**Model Number**
PDG-105

**Output Power**
105mW

**Output Wavelength**
532nm

**Beam Diameter**
~1.5m

**Beam Divergence**
<1.5mrad; fully focusable out to 3°

**Operating Mode**
CW; 3000 Hz pulse

**Dimensions of laser head (mm)**
13(diameter) x 150(L)

**Net weight( 2 batteries included)**
78 grams

**Laser power supply**
2 x AAA/1.5V batteries

**Dimension of batteries**
10(dia.) x 45(L)mm

**Polarization**
Linear (50:1)

**Switch**
Push Button

**Radiation on-time per firing (continuous on)**
5 Seconds

**Guaranteed Effective Range in darkness (m)**
350m

**Operating lifetime(hours)**
3000-5000

**Color**
Black

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**Threat Assessment Laser Illuminator (T.A.L.I.)**

The PDG TALL enables a spectrum of non-lethal response for Peace Keepers and Law Enforcement officials that will assess, deter, and preclude a potential risk through the use of eye safe, high intensity laser technology. The TALL affords the user a viable solution for intermediary defense tactics and the ability to assume control of a threat prior to escalation.
**PHOTONIC DISRUPTOR/GREEN-105®**

**Competitive Advantage:**
The XADS TALI systems are exceptionally distinct from other superficial light disruption technologies, which use high-brightness light bulbs or LEDs. The PDG-105 provides portability, rugged durability, efficiency, longer range, cost effectiveness, and versatility to comparable laser-based products on the market. The following table illustrates the differences:

<table>
<thead>
<tr>
<th>Feature</th>
<th>High Brightness Flashlights</th>
<th>Industrial Spot-lights</th>
<th>Other Laser “Dazzlers”</th>
<th>PDG-105 TALI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Illumination</td>
<td>150 m</td>
<td>3000 m</td>
<td>3000 m</td>
<td>3000 m</td>
</tr>
<tr>
<td>* Distraction</td>
<td>50 m</td>
<td>200 m</td>
<td>2000 m</td>
<td>2000 m</td>
</tr>
<tr>
<td>* Flash-blinding</td>
<td>15 m</td>
<td>100 m</td>
<td>350 m</td>
<td>350 m</td>
</tr>
<tr>
<td>Vehicle Stopping</td>
<td>N/A</td>
<td>50 m</td>
<td>300 m</td>
<td>300 m</td>
</tr>
<tr>
<td>Length/Weight</td>
<td>140-180mm / 100-120 grams</td>
<td>2-4 meters /300 kg</td>
<td>400-500 mm / 2-3 kg</td>
<td>150 mm/ 78 grams</td>
</tr>
<tr>
<td>Diameter</td>
<td>50-80mm</td>
<td>1-2 meters</td>
<td>60-100 mm</td>
<td>13 mm</td>
</tr>
<tr>
<td>Waterproof/Rugged?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Picatinny Rail mount for all weapons?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Solar Recharger Kit?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Battery Life/full intensity</td>
<td>30 minutes</td>
<td>N/A – Generator</td>
<td>20 minutes</td>
<td>35 minutes</td>
</tr>
<tr>
<td>Price Range</td>
<td>$150-390</td>
<td>$400-10,000</td>
<td>$3000-6000</td>
<td>$899-1999</td>
</tr>
<tr>
<td>In Production/Available</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Eye Safety:**
The XADS TALI systems have been tested and evaluated by the U.S. Department of Defense under the following commissions:

* Joint Non-lethal Weapons Directorate (JNLWD),
* Air Force Research Lab’s Human Effectiveness Directorate Optical Research Branch (ARL-HEDO)
* Army Testing and Evaluation Command (ATEC)

Each test lab has determined the TALI is eye-safe with proper usage. Even at full-focus, with the most concentrated power, the PDG-105 is safe at ranges as close as 19 meters. At fully-diffused focal lengths, the unit is equivalently safe at even less than 1 meter. JNLWD and ATEC both independently approved the PDG-105 for sale and integration into the military.

**Field Evaluations:**
In the Spring of 2005 the Army Rapid Equipping Force (REF), through the Joint IED Defeat Task Force Evaluation and Integration Team (JEDTF), procured a minimal amount of TALI units for field testing in Operation Enduring Freedom (OEF). The units procured for evaluation were half the power of the PDG 105 (>50mW). The field reports determined overwhelmingly affirmative performance and effectiveness ratings in a variety of applications. The following page contains a summation of the field reports.

“Easy to use. Stops vehicles proficiently. Good Field use.” Evaulator, OEF 2005

“Used to deter personnel and vehicles from entering our convoys. It worked great. Vehicles were flashed with light but would not stop; once lasered (sic), the vehicle stopped immediately.” Evaulator, OEF 2005.