### **TWS-3000 Series Thermal Imaging Weapon Sights**

GSCI **TWS-3000** Series Thermal Weapon Sights offer the greatest performance in the lightest and most rugged package, and represent the best thermal weapon scopes available on the market. Great performance, coupled with high resolution sensors, and OLED displays firmly positioned **TWS-3000** Series scopes as a leader in the industry.

**TWS-3000** can be supplied with various high-quality, fast germanium lenses featuring optical magnification from 1X and up to 4X and a low F-Number. Along with the GSCI proprietary video signal processing software allows to achieve impressive long range detection, recognition, and identification ranges.

While most of the rival systems have an FPA format of 320x240 with 9-30 Hz refresh rate, GSCI **TWS-3000** scopes are offered at entry level with FPAs of 384x288 with 50(PAL)/60(NTSC) Hz refresh rate, or at top notch with FPAs of 640x480, 17um. Such increases of resolution and frame rate, provide the user with a much smoother looking image, and clearer details from increased shading/gradation. Current users of **TWS-3000**, that have also used other devices, have made a point that the FPAs with higher resolution and refresh rates really make a difference. Frame rate lag is almost zero during quick panning and tracking of fast-moving objects.

**TWS-3000** kit includes "2 quick swap battery packs" allowing rapid interchange without long interruption in scope's operation. The scopes are also programmed with 16 selectable patterns of reticules and a standard M1913 Picatinny Mount. The reticule coordinates may be memorized, allowing the use of the same scope on various guns and/or by various operators. **TWS-3000** also features the ability to be connected to an external video monitor, recorder, or Head Mounted Display (HMD-800)

Including the fact that **TWS-3000** units cost several thousands less than the "government purchase only" devices, and are available in commercial versions for purchase by the general public, it is clear that **TWS-3000** Series are a Winner!

#### **BASIC KIT INCLUDES:**

- Thermal Imaging Weapon Sight
- Video-Out Cable
- 4 pcs AA Lithium Batteries
- 2 Quick-Swap Battery Packs
- Long Eye Relief Rubber Eyecup
- Flip-up Front Lens Cover
- Operator's Manual
- 7-Year Manufacturer's Warranty
- 1913 Picatinny Weapon Mount
- Carrying Pouch

#### **KIT UPGRADES:**

- SRF
- HMD-800
- Flip-Up Head Gear(HG-714M)
- Flip-Up Helmet Mount (HM-714M)
- J-arm
- Nanuk Hard Case
- RAM Recoil Absorbing Mount

DRI RANGES
IMAGES (Download)
LOGO (Download)
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- TWS-3025PDF
- \_\_\_\_\_
- TWS-3050PDF
- TWS-3075PDF
- TWS-3100 PDF

**Electronic Reticle Patterns** 

**Recoil Proof Table** 

TWS-3025 Thermal Imaging Weapon Sights			
Model	TWS-3025	TWS-3025-17	
Spectral Response (um)	8-12	8-12	
F.P.A. Format	384x288, 25um	640x480, 17um	
Magnification Optical	1X	1X	
Magnification w/ digital zoom	4X	4X	
FOV (degrees)	23x17	23x17	
Electronic Reticule	8+8 Patterns	8+8 Patterns	
Thermal Sensitivity (mK)	50	60	
Refresh Rate (Hz)	50 PAL / 60 NTSC	25 PAL / 30 NTSC	
Lens System	25 mm, F:1.0	25 mm, F:1.0	
Diopters Adjustment	+2 / -6	+2 / -6	
Weight (w/o batteries) (g)	600	600	
Dimensions (mm)	170x80x65	170x80x65	
Powered By AA Lithium batt.	2pcs.	2pcs.	
Continuous Operation Time (@+20°C)	Up to 8 hours	Up to 7 hours	
OLED Micro Display Resolution	800x600	800x600	

	TWS-3000 Thermal Imaging Weapon Sights									
Model	TWS-3050	TWS-3050-17	TWS-3075	TWS-3075-17	TWS-3075xl	TWS-3075xl-17	TWS-3100	TWS-3100-17	TWS-3100xl	TWS-3100xl-17
Spectral Response (um)	8-12	8-12	8-12	8-12	8-12	8-12	8-12	8-12	8-12	8-12
F.P.A. Format	384x288, 25um	640x480, 17um	384x288, 25um	640x480, 17um	384x288, 25um	640x480, 17um	384x288, 25um	640x480, 17um	384x288, 25um	640x480, 17um
Magnification Optical	2X	2X	3X	3X	3X	3X	4X	4X	4X	4X
Magnification w/ digital zoom	4X - 8X	4X - 8X	6X - 12X	6X - 12X	6X - 12X	6X - 12X	8X - 16X	8X - 16X	8X - 16X	8X - 16X
FOV (degrees)	16x12	16x12	12x9	12x9	12x9	12x9	8x6	8x6	8x6	8x6
Electronic Reticule	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns	8+8 Patterns
Thermal Sensitivity (mK)	50	60	50	60	50	60	50	60	50	60
Refresh Rate (Hz)	50 PAL / 60 NTSC	25 PAL / 30 NTSC	50 PAL / 60 NTSC	25 PAL / 30 NTSC	50 PAL / 60 NTSC	25 PAL / 30 NTSC	50 PAL / 60 NTSC	25 PAL / 30 NTSC	50 PAL / 60 NTSC	25 PAL / 30 NTSC
Lens System	50 mm, F:1.0	50 mm, F:1.0	75 mm, F:1.3	75 mm, F:1.3	75 mm, F:1.0	75 mm, F:1.0	100 mm, F:1.4	100 mm, F:1.4	100 mm, F:1.1	100 mm, F:1.1
Diopters Adjustment	+2 / -6	+2 / -6	+2 / -6	+2 / -6	+2 / -6	+2 / -6	+2 / -6	+2 / -6	+2 / -6	+2 / -6
Weight (w/o batt.) (g)	700	700	1050	1050	1080	1080	1307	1307	1492	1492
Dimensions (mm)	210x90x65	210x90x65	240x90x90	240x90x90	240x100x90	240x100x90	280x105x105	280x105x105	280x105x105	280x105x105
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.	4pcs.	4pcs.	4pcs.	4pcs.	4pcs.	4pcs.	4pcs.	4pcs.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 14 hours	Up to 12 hours	Up to 14 hours	Up to 12 hours	Up to 14 hours	Up to 12 hours	Up to 14 hours	Up to 12 hours	Up to 14 hours	Up to 12 hours
Continuous Operation Time (@+20°C) on Ni- MH Batteries	Up to 8 hours	Up to 7 hours	Up to 8 hours	Up to 7 hours	Up to 8 hours	Up to 7 hours	Up to 8 hours	Up to 7 hours	Up to 8 hours	Up to 7 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 6 hours	Up to 5 hours	Up to 6 hours	Up to 5 hours	Up to 6 hours	Up to 5 hours	Up to 6 hours	Up to 5 hours	Up to 6 hours	Up to 5 hours
OLED Micro Display Resolution	800x600	800x600	800x600	800x600	800x600	800x600	800x600	800x600	800x600	800x600

Model	TWS-3050
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
Magnification Optical	2X
Magnification w/ digital zoom	4X - 8X
FOV (degrees)	16x12
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	50 PAL / 60 NTSC
Lens System	50 mm, F:1.0
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	700
Dimensions (mm)	210x90x65
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 14 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 8 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 6 hours
OLED Micro Display Resolution	800x600

Model	TWS-3050-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
Magnification Optical	2X
Magnification w/ digital zoom	4X - 8X
FOV (degrees)	16x12
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	25 PAL / 30 NTSC
Lens System	50 mm, F:1.0
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	700
Dimensions (mm)	210x90x65
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 12 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 7 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 5 hours
OLED Micro Display Resolution	800x600

Model	TWS-3075
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
Magnification Optical	3X
Magnification w/ digital zoom	6X - 12X
FOV (degrees)	12x9
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	50 PAL / 60 NTSC
Lens System	75 mm, F:1.3
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1050
Dimensions (mm)	240x90x90
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 14 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 8 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 6 hours
OLED Micro Display Resolution	800x600

Model	TWS-3075-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
Magnification Optical	3X
Magnification w/ digital zoom	6X - 12X
FOV (degrees)	12x9
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	25 PAL / 30 NTSC
Lens System	75 mm, F:1.3
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1050
Dimensions (mm)	240x90x90
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 12 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 7 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 5 hours
OLED Micro Display Resolution	800x600

Model	TWS-3075xl
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
Magnification Optical	3X
Magnification w/ digital zoom	6X - 12X
FOV (degrees)	12x9
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	50 PAL / 60 NTSC
Lens System	75 mm, F:1.0
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1080
Dimensions (mm)	240x100x90
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 14 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 8 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 6 hours
OLED Micro Display Resolution	800x600

Model	TWS-3075xl-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
Magnification Optical	3X
Magnification w/ digital zoom	6X - 12X
FOV (degrees)	12x9
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	25 PAL / 30 NTSC
Lens System	75 mm, F:1.0
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1080
Dimensions (mm)	240x100x90
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 12 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 7 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 5 hours
OLED Micro Display Resolution	800x600

Model	TWS-3100
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
Magnification Optical	4X
Magnification w/ digital zoom	8X - 16X
FOV (degrees)	8x6
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	50 PAL / 60 NTSC
Lens System	100 mm, F:1.4
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1307
Dimensions (mm)	280x105x105
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 14 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 8 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 6 hours
OLED Micro Display Resolution	800x600

Model	TWS-3100-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
Magnification Optical	4X
Magnification w/ digital zoom	8X - 16X
FOV (degrees)	8x6
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	25 PAL / 30 NTSC
Lens System	100 mm, F:1.4
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1307
Dimensions (mm)	280x105x105
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 12 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 7 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 5 hours
OLED Micro Display Resolution	800x600

Model	TWS-3100xl
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
Magnification Optical	4X
Magnification w/ digital zoom	8X - 16X
FOV (degrees)	8x6
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	50 PAL / 60 NTSC
Lens System	100 mm, F:1.1
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1492
Dimensions (mm)	280x105x105
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 14 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 8 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 6 hours
OLED Micro Display Resolution	800x600

Model	TWS-3100xl-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
Magnification Optical	4X
Magnification w/ digital zoom	8X - 16X
FOV (degrees)	8x6
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	25 PAL / 30 NTSC
Lens System	100 mm, F:1.1
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	1492
Dimensions (mm)	280x105x105
Powered By (Lithium, Ni-MH Rechargeable, Alkaline) Batt.	4pcs.
Continuous Operation Time (@+20°C) on Lithium Batteries	Up to 12 hours
Continuous Operation Time (@+20°C) on Ni-MH Batteries	Up to 7 hours
Continuous Operation Time (@+20°C) on Alkaline Batteries	Up to 5 hours
OLED Micro Display Resolution	800x600

Model	TWS-3025
Spectral Response (um)	8-12
F.P.A. Format	384x288, 25um
Magnification Optical	1X
Magnification w/ digital zoom	4X
FOV (degrees)	23x17
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	50
Refresh Rate (Hz)	50 PAL / 60 NTSC
Lens System	25 mm, F:1.0
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	600
Dimensions (mm)	170x80x65
Powered By AA Lithium batt.	2pcs.
Continuous Operation Time (@+20°C)	Up to 8 hours
OLED Micro Display Resolution	800x600

Model	TWS-3025-17
Spectral Response (um)	8-12
F.P.A. Format	640x480, 17um
Magnification Optical	1X
Magnification w/ digital zoom	4X
FOV (degrees)	23x17
Electronic Reticule	8+8 Patterns
Thermal Sensitivity (mK)	60
Refresh Rate (Hz)	25 PAL / 30 NTSC
Lens System	25 mm, F:1.0
Diopters Adjustment	+2 / -6
Weight (w/o batteries) (g)	600
Dimensions (mm)	170x80x65
Powered By AA Lithium batt.	2pcs.
Continuous Operation Time (@+20°C)	Up to 7 hours
OLED Micro Display Resolution	800x600

# THERMAL IMAGING SYSTEMS: DETECTION, RECOGNITION, IDENTIFICATION RANGES

Information contained in the charts below has been collected from open independent sources such as the "Johnson Criteria", technical specifications of FPA and Optical Lenses manufacturers. Please note that the actual range may vary depending on the device, set-up, environmental conditions (wind, humidity, air pressure, the difference in temperature between surrounding air and target), user experience and display method. All listed results are in meters.

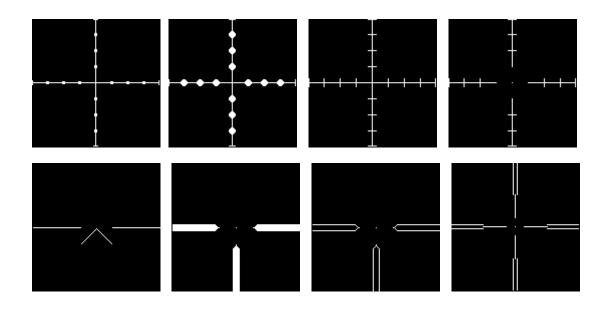
### **LEGEND:**

GSCI doesn't use such low format of FPA sensors
GSCI uses such FPA sensors with high refresh rate, ITAR free
GSCI uses only high performance, low F-number Germanium lenses

HUMAN (Size 1.7m x 0.4m)									
FPA Format: 320x240									
	25mm F1.3	25mm F1.1	50mm F1.2	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.1	n/a
Detection	290	590	755	890	920	1000	2050	2150	
Recognition	80	148	400	450	650	750	775	810	
Identification	30	75	250	260	286	370	380	400	
FPA Format: 384x288 (25 micron)									
	25mm F1.3	25mm F1.0	50mm F1.4	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	420	635	900	1000	1500	1900	2170	2440	3750
Recognition	150	313	425	500	725	950	775	1000	2560
Identification	50	209	250	375	415	630	430	680	1380
FPA Format: 640x480 (17 micron)									
	25mm F1.2	25mm F1.0	50mm F1.3	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	650	917	1500	1800	2200	2760	2500	3200	7200
Recognition	165	509	600	830	850	1380	1000	1450	3000
Identification	85	306	360	570	430	920	700	980	2100

VEHICLE (Size 2.3m x 2.3m)									
FPA Format: 320x240									
	25mm F1.3	25mm F1.1	50mm F1.2	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.1	n/a
Detection	500	1350	2100	2300	2750	2900	4200	4900	
Recognition	250	430	875	950	1230	1600	2050	2300	
Identification		215	525	575	850	925	900	1100	
				FPA Format:	: 384x288 (25 micro	n)			
	25mm F1.3	25mm F1.0	50mm F1.4	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	750	1568	2300	2500	3200	4760	4500	5800	12500
Recognition	400	784	920	1200	1500	2380	2200	3250	7800
Identification		523	715	920	1100	1580	1200	2000	4200
	FPA Format: 640x480 (17 micron)								
	25mm F1.2	25mm F1.0	50mm F1.3	50mm F1.0	75mm F1.3	75mm F1.0	100mm F1.4	100mm F1.0	150mm F1.0
Detection	1300	2292	3300	4350	4800	7000	6000	8000	14500
Recognition	780	1273	1310	2200	2600	3500	2700	4575	9300
Identification	150	764	800	1450	1300	2300	1490	2475	5450

# **ELECTRONIC RETICLE PATTERNS**



# **LOGO**



## THERMAL IMAGING SYSTEMS RESISTANCE TO RECOIL OF VARIOUS CALIBERS

Information contained in the chart below is collected from open independent sources, listing calibers in increasing order and corresponding muzzle and recoil energy. Unless described otherwise GSCI systems are designated for use with **light- or medium recoil guns only**. Some optical and electronic components are not designed to withstand heavy recoil. These components, made by third party suppliers, have limited GSCI control. When mounting the device to the firearm, it is strongly advised to use the services of a professional gunsmith. Also, very important to consider using any available **Recoil Mitigation Solutions (RMS)** which may help to reduce possible negative effects while using the devices as weapon mounted and/or under extreme mechanical stress. Here is suggested list of some **RMS**:

CALIBER	MUZZLE ENERGY	RECOIL ENERGY	RECOIL RESISTANT DEVICES
9mm Parabellum	(475 joules)	4.4-7.3 fps	TWS, NV
.45 ACP	(540 joules)	0.9 fps	TWS, NV
.22 Centerfire Hornet	(1009 joules)	1.3 fps	TWS, NV
.223/5.56mm Remington NATO	(1822 joules)	3.2 fps	TWS, NV
7.62x39mm	(2019 joules)	5.95 fps	TWS, NV
.243 Winchester	(2820 joules)	8.8 fps	TWS, NV
.25-06 Remington	(3140 joules)	12.5 fps	TWS, NV
.257 Weatherby	(3950 joules)	15.1 fps	TWS, NV
.270 Winchester	(3669 joules)	17 fps	TWS, NV
.280 Remington	(3398 joules)	17.2 fps	TWS, NV
7mm Remington	(4367 joules)	19.2 fps	TWS, NV
.30 M1 Carbine	(1308 joules)	3.5 fps	TWS, NV
.30-30 Winchester	(2560 joules)	11 fps	TWS, NV
7.62mm AK 47	(2045 joules)	13.1 fps	TWS, NV
.303 Lee Enfield	(3469 joules)	14.41 fps	TWS, NV
.308 Winchester, NATO	(3744 joules)	15.8 fps	TWS, NV
.300 WSM	5190 joules	23.8 fps	TWS, NV
.300 Winchester	5385 joules	25.9 fps	TWS, NV
.300 Weatherby	5658 joules	24.6 fps	TWS, NV
.325 WSM	5075 joules	33.1 fps	TWS, NV
.338 Federal	4374 joules	21.9 fps	TWS, NV
.340 Weatherby	4867 joules	29.6 fps	TWS, NV
.338 Winchester	5307 joules	43.1 fps	TWS, NV
.375 H&H	6319 joules	46.16 fps	TWS, NV
.416 Rigby	7618 joules	58.1 fps	TWS, NV
0.5	17821 joules	70 fps	TWS, NV

suppressors, recoil compensators, silencers, recoil absorbing mounts etc., where it is applicable and legally obtainable. The "Desirable", "Highly Recommended"

and "Essential" columns, listing optical systems that may withstand the recoil shock having been properly mounted and having been used with all available Recoil Mitigation Solutions (RMS). Improper mounting may result in damages not covered by the warranty and/or bodily injures.

### The following definitions apply to the table

"Joules" refers to the a derived unit of energy, work, or amount of heat in the International System of Units. It is equal to the energy expended (or work done) in applying a force of one Newton through a distance of one meter, or in passing an electric current of one ampere through a resistance of one ohm for one second.

"fps" (the food-pound force) refers to a unit of work or energy in the engineering and gravitational systems. It is the energy transferred on applying a force of one pound-force through a displacement of one foot. The corresponding SI (*Le Système international d'unités*) unit is the joule.

### STADIAMETRIC RANGE FINDER

We at GSCI are proud and excited to introduce (again) yet another unique and quite effective feature: **Stadiametric Rangefinder (SRF). SRF** feature brings our Thermal Imaging Systems to a whole new, unparalleled level, placing them far above the competition.

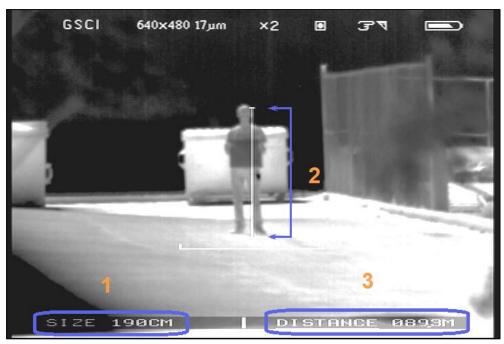
There is just a few Thermal Imaging Systems on the market which have a built-in Laser Rangefinder (LRF). This is definitely a very good combination, however, such set up is rather expensive and cannot be used in thermal weapon scopes due to the fact that LRF cannot withstand recoil. Furthermore, Laser Rangefinder determines the distance to an object by emitting laser radiation and then receiving the reflected beam. Regardless of output power laser beams can be detected from a distance. This may create serious safety and security issue in the situation when LRF operator has to stay covert during an operation. In contrast, the **SRF** built-in to GSCI's systems is completely passive and uses only device's computing power to determine distances. This eliminates the possibility of being detected regardless of time of the day and weather conditions.

The **SRF** can be used in GSCI made monoculars or weapon scopes, providing similar precise results\* without limitations in recoil power\*\* and for the fraction of the cost.

Here is how it works. The **SRF** has two modes: Object **Size** and **Distance**. Current mode is indicated by underlining the corresponding writing at the bottom of the display - **SIZE** or **DISTANCE** respectively.

- 1. Switch over to **SIZE** mode by pressing the **MENU** button. Using buttons **UP** and **DOWN**, set the estimate object size height or length, depending on which is going to be used. Object size can be set from 20 cm to 259 cm in steps of 10 cm.
- 2. Switch over to **DISTANCE** mode by pressing the **MENU** button. Using buttons **UP** and **DOWN**, adjust the length of the measuring brackets so it matches either horizontal or vertical (whichever chosen in the precious step) object size.
- 3. Read the distance to the object at the bottom right hand side of the display "DISTANCE xxx.x M"

VIDEO - <a href="https://www.youtube.com/watch?v=3VyfFIILtHQ">https://www.youtube.com/watch?v=3VyfFIILtHQ</a>



### **HMD-800**

**HMD-800** is an addition and a useful tool, in situations when the Operator has to be covert/undetected. The mini display is a self contained 3V battery operated device, can be used in conjunction with a vast variety of Thermal Imaging Observation, Weapon Mountable Devices, or any optical electronic observation device that have analog Video-Output. **HMD-800** can be used as a hand held device, pocket size mini monocular or it can be attached to various Head Gears / Helmet Mounts (**HUB-14** needed).

**GSCI** may supply the unit with either fully adjustable, padded **Head Gear or Helmet Mount** which allow the unit to be flipped-up or quickly detached from the mask. A specially designed adapter **HUB-14** allows positioning the unit to either left or right eye, constantly keeping **horizontal** position of the display.

### **UNIQUE FEATURES**

- High performance Monochrome OLED Display
- Mil. Spec Manual Gain Control (Display Brightness Override)
- Fully Sealed, Waterproof IP67
- Video-In: Standard RCA, Cable Included
- Self Contained Highly Efficient Power Supply, UBX equipped.

#### **TECHNICAL**

800x600
OLED
Analog RS170 (PAL or NTSC)
Adjustable
25mm
CR123, 1 pcs.
10 hrs. continuous
85x65x50
185







# **HG-714M Head Gear**

This **Head Gear Assembly** from GSCI provides hands-free use with night vision and thermal imaging devices. Its fully-adjustable head-harness is secure, reliable, and manufactured to exacting tolerances. This head mount is compatible with many night vision devices, including GSCI's PVS-7, and PVS-14, PBS-14 with J-arm adapter. It will provide hours of comfortable hands-free viewing, and it comes complete with a flip-up mechanism.

### \*FEATURES

- Fully Adjustable
- Secure fit for most heads
- Designed for use with night vision and thermal imaging devices
- Compatible with PVS-7 on its own and with PVS-14, PBS-14 with J-arm adapter



# **HM-714M Helmet Mount**

The **GSCI PASGT / MICH Helmet Mount Assembly** comes complete with the appropriate mount and straps to attach your night-vision device to a PASGT / MICH helmet. This mount is specific to GSCI's night vision and thermal imaging monoculars and goggles. It allows direct attachment of the goggle or monocular to the helmet. The assembly offers a full range of adjustment and positioning capabilities, as well as a flip-up/down option. Available with straps or to be directly cliped-in to the helmet.



# J-ARM "FLIP-UP-OFF" ADAPTER INTERFACE BETWEEN TIM-14/PBS-14/PVS-14C AND HG-714M/HM-714M

J-Arm adapter is used to adapt the TIM-14 Thermal Imaging Monocular or PBS-14/PVS-14C Night Vision Monocular to a head gear (HG-714M) or helmet mount(HM-714M). The J-Arm screws into the threaded hole in the TIM-14/PBS-14/PVS-14C body housing and lines up two contacts which complete an electrical circuit. This gives the J-Arm the ability to shut down power to the thermal imaging or night vision device when the user flips the mount into upright position. This function saves the user battery power allowing longer operating times.





### **RAM**

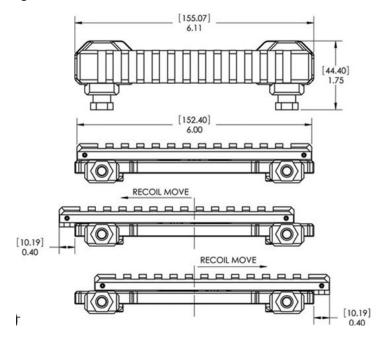
The Recoil Absorbing Mount RAM or so-called "Recoil Rail" is designed to provide electro-optic & illumination devices with protection from the firing shock of hard recoiling weapons, such as the M2 50 caliber machine gun and large caliber sniper weapons.

Under firing conditions, electro-optics can be damaged in a number of ways. Recoil forces can cause the body of a day scope to flex, resulting in shifting of optical lenses and reticles. In Thermal Imaging, Night Vision, lasers and white light devices, the precision circuitry of electro-optical components can be damage by the shock of firing forces.

The Recoil Rail uses patented buffer system to absorb approximately 30% of the peak recoil forces that would otherwise be transferred to the mounted electro-optic or illumination device.

When the weapon is fired, the top rail slides on the rail body; this allows the buffer mechanism to reduce firing shock transfer to the electro-optic. The buffer mechanism returns the electro-optic to its original position after firing.

The Recoil Rail is designed to provide coverage to a range of optic weights; there are stiffer buffers for heavy electro-optics and buffers with less resistance for lighter devices.



#### \*SPECIFICATIONS

- Material: 6061-T6 Aluminum - Weight: 6.6 ounces / 187 Grams

- Dimensions: 155 x 44mm

- Interfaces: Any 1913 Mil. Std. Rail

- Colors: Anodized Black

**EXPORT:** The product described herein is Made in Canada, and does not contain USA origin parts and/or components and is not ITAR regulated



## **NANUK HARD CASE**

- For TWS-3025 and TWS-3050 Versions
   Case exterior dimensions and weight:
  - o L363mm x W282mm x H120mm
  - o 1.4Kg

# Dimensions and weight with packaging:

- o L371mm x W297mm x H122mm
- o 1.6kg
- For TWS-3075 and TWS-3100 Versions
   Case exterior dimensions and weight:
  - o L401mm x W307mm x H173mm
  - o 2.0Kg

# Dimensions and weight with packaging:

- o L410mm x W310mm x H175mm
- o 2.5kg
- MATERIAL: Lightweight NK-7 Resin
- MAX BUOYANCY: 7.7Kg
- **TEMPERATURE:** -29C to +60C
- CERTIFICATIONS:
  - o ATA300
  - o ASTMD4189
  - o MIL-STD-810F
  - o IP67
- FEATURES:
  - Impact Resistant
  - o Waterproof
  - o Crushproof
  - o Dustproof
  - Power Claw Latching System
  - Soft Grip Foldable Handle

- Padlockable
- 100% Stainless Steel Hardware
- High Performance Gasket
- Automatic Pressure Release Valve
- Molded-in Bezel System
- Integrated Lid Stay