

Installation Manual Atto® / Atto® Dark / Rhombus S Dark

Atto® schwarz Atto® chrom Atto® Dark



Rhombus S Dark

Dear customer,

thank you for placing your trust in us by purchasing this product. Please read these instructions carefully and completely before deciding whether you would like to do the installation yourself or have it done by a professional.

Legal note:

All Kellermann Atto® / Atto® Dark / Rhombus S Dark are ECE-approved for motorcycles as documented by the approval mark engraved into the housing or lens. This means that you may use the Kellermann products instead of the original indicator lights without any entry in your vehicle documents or presentation to a vehicle inspection organization. **You do not need to carry any documentation with you. This applies to all motorbikes licensed under EU law and the corresponding lights.**

ATTENTION! The warranty will not apply if the turn signal has not been correctly installed or connected to the electrical supply on your motorcycle. Do not carry out the installation unless you are qualified to do so; otherwise, leave the installation and connection work for your indicator to a qualified repair shop. The warranty does not apply to damage due to wrong connection or excess voltage (such as due to a defective alternator regulator).

ATTENTION! Improper mechanical installation or orientation of the Atto®/Atto® Dark/Rhombus S Dark may invalidate your motorcycle's roadworthiness and insurance protection, or even lead to accidents. Before every usage of your vehicle, check whether the Atto®/Atto® Dark/Rhombus S Dark are correctly mounted and fully functional.

ATTENTION! Your Atto®/Atto® Dark/Rhombus S Dark may heat up during use. Contact with bare skin or heat-sensitive objects may lead to damage or injury.

CLEANING ADVICE! Your new Kellermann products are premium-quality products. In order to enjoy them long time and maintain the warranty we recommend not to use any cleansers with alkaline/acid and/or grinding substances or steel wool. We also advice not to use steam cleaners.

INSTALLATION

ATTENTION! Make sure that your motorcycle is standing firmly before you start work, as a fall may lead to damage to the motorcycle or injury to you or others.

Dismantle the original indicators. Mount the Atto®/Atto® Dark/Rhombus S Dark in place of the original indicators, or drill an 5 mm diameter hole and fasten the Atto®/Atto® Dark/Rhombus S Dark at **5 Nm** with the nut supplied. Make sure that the area where the wires emerge is protected from splash water. Mount the Atto®/Atto® Dark/Rhombus S Dark in such a way that the beams run horizontally in your bike's direction of travel. Alignment is important to safety in traffic and essential to your bike's roadworthiness, as a bike with incorrectly aligned lights is easy to overlook on the road.

Make sure that you keep the following measures in selecting your fastening point:

Position · In width:

For front indicators: minimum distance of 240 mm
For rear indicators: minimum distance of 180 mm

Minimum distance between the illuminating surface of the indicators and the headlamp:

75 mm

In height:

350 mm -1200 mm above the ground

In length:

The distance between the rear indicators and the rearmost limit of vehicle's over-all length shall not exceed 300 mm

Geometric visibility:

Horizontal angles: 20° inwards, 80° outwards
Vertical angles: 15° above and below the horizontal

ELECTRICAL CONNECTION

Cut the wires of the original indicators between the indicator and the connector. By doing this the wiring loom stays untouched.

Connect the grey cable to „plus“ and the black cable to „minus“.

To connect the wires of the Atto®/Atto® Dark/Rhombus S Dark to the wires of the original connector there are crimp connectors and shrink tubings included in the delivery. First push one of the shrink-on tubes over one of the cables you want to connect and remove five millimeter of insulation on the end of each cable. Then push both bare ends into a crimp connector and crimp it with an appropriate tool. Then pull the shrink-on tube over the connection and heat it up equally until it fits tight over the complete length.

This type of connection is technically permanent. To create a non-permanent connection, we recommend Posilock wire connectors (not included).

Lay the cables in a way, that they are protected from splash water and fasten them, e.g. by using zip ties. Now test the function of the Atto®/Atto® Dark/Rhombus S Dark.

This completes the installation.

INDICATOR FLASH RATE

The flashing frequency can change when converting the original indicators. The installation of a load-independent flasher relay (e.g. R2) or a multifunctional assistance system (e.g. CR4®) will solve the problem. If the installation is not possible or not favored, then parallel connected power resistors (i.LOAD) will be an option. Only a few vehicles need special solutions, which we offer as i.SED, i.BOS products.

We are happy to answer any questions you may have with regards to converting your indicators, we are certain we can help you.

Our team is constantly working on new, improved solutions for all models and vehicles.

ATTENTION! The application of the described measure may interrupt correct functionality, in the case of a failure causing one of the indicator lights to increase in flash frequency in order to alert the driver of such a failure. Before each usage of the vehicle, check the functionality of the indicator lights.

The Kellermann Atto®/Atto® Dark/Rhombus S Dark is equipped with the tried-and-trusted **Longlife Protection Guard®** circuit, which ensures extremely long life with LED technology. It is not necessary to replace the illuminant and, due to the UNECE regulations, it would not be allowed either.