

VISORS



GENTEX®

Gentex Corporation is a world leader in providing laser protective visors and other custom performance optics especially for aircrew helmet systems.

Gentex continues to develop new light management technologies to protect military, civil government and emergency responder personnel around the world from the latest optical threats, all the while seeking to enhance mission performance through visual acuity and providing a means to interface helmets and visors with other essential helmet components, such as Night Vision Goggles, Helmet Mounted Displays and High-Altitude Oxygen Masks.

Gentex's research, development and manufacturing of performance optics dates to the 1970s, and the mastery of light absorptive dye technology to manufacture military polycarbonate helmet visors with optical characteristics in accordance with the requirements of U.S. military specification MIL-V-43511, and with abrasion resistance coating on both surfaces in accordance with MIL-C-83409. Commercial helmet visors are also manufactured in compliance with these specifications.

Special dyes and colors for particularly demanding requirements have been developed by Gentex to improve visual acuity in demanding flight or terrain conditions. For example, Gentex offers Amber Visors for snow conditions, Neutral Gray Visors for sun or high light conditions, and High Contrast Visors for haze, overcast and fog conditions.

The Gentex polycarbonate visor is available in various optical protection configurations. Our visors are designed to provide environmental protection from such performance concerns and life threats as windblast, high-light intensity, spall resulting from canopy or screen failure, laser threats, impact threats, rotor wash, or inclement weather conditions. All visors are available in MBU-20/P, MBU-12/P, and MBU-5/P trim configurations.

All Gentex polycarbonate helmet visors are manufactured with optical characteristics in accordance with several U.S. military specifications:

- Ultraviolet Transmittance: All Gentex visors provide a minimum of 99% protection from UV(A), UV(B), and UV(C) sunlight.*
- Impact Resistance: When tested in accordance with MIL-STD-622 and using a .22 T37 fragment simulating projectile at a velocity of 550 feet per second, all Gentex visors meet the requirements of MIL-V-43511.*

Visor are available in four styles:

- Bungee or Elastic Strap Visor: The Bungee Visor attaches to the helmet shell by snaps, using elastic or "bungee" straps. This allows complete adjustment for positioning the visor and oxygen mask to get a good fit. It also results in the lightest weight visor configuration available.*
- High Speed Visor Kit: The High Speed (HS) Visor Kit is specially engineered for use with Gentex's leading Lightweight HGU-55/P helmet with integrated chin/nape strap. This cutting-edge assembly was qualified at 600 KEAS (Knots Equivalent Air Speed) at attitudes specified in MIL-H-85047, including head on/head up, rotated 45° starboard/head up, head on/tilted 45° aft and rotated 45° port/tilted 45° aft. The visor attaches to the helmet shell by snaps, using elastic or "bungee" straps. This allows complete adjustment for positioning the visor and oxygen mask to get a good fit.*
- Step-in Visor: The Step-In Visor is an optional helmet upgrade to the HGU-55/P, HGU-68/P and HGU-84/P Helmet Systems. The visor attaches to the helmet by snaps at the same location as the standard bungee visors. The Step-In Visor is designed to provide eye and facial protection from a range of hazards while utilizing Night Vision Goggles (NVGs), and they are available to fit with both MBU-12/P and MBU-20/P-series oxygen masks. More specifically, Step-In Visors provide superb eye and facial protection while using NVGs or in the event of an ejection. Ballistic fragmentation protection is up to 550 feet per second, the same level that is provided by standard visors. Step-In Visors are available in both clear and neodymium laser (1064 nm) versions, which offers protection not provided by laser spectacles from off-axis lasing. All Gentex Step-In Visors features an anti-fog coating on the inner surface of the lens.*
- Track Visor: The HGU-56/P and SPH-5 helmets feature a track visor system with a housing that allows the visor to be locked into the desired upward, intermediate, or downward position. The HGU-68/P helmet features a housing-less track system, which allow allows the visor to be locked into the desired upward, intermediate, or downward position.*



Visors are configured for the following applications:

- **Clear Visor/Neutral Visor/Amber Visor:** *Gentex Clear, Neutral Gray, and Amber Visor Assemblies are engineered to provide aircrew with facial protection from windblast, high-light intensity, spall resulting from canopy or screen failure, impact threats, and dust and debris from rotary and jet wash. In comparison, the Amber Visor Assembly, with its yellow hue, offers basic contrast to the field of view in snow conditions. Each of these units is available for use in single or dual visor configurations.*
- **Gradient Visor:** *Engineered specially for protection against sun glare, the Lightweight Gradient Visor Assembly allows aircrew donning a Gentex HGU-55/P, HGU-56/P, HGU-68/P, HGU-84/P, SPH-4B or SPH-5 helmet to see darker cockpit instrumentation clearly. The gradient visor consists of a tinted color which transitions to nearly clear at the lower portion of the visor.*
- **High Contrast Visor:** *Specially engineered for use in low light, haze and fog conditions, the Gentex High Contrast Visor (HCV) provides aircrew with a heightened and enhanced field of vision when flying in low-light conditions, such as foggy, overcast, hazy or cloudy environments. This advanced polycarbonate HCV, when mounted on a Gentex HGU-55/P, HGU-56/P, HGU-68/P, HGU-84/P, SPH-4B or SPH-5 flight helmet, creates a viewing field where all blue components appear black or very dark and other color components are nearly normal. Gentex's Filtron® technology - absorber dyes that are molded into the polycarbonate visor - renders the visor a unique yellow color and filter certain invisible and visible wavelengths for the visor wearer.*
- **Laser Visor:** *An optional performance optics upgrade to our full line of helmet systems, Gentex Laser Visors provide exceptional protection from highly specific laser threats including the 1064nm - or Neodymium: Yag. The visors are available in Optical Densities (OD) ranging from OD 4 to our highest option for absorbing laser energy, OD 6; and their Total Light Transmission (TLT) is approximately 60%. Gentex laser visors are also compatible with night vision goggles or devices. Several different single wavelengths and multiple wavelengths in the same visor are available with other wavelengths (or "lines") available upon request.*

Helmet and Oxygen Mask Integration:

Multiple Bungee or Track Visor systems can be mounted to a helmet depending on the operational requirement. Visors are also available in various trims to be integrated with a variety of oxygen masks. When ordering, please stipulate your inner and outer visor configuration and/or your mask trim required.

Ordering Information:

Bungee or Elastic Visors and Track Visors

HELMET SYSTEM	OXYGEN MASK	CLEAR VISOR	NEUTRAL VISOR	GRADIENT VISOR	HIGH CONTRAST VISOR	AMBER VISOR	LASER VISOR
HGU-55/P or HGU-68/P	MBU-20/P Series or MBU-23/P	Bungee, 91A8058-6	Bungee, 91A8058-7	Bungee, 91A8058-2	Bungee, 91A8058-1	Bungee, 91A8058-5	Please Call
HGU-55/P or HGU-68/P	MBU-12/P Series or MBU-14/P	Bungee, 81D5189-3	Bungee, 81D5189-4	Bungee, 81D5189-11	Bungee, 81D5189-12	Bungee, 85D7139-6	Please Call
HGU-55/P with High Speed Visor Kit**	MBU-20/P Series	Bungee, 04D11873-1	Bungee, 04D11873-3	Bungee, 04D11873-9	Bungee, 04D11873-5	Bungee, 04D11873-11	Please Call
HGU-56/P	N/A	Track Inner, 88D7618-1	Track Outer, 88D7619-1	Track Outer, 95A9302-1	Track Outer, 95A9302-3	Track Outer, 95A9302-4	Please Call
HGU-68/P with EEK-7/P Track Kit	MBU-20/P	Track, 90D7972-5	Track, 90D7972-4	Track, 97A10037-4	Track, 90D7972-6	Track 97A10037-2	Please Call
HGU-68/P with EEK-7/P Track Kit	MBU-14/P	Track, 907972-2	Track, 907972-1	Track, 97A10037-3	Track, 90D7972-3	Track 97A10037-1	Please Call
HGU-84/P	N/A	Bungee Inner, 90D7914-1	Bungee Inner, 90D7915-1	Bungee Outer, 95A9255-2	Bungee Outer, 95A9255-3	Bungee Outer, 95A9255-1	Please Call
SPH-4B or SPH-5	N/A	Track Inner 90D7933-1	Track Outer, 90D7932-1	Track Outer, 90D7932-1	Track Outer, 90D7943-4	Track Outer, 90D7932-3	Please Call

Step-In Visors

HELMET	OXYGEN MASK	HELMET SIZE	CLEAR VISOR	LASER VISOR
HGU-55/P HGU-68/P or HGU-84/P	MBU-20/P or MBU-23/P Series	Medium	00C11176-1	00C11176-5
HGU-55/P HGU-68/P or HGU-84/P	MBU-20/ or MBU-23/P	Large/X Large	00C11176-3	00C11176-7
HGU-55/P HGU-68/P or HGU-84/P	MBU-12/P or MBU-14/P Series	Medium	01C11448-1	01C11448-9
HGU-55/P HGU-68/P or HGU-84/P	MBU-14/P Series	Large	01C11448-3	01C11448-1
HGU-55/P HGU-68/P or HGU-84/P	MBU-14/P Series	X Large	01C11448-5	01C11448-13

Note: All Bungee or Elastic Strap and Track Visors are one size fits all. Additional visor configurations are available upon request.

*** High Speed Visor Kit requires the use of rubber edge roll cover, Gentex Part Number 05C12022-2, in order to provide 600-knot capability.*

Step-in Visors must be ordered based upon helmet size. Additional visor configurations available upon request.

For commercial orders contact:

Mark Jones (570) 282-8504 mjones@gentexcorp.com

For international distributors, please visit www.gentexcorp.com