

**NOVA
LUX**

HAD UV Detector

USER GUIDE



Understanding the NOVA LUX HAD UV Detector: A Beginner's Guide

Introduction: The Magic of Invisible Light in Gem Identification

Imagine being able to reveal a hidden secret within a gemstone, a secret that only a special kind of light can unlock. This is the fundamental principle behind using ultraviolet (UV) light in gemology. Different gemstones react to UV light by glowing in unique colors and intensities—a phenomenon called fluorescence. By observing these reactions under both short-wave and long-wave UV light, experts can gather crucial clues to identify a gem and even determine its origin. The NOVA LUX HAD UV Detector is a modern tool engineered to make this fascinating process more precise and accessible than ever before.

1. Meet the HAD UV Detector: Your Tool for Discovery

The NOVA LUX HAD UV Detector is a specialized device for gem identification that works by analyzing the unique fluorescent properties of gemstones. The core technological leap of this device is its use of an advanced LED cold light source, which provides a purer and more controlled form of ultraviolet light. To understand why this technology is such a significant advance, it's helpful to compare it directly to the traditional methods it replaces.

2. The Core Technology: Why LED is a Game-Changer

The detector's LED cold light source technology is a major improvement over the traditional fluorescent lamps found in older devices. This modern approach delivers superior performance in several key areas, directly impacting the quality and reliability of the gem identification process.

Feature	Traditional Fluorescent Lamps	HAD Detector's LED Cold Light Source
UV Spectrum	Less pure spectrum	Purer spectrum. This leads to a more distinct and unambiguous fluorescent reaction from the gem, increasing identification accuracy.
Accuracy	Lower	Significantly improved detection accuracy. The clean UV light eliminates interference, making results more reliable.
Lifespan	Shorter	Longer service life. The durable LEDs mean the device is more reliable and requires less maintenance over time.
Control	Fixed output	Features brightness adjustment. This allows the user to fine-tune the light intensity for optimal viewing of different gemstones.

This superior LED technology is complemented by a suite of modern features that make the device exceptionally easy and safe to use.

3. Smart Features for Simple & Safe Operation

The HAD UV Detector is designed with the user in mind, incorporating several modern conveniences that streamline its operation.

- **Smart Touch Display** This intuitive interface provides direct, intuitive control over all device settings, such as brightness levels and the automatic shutdown timer.
- **Brightness Control** Users can easily switch between multiple brightness levels. This flexibility is essential for examining different types of gemstones, as some may fluoresce subtly while others glow intensely.
- **Automatic Timed Shutdown** This handy convenience feature automatically powers down the device after a set period, helping to conserve power and extend the life of the internal components.
- **Global Compatibility** The device includes a wide voltage adapter, ensuring it can be safely and reliably used in different countries around the world without needing a separate converter.

Safety First

Your safety is paramount when working with ultraviolet light. The device comes with a pair of dedicated **anti-UV glasses**.

WARNING: You must wear the provided anti-UV glasses at all times when the device is in operation. This is not optional. Direct exposure to UV light can cause serious and permanent eye damage.

4. Best Practices for Accurate Results

For professional-grade accuracy, adhering to one best practice is non-negotiable: **always operate the device in a dark environment**.

The reason for this is simple: the fluorescence of a gemstone can be very subtle. Any external light from the room can interfere with or wash out the gem's glow, making it difficult to observe accurately. Working in a dark environment ensures that the only light you see is the fluorescence produced by the gemstone itself, leading to the most precise and dependable identification.

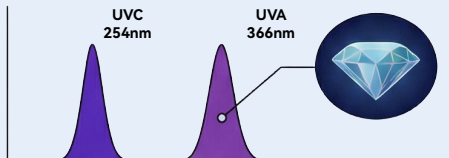
In summary, the NOVA LUX HAD UV Detector leverages advanced LED technology and a user-friendly design to make professional-grade gem identification more accurate and accessible. For enthusiasts and beginners alike, it is a powerful tool for exploring the hidden, fluorescent world of gemstones.

Advanced LED vs. Traditional Fluorescent: A Clear Advantage in Gem Identification

Advanced LED Technology

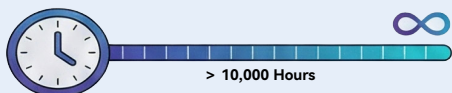
(Featured in the NOVA LUX HAD UV Detector)

High Spectral Purity



Concentrated peak wavelengths, no stray visible light, ensuring interference-free and highly accurate gem identification.

Exceptional Longevity



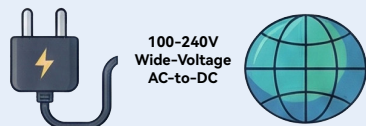
Stable operational life, drastically reducing the need for maintenance and replacement.

Fully Adjustable Brightness



Precise control with 3-level adjustment for optimal viewing of different specimens and details.

Global Power Compatibility



Easily usable in most countries around the world.

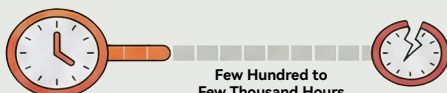
Traditional Fluorescent Technology

Low Spectral Purity



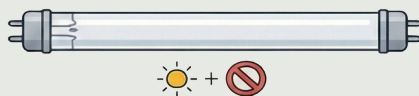
Emits significant stray visible light which can interfere with observations and lead to inaccurate conclusions.

Short & Unreliable Lifespan



Frequent downtime and replacement costs due to limited lifespan.

Fixed, Non-Adjustable Brightness



Light intensity cannot be changed, providing no flexibility for examining different types of gemstones or subtle features.

Limited Power Compatibility



Requires converters for international use, limiting portability.

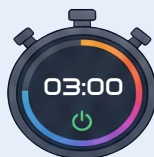
Smart Features of the NOVA LUX HAD UV Detector

Intuitive Touchscreen Control



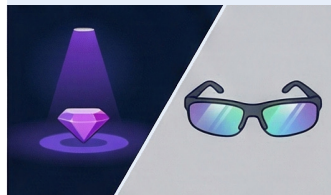
Light settings and brightness are managed effortlessly through a modern touchscreen interface.

Automatic 3-Minute Timer



Operates on a 3-minute cycle, conserving energy and lamp life without needing manual shutoff.

Designed for Optimal Viewing



Best used in a dark environment and includes anti-UV glasses to protect the user's eyes and ensure clear results.

NOVA LUX HAD UV Detector Parts List



Packing list	
NOVA LUX HAD UV Detector	1 piece
AC Power Adaptor	1 piece
Loose stone holder	1 piece
Ring holder	1 piece
Anti-UV glasses	1 piece



AC Power Input

Specifications	
Item Code	YQ-706
Voltage	110V-220V
Product Size	13.5*11.7*15.5cm
Product Weight	1.6KG
Package Size	18*18.5*22cm

Sales and Technical Support	
Sales	
Email: sales@sunlin-group.com	
Technical Support	
Email: support@sunlin-group.com	

Quick-Start

NOVA LUX HAD UV Detector

Precision Gemstone Identification System



Advanced LED Cold Light technology for the modern gemologist.
Designed for accuracy, purity, and ease of use.

The LED Cold Light Advantage



Spectrum Purity: Delivers a purer light spectrum than traditional fluorescent bulbs for unambiguous readings.

Accuracy: Significantly enhances the precision of fluorescence detection.

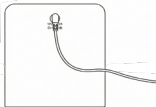
Longevity: Superior lifespan compared to standard UV tubes.

Power & Connectivity

Engineered for global application.

Equipped with a **Wide Voltage Adapter**.

Connect the adapter to any standard outlet. The system automatically adjusts to local voltage requirements, ensuring safe operation anywhere in the world.



Quick-Start

Safety Protocol

MANDATORY STEP



UV radiation is invisible and can be harmful to the eyes.

Action Item: Always wear the included **UV Protection Glasses** before engaging the light source.

The device comes with specialized eyewear designed specifically to block the UV wavelengths emitted by the HAD Detector.

Optimizing the Environment

External light pollution interferes with subtle fluorescence reactions. For professional-grade accuracy, eliminate ambient light sources to maximize the contrast of the gemstone's eaction.

Pro Tip: Operate in a Dark Environment.

The Intelligent Interface



Full control at your fingertips

Feature: Touch Screen Display

The device discards physical switches for a sleek, responsive touch panel located on the top chassis for ergonomic access.

Quick-Start

Optimizing the Environment

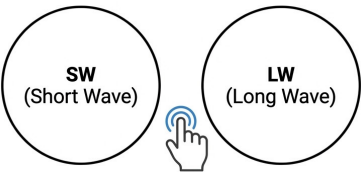


Place loose stones or jewelry pieces into the testing chamber.

Ensure the gemstones are centered on the platform to receive uniform UV exposure from the overhead LED array.

Note: The dark interior chamber is designed to absorb scatter, focusing the light solely on the specimen.

Step 2: Spectrum Selection



Use the touch screen to toggle between Short Wave and Long Wave UV output depending on the specific identification requirements of the gemstone variety.

Step 3: Intensity Adjustment



Adjust the intensity via the touch screen.
Low Intensity: Best for identifying subtle surface fluorescence.
High Intensity: Penetrates deeper into translucent materials.

Quick-Start

Smart Power Management



Automatic Timer & Shut-off

Set it and forget it. The system automatically powers down the unit when not in use.

Benefits: Maximizes energy efficiency and preserves the operational life of the LED cold light source.

Durability & Maintenance

Built for the long haul.

The **LED Cold Light Source** offers a significantly longer service life than traditional UV tubes.

Care: Keep the touch screen clean and the chamber free of dust to maintain testing accuracy. No bulb replacements are required in the short term.



Quick-Start Workflow

- 1. Connect:** Plug in Wide Voltage Adapter.
- 2. Protect:** Put on UV Glasses.
- 3. Darken:** Eliminate ambient light.
- 4. Place:** Insert Gemstones.
- 5. Select:** Choose SW or LW via Touch Screen.
- 6. Adjust:** Set Brightness.
- 7. Analyze:** Observe Fluorescence.
- 8. Auto-Off:** System handles shutdown.