

TSL-1600



Integrated Searchlight System

1600 Watt Xenon Lamp

Integrated Power Management and Control circuitry eliminates auxiliary J-boxes and related cabling for space and weight savings

Digital stepper motors and drive electronics for precise control and increased reliability

Easily integrates with onboard nav or map-tracking systems for fully synchronized hands free operation

Built-in Slave and SLASS capabilities via RS-429 data bus

Optional IR Illuminator for use with Night Vision Goggles



The TSL-1600 searchlight offers high performance multi-function capabilities in a single integrated design. Solid state technology is incorporated throughout and offers dramatic increases in reliability, performance and ease of installation. All power management, control and system integration circuitry is neatly incorporated into the unit itself thereby eliminating the need for any additional space and weight needed for remote Junction boxes and intermediate cabling.

The unit is easily operated from the cockpit or elsewhere on the ship via one or more handheld controllers or can be integrated with the cyclic or collective grips. The unit is also easily linked to any target/



map tracking system via a built in RS-422 interface. This same circuitry provides active Slave & SLASS capabilities for a direct lash-up with other onboard FLIR or camera systems.

The TSL-1600 also offers long range NVIS capability via an optional IR illuminator module that attaches to the underside of the unit (see photo). The unit is or can be operated with the primary lamp switched off thus drawing a mere 20 watts while being completely undetectable to the naked eye. Range is an impressive 1 mile -20° spot while also providing a generous 40° spread for landing and close-in viewing. The solid-state LED illuminator has no moving parts and carries full warranty coverage in all conditions.



The TSL-1600's digital design allows features and functionality not previously available with traditional searchlight systems. These include: faster movement in all directions with instant reversibility, programmable stops and "keep out zones" that allow the unit to transition around heat sensitive items like tires, structure, or onboard equipment such as FLIRs, Cameras, etc. Another benefit is the modular IR illumination module that offers both visible and infrared operating modes. With the click of a button the unit immediately converts from 1600 watts of Xenon power to a dedicated LED IR system specifically designed

to offer long-range visibility when viewed through night vision goggles. The IR module also includes a separate channel offering a broader beam (40°) for landing and close in viewing. Our modular IR LED design offers economy to both users in that if you don't need it; you don't have to buy it. Those that do (or want to add it at a future date) merely need to bolt it on without the added time and expense associated with J-box kits and additional cabling. The unit's plug-n-play functionality makes it instantly operational from the handheld controller(s) or other remote operator's station.

TECHNICAL CHARACTERISTICS

LIGHT SOURCE TYPE

TYPE	POWER	SERVICE LIFE
xenon short arc lamp	1600 W	up to 1000 hours

IR SOURCE

WAVELENGTH	RADIATED POWER	
	SPOT BEAM	BROAD BEAM
850 nm	3 W	1.2 W

BEAM SPREAD		DETECTION RANGE	
SPOT BEAM MODE	BROAD BEAM MODE	SPOT BEAM MODE	BROAD BEAM MODE
20°	40°	1000 m	600 m

VISIBLE RADIATION CONTROL

BEAM SPREAD	DETECTION RANGE	IDENTIFICATION RANGE	ILLUMINATION PROVIDED	ILLUMINATION BEAM DIAMETER
varies from 4° to 20°	up to 1600 m	up to 1000 m	32 lx at a distance of 1000 m	from 70 m (4°) to 350 m (20°) at a distance of up to 1000 m

GIMBAL ASSEMBLY

TURN ANGLES		RATE OF TURN	
SPAN	TILT	SPAN	TILT
350° (± 175°)	+ 10° (up) - 110° (down)	0-60° per second	0-60° per second

OVERALL SEARCHLIGHT CHARACTERISTICS

START TIME	INPUT POWER		DIMENSIONS: LENGTH, WIDTH, HEIGHT	SEARCHLIGHT WEIGHT (WITH IR ATTACHMENT AND CONTROL UNIT)	SEARCHLIGHT CASING MATERIAL
	DC VOLTAGE	CURRENT			
1 s	28 V	35 A	418 mm x 425 mm x 427 mm	29 kg	alloyed aluminium