

Fiber Optic Security System for Preventing Solar Panel Theft

LazerLok[™] stops solar panel theft in its tracks. The system provides immediate notification and alarm of any attempt to remove even a single solar panel from your facility, day or night. USSI's LazerLok[™] Security System is the most effective and economical solution available for protecting solar panels from theft. Each fully self-contained LazerLok™ Remote Module can monitor over 80 solar panels, and is tamperproof, weatherproof, and maintenance-free. False alarms are virtually nonexistent.

A single Remote USSI LazerLok™ Security Module can protect over 80 solar panels



How it Works

A Remote LazerLokTM Module sends coded light signals through a fiber optic cable that is directly attached to the solar panel frames via tamper-proof fasteners. Any unauthorized removal of a solar panel immediately interrupts the coded light signal, triggering an alarm condition that is sent to the LazerLokTM Master Station via

secure wireless link, а identifying the location of the theft. A single Master Station can simultaneously monitor up to 250 Remote Modules. Tampering, damaging, or incapacitating the Remote Module in any way also triggers an alarm to be sent to the LazerLok™ Master Station. The Remote Modules are certified to be in full compliance with all applicable FCC, CE, and IC requirements.

LazerLok™ Fiber Optic Security Cable is Easy to Install Using Existing Mounting Holes on Rear Frame of Solar Panel



ANTI-THEFT FIBER OPTIC SECURITY



Highlighted Features

- Fiber Optic Monitoring
- Wireless Communications
- Maintenance Free
- Tamperproof
- Weatherproof
- False Alarms Become Virtually Nonexistent
- Self-contained, Solar Powered Remote Modules
- Single Remote Module Can Protect Over 80 Solar Panels
- Master Station Can Monitor up to 250 Remote Modules
- FCC, CE, and IC Compliant



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LazerLokTM Patent Pending

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Tamper-Proof Remote Modules

Each self-contained, environmentally sealed Remote Module includes its own batteries and solar recharger, providing more than 5 days of continuous operation in the absence of any sunlight. The Remote Module also incorporates a high performance, low power, 2.4 GHz IEEE 802.15.4 wireless link designed for security monitoring applications. With its fieldproven, digital spread spectrum protocol, the wireless link rejects RF noise, excels in multipath scenarios, and provides an extremely reliable communication link with an effective wireless range greater than 3000 feet. The Master Station monitors every Remote Module continuously (every tenth of a second), and if this update is absent (signifying damage to a Remote Module), the Master Station indicates an alarm condition. A low battery indication from any Remote Module is also provided at the Master Station.



Parameter	Units	Value
System Response Time	msec	20
Wireless Communication Standard		IEEE 802.15.4
Maximum Number Of Remote Modules per Master Station	#	250
Maximum Sensor Cable Length per Remote Module	Feet	325
Maximum Reliable Range for Wireless Link	Feet	3,000
System Operating Temperature (Master Station and Remote Modules)	F	-40 to + 140
Remote Module Dimensions	Inches	4.5 x 3.5 x 2.5
Master Station Output Interface		Dry Contact Closure (NO), USB, Ethernet, Wireless
Master Station Power Requirements	VAC	96-264 VAC, 50-60 Hz, 30 Watts
Humidity	%	0-100 (Splashproof)
System Operating Life	years	10 (Battery replacement every 4 years)

