



IR FLASHLIGHTS

PULSAR

Pulsar L-808S | Pulsar L-915
Pulsar - 805 | Pulsar - 940



- Increases Viewing Range in Extremely Dark Conditions
- Smooth Power Adjustment
- Variable Beam
- Adjustable IR Spot Position
- Attachment on Any NV Devices with a Weaver Rail or 1/4 Inch Socket
- Laser Safety Class 1 – Eyesafe (Models L-808S / L-915)
- Low Battery Indicator
- Invisible to the Unaided Human Eye (915 & 940 nm Models)
- Compact and Lightweight

LED
Laser

DESCRIPTION



FOCUSING

Pulsar IR Flashlights' spot can be smoothly adjusted from narrow beam to flood. Unfocused beam illuminates larger area; the narrow beam light ensures longest possible viewing distance.

IR SPOT POSITION

Design of Pulsar IR Flashlights allows spot position to be corrected in the field of view horizontally and vertically. To do this, loosen the ring fixing the optical assembly, adjust the IR spot in the center of the field of view (the NV unit should be on) and tighten the ring again.

POWER

Power is adjusted by rotating the wheel on the body next to the ON button. Adjustment of both – power and spot divergence angle – helps achieve best illumination of an object in specific observation conditions.

MOUNTING

Pulsar IR Flashlights are equipped with a mount adaptable for Weaver rail available in most modern night vision rifle scopes and optical units, as well as hunting or sports and pneumatic weapons. Package also includes an adapter that allows flashlights to be attached to NV units outfitted with a 1/4 inch tripod mount.

INDICATION

After the IR Flashlight is on, a LED indicator lights located next to the battery container. When the batteries are low, the indicator changes a color, the latter depending on the IR Flashlights model.

Pulsar - 805 IR Flashlight

Weaver rail mountable to fit all Pulsar designs - the 805 IR features focusable beam, adjustable collimation and smooth brightness control. Powered by 2 AA batteries of its own it does not drain the internal power storage of a night vision device.

Pulsar L-808S Laser IR Flashlight

Similar in mechanical system to the 805 model, the L-808S is a first step in developing line of the Pulsar's eye-safe laser IR flashlights. With an emission power higher than that of the diode design – the L-808S is one of the most powerful IR flashlights in the market today. It provides greater viewing distance when used with analog (image intensifier tube based) and digital night vision devices.



Pulsar - 940 IR Flashlight

Pulsar L-915 Laser IR Flashlight

Operates in the stealth IR range (940nm), invisible by the unaided eye. Intended for use with digital NV systems, it is not effective and sometimes even undetectable for an analog (tube) NV systems.





#79102 **50 mm Weather Guard**

#79103 **60 mm Weather Guard**
The Weather Guard, attached in front of the objective lens of the Phantom or Sentinel night vision riflescopes, will protect the objective lens against atmospheric precipitation (rain or snow).



#79096 **NV50 1.5x Lens Converter**
#79097 **NV60 1.5x Lens Converter**

Fast aperture afocal attachments fixed in front of the lens that increase magnification of Pulsar night vision riflescopes (including Phantom, Sentinel GS/G2+) 1.5 times retaining image quality.



#79092 **Challenger GS 1x20 2x Lens Converter**

Afocal lens converter increasing the magnification of the Challenger GS 1x20 2 times.



#79041 **Challenger GS 1x20 D0S Adapter**
#79042 **Challenger G2+ 1x21 D0S Adapter**

Combined with the Challenger GS 1x20 / Challenger G2+ 1x21 NV monocular adapters allow use of soft air guns with a day optical riflescope for night shooting. The reticle of the riflescope is perfect for aiming. The adapters come equipped with reducing rings to affix the night vision device onto day riflescope and provides the benefit of various eyepiece diameters. To increase brightness of the image and range of shooting, additional Pulsar IR Flashlight can also be affixed on the adapter.

#79044 **ZT Adapter**

Combined with the Challenger GS 1x20 adapter, allows use of day optical scopes for night observation.

ACCESSORIES



#79111 **EPS3 Battery Pack**
#79112 **EPS5 Battery Pack**

External power supplies are designed for the use with digital units and NV riflescopes, thermal imaging scopes. They feature greater capacity as compared to regular batteries which increases operation time of digital NV units and thermal imaging scopes several times. The EPS3 (2.4Ah) has a rigid plastic case and can be installed on any devices outfitted with a Weaver rail or ¼ tripod mount. The EPS5 (5Ah) is outfitted with a one meter cable which allows it to be placed underwear in freezing conditions and to prolong operation time (EPS3 unit is supplied with a extension cable).



#79032 **NV Compact Head Mount**

The NV Compact Head Mount is designed for joint use with the Challenger G2+ 1x21 night vision devices, Challenger GS 1x20 or other night vision devices with a similar bracket. This allows hands-free operation of the night vision device in partial and complete darkness. The Head Mount ensures stable positioning of a night vision device in front of the user's eyes, even while in fast motion (pacing, running, abrupt movements). The Head Mount is simple and convenient to use. Minimal protrusion of the suspension point reduces fatigue and load on the user's neck if operated for long periods of time. The Head Mount can also be paired with a camouflage cover. Combined with a night vision device, the NV Compact Head Mount is ideal for high-tech ranger games, night hiking etc.



#17044 **VIDEO RECORDER NEWTON CVR640**

The video recorder NEWTON CVR640 is a compact device for video recording of a signal coming from the CCD array of night vision devices or thermal imaging scopes. The NEWTON CVR640 can be used with any digital observations device Yukon, Pulsar or Newton equipped with a video output.

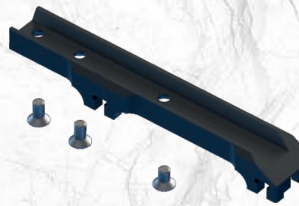
Basic features:

- Recording parameters – 800x600 pix @ 30 fps
- SD Memory card
- Operating voltage 4.5 V (3xAAA)
- Continuous operation on a battery set – 5 hours
- MiniUSB port for the direct signal transmission to PC, and for reading-out recorded information
- Compact dimensions, lightweight



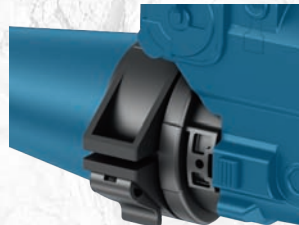
#71011 **Pulsar 10x32 Monocular**

Combined with the Forward DFA digital attachment, allows use it as a 10 power night vision device. Along with this, the Pulsar 10x32 is a full-fledged observation device.



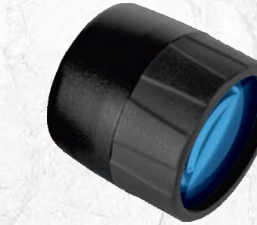
#79045 **Digisight Weaver Rifle Mount**
#79046 **Digisight Rifle Mount MAK Adapter**
#79047 **Digisight Prism 14/200 Rifle Mount**
#79048 **Digisight Los/Dovetail Rifle Mount**
#79049 **Digisight AK Side Rifle Mount**

Mounts for the Digisight riflescopes.



#79121 **42 mm Cover Ring Adapter**
#79122 **50 mm Cover Ring Adapter**
#79123 **56 mm Cover Ring Adapter**

The Cover Ring Adapters are designed to mount the Forward DFA on the bell of an optical sight in the nighttime. The Adapters have various mounting diameters with reducing rings. When the Forward DFA is not used, a cover (included) is attached to the adapter to protect lens of a daylight sight.



#79051 **Challenger G2+ 2x Objective Lens**
#79052 **Challenger G2+ 3.5x Objective Lens**

Replaceable lenses for Challenger G2+ night vision monoculars.



#79043 **Challenger GS 1x20 HS Adapter**

Standard for professional compact NV monocular, the HS adapter is used for mounting the Challenger GS 1x20 behind a red-dot scope. The adapter is recommended for use with red-dot sights featuring night reticle luminescence mode.

SPECIFICATIONS

DIGISIGHT

MODEL	76312	76317	76315	76318
Product name	Digisight N750	Digisight N750U	Digisight N770	Digisight N770U
Generation	Digital	Digital	Digital	Digital
Magnification, x	4.5	4.6	4.5	4.6
Digital zoom, x	1.5	1.5	1.5	1.5
Objective lens	F50, 1.0	F50, 1.0	F50, 1.0	F50, 1.0
Field of view, angular degrees	5	4.5	5	4.5
Eye relief, mm	67	67	67	67
Built-In IR Flashlight, type	Laser	Laser	Laser	Laser
Wavelength of Built-In IR Flashlights, nm	780	780	915	915
Resolution, lines per mm	55	55	55	55
Max. detection range, m **	600	600	450	450
Operating voltage, V / Battery type	3.7 ... 6 / 4xAA	3.7 ... 6 / 4xAA	3.7 ... 6 / 4xAA	3.7 ... 6 / 4xAA
External power supply, V / Consumption power, W	DC 9 ... 15 / 3	DC 9 ... 15 / 3	DC 9 ... 15 / 3	DC 9 ... 15 / 3
Operating temperature, °C	-20 ... +50	-10 ... +50	-20 ... +50	-10 ... +50
Dimensions, mm	340x95x94	340x95x94	340x95x94	340x95x94

PHANTOM

MODEL #	76057T	76058T	76057BWT	76058BWT
MIL-DOT MODEL #	76157T	76158T	76157BWT	76158BWT

Product name	Phantom 3x50 FX	Phantom 4x60 FX	Phantom 3x50 BW	Phantom 4x60 BW
Image Tube Type	EPM221G*	EPM221G*	EPM66G-2-U-WPT	EPM66G-2-U-WPT
Generation	2+	2+	2+	2+
Magnification, x	3	4	3	4
Objective lens diameter, mm	50	60	50	60
Field of view, angular degrees	11	9	11	9
Eye relief distance, mm	50	50	50	50
Resolution, lines/mm, min.	45	45	45	45
Max. detection range, m **	600	700	600	700
Dioptr setting, D	± 3.5	± 3.5	± 3.5	± 3.5
Close-up range, m	5	8	5	8
Screen glow (luminophor)	green	green	black&white	black&white
Water intrusion rating (IEC 60529)	IPX6	IPX6	IPX6	IPX6
Dimensions, mm	278x95x103	320x95x103	278x95x103	320x95x103
Weight without the mount, kg	1	1	1	1

CHALLENGER & EDGE NIGHT VISION

MODEL #	74094	74092	74093	74099	74096	74097	74098	—	—	75096	75098
HEAD MOUNT KIT MODEL #	74091	—	—	74095	—	—	—	75091	75095	—	—

Product name	Challenger G2+ 1x21	Challenger G2+ 2x42	Challenger G2+ 3.5x56	Challenger G5 1x20	Challenger G5 2.7x50	Challenger G5 3.5x50	Challenger G5 4.5x60	Edge G2+ 1x21	Edge G5 1x20	Edge G5 2.7x50	Edge G5 2.7x50L
Image tube type	EPM207G-2*	EPM207G-2*	EPM207G-2*	EP33-SF-U	EP33-SF-U	EP33-SF-U	EP33-SF-U	EPM207G-2*	EP33-SF-U	EP33-SF-U	EP33-SF-U
Generation	2+	2+	2+	CF-Super	CF-Super	CF-Super	CF-Super	2+	CF-Super	CF-Super	CF-Super
Magnification, x	1	2	3.5	1	2.7	3.5	4.5	1	2.7	3.5	2.7
Objective lens, mm	21	42	56	20	50	60	21	20	50	60	50
Resolution, lines per mm	40	42	42	42	42	42	40	42	42	42	42
Angular field of view, degree	40	20	12	36	13	11	9	40	36	13	13
IR Illuminator	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	LED 805 nm	Laser 780 nm
Max. detection range, m **	200	400	700	90	200	200	200	200	150	220	3000
Min. focusing distance, m	0.2	0.5	1.5	1	1.8	2	3.2	0.2	1	5	5
Eye-piece adjustment, diopter	±4	±6	±4	±4	±4	±4	±4	±4	±4	±4	±4
Eye relief, mm	25	25	25	12	15	15	15	25	12	12	12
Operating voltage, V	3 [CR123A]	3 [CR123A]	3 [CR123A]	3 [CR123A]	3 [CR123A]	3 [CR123A]	3 [CR123A]	3 [2xAAA]	3 [2xAAA]	3 [2xAAA]	3 [2xAAA]
Operating temperature, °C	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40
Degree of protection (IEC 60529)	IP65	IPX6	IPX6	IP65	IP65	IP65	IP65	-	-	-	-
Dimensions, mm	163x79x57	180x76x58	240x100x68	163x79x57	202x79x57	234x79x57	255x108x75	163x113x60	163x113x60	203x122x65	203x122x65
Weight of the unit, kg	0.36	0.54	0.7	0.3	0.5	0.7	0.85	0.65	0.65	0.85	0.85
Weight of the head mount, kg	0.2	-	-	0.2	-	-	-	0.2	0.2	-	-

FORWARD DFA / DN

MODEL	78114	78115
Product name	Forward DFA75	Forward DN55
Generation	Digital	Digital
Magnification, x:		
- of the digital module	1	1
- when used with Pulsar 10x32 Monocular (#71011)	10	10
Objective lens	F50, 1.0	F50, 1.0
Resolution, lines per mm	50	50
Built-In IR Flashlight, type / wavelength, nm ***	Laser / 915	Laser / 915
Operating voltage, V	3.7 ... 6 [4*AA]	3.7 ... 6 [4*AA]
External power supply, V / Consumption power, W	DC 9 ... 15 / 3	DC 9 ... 15 / 3
Operating Temperature, °C	-20 ... +50	-20 ... +50
Pulsar 10x32 Monocular Included	no	yes

SENTINEL

MODEL #	76115T	76116T	76017T	76018T
MIL-DOT MODEL #	76125T	76126T	—	—

Product name	Sentinel G2+ 3x50	Sentinel G2+ 4x60	Sentinel GS 2x50	Sentinel GS 2.5x60
Image Tube Type	EPM221G*	EPM221G*	EP33-SF-U	EP33-SF-U
Generation	2+	2+	CF-Super I+	CF-Super I+
Magnification, x	3	4	2	2.5
Objective lens diameter, mm	50	60	50	60
Field of view, °, at eye relief 50 mm	9	11	13.5	8
Focusing Range, m	5 ... inf.	8 ... inf.	5 ... inf.	7 ... inf.
Max. Detection Range, m **	600	700	150	170
Eye relief, mm	50	50	45	45
Dioptr Adjustment, D	±3.5	±3.5	±3.5	±3.5
Resolution in the central part, lpm, min.	45	45	42	42
Power Supply, V	3V [2xAA]	3V [2xAA]	3V [2xAA]	3V [2xAA]
Grade of water-resistance (IEC 60529)	IPX4	IPX4	IPX4	IPX4
Dimensions, mm	288x90x100	320x90x100	256x90x100	285x90x100

QUANTUM

MODEL	77301	77302	77309	77310
Product name	Quantum HD38	Quantum LD38	Quantum HS019	Quantum LSQ19
Type of microbolometer	UL 03 16 2 (α-Si)	UL 03 16 2 (α-Si)	UL 02 15 2 (α-Si)	UL 02 15 2 (α-Si)
Resolution of microbolometer sensor, pixel	384x288	384x288	160x120	160x120
Refresh rate, Hz	30	30	9	9
Spectral range, μm	7.7...13.2	7.7... 13.2	8.3 ...13.6	8.3 ...13.6
Magnification, x	2.1	2.1	2	2
Digital zoom, x	2	2	-	-
Range of detection	900	900	450	450
Display type	OLED WVGA	OLED WVGA	OLED WVGA	OLED WVGA
Display resolution, pixel	640x480	640x480	640x480	640x480
Field of view, HxV, degree	14.4x10.8	14.4x10.8	12x9	12x9
Eye-piece adjustment, dptr	±5	±5	±5	±5
Power supply	4 ... 6 V / 4xAA	4 ... 6 V / 4xAA	4 ... 6 V / 4xAA	4 ... 6 V / 4xAA
External power supply	8.4 ... 16 V	8.4 ... 16 V	8.4 ... 16 V	8.4 ... 16 V
Video output signal	PAL / NTSC	PAL / NTSC	PAL / NTSC	PAL / NTSC
Operating temperature, °C	-20 ... +50	-20 ... +50	-20 ... +50	-20 ... +50
Dimensions, mm	200x86x59	200x86x59	177x86x58	177x86x58
Weight with batteries, kg	0.56	0.56	0.48	0.48

RECON

MODEL	78023	78033	78024	78034
Product name	Recon 750	Recon 750R	Recon 770	Recon 770R
Generation	Digital	Digital	Digital	Digital
Magnification, x	4	4	4	4
Objective Lens	50 mm, F/1.0	50 mm, F/1.0	50 mm, F/1.0	50 mm, F/1.0
Viewing Range, m **	3 ... 350	3 ... 350	3 ... 300	3 ... 300
Resolution, lines per mm	40	40	40	40
Built-In IR Illuminator, type	laser	laser	laser	laser
Wavelength of the Built-In IR Illuminator, nm	780	780	915	915
Power Supply, V	4.5 ... 6.5	4.5 ... 6.5	4.5 ... 6.5	4.5 ... 6.5
Battery Type	4xAA	4xAA	4xAA	4xAA
Video Output Signal	CCIR / EIA	CCIR / EIA	CCIR / EIA	CCIR / EIA
Camera res, pixel (CCIR/EIA)	500x582 / 510x492	500x582 / 510x492	500x582 / 510x492	500x582 / 510x492
Built-In Video Recorder	No	Yes	No	Yes
Operating Temperature, °C	-10 ... +45	-10 ... +45	-10 ... +45	-10 ... +45
Dimensions, mm	176x83x62	176x83x62	176x83x62	176x83x62
Weight, kg	0.4	0.42	0.4	0.42

EXPERT VM/VMR

MODEL	72085	72081	72091
Product name	Expert VMR 8x40	Expert VM 8x40	Expert VM 8x40 Marine
Objective Lens Diameter, mm	40	40	40
Magnification, x	8	8	8
Eye Relief, mm	15.0	15.0	15.0
Exit Pupil, mm	5.0	5.0	5.0
Field of View, degree	8	8	8
Eye-piece Diopter Adjustment, diopter	±3.5	±3.5	±3.5
Minimal Focusing Distance, m	5	5	5
Level of Protection, acc. to IEC 60529 Standard	IP67	IP67	IP67
Tripod Mount, inch	1/4	1/4	1/4
Dimensions, mm	200x136x80	200x136x80	200x136x80
Extra Viewing Modes Available	Yes	Yes	Yes
Body color	Green	Black	Black&Yellow
Rubber armouring	Yes	No	No

EXPERT LRF

MODEL	77071
Product name	Expert LRF 8x40
Objective Lens Diameter, mm	40
Magnification, x	8
Eye Relief, mm	18
Exit Pupil, mm	5.0
Field of View, degree	6.5
Eye-piece Diopter Adjustment, diopter	±5
Measurement range, m	1000
Accuracy of range measurement, m	±1
Power supply / Battery	3V / CR123A
Battery Life, activations, at least	3000
Operating Temperature, °C	-30 ... +45
Level of Protection, acc. to IEC 60529 Standard	IPX4
Dimensions, mm	200x144x80
Weight, kg	0.94

IR FLASHLIGHTS

MODEL	79071	79076	79072	79075
Product name	Pulsar 805	Pulsar 940	Pulsar L-808S	Pulsar L-915
Emitter	LED	LED	Laser Diode	Laser Diode
Range of power adjustment (min ... max), mW	30 ... 200	30 ... 200	125 ... 250	125 ... 250
Wavelength, nm	805	940	780	915
Range of beam divergence, degree	5.7 ... 10	5.7 ... 10	4.5 ... 7	4.5 ... 7
Power supply, V	3 [2xAA]	3 [2xAA]	3 [2xAA]	3 [2xAA]
Average operation time with one set of batteries, hour	2	2	14	5
Operating temperature, °C	-20 ... +40	-20 ... +40	-20 ... +40	-20 ... +40
Dimensions, mm	132x45x52	132x45x52	140x45x52	140x45x52
Weight (without/with batteries), g	140/190	140/190	160/210	160/210
Compatibility	All NV Devices	Digital NV	All NV Devices	Digital NV

* - the devices use these or similar tubes

** - object 1.7x0.5 m, in normal nighttime conditions - 0.05 lux (quarter moon)

*** - models Forward DFA75 / DN55. Depending on the region of sale, devices can be outfitted with other IR Illuminators.

