

Maxa Beam Searchlight Infrared Filters

rev. 05/19



Turn the Maxa Beam into a covert IR illuminator with an infrared filter. The searchlight's infrared beam is invisible to the naked eye but will aid IR-sensitive cameras and night vision devices at long ranges.

Key Features

- Several longpass filters offer differing levels of covertness and range
- Up to 2,500 meter range in Infrared (715nm)
- Installs quickly with no tools required
- Compatible with all Maxa Beam Searchlights

Typical Applications

- Aid IR-Sensitive Cameras
- Aid Night Vision Devices
- Covert Surveillance
- Long Range IR Illumination



FILTER OPTIONS

Model #	Description	Sharp Cut-On	Range*
MBA-1715	Semi-Covert IR Filter	715nm	2,500m
MBA-1850	Covert IR Filter (NSN: 6230-01-393-1816)	850nm	1,400m
MBA-1900	Fully Covert IR Filter	920nm	500m

**Range Calculations based on images produced by a Watec 902-K camera with various 2.2 speed Rainbow Zoom Lenses with 1 μ watt of IR energy reaching the target. These tests were conducted on a clear moonless night with the Maxa Beam Searchlight in a 1° spot on its high beam setting.*

CHOOSING AN INFRARED FILTER

As a very general rule, the unaided human eye can typically see “visible light” energy below a wavelength of 760 nanometers (nm) and night vision devices can see “infrared light” energy above 760nm. The higher the wavelength, the more undetectable the energy will be to the human eye and lower quality night vision devices. But by the same token, the more invisible the beam is, the shorter the range will be because the higher wavelength filters are blocking more and more of the searchlight’s overall output.

- The 715nm Filter blocks the least light energy, resulting in the longest range but also the most visible light transmission. With this filter installed, the searchlight emits a faint but visible red glow.
- **The 850nm Filter is the best filter choice for most applications** because it offers a good balance of range and covertness. With this filter installed, the searchlight’s beam is nearly invisible to the naked eye. A very faint red glow may be visible if the beam is bore-sighted at a close distance.
- The 920nm Filter blocks the most light energy, resulting in the shortest range. With this filter installed, the searchlight’s beam is undetectable to the naked eye. The beam will also be less visible to less sensitive IR cameras and some night vision devices.

SAFETY WARNINGS

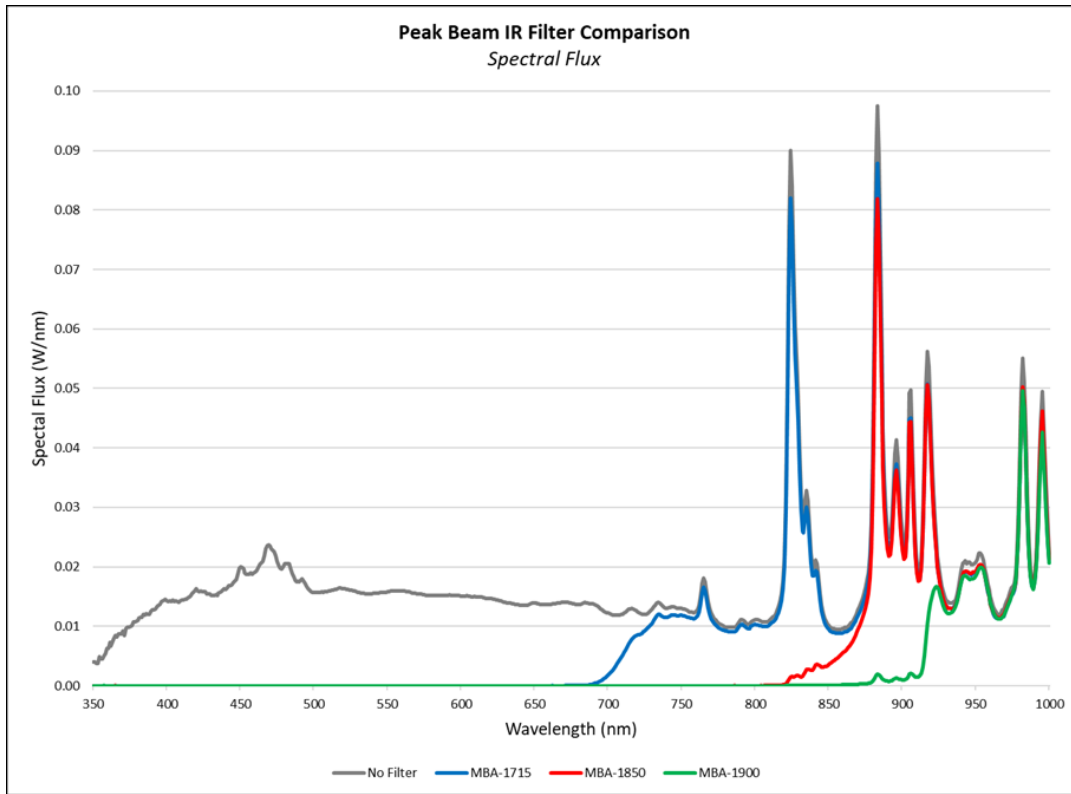
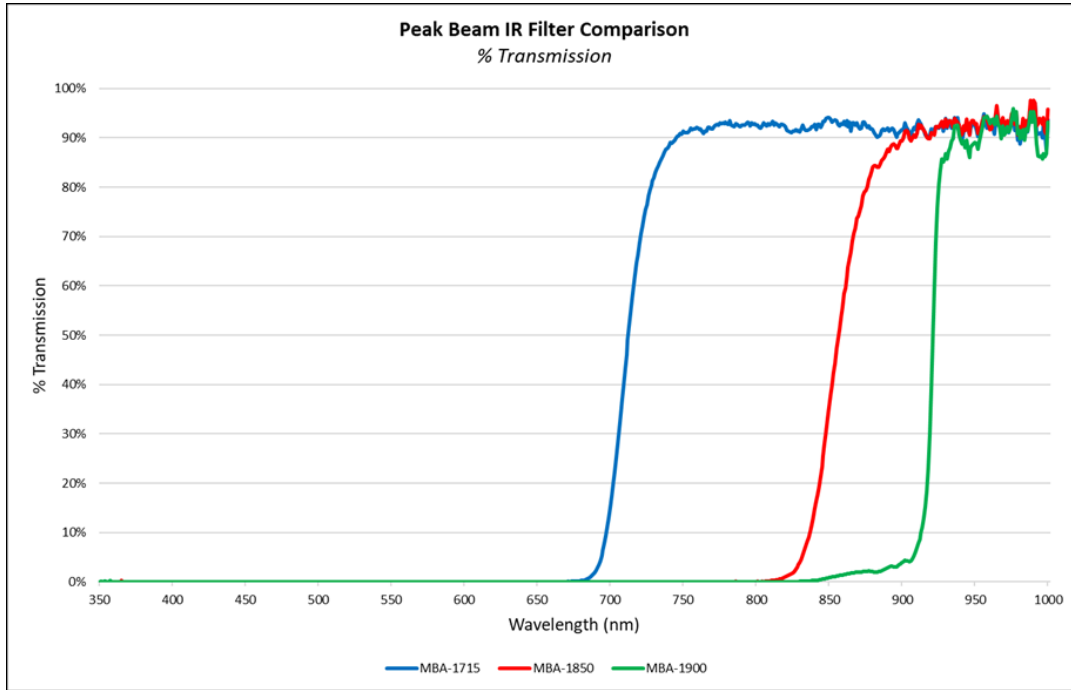
ANSI Risk Group 3. Warning. Visible and infrared radiation emitted from this searchlight. Permanent eye damage can result. Avoid direct exposure to the beam.

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**



INFRARED FILTER OUTPUT



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