in bold, followed by a paragraph of text.



Setting the **standard** since 1987.

The most powerful handheld searchlight ever built.

The Maxa Beam Searchlight is a lightweight, high intensity illumination device with an unparalleled output of 12,000,000 Peak Beam CandlePower. The Maxa Beam has been battle-tested by the United States Armed Forces and numerous foreign and domestic government agencies for over twenty-five years.



Handheld Maxa Beam Searchlight systems feature lightweight, long-running Lithium-Ion batteries and an easy-to-use joystick-style control of the searchlight's beam width, beam intensity, and strobe function. The searchlight's rugged design and long illumination range make it the tool of choice for search and rescue, covert surveillance, escalation of force, and tactical operations.

Effective non-lethal weapon.

Maxa Beam Searchlights are used to achieve the following Escalation of Force (EoF) objectives:

DETERRENCE:

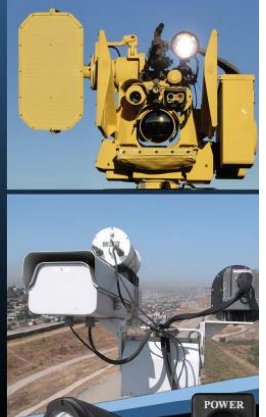
Intruders are less likely to enter brightly illuminated perimeters, vessels, and other areas of interest.

DETECTION:

The Maxa Beam's long range, focusable beam of light aids with identification of targets.

OCULAR DISRUPTION / DISORIENTATION:

The Maxa Beam's powerful output immediately impairs a target's ability to see and operate at night.



Unparalleled remote control options.

The Maxa Beam is unique in that all searchlight functions including beam width adjustment and strobe can be remotely activated.



Remote control options include a waterproof remote control box (far right) and a Graphical User Interface software program for computer control (left).

◀ Use the included GUI Control Software to remotely operate the MBPW-E Series Environmentally Sealed Searchlight.

MB5-410 Series Searchlight on Truck Patrol/Till Head ▶

All Maxa Beam searchlights feature:

- 12,000,000 Peak Beam CandlePower Output
- Motorized, Remote-Controllable Beam Width Adjustment
- Focusable Long Range Illumination (3500m Visible / 1400m IR)
- Strobe Function for Ocular Disruption & Target Disorientation



From top right: MB5-410-W Series Searchlight on computer-controlled EoF/weapon station; MBPW-E Series Searchlight on a remotely monitored U.S. Border Patrol tower; MB5-410-Y Series Searchlight and Wired Remote Control; MB5-410-W Series Crew-Served Weapon Light on a .50 caliber machine gun ▶



MAXA BEAM

CREW-SERVED WEAPONS LIGHT



**CHOSEN FOR
PLACEMENT ON THE
U.S. ARMY'S COMMON
TABLE OF ALLOWANCE
(CTA)**



Mil. Spec. Waterproof Metal Connectors and Rugged, Shielded Cable

Quick-detach throw levers connect to 1913 Picatinny Rail

Shock-mounted lamp/lens assembly and waterproof seals



Toggle constant-on/off switch with lock-out option

Precision electroformed reflector allows efficient beam collimation and output

Field-Replaceable Xenon Short Arc Lamp

Control all CSWL Features from the Rear of the Weapon:

- Constant On/Off
- Beam Width (1° to 25°)
- High/Low Beam Intensity
- Strobe Function for Non-Lethal EoF applications (8-15Hz sweep)

12,000,000 CANDLEPOWER OUTPUT - ILLUMINATES TARGETS UP TO 2 MILES AWAY



MAXA **BEAM** SEARCHLIGHT #MBPKG-A: RAPID DEPLOYMENT PACKAGE

The Maxa Beam Searchlight is a lightweight, high-intensity illumination system with an unparalleled output of 12,000,000 Peak Beam CandlePower. The Maxa Beam has a motorized beam width adjustment, meaning that the user can vary the beam from a 1° spot to a 40° flood with the hand that holds the light.

The Maxa Beam Rapid Deployment Package features the Lithium-Ion Battery with Built-in Charger. The Li-Ion weighs just 2.5 lbs., has a five-level LED fuel gauge, and can power the light on its default beam level for 110 minutes.

The Maxa Beam Searchlight is the most powerful and most effective handheld bright light available for search and rescue, surveillance, perimeter security, and non-lethal escalation of force operations. The Maxa Beam Searchlight has been battle-tested by the United States Armed Forces and numerous government agencies for over twenty years.



MBPKG-A Specification:

Performance

Output	12,000,000 CandlePower
Illumination Range	3500 Meters
Beam Levels	Three: High, Normal (<i>default</i>) and Low
Beam Width	1° Spot to 40° Flood (<i>motorized</i>)
Strobe	1-31Hz, 3-63% User Programmable

Power

Lamp	Xenon Short Arc
DC Power	Searchlight Vehicle Adapter included; 12VDC
Battery	Lithium-Ion Pack; recharges from 11-29VDC and/or 100-240 VAC (<i>both adapters included</i>)

Size

Searchlight: 11.5 in. Long x 5.75" Diameter
3.2 lbs. (without battery), 5.7 lbs. (with battery)

Included in Kit

Searchlight, Li-Ion Battery, AC/DC Adapters, Vehicle Adapter, Shoulder Strap, and Storage Case
--



MAXA **BEAM** SEARCHLIGHT #MBPKG-B: BASIC PACKAGE WITH LiFePO₄ BATTERY

The Maxa Beam Searchlight is a lightweight, high-intensity illumination system with an unparalleled output of 12,000,000 Peak Beam CandlePower. The Maxa Beam has a motorized beam width adjustment, meaning that the user can vary the beam from a 1° spot to a 40° flood with the hand that holds the light.



The Maxa Beam Searchlight is the most powerful and most effective handheld bright light available for search and rescue, surveillance, perimeter security, and non-lethal escalation of force operations. The Maxa Beam Searchlight has been battle-tested by the United States Armed Forces and numerous government agencies for over twenty years.

MBPKG-B Specification:

Performance

Output	12,000,000 CandlePower
Illumination Range	3500m (visible/white light); 1400m (infrared)
Beam Levels	Three: High, Normal (default) and Low
Beam Width	1° Spot to 40° Flood (motorized)
Strobe	1-31Hz, 3-63% User Programmable

Power

Lamp	Xenon Short Arc
Battery	Li-Ion (LiFePO ₄) Pack and 100-240VAC Charger

Size

Searchlight: 11.5 in. Long x 5.75" Diameter
3.2 lbs. (without battery), 6.7 lbs. (with battery)

Included in Kit

Searchlight, LiFePO₄ Battery, 100-240VAC Charger, Battery Shoulder Strap

Notes

Class 9 Hazardous Goods for Air Shipments Only

The MBPKG-B Basic Package is an economical entry-level system containing everything needed to operate the searchlight in a visible light situation, including a searchlight, LiFePO₄ battery, shoulder strap, and 100-240VAC battery charger.

Please note that this kit does not contain a storage case, DC charging option, or infrared filter, but these items can be added à la carte.

MAXA **BEAM** SEARCHLIGHT #MBPKG-B-DOD: BASIC PACKAGE FOR DEPT. OF DEFENSE

The Maxa Beam Searchlight is a lightweight, high-intensity illumination system with an unparalleled output of 12,000,000 Peak Beam CandlePower. The Maxa Beam has a motorized beam width adjustment, meaning that the user can vary the beam from a 1° spot to a 40° flood with the hand that holds the light.

The MBPKG-B-DOD Package is an economical entry-level system. It contains everything needed to operate the searchlight in a visible light situation, including a searchlight, Li-Ion battery, shoulder strap, and 100-240VAC battery charging adapter. *Please note that this kit does not contain a storage case, DC charging option, or infrared filter, but these items can be added à la carte.*

The Maxa Beam Searchlight is the most powerful and most effective handheld bright light available for search and rescue, surveillance, perimeter security, and non-lethal escalation of force operations. The Maxa Beam Searchlight has been battle-tested by the United States Armed Forces and numerous government agencies for twenty-five years.

MBPKG-B-DOD Specification:

Performance

Output	12,000,000 CandlePower
Illumination Range	3500m (<i>visible/white light</i>); 1400m (<i>infrared</i>)
Beam Levels	Three: High, Normal (<i>default</i>) and Low
Beam Width	1° Spot to 40° Flood (<i>motorized</i>)
Strobe	1-31Hz, 3-63% User Programmable

Power

Lamp	Xenon Short Arc
Battery	Lithium-Ion Pack with 100-240VAC Charger

Size

Searchlight: 11.5 in. Long x 5.75" Diameter
3.2 lbs. (*without battery*), 5.7 lbs. (*with battery*)

Included in Kit

Searchlight, Li-Ion Battery, 100-240VAC Charging Adapter, Battery Shoulder Strap

NSN

6230-01-392-8379



NON-LETHAL ^{MAXA} BEAM SEARCHLIGHT OPTIONS:



Portable/Handheld Searchlight Package - #MBPKG-NL

This package features a lightweight, portable Maxa Beam Searchlight with a rechargeable Lithium-Ion battery, 850nm infrared filter, collimating lens and waterproof storage case. The searchlight and battery together weigh 5.7 lbs. and the battery will run the searchlight on default beam power for 110 minutes.

Optional Upgrades: *Fluid Pan/Tilt Mounting Head (#MBA-3661)*
Wired Remote Control (#MBA-8406-MP)



Mounted Searchlight with Wired Remote Control - #MBS-430-Y

This searchlight is designed for mounted applications where the operator will be present but not necessarily holding the searchlight. All functions of the searchlight including beam width, strobe, and beam intensity are controlled using a compact remote control unit.

Optional Upgrades: *Mil. Spec. Metal Connectors (#MBS-430-MY)*



Mounted Searchlight with RS-232 Computer Control - #MBS-430-RSY

This searchlight is designed to be mounted and remotely controlled with a computer. This searchlight is often integrated into remote-controlled surveillance, EOF and weapon systems.

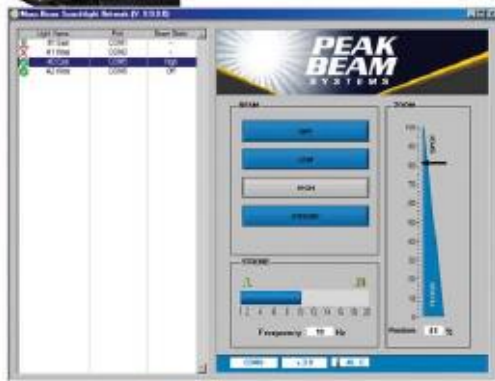
Optional Upgrades: *Mil. Spec. Metal Connectors (#MBS-430-RSMY)*
Picatinny Rail Interface (#MBS-430-W-RS)



Environmentally Sealed Searchlight with RS-232 Computer Control - #MBPKG-E

Designed for continuous exposure to harsh weather conditions, this searchlight is housed in a marine-grade aluminum enclosure. The enclosure has a built-in cooling system for optimum searchlight performance in extreme temperatures and can be fix-mounted on a variety of platforms including ships and perimeter towers. The searchlight is controlled with a computer and is often employed with third-party Ethernet-to-serial servers, allowing multiple searchlights to be linked together on the same network.

Optional Upgrades: *Dual Connectors (#MBPKG-E2)*
24VDC or 48VDC Input Voltage (#MBPKG-E-24/48)
Direct Drive 100-240VAC Supply (#MBP-4000S)



All Non-Lethal Maxa Beam Searchlights Feature:

- 12,000,000 Peak Beam CandlePower Output
- Motorized, Remote-Controllable Beam Width Adjustment
- Focusable Long Range Illumination (3,500m Visible / 1,400m Infrared)
- Field-Replaceable Xenon Short Arc Lamp
- Strobe Function:
 - 1-31Hz, 3-63% User-Programmable Strobe
 - 8-15Hz Factory-Programmed "Sweep" Strobe (weapon lights only)
 - Random-Pattern Square Wave "Alpha" Strobe (U.S. Gov't only)

MAXA **BEAM** SEARCHLIGHT:

Computer-Controlled Series #MBPKG-E

This 12,000,000 CandlePower Searchlight System is remotely controlled with a computer using RS232 protocol. The remote user can control the searchlight's beam intensity and motorized beam width as well as its effective and disabling variable rate non lethal strobe function. This lightweight system mounts easily to pan/tilt devices and an internal cooling system allows continuous use in all extreme weather conditions.

This searchlight system is innovative in that it offers a wide range of computer-controllable features in a high-output, relatively inexpensive, lightweight and compact unit. This system has been tested and implemented by the U.S. Border Patrol.

The system is also used in conjunction with Directed Acoustic Technology such as LRAD Corp.'s Long Range Acoustic Device, pictured below.



Specification:

Performance

Output 12,000,000 CandlePower
Illumination Range 3500m (Visible/White Light); 1400m (Infrared)

Remote Control

Control Method RS232 Protocol or Momentary Switches
Beam Width 1° Spot to 40° Flood (motorized)
Strobe 1-31Hz, 3-63%; *Remotely set Rate & Duty Cycle*

Power

Lamp Wattage 85W, 45W or 35W Depending on Selected Mode
DC Power 12VDC; 24VDC & 48VDC Systems also available
AC Power 100-240 VAC Power Supply Sold Separately

Dimensions

15.4 in. Long x 7.21" Diameter, 8.5 lbs.

MAXA **BEAM** SEARCHLIGHT: RECHARGEABLE BATTERY OPTIONS



	#MBP-1207 Ni-Cad Battery	#MBP-1310 LiFePO ₄ Battery	#MBP-1307 Lithium-Ion Battery with Built-In Charger
Run Time (default)	90 min.	135 min.	110 min.
Run Time (high)	45 min.	90 min.	60 min.
Life Cycles	1,000	2,500	500
Capacity	7 Ah	10 Ah	7 Ah
Dimensions	5 x 7.25 x 3.5 in.	5 x 7.25 x 3.5 in.	5 x 7.25 x 2.75 in.
Weight	5.5 lbs.	3.5 lbs.	2.5 lbs.
Charge Time	150 min.	180 min. / 120 min.	180 min.
Charger	MBP-5200-M (AC/DC)	MBP-3200 (AC/DC) / MBP-3205 (AC)	MBP-5003 (AC) / MBP-5230 (DC)
Notes	<i>NiCads can develop a memory if battery is recharged before cells are fully discharged. The MBP-5200-M charger includes a NiCad conditioning cycle to eliminate this issue.</i>	<i>This battery features new Lithium-Iron Phosphate technology that allows extended run times and more life cycles. Due to the battery chemistry shipping options for this battery are limited.</i>	<i>This Lithium-Ion Battery features a 5-level LED fuel gauge and a built-in charger. This battery requires an AC or DC adapter cord to connect it to power for recharging.</i>

Lithium-Ion Batteries are compatible with all previous Maxa Beam Searchlights and are lighter weight and more powerful than their NiCad counterparts.



MAXA **BEAM SEARCHLIGHT**

BY PEAK BEAM SYSTEMS, INC.

The Maxa Beam's beam width can be adjusted from a 1° Spot to a 40° Flood. The beam width is motorized, meaning that the operator simply pushes a joystick button forward (spot) or back (flood) with the hand that holds the light. This leaves the other hand free to hold a weapon or communication device.

The table below shows how the beam width affects the size of the Field of Illumination:

Beam Width (angle)	Distance (meters)	Beam Diameter (meters)
1°	100	1.75
1°	1000	17.46
1°	3500	61.09
10°	100	17.63
10°	1000	176.33
20°	100	36.40
20°	500	181.99
40°	100	83.91
40°	500	419.55

To calculate the beam diameter at a distance:
DIAMETER = (TAN(0.5*ANGLE)*2)*DISTANCE