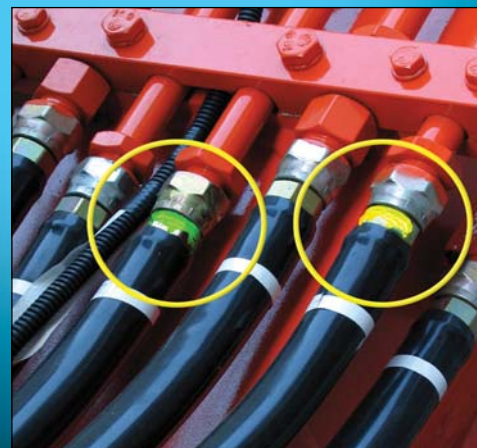


SPECTROLINE[®]

Fluorescent Leak Detection and **DIAGNOSTIC TOOLS** for Industrial Systems

- Hydraulic Systems
- Pipelines
- Turbines
- Vacuum Systems
- Liquid Holding Tanks
- Cooling Towers
- Compressed Air Lines
- Natural Gas Lines
- Propane Tanks
- And Much More!



**SPECTRONICS
CORPORATION**

ISO 9001:2008 CERTIFIED COMPANY

Applications

(open and closed loop)

- Lubrication systems
- Hydraulic systems
- Pipelines
- Cooling control and hydrostatic pressure systems
- Fuel systems
- Generator engines

Myths

- Hydraulic systems are supposed to leak
- Dyes cost too much
- Hard to implement in large systems

Benefits

- Fast, easy and accurate
- Finds all leaks—the first time, every time
- Economical
- Reduces labor costs
- Perfect for preventive maintenance
- Environmentally friendly
- Remains safely in system
- Improves working conditions
- Decreases equipment downtime
- Increases efficiency of machinery operation

Tech tips

- Tanks often have a separate holding area where the oil is cooled. Therefore, inject the fluorescent dye into the dispensed area to ensure adequate circulation.
- When put into large tanks, the dye should first be diluted with the oil so it quickly mixes.
- When determining dye dosage, always base it on the capacity of the system, including lines and tank. In addition to the tank capacity, there is a significant amount of oil located in the lines.
- Develop a dye service card specific to each application.
- Include leak checking into your regular maintenance program.



Leak checking valves and fittings with the OPTIMAX™ 3000 blue light LED flashlight

Industrial Systems Leak More Than Just Fluids... They Leak Money!

This is why in any industrial system, leaks of any kind—oil, hydraulics, gasoline, diesel fuel or water—are a source of major concern.

Do this simple math. There are **86,400** seconds in a day; **31,536,000** seconds in a year. If there is a leak at the rate of 1 drip every 5 seconds, this means **6,307,200** drips per year!

Left undetected, these leaks will take a huge bite out of your profits. Plus they lead to equipment breakdown, accidents and environmental damage. Unrepaired leaks disrupt production operations and increase equipment downtime. Also, leaks may lead to severe penalties for violation of tough environmental standards imposed by both local and national governments. These and other factors make the need to find an effective, economical and efficient leak detection method all the more important and urgent.

Current Leak Detection Methods—How Effective Are They?

There are many leak detection methods, including visual inspection and bubble solutions. Each has its advantages and disadvantages. One significant disadvantage is that while all of these methods may find some leaks, they are not effective in finding all leaks. Another disadvantage is that it is hard to locate the leaks unless you are very close to the suspect leak site. Now, there is a new and revolutionary way to detect leaks that beats all other methods when it comes to effectiveness, cost and durability.

Spectroline® Fluorescent Leak Detection: A Revolutionary Solution!

Many large industrial systems have hundreds of possible leak sites, including dozens of valves and fittings. Spectroline® fluorescent leak detection works effectively in any enclosed circulatory system where fluids are used for lubrication, hydraulics, cooling control or hydrostatic pressure testing. Fluorescent dyes also can reveal leaks in static systems that can be pressurized or agitated.

In terms of cost, ease of use and effectiveness, Spectroline® fluorescent leak detection is the best of all available methods. It is the easiest, quickest and most effective way to pinpoint the exact location of each and every leak—the first time, every time! It is also the only method that allows inspection of an entire system under virtually all conditions.

What the Pros Are Saying...

“The yellow dye in OIL-GLO 22 works great in finding hard-to-spot leaks.”

— Dennis Lee,
Timkin Company

“OIL-GLO 44 is easy to use, and I don’t have to worry about it harming the hydraulic system.”

— D.J. Anderson,
Western Enterprises

“I like the OPTIMAX 3000 flashlight. It’s easy to use, cordless, cool to the touch and can be carried easily.”

— Mike Pile,
GPS America

LEAK DETECTION DYES

Dyes for Circulating Fluids

Find Leaks Fast in Fuel, Synthetic Lubricant, Petroleum, Water and Water/Glycol-Based Systems!

Ideal for use as part of a diagnostic/preventive maintenance program for industrial systems. Work effectively in any enclosed circulatory system where fluids are used.

- **Versatile** — Allow inspection of an entire system under virtually all operating conditions. Find the smallest, most elusive leaks—even multiple and intermittent leaks!
- **Safe** — Work with any host fluid without damaging the fluid's properties or any of the system's components.
- **Cost Effective** — Highly concentrated. Contain more active ingredients per dose than competitive dyes.
- **Special Formulations** — Available in **several distinct** colors to differentiate between different leaking fluid systems (*see back page*).

How It Works

Just add a small amount of dye to the system and let it circulate. The dye/fluid mixture escapes with the host fluid wherever there is a leak and glows brightly when inspected with a high-intensity UV or blue light lamp.

Refer to the table on the back for our most popular petroleum-based and water- and water/glycol-based dyes.



CORDLESS LED INSPECTION FLASHLIGHTS

OPX-3000

OPTIMAX™ 3000 Blue Light LED Flashlight

Rechargeable flashlight with power comparable to super-high intensity 150W lamps!

- 15 times brighter than regular LED flashlights
- Inspection range of up to 20 feet (6.1 m)
- Compatible with most standard leak detection dyes
- 50,000-hour LED life
- Powered by rechargeable NiMH battery (included)
- Smart AC and DC chargers
- UVS-40 fluorescence-enhancing glasses

Also available: **OPK-300 OPTIMAX™ 3000 Lamp Kit.** Features all of the above in a rugged carrying case.



OPX-500CS

OPTIMAX Jr™ Blue Light LED Flashlight

Cordless, ultra-compact. Perfect for tight spaces!

- Inspection range of up to 6 feet (1.8 m)
- Power comparable to 75W lamps
- Compatible with most standard leak detection dyes
- 100,000-hour LED life
- Ideal for tight areas
- 3 AA batteries (included)
- UVS-40 fluorescence-enhancing glasses



OPX-365

OPTIMAX™ 365 UV LED Flashlight

Features state-of-the-art, ultra-hi-flux LED technology. Delivers pure, long-wave UV light. Makes even dirty oil leaks glow brightly!



- Four times brighter than other high-intensity UV lamps
- Inspection range of up to 20 feet (6.1 m)
- Instant-on operation allows lamp to reach full intensity immediately. Eliminates warm up time
- Works with all systems and dyes, including difficult-to-fluoresce yellow, white and blue dyes
- Powered by a rechargeable NiMH battery (included). Provides 90 minutes of continuous inspection between charges
- 30,000-hour LED life. Electronic Intensity Stabilizer assures consistent performance. Beam strength will not weaken between charges!
- Includes smart AC and DC chargers, UV-absorbing glasses, belt holster and padded carrying case. AC charger available in 120V, 230V, 240V or 100V versions.

SPECIALIZED DIAGNOSTIC TOOLS

ULTRASONIC DIAGNOSTIC TOOL

Versatile!



MDE-2000 Marksman™ II

Features advanced heterodyne circuitry and “Sound Signature Technology” to convert and amplify inaudible ultrasonic sound into audible “natural” sounds. Provides quick diagnosis and detection of problems before they lead to major breakdowns!

- Quickly detects compressed air, natural gas, propane tank, vacuum, steam, refrigerant and other pressurized leaks quickly and effortlessly
- 5-LED signal intensity indicator and audible alarm easily pinpoint the exact problem source
- Finds gear and bearing wear in internal components and electric motors
- Internal Noise Control (INC) ensures that tool is unaffected by ambient noise, making it ideal for use in extremely noisy environments
- Self-adjusting Automatic Gain Control (AGC) circuitry enhances sensitivity and simplifies operation
- Unique ultrasonic emitter helps locate faulty seals, gaskets and weather stripping in doors, windows, ductwork and other non-pressurized enclosures
- Precision-engineered hollow air probe helps isolate leak sources in cramped areas
- Adjustable touch-control sensitivity pad and power switch

Kit includes ultrasonic receiver, ultrasonic emitter, hollow air probe, contact probe, headphones, (2) D cell batteries and rugged carrying case.

MULTI-PURPOSE BORESCOPE



CB-600 COBRA-6™

Features interchangeable blue and white light LED flashlights. Ideal for both leak detection and component inspection. Designed for specialized applications that require extended reach or viewing into deep recesses. Slides easily into inaccessible areas!

- Super-thin, 6 mm water- and abrasive-resistant 38 inch (96.5 cm) shaft for added versatility. Reaches into extremely small spaces and orifices other scopes miss!
- Advanced 7400 pixel imaging bundle provides unsurpassed resolution and clarity
- Versatile, press-fit coupler design allows for quick switching of light sources
- Clip-on, angled mirror helps pinpoint leaks and flaws normally hidden from view
- Includes fluorescence-enhancing glasses and padded carrying case

MULTI-PURPOSE UV/WHITE LIGHT VIDEOSCOPE

New!



CCV-1000 COBRA CAM™ (Patented)

Feature-packed video inspection scope equipped with UV and white light LEDs. Ideal for fluid leak detection, component inspection and a wide range of other inspection applications!

- Video Display Unit (VDU) with large, high-resolution 3.5 in (8.9 cm) color LCD screen for crystal-clear viewing
- Compact, 10 mm imager head with side-mounted camera, surrounded by four UV LEDs and two white light LEDs, allows easy access into confined spaces
- Camera wand includes image capture button, LED light intensity adjustment and UV/white light toggle switch for simple, one-handed operation
- Captured images can be repositioned, rotated and zoomed for greater detail
- Lightweight, shock- and water-resistant housing with rubberized grip for safe, easy handling
- USB port and SD card (included) for downloading captured images to a personal computer
- Powered by 2.4V DC rechargeable NiMH battery pack (included). Provides up to one full hour of continuous use between charges.

Comes complete with battery charger, charging cradle, VDU stand and padded carrying case.

HIGH-POWERED, CORDED UV INSPECTION LAMPS



MLK-35 standard version



MLK-35M battery-operated version

ML-3500 Series MAXIMA™

Features State-of-the-Art Micro Discharge Light (MDL) Technology!

Delivers unprecedented power—up to 10 times the UV-A output of conventional High Intensity Discharge (HID) lamps!

- Instant on; no warm-up time needed
- Works even in direct sunlight
- Inspection range of up to 30 feet (9.1 m)
- For maximum convenience, a portable, battery-operated version is also available.

Available as lamp kits: The **MLK-35 Kit** includes UV-absorbing glasses (UVS-30), fluorescence-enhancing glasses (UVS-40), plastic carrying case (CC-350) and 8 oz (237 ml) spray bottle of GLO-AWAY™ dye cleaner (CR-800). The **MLK-35M Kit** also includes the BP-12A 12-volt rechargeable battery pack, as well as AC and 12V DC cord sets. Choose dyes separately.

TRI-365 TRITAN™ 365

Ultra-High Intensity, Multi-LED, Broad-Beam UV Lamp

- Features three UV LEDs for leak detection and one white light LED for component inspection
- Inspection range of up to 20 feet (6.1 m)
- Instant-on start
- Broad-beam design provides wider coverage area than conventional UV leak detection lamps
- Rubber bumper with Borofloat glass lens protects LEDs from damage
- UVS-30 UV-absorbing glasses



Also available:

TRI-365M TRITAN™ 365 AC/DC UV Lamp Kit. Features the battery-operated TRI-365 TRITAN™ 365 UV Lamp.

Kit includes: rechargeable NiMH battery pack (BP-25A), smart AC charger (BR-150A), AC/DC adapter (PSA-250A), UV-absorbing glasses (UVS-30) and soft carrying case (CC-370A).

LEAK DETECTION KITS

Ideal
Starter Kit



OPK-541

Specially Designed to Find Leaks in Small to Medium Sized Oil-Based Fluid Systems!

Pinpoints leaks quickly in hydraulic systems, compressors, engines, gearboxes and fuel systems.

Includes:

- OPTIMAX Jr™ high-intensity, cordless, blue light LED leak detection flashlight
- 8 oz (237 ml) twin-neck bottle of patented OIL-GLO™ 44 concentrated oil dye
- 8 oz (237 ml) spray bottle GLO-AWAY™ dye cleaner
- 3 AA batteries, fluorescence-enhancing glasses, dye treatment tags and rugged carrying case

Oil and
Water Leaks



OPK-340

The Most Complete Kit to Find Leaks in Oil, Water and Water/Glycol-Based Systems!

Works in any enclosed circulatory system where fluids are used. Allows inspection of the entire system under virtually all operating conditions.

Includes:

- OPTIMAX™ 3000 super-high intensity, cordless, rechargeable blue light LED leak detection flashlight
- 16 oz (473 ml) twin-neck bottle of patented OIL-GLO™ 44 concentrated oil dye
- 16 oz (473 ml) twin-neck bottle of WD-802 concentrated water dye
- 8 oz (237 ml) spray bottle of GLO-AWAY™ dye cleaner
- Smart AC and DC chargers
- Fluorescence-enhancing glasses, dye treatment tags and rugged carrying case

Oil Leaks



OPK-341

The Most Powerful Kit to Find Leaks in Any Sized Oil-Based Fluid Systems!

Prevents expensive equipment breakdown and potential environmental problems. Ideal for pinpointing leaks in hydraulic systems, compressors, engines, gearboxes and fuel systems.

Includes:

- OPTIMAX™ 3000 super-high intensity, cordless, rechargeable blue light LED leak detection flashlight
- 16 oz (473 ml) twin-neck bottle of patented OIL-GLO™ 44 concentrated oil dye
- 8 oz (237 ml) spray bottle of GLO-AWAY™ dye cleaner
- Smart AC and DC chargers
- Fluorescence-enhancing glasses, dye treatment tags and rugged carrying case

Also available: **OPK-342 Industrial Kit** for water-based systems. Similar to OPK-341 kit, but features one 16 oz (473 ml) twin-neck bottle of WD-802 concentrated water dye in place of OIL-GLO™ 44 oil dye.

SUGGESTED DYE AMOUNT FOR INDUSTRIAL FLUID SYSTEMS

Product No.	Application	Suggested Dilution Ratio	% Dye to System Fluid	Use With
OIL-GLO™ 22* OIL-GLO™ 22/6** OIL-GLO™ 22-8 OIL-GLO™ 22-P OIL-GLO™ 22-G (Fluoresces yellow)	Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 2 gals (7.6 L) hydraulic fluid 1 oz (30 ml) per 2 gals (7.6 L) compressor oil 1 oz (30 ml) per 1.5 gals (5.7 L) engine oil 1 oz (30 ml) per 2 qts (1.9 L) gearbox oil	0.20% 0.39% 0.39% 0.52% 1.56%	UV lamps and UVS-30 glasses or blue light lamps and UVS-40 glasses
OIL-GLO™ 30/6** OIL-GLO™ 30-8 OIL-GLO™ 30-P OIL-GLO™ 30-G (Fluoresces white)	Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses only
OIL-GLO™ 33/6** OIL-GLO™ 33-8 OIL-GLO™ 33-P OIL-GLO™ 33-G (Fluoresces green)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses or blue light lamps and UVS-40 glasses
OIL-GLO™ 40/6** OIL-GLO™ 40-8 OIL-GLO™ 40-P OIL-GLO™ 40-G (Fluoresces blue)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses only
OIL-GLO™ 44/6** OIL-GLO™ 44-8 OIL-GLO™ 44-P OIL-GLO™ 44-G (Fluoresces yellow/green)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil Fuel (gasoline or diesel)	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil 1 oz (30 ml) per 12-18 gals (45.4-68.1 L) gasoline/diesel fuel	0.10% 0.20% 0.20% 0.26% 0.78% 0.04-0.07%	UV lamps and UVS-30 glasses or blue light lamps and UVS-40 glasses
OIL-GLO™ 50/6** OIL-GLO™ 50-8 OIL-GLO™ 50-P OIL-GLO™ 50-G (Fluoresces red)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	UV lamps and UVS-30 glasses or blue light lamps and UVS-40 glasses
GAS-GLO™ 32* GAS-GLO™ 32-P GAS-GLO™ 32-G (Fluoresces yellow)	Gasoline and Diesel Fuel Systems	1 oz (30 ml) per 10 gals (37.9 L) gasoline/diesel fuel	0.08%	UV lamps and UVS-30 glasses or blue light lamps and UVS-40 glasses
WD-801, WD-801-G (Fluoresces blue†) WD-802, WD-802-G (Fluoresces green) WD-803, WD-803-G (Fluoresces blue/green†)	Water- and Water/Glycol-Based Fluid Systems – Both Static and Circulating	1 pt (473 ml) per 500 gals (1,900 L) water 1 pt (473 ml) per 1,000 gals (3,800 L) water 1 pt (473 ml) per 500 gals (1,900 L) water	0.03% 0.01% 0.03%	UV lamps and UVS-30 glasses only UV lamps and UVS-30 glasses or blue light lamps and UVS-40 glasses

NOTE:
The suffix "8" denotes an 8 oz (237 ml) bottle; suffix "P" denotes a 16 oz (473 ml) bottle; suffix "G" denotes a 1 gal (3.8 L) pail. Other sizes also available.

The dilution ratios of Spectroline® fluorescent dyes to the host fluids shown above are only guidelines. These ratios can be increased or decreased depending on the fluorescent response required and the ambient lighting conditions. A simple way to check for proper fluorescence is to remove a small amount of host fluid from the system and add the suggested amount of dye to it. Then shine the UV or blue light lamp on this sample mixture and check for a bright fluorescent response.

- * Case of (24) 1 oz (30 ml) bottles
- ** Package of (6) 1 oz (30 ml) bottles
- † Does not change the color of the host fluid

To learn more about our wide range of leak detection and diagnostic tools, visit
www.spectroline.com



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