



CUSTOMER EDUCATION GUIDE

# WHY YOUR HEADLIGHTS GO YELLOW — AND WHAT WE DO ABOUT IT

The science behind headlight oxidation, what it costs you in visibility and safety, and why professional restoration is the smart alternative to replacement.

80%

VISIBILITY LOST TO OXIDATION

\$99

FULL RESTORATION, BOTH HEADLIGHTS

<1HR

DONE IN YOUR DRIVEWAY

3YR

EXTENDED WARRANTY AVAILABLE

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## THE PROBLEM

# YOUR HEADLIGHTS WERE DESIGNED TO GO CLOUDY.

Not by accident — but because of a fundamental tradeoff automakers made in the 1980s that affects every car on the road today.

Before the mid-1980s, headlight covers were made of glass — inherently UV stable and chemically inert. When the DOT relaxed regulations requiring glass covers, automakers switched to polycarbonate plastic: 250 times more impact resistant, half the weight, and moldable into complex aerodynamic shapes. The tradeoff was UV vulnerability. To compensate, every lens receives a multi-layer factory hard coat in a cleanroom. When that coating degrades — typically 5 to 8 years into the vehicle's life — the bare polycarbonate underneath is exposed, and oxidation accelerates rapidly.



### WHY SOME CARS YELLOW FASTER THAN OTHERS

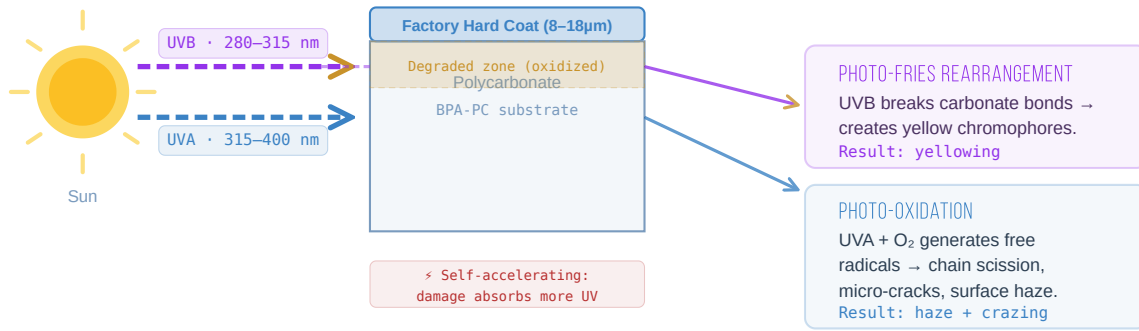
A car that parks facing south or west — into afternoon sun — can show significant oxidation in as little as 3 years. Kentucky's combination of hot summers and high UV index accelerates degradation faster than in cooler, drier climates.

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## THE SCIENCE

# TWO UV WAVELENGTH RANGES. TWO SEPARATE ATTACKS ON YOUR LENS.

The yellowing you see is not surface dirt. It is the result of two distinct chemical reactions triggered by ultraviolet radiation — each in a different wavelength range, each doing different damage.



UV Spectrum Reference

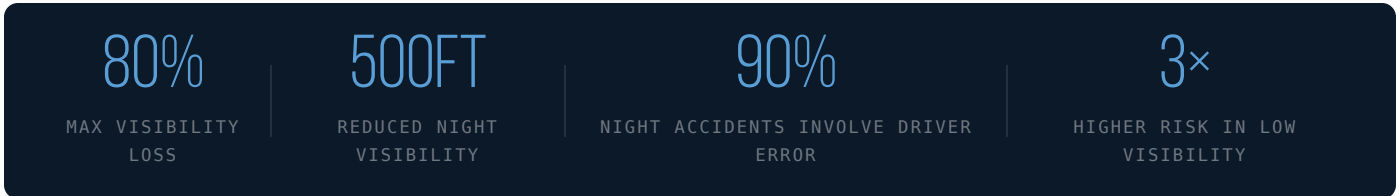


Both mechanisms work simultaneously. UVB creates the yellow color; UVA causes the structural haze and crazing. Together they compound the damage over time.

## THE REAL COST

# THIS IS A SAFETY ISSUE, NOT JUST A COSMETIC ONE.

Most people treat cloudy headlights as an appearance problem. But the visibility reduction from severely oxidized headlights is significant enough to be classified as a safety hazard by the NHTSA.



A new headlight lens transmits 89–90% of the light your bulb produces. A severely oxidized lens can drop that to 40–50% — less than half the illumination at exactly the moments you need full visibility most.

## YOUR OPTIONS

## RESTORATION VS. REPLACEMENT — AN HONEST COMPARISON

FACTOR	PROFESSIONAL RESTORATION	HEADLIGHT REPLACEMENT	DIY KIT
Typical cost	<b>\$99 both headlights</b>	\$200–\$2,000+ per headlight	\$20–\$40
Time required	<b>Under 1 hour at your home</b>	Half day at a shop	1–2 hrs, poor results
Result quality	<b>Near-factory optical clarity</b>	<b>Factory new</b>	Temporary, re-oxidizes fast
UV protection	<b>Professional UV ceramic coating</b>	<b>Factory hard coat</b>	Minimal — 3–6 months
Warranty	<b>1-yr standard · 3-yr extended</b>	Manufacturer warranty	None
Convenience	<b>We come to your driveway</b>	Shop drop-off required	Self-service
Best for	<b>Most vehicles — excellent value</b>	Cracked or internally damaged only	Not recommended



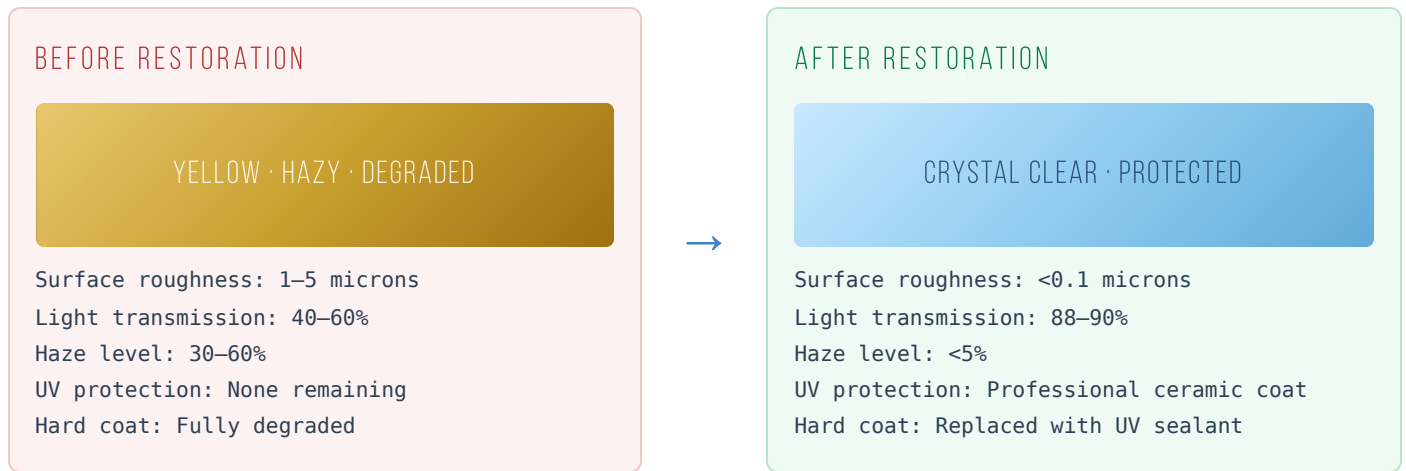
## WHEN RESTORATION IS NOT THE RIGHT ANSWER

If a headlight has internal condensation, deep structural cracks, or damage originating inside the housing, restoration cannot fix it. We will tell you that honestly rather than take your money for a result we can't deliver.

## OUR PROCESS

# WHAT A PROFESSIONAL RESTORATION ACTUALLY INVOLVES

The difference between a professional restoration and a \$20 kit from an auto parts store is not primarily the products — it is the process. Restoring a headlight to near-factory clarity requires physically removing the degraded surface layer and replacing it with a proper UV protective system.



## 1 ASSESSMENT & PREPARATION

We inspect the lens in direct sunlight to grade oxidation severity, check for internal damage, and tape off all surrounding paint. Every job is assessed individually.

## 2 MULTI-GRIT PRECISION WET SANDING

A progressive sequence of wet sandpapers physically removes the degraded surface layer and exposes clean polycarbonate underneath. Each grit erases the previous stage's scratch pattern. We never skip stages.

## 3 MACHINE COMPOUND & POLISH

A dual-action polisher removes the sanding scratch pattern. A finishing polish brings the surface below 0.1 microns roughness — the threshold at which the eye perceives glass-like clarity.

## 4 SURFACE DECONTAMINATION

The lens is wiped with isopropyl alcohol to remove all residue and oils. A sealant applied over contamination will not bond. Clean, bare polycarbonate is the only surface a proper coating adheres to.

## 5 PROFESSIONAL UV CERAMIC SEALANT

A professional-grade sealant with benzotriazole UV absorbers and HALS stabilizers applied in multiple thin coats — the dual-protection chemistry used in automotive OEM coatings.



## BEFORE & AFTER PHOTOS ON EVERY JOB

We photograph every headlight before and after. The photos are yours — for insurance records, resale documentation, or just to see the difference. Shared directly to your phone before we leave.



READY TO RESTORE YOUR CLARITY?

# MOBILE SERVICE. YOUR DRIVEWAY. TODAY.

We come to you — no shop drop-off, no waiting room. You stay home, we do the work, and your headlights look new in under an hour. Serving Lexington, Nicholasville, Georgetown, Richmond, and surrounding Central Kentucky.

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LEXINGTON & CENTRAL KY

## TRANSPARENT PRICING — NO SURPRISES

UV coating included on every job

Car / Sedan — both headlights

Standard polycarbonate lens

\$99

Larger lens surface area

\$99

Luxury / European — both headlights

BMW, Audi, Mercedes, Lexus, etc.

\$119

One side only

HALF PRICE

INCLUDED ON EVERY JOB

## 1-YEAR STANDARD WARRANTY

Every restoration includes a 1-year warranty against yellowing and hazing. If the lenses degrade within 12 months of service, we come back and make it right — no questions asked.

OPTIONAL ADD-ON

## 3-YEAR EXTENDED PROTECTION

Upgrade to our extended warranty plan for long-term peace of mind. Covers yellowing and hazing for 3 full years from the date of service. Ask about pricing when you book.

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Mobile headlight restoration specialist serving Central Kentucky. This guide is provided for customer education purposes.