

ORIGINAL

highlights

ISSUE 1 2020

LED-TECHNOLOGY

LED is not the same as LED

Defective LED-vehicle lights despite lifetime promise? Here you will see what our products account for and why you should revert back to original equipment quality when replacing lights. **P. 12**

NEW PRODUCTS

For many brands and models **P. 4**

WWW.ULO.DE

The new website is live **P. 8**

ORIGINAL VS COPY

A quality check **P. 10**

UULO



**MOVEMENT IS THE FIRST
STEP TO SUCCESS AND
HE WHO STANDS STILL
HAS LOST. OK: HERE IT
GOES! OUR NEW
CUSTOMER MAGAZINE
"HIGHLIGHTS" IS HERE.**

DEAR READERS,

In 70 years of our company history ULO has developed into an established trade mark of the odelo Group within the independent spare parts market and today ships its products to every region around the world. ULO partners benefit with us directly from the original equipment competence in the production of quality high-value signal and rear lights. As one of the earliest lighting specialists, odelo consistently sets the standards in terms of quality and innovative technologies. In order to continue to be successful with you in the future, we have optimized our aftermarket organization in the context of restructuring. In the course of which, the corporate design and

the communication of the brand ULO, among others, were also developed further.

A result of this is the first issue of our new customer magazine "Highlights" in which we can now lead the way. Our aim is to keep you updated with exciting information all about the ULO brand. Topics such as product launches, quality, lighting technology and service but also future development in the world of vehicle lighting will be included.

We hope you enjoy reading our first issue and we are looking forward to your feedback.

Yours,

Andreas Fetting

Head of Business Unit

Ralf Schönleber

Head of Sales

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LED-TECHNOLOGY THAT FASCINATES

Defective LED-vehicle lights despite lifetime promise? Here you will see what our products account for and why you should revert back to original equipment quality when replacing lights.

PRODUCT INITIATIVE – PASSENGER CARS**04**

In the context of our product initiative, we have steadily extended our range since 2018, in order to fulfill the increasing worldwide demand for quality high-value products. Among these are rear lights and mirror parts fitting to the Audi A6, BMW 5 series, Mercedes-Benz S-class and many more.

FULL-LED LIGHTS FOR COMMERCIAL VEHICLES**06**

An in-house development by the odelo Group with all functions in LED plus a dynamic turn signal.

NEW WEBSITE**08**

Clear, appealing, informative. You can find all the important information about ULO, our quality, our new products and much more on our new website.

ORIGINAL VS. COPY**10**

We have tested the rear lights of a copy-cat company in accordance with automotive industry specifications. The results have in part shown clear quality differences.

HIGHLIGHTS

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PRODUCT INITIATIVE – PASSENGER CARS LIGHTS AND MIRRORS



SINCE THE START OF THE PRODUCT INITIATIVE 2018 ULO HAS EXTENDED THE RANGE TO OVER 700 ITEMS AND OFFERS AN EXCLUSIVE SPARE PART PROGRAM FOR MANY BRANDS AND MODELS.

So that ULO can fulfill the increasing demand for quality high-value products in the future, the product range will be regularly extended with new applications.

Lights and mirrors for German premium vehicle manufacturers will remain our focus.

All ULO products will be assembled in original equipment quality and be in line with the highest production and test standards of the automotive industry.



REAR LIGHTING

Rear lights fitting to many brands and models:

Audi	A6 (C8), Q3 (F3)
BMW	5 series (G30), (G31), 6 series (G32)
Mercedes-Benz	C-Class (W205) Facelift, E-Class (A/C238), (W213), GLC-Class (X253), S-Class (W222) Facelift
VW	Touareg (III)
Toyota	Corolla (E21)



MIRRORS

Complete mirrors and single components fitting to many brands and models:

Audi	A4 (B8), A8 (D4)
BMW	5 series (G30), (G31), 7 series (F01), X1 (E84), X3 (E83), (F25)
Land Rover	Freelander (I), Range Rover (III)
Mercedes-Benz	C-Class (W204), (W204) Facelift, E-Class (W212), GLK-Class (X204), SL-Class (R230) Facelift, SLK-Class (R171), (R171) Facelift, V-Class (W447)
VW	Golf Sportsvan, Passat (B8), Touareg (7L)



FRONT LIGHTING

Headlights and daytime running lights fitting to many brands and models:

Toyota	C-HR (X1) Facelift Corolla (E18) Corolla (E21)
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FULL-LED REAR LIGHT



IN-HOUSE DEVELOPMENT FOR COMMERCIAL VEHICLES AS WELL

The odelo Group develops and produces worldwide innovative lighting systems with sophisticated designs. This competence is also applied to commercial vehicles and was realized this year through the development of a high-value Full-LED-Rear light for commercial vehicles. It had a special characteristic that can be seen on commercial vehicles: a dynamic turn signal. Besides this highlight, the quality and technical details of the light are very convincing.

PRODUCT DATA

High-quality LEDs

The LEDs used for this product are excellent in terms of durability and robustness. They have a very high light output with regard to the signal strength. Thus the sealed rear light is maintenance-free.

Protection class

The rear light is dust and water proof – also when using high-pressure cleaning devices. This has been approved with standard IP64 and IP69.

Overvoltage protection

Voltage peaks according to ISO 7637-2 generate no failure of the product.

Both-sided installation

The rear lights can be installed on both sides of the vehicle. This reduces the storing costs.

Protection towards damages due to vibrations

Internal, standardised tests in our laboratories guarantee a high protection towards vibration damages.

Inverse-polarity protection

A special protection prevents damages of the rear light in case of incorrect connection of the pins.

Shock resistance

By using high-quality materials the lens is extraordinarily protected towards damages during operation.

BRIEF INFO

Full-LED CV-rear light

Completely sealed and maintenance-free

All functions in LED

Dynamic indicator

Both-sided installation

Less power consumption due to LED-technology



FULL-LED REAR LIGHT FOR COMMERCIAL VEHICLES WITH DYNAMIC INDICATOR

VERSIONS

1707021				12 Volts
1707022				24 Volts

TECHNICAL DATA

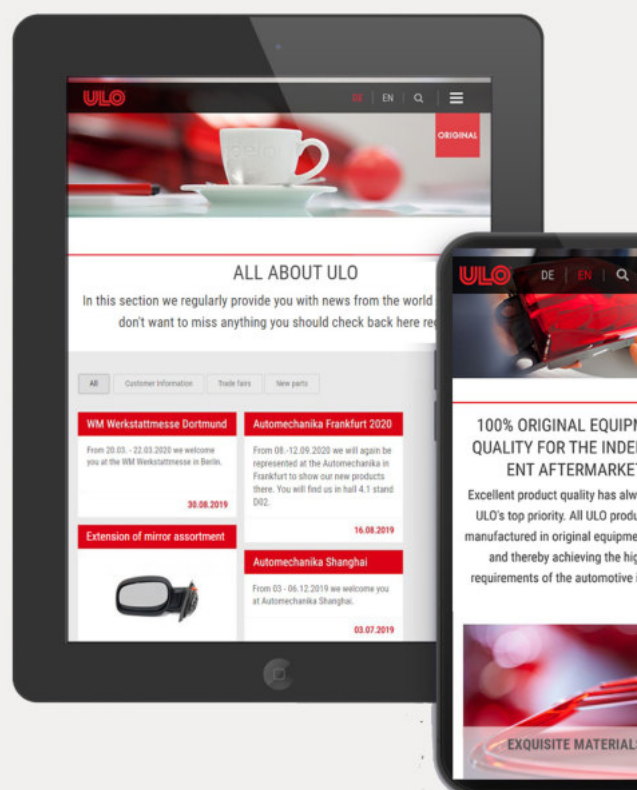
Type of lamp	LED
Numbers of LEDs	75
Voltage	12 V oder 24 V
Dimensions	400 x 130 x 96,4 mm
Type of installation	Surface-mounted
Installed condition	Horizontal
Mounting type	Two-sided
Approval	EMV: (ECE R10.5) / ECE: E9-02, 16590
Protection class	IP64 und IP69
Overvoltage protection	ISO 7637-2
Numbers of fixing spots	2
Distance of fixing spots	152 mm
Thread dimensions M8x20	M8x20
Plug	TE plug 967650-1, 7-pole

WWW.ULO.DE THE NEW WEBSITE IS LIVE



CLEAR, USER-FRIENDLY,
INFORMATIVE

In the course of further development of the corporate design, the website was completely and newly set up, structurally and optically. It now offers new information about the ULO brand and our products with less clicks and is also optimized for all mobile devices, of course.

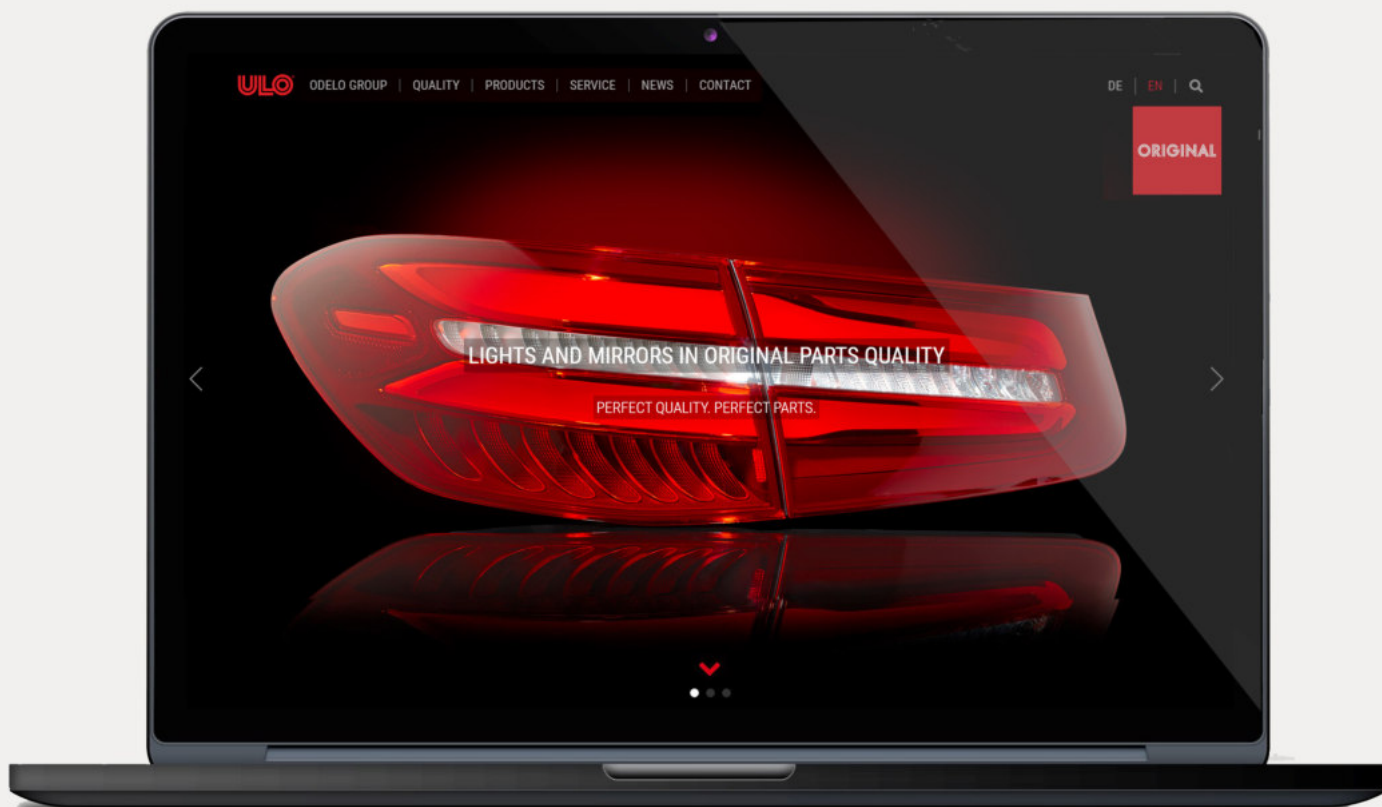


THE QUALITY: A VIEW BEHIND THE SCENES

You were surely interested under which extreme conditions and the hardest of road conditions our lights were tested and still remain reliable in action before they are on the way to our customers? The answer to this question and further details regarding our quality give an insight into what it takes when it comes to products in original equipment quality.

ULO – A BRAND OF THE ODELO GROUP

Who exactly is behind the international trade mark ULO? Find out here which highly modern production technologies at odelo, one of the most worldwide innovative series producers for signal and rear lights, are in operation daily in ten locations worldwide.



ALL PRODUCTS WITH ONE CLICK

All the product groups are, of course, clearly presented. Furthermore, an online catalog is currently being put together and will in a short time allow for a detailed search for vehicle brands, models or product properties.

ALWAYS UP-TO-DATE

In our news column you won't miss out on anything and you will regularly find news from the

ULO world, whether its information regarding new products, trade fair dates or other interesting topics relating to the topic of vehicle illumination. A glimpse inside is worth it.

New is good and is perfected through experience. Start browsing straight away: www.ulo.de. We are looking forward to your feedback.

ULO PRODUCT VS. COPY



A QUALITY CHECK OF THE COPY LIGHTS UNCOVERS SOME SUBSTANTIAL SHORTCOMINGS

More and more companies offer cheaper copy spare parts for special high-priced vehicles. Of course, copied products are never as good as original equipment parts but is it really the case that he who buys cheap buys twice? We have tested a light of a copy-cat company for you in accordance with automotive industry specifications.

OPTICAL VISUAL INSPECTION PROVES PROCESSING SHORTCOMINGS

In order to be able to assess the processing quality of the light, every single component underwent an optical visual inspection as a first step.

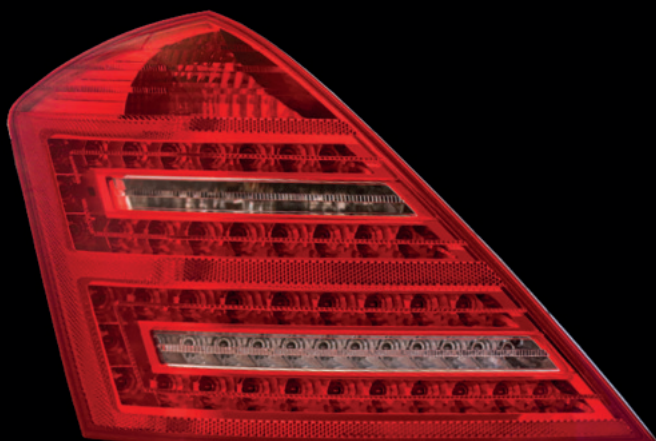
What was especially noticeable concerning the copied light was the clearly darker appearance of the lens color, whereby the replacement only became problematic in one light because the vehicle was optically impaired through visibly unequal rear lights.

In addition, strong sprue points on the outer edge of the housing parts were detected, in turn this heightens the risk of damage to the vehicle during installation because sharp edges can damage the paint.

STRESS CRACK TEST: TIGHTNESS AS A QUALITY RISK

Through this process the lights were sprayed 15 minutes with an ethanol/water mix in order to detect if the lights show signs of crack formation in the lens while exposed to cleaning agents and high-pressure cleaning.

The copy did not pass this test because multiple cracks formed and the lens itself came completely loose from the housing in many positions. Thereby the risk exists that the light will become loose after a short time and as a consequence will have to be replaced.



Original product: The consistent colour fidelity ensures that even after years of use, the lights will look the same as on the first day and guarantees problem-free individual replacement.



Copy: The visually much darker rear light makes it difficult to replace just one rear light, as the vehicle is visually devalued by visibly unequal rear lights.

THE TESTED PRODUCT: REAR LIGHT, FITTING TO THE MERCEDES-BENZ S-CLASS (W221) FACELIFT

PHOTOMETRY TEST: PRESCRIBED LIGHTING VALUES NOT EXTENSIVELY REACHED

Here every single light function (brake light, turn signal, fog light etc.) was tested with special measurement devices according to the legally required lighting values. The result was: the imitation light did not reach the required lighting values in many functions.

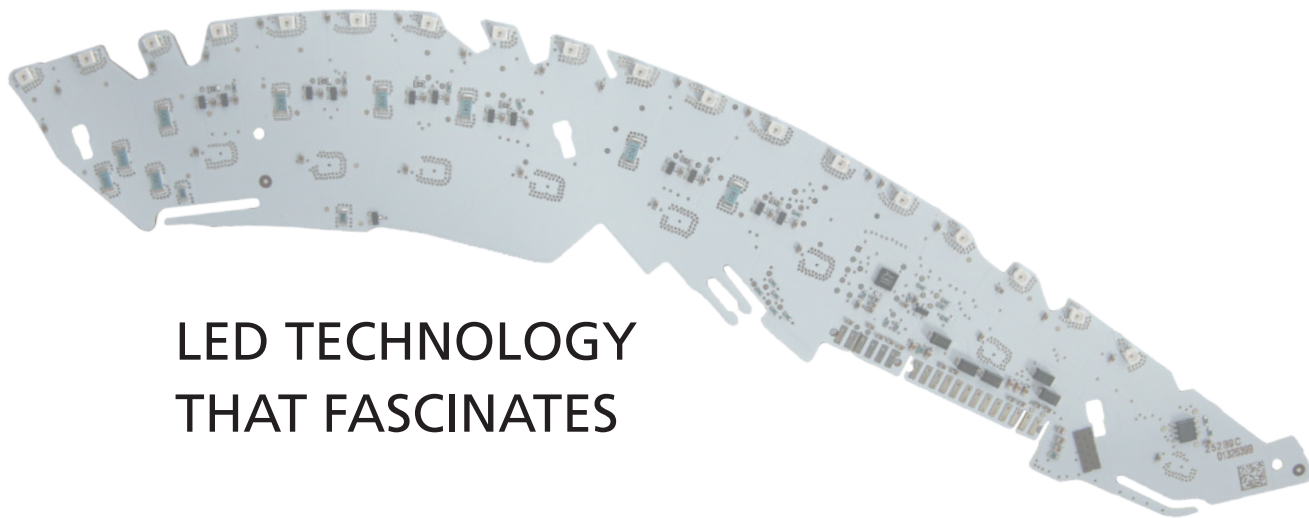
Despite E-test marks one can never be sure when it comes to copy products whether the legal requirements can be fulfilled. The installation of a light of this quality could even mean the loss of an operating license.

SUMMARY: PLAY IT SAFE WITH ORIGINAL EQUIPMENT QUALITY

After conducting our quality checks we now come to the following conclusion: If you want to play it safe you should always go for parts in original equipment quality. Copied products are not subject to the high quality standards of the automotive industry and often don't fulfill the legal specifications.

Above all, lights should ensure road safety.

The new ULO-Brochure "Original vs. Copy" with further details is available to download under www.ulo.de/news or a print version can be ordered at: press@ulo.



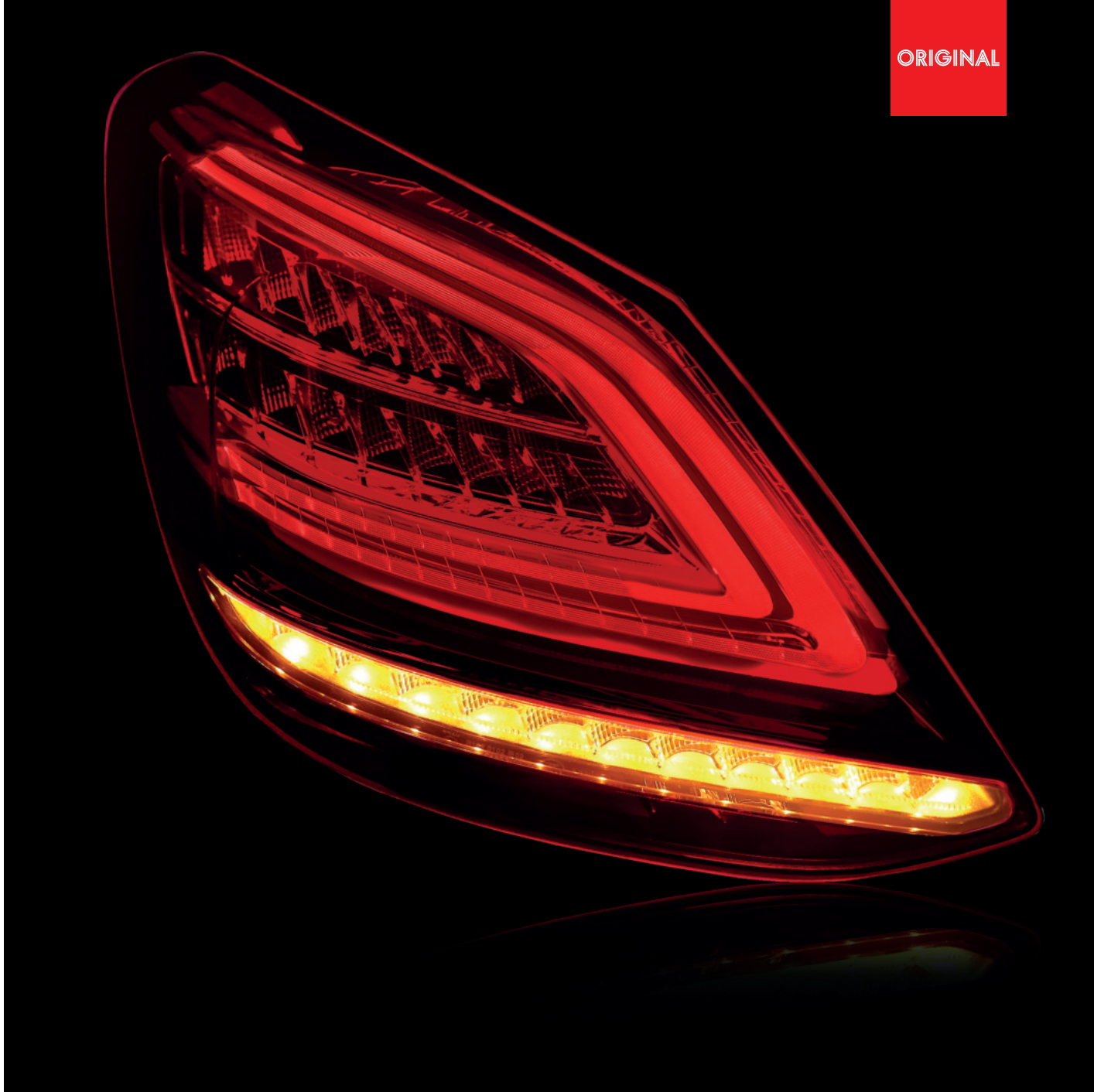
LED TECHNOLOGY THAT FASCINATES



ULO REAR LIGHTS: LED TECHNOLOGY OF THE HIGHEST LEVEL THROUGH ORIGINAL EQUIPMENT COMPETENCE OF THE ODELO GROUP

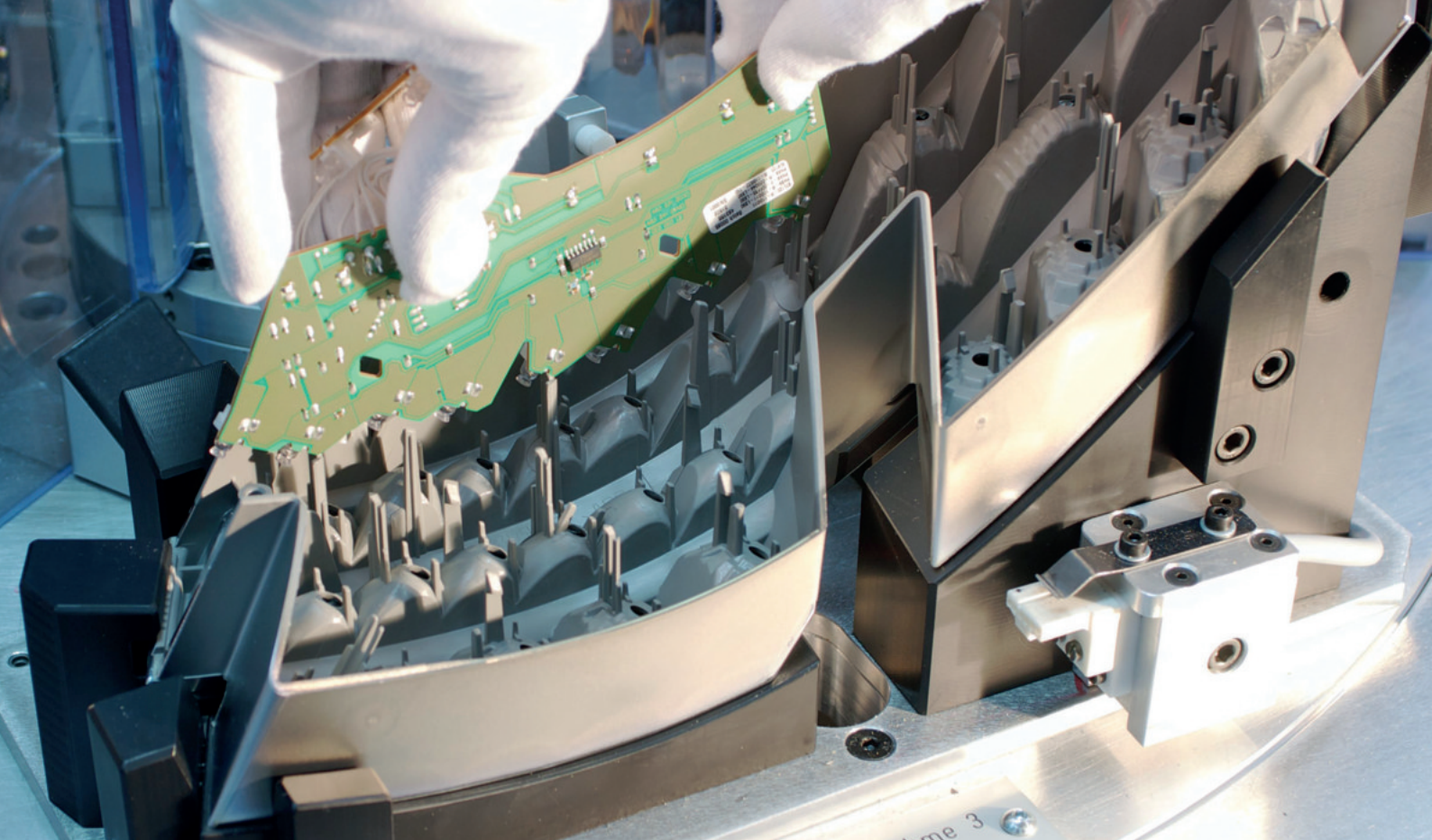
LED nowadays is not to be simply forgotten about and is used in almost every new vehicle model. Due to their technical composition they have especially strong performance, energy efficiency, and above all durability. However, it is seen again and again: rear lights where individual LEDs flicker or completely fail. Also, when these are promoted as quality and high value, the promises can often not be kept. Not so with the odelo Group, one of the earliest specialist for vehicle illumination with years of original equipment competence, knows what reliable LED technology is all about.

Due to their high life expectancy LED rear lights are designed so that the replacement of individual components is not intended. Therefore, as a rule of thumb: should some LEDs fail, the whole rear light should be replaced. That costs time and money. The good news is this situation could be avoided. As a chosen series producer of rear lights and signal lights, odelo exclusively uses special high-value and long-life components that extensively fulfill the high requirements for the sophisticated vehicle illumination technology. So, it can be ensured that the quality standards, in accordance with the requirements of the automotive industry, can be fulfilled for the long-term.



FULL-LED REAR LIGHT, FITTING TO THE MERCEDES-BENZ C-CLASS (W205) FACELIFT

In order to develop an LED-light so that it functions reliably for the life of a vehicle, parts in premium quality and above all highly qualified engineers and software developers are required. Therefore, whoever plays it safe should go for rear lights in original equipment quality. The quality of the cheaper spare parts is never satisfactory compared with the originals.



DECISIVE QUALITY: THE OPTIMAL FINE-TUNING OF ALL PARTS

LEDs produced in premium quality are still far from premium quality LED-Vehicle lights. That's because LED technology is much more complex than conventional bulb technology and the amount of electrical components is considerably larger. In order to develop a light so it can reliably last and function for the life span of a vehicle, all parts like LEDs, circuit boards, wires or contact points must be precisely coordinated and perfectly integrated into the whole electronics. The malfunctioning of LEDs is often caused by other parts without the LED being defective at all.

Improper soldering of capacitors, resistors or transistors on the circuit boards can lead to contact between the part and circuit board not being produced neatly and therefore solder points could break during use, which means the electrical circuit is then no longer closed. Critical for reliable quality are the necessary knowledge regarding the right choice of reliable parts and the Know-How of the developer and designer for an error-free configuration of the electronics and software. This competence bundles the odelo Group together through highly qualified engineers, own-produced electronic components and chosen certified suppliers with procured parts. Because materials, be they also so highly-val-

„In terms of vehicle illumination, expert repair of parts in original equipment quality is important. In production of our quality products, we rely on many years of experience when choosing reliable components and fulfill the specifications of the automotive industry standardized production procedures in all processes. Internal tests ensure that our products fulfill the high requirements and also ensure a very high product lifespan. This is the only way to realize the best possible light in absolute premium quality.“

Ralf Schönleber, Head of Sales

ued, can be incompatible in connection to other electronic components and can cause problems while operating the vehicle. In order to eliminate these problems odelo tests and validates all products including their integration into the electronics and continuously puts them to the test.

ODELO QUALITY PRODUCTS WITHOUT RISK ALSO IN THE INDEPENDENT AFTERMARKET: LED-LIGHTS FROM ULO

This original equipment quality is also offered to the light producers through their own brand ULO in the independent aftermarket. ULO customers benefit from years of experience of the

odelo Group: reliable products, produced with the most modern assembly procedures and the technology know-how from large series production.

Would you like to know more about this topic? You will find the full article on our website. If you would like to regularly receive information about our quality, please feel free to contact us by email at press@ulo.de.



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