Dear customer,

congratulations on your new Riese & Müller E-bike. Thank you for choosing us for your mobility needs. Riese & Müller builds lightweight and practical E-bikes that are characterized by exceptional handling and award winning design. During the design process, we constantly think about your riding enjoyment and safety. Even though we cannot anticipate every possible scenario, this manual answers many of the key questions you may have and gives you many tips on using your bike.

Furthermore, a lot of interesting facts about bicycle technology, maintenance and upkeep are summarized for you to ensure that you enjoy your new Riese & Müller E-bike for many years to come. Since our E-bikes are constantly being updated and improved, we may provide additional supplementary pages to ensure you have the most up to date information. Please be mindful that some updated information may have already been included with your new E-bike.

Your dealer has performed the final assembly of the E-bike and possibly implemented some requested changes for you. He has performed a test ride to ensure an enjoyable riding experience from the very start. If after reading this manual, you still have questions, please feel free to contact your dealer or us directly.

The Riese & Müller Team
<table>
<thead>
<tr>
<th>Page</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>General information</td>
</tr>
<tr>
<td>6</td>
<td>Safety</td>
</tr>
<tr>
<td>8</td>
<td>Legal requirements</td>
</tr>
<tr>
<td>9</td>
<td>Intended use</td>
</tr>
<tr>
<td>10</td>
<td>Statutory provisions for fast E-bikes</td>
</tr>
<tr>
<td>12</td>
<td>Before the first ride</td>
</tr>
<tr>
<td>14</td>
<td>Before every ride (quick check)</td>
</tr>
<tr>
<td>16</td>
<td>Quick releases</td>
</tr>
<tr>
<td>18</td>
<td>Adjusting the riding position</td>
</tr>
<tr>
<td>26</td>
<td>Adjusting the rear suspension</td>
</tr>
<tr>
<td>31</td>
<td>Suspension seat post (blueLABEL)</td>
</tr>
<tr>
<td>32</td>
<td>Adjusting the suspension fork</td>
</tr>
<tr>
<td>33</td>
<td>Braking system</td>
</tr>
<tr>
<td>39</td>
<td>Shifting system</td>
</tr>
<tr>
<td>44</td>
<td>Chain</td>
</tr>
<tr>
<td>46</td>
<td>Belt drive</td>
</tr>
<tr>
<td>47</td>
<td>Wheels and tires</td>
</tr>
<tr>
<td>51</td>
<td>Repairing a puncture</td>
</tr>
<tr>
<td>58</td>
<td>Headset</td>
</tr>
<tr>
<td>59</td>
<td>Lighting system</td>
</tr>
<tr>
<td>60</td>
<td>Luggage and children transport</td>
</tr>
<tr>
<td>61</td>
<td>Integrated lock</td>
</tr>
<tr>
<td>62</td>
<td>Kickstand</td>
</tr>
<tr>
<td>62</td>
<td>Pedals</td>
</tr>
<tr>
<td>63</td>
<td>Load – separating the frame</td>
</tr>
<tr>
<td>64</td>
<td>Bosch drive</td>
</tr>
<tr>
<td>66</td>
<td>E-Bikes – range in cold weather</td>
</tr>
<tr>
<td>67</td>
<td>E-Bikes – HS models</td>
</tr>
<tr>
<td>68</td>
<td>Transporting the E-bike</td>
</tr>
<tr>
<td>70</td>
<td>General care/Inspections</td>
</tr>
<tr>
<td>74</td>
<td>Warranty/Guarantee</td>
</tr>
<tr>
<td>77</td>
<td>Weight rating</td>
</tr>
<tr>
<td>78</td>
<td>Recommended torque settings</td>
</tr>
<tr>
<td>80</td>
<td>Service and maintenance plan</td>
</tr>
<tr>
<td>82</td>
<td>Documents</td>
</tr>
<tr>
<td>83</td>
<td>Service record</td>
</tr>
</tbody>
</table>
Carrier, S. 60
Seat post, S. 18, S. 31
Saddle, S. 20
Suspension, S. 26
Brake lever, S. 25
Shifter, S. 40
Stem, handlebar, S. 21
Headset, S. 58
Lighting, S. 59
Pedals, S. 62
Bosch drive, S. 64
Chain, S. 44
Belt drive, S. 46
Brakes
Disc brakes, S. 35
Rim brakes, S. 36
Shifting
Derailleur, S. 41
Hub gear, S. 42
Wheel attachment, S. 16
Wheels and tires, S. 47
Kickstand, S. 62
Suspension fork, S. 32
Torque settings in this manual are specified in Nm. Do not rely on your feeling: “tight” is simply not precise enough. ONLY a torque wrench can ensure that the bolt is properly tightened. You must always use this tool to tighten the components when a torque setting is specified. A bolt that is too tight or too loose can cause malfunctions which could lead to an accident with serious injuries as a result.
Riese & Müller E-bikes are equipped with exceptionally innovative technology. Even if you are a seasoned rider that has been riding for many years, we strongly recommend reading and observing the following instructions.

First we would like to familiarize you with the components of your Riese & Müller E-Bike. Please flip open the front cover of the manual. Here you will find an example of a Riese & Müller E-bike upon which all of the mentioned components are identified.

⚠️ **TIP! KEEP THE FRONT COVER OPENED AS THIS MAKES ORIENTATION EASIER!**

We have tried to vividly portray all of the relevant information to ensure your satisfaction with your new Riese & Müller E-bike. Therefore we use the following symbols:

⚠️ **Attention!** Here is a hint that will help you quickly become familiar with your bike and its technology.

⚠️ **Danger!** This symbol indicates that life-threatening risks are possible if the corresponding instructions are not followed. Please read carefully.

⚠️ **Tip!** This symbol indicates useful additional information.

⚠️ This symbol indicates that you must use a torque wrench and comply with the specified torque.

To ensure you always have a fun and safe ride, you should perform the quick check before every ride. For instructions on this quick check please visit page 16.

⚠️ **DANGER!**

*Do not ride if the test wasn’t passed with 100% certainty.*
In this manual, a number of maintenance and repair tasks are described in detail. If you engage in this activity you must always consider that the instructions are exclusively for the designated Riese & Müller E-Bikes and are not transferable to other bikes.

Through a variety of design and model changes it is possible that the included instructions are not up to date. If necessary, review the separately attached instructions.

Note that the successful execution of the included instructions may require special tools or technical expertise. If you are uncomfortable performing any of the listed tasks, please seek the assistance of a professional.

**DANGER!**

*This manual covers the installation and maintenance work that may be best performed by your local dealer (page 80–81). Do not perform any task that you are uncomfortable with. Many of these tasks require special knowledge and tools and should only be performed by an expert. Never ride your bike with incomplete or improper maintenance. You could endanger your life or the lives of others.*

If you reach a certain point where you are not sure how to proceed, please contact your local dealer or us directly. We are happy to help!

**WE HOPE YOU ENJOY YOUR NEW RIESE & MÜLLER E-BIKE.**
SAFETY

The following are a few things that we hold very dear:

• Always take care in traffic as not to endanger yourself or others.
• Respect the rules of the road so you don’t draw the ire of other road users.
• If you tour through forests and meadows, please respect nature by cycling only on marked or paved roadways. Observe the legal requirements for the off-road use of bicycles. These are available from your local authorities.
• Never ride without a helmet.
• Make sure you always wear appropriate clothing.
• Make sure you always wear shoes with non-slip and rigid sole.
• Do not ride with hands off the handlebar.
• Do not ride with headphones and do not use your phone on the E-bike. do not drive if you are impaired in your driving ability by medication, alcohol or other drugs
• Check if the quick releases, thru axles or axle bolts are properly secured. Do this before every ride and even if you only shortly parked your E-bike.
• Adapt your driving style to the weather conditions. Wet or slippery roads increase the braking distance.
• Adjust your speed to the terrain and your riding ability.

Note to all parents and guardians
As guardians you are responsible for the technical condition of E-bike and the safety of your child.

ATTENTION

Minors may only ride E-bikes, when they have reached the required age and possess the necessary license respectively.
DANGER!

Note that the E-bike immediately moves when you put your foot on the pedal and the E-bike drive is switched on. So first pull the brake and then get on the E-bike. Otherwise the unexpected move can lead to accidents and hazards.

DANGER!

Shut off the E-bike drive and remove the battery before you start to work at your E-bike. Unintended activation of the E-bike drive can lead to injuries.
If you want to participate on public roads with your E-bike, your E-bike must be equipped in accordance with local regulations. In Germany this is governed by the Road Traffic Licensing Regulations (StVZO) and the Road Traffic Act (StVO).

**STVZO**
To legally use a bike on a public road in Germany it must conform to the Road Traffic Regulations (StVZO). The requirements relate to the brake and lighting system and bell. Every rider is obliged to maintain his bike at a roadworthy state. The general traffic rules that apply to automobiles also apply to bicycles. Please familiarize yourself with the traffic regulations.

**THE BRAKING SYSTEM**
The braking system of an E-bike must have at least two independently functioning brakes (front and rear wheel). The mode of operation is not strictly regulated.

**DIE LICHTANLAGE**
All lighting devices on the bike need to display the official mark. This mark consists of a wavy line, the letter “K” and a number. Only lights (battery powered and dynamo) with this mark can be used on public roads.

The §67StVZO states that the front and rear light must be operated by the same fixed power source (battery or dynamo). Front and tail light can be switched on and off separately. The rated power and voltage must be at least three watts or six volts. The rear light must be mounted at a height of at least 25 cm above the road surface and the center of the front light cone must touch the road surface no further than 10 meters from the front of the E-bike.

**REFLECTORS**
In addition to the light sources, each bicycle must also have the following reflectors:
- as large as possible white reflector in combination with the headlights.
- in the rear, at least two red reflectors with a large area with the “Z” mark. The tail light can be combined with the rear reflectors.
- two lateral yellow reflectors per wheel must be attached. Alternatively white reflective rings can be attached to the spokes around the complete circumference of the wheel or on the rim edge or on the sidewalls of the tires.
- two yellow reflectors per pedal (front and rear).

**TIP!**
Before using your bicycle in a country other than Germany you can seek advice at your local dealer regarding any legal peculiarities in your country.
Your Riese & Müller E-bike is designed for use on roads and paved trails only. When using the E-bike in public traffic it must be equipped conforming national legislation.

Your E-bike is not approved for extreme loads. Riese & Müller is not liable for damages resulting from improper use, incorrect assembly, negligence, accidents, racing, jumping, wheelies or similar activities.

Your E-bike is not approved for use in competitions.

Terms of use and maintenance described in this manual are part of the intended use.

The manufacturer or dealer accepts no liability or warranty if the E-bike is out of intended use, when safety instructions are not observed, when overloaded or improperly deficiencies are eliminated. The warranty does not cover damage caused by installation errors, intent, crashes and poor care or poor maintenance.

⚠️ DANGER!

Your E-bike is basically intended for the transportation of a single person only. One exception is the transportation of a child in a child seat or a child trailer. Please note the terms of your national legislation.

Pay attention to the use of high quality child seats and trailers.

Pay attention to the maximum gross weight (see page 77, technical data).

⚠️ TIP!

\[ \text{Gross weight} = \text{Riders weight} + \text{E-bike weight} + \text{luggage weight} \]
LEGAL FRAMEWORK
The following paragraph applies to the Federal Republic of Germany. Please refer to your local regulations in your country. If you were born after April 1, 1965, you need a license (regardless of class) to use a fast E-bike on public roads. You also need insurance and a license plate. These can usually be obtained at your local insurance offices. You’ll need to bring the vehicle documents you received from your dealer. We recommend comprehensive vehicle coverage. Please mount the license plate on the included holder (see picture).

BICYCLE HELMET
A fast E-bike is capable of speeds over 40 km/h, a speed range previously reserved for scooters and motorcycles. Although you are not required to wear a motorcycle helmet, we STRONGLY encourage the use of a bicycle helmet.

USAGE OF CYCLE PATHS
Please familiarize yourself with the traffic regulations for fast E-bikes in your country.

REFLECTORS AND REARVIEW MIRROR
Please familiarize yourself with the traffic regulations for fast E-bikes in your country.

TRANSPORT OF CHILDREN
Please familiarize yourself with the traffic regulations for fast E-bikes in your country.

MODIFICATIONS AT FAST E-BIKES
Your vehicle’s technical capabilities were set and approved in our factory. Therefore any adjustment to certain components of your fast E-bike voids the approval.
The following components may, subject to certain conditions, be replaced/exchanged:

**Tires**  ECE-R75 approved tires of the same width and diameter (other tire sizes possible, see details in the registration document).

⚠️ **TIP!**

All other components must be replaced by identical parts or parts with official type approval. Or the parts must be presented to a technical service like TÜV or DEKRA and listed in the registration paper of the E-bike.
BEFORE THE FIRST RIDE

⚠️ ATTENTION!

The authorized dealer must make the E-bike ready to ride, so that safe operation is guaranteed. The dealer must do a final check and a test ride with your E-bike. The transfer of the E-bike must be documented in the e-Bike passport (see page 87).

Check the tight fit of quick releases and all important bolts and nuts.

Check the tires air pressure. You will find the required air pressure at the sidewall of the tires. Do not exceed the minimum and maximum air pressure! Make sure that tires and rims are free from damages, cracks and deformations.

Check the tight fit of the battery.

Check the battery charge condition.

Become familiar with the functions of all controls.

Make sure that your dealer has performed the final assembly of the E-bike and adjusted the E-bike to your preferred riding position. This includes:

• adjustment of the brakes
• adjustment of the brake levers, so you can reach them every time
• wheel attachment to frame and front fork
• adjustment and attachment of saddle, handlebar and stem for a secure and comfortable riding position

CARRIER, CHILD SEATS

Please note that carrier and child seat are not allowed to be modified. The following E-bikes can be directly fitted with a child seat (e.g. Polisport Bilby): Avenue, Culture, Delite, Homage, Cruiser, Swing, Wave

TRAILES/TRAILERBIKES

Riese & Müller E-bikes are only approved for use with two wheeled trailers. The max. towing capacity (including trailer weight) is 50 kg. When mounting the trailer at the carrier, please add the support load to the carrier load.

Single-track trailers are approved for the use on blueLABEL E-bikes only. The maximum trailer load is 20 kg.

⚠️ DANGER!

If your E-bike is fitted with pedals with rubber or plastic cage, please become familiar with their grip. Pedals with rubber or plastic cage may get slippery when wet!

⚠️ ATTENTION!

Child trailers are not allowed on fast E-bikes.
**BRAKING SYSTEM**
Are you familiar with the braking system? Check to make sure that the front brake lever is on the side of the handlebar that you are used to. If it isn’t then you can either train with the new arrangement or have your dealer change the arrangement to fit your needs. More details on brakes can be found on pages 33.

**SHIFTING**
Conduct a test ride to familiarize yourself with the shifting system in a low-traffic area. More details on the shifting on page 39.

**DANGER!**
Modern brakes are much more powerful than simple rim or drum brakes. Make sure to first test the braking power before heading into traffic. Unintended braking can lead to an accident. Slowly squeeze the brake to generate more braking force. When riding with a full load, the handling is affected and it takes longer to stop. Be sure to make some handling and braking test prior to heading into traffic.

**DANGER!**
With activated E-bike drive, the E-bike immediately moves, when you put a foot on the pedal! So pull the brakes before getting on the E-bike. The unaccustomed move may lead to hazards and accidents.

**SEATING POSITION**
Is the saddle and handlebar in the right position? Your dealer can assist you in finding the best seating position. More details on seating position on page 18 – 25.

**SUSPENSION**
Is the suspension adjusted to suit your needs? More information regarding suspension on page 28 – 36.
BEFORE EVERY RIDE (QUICK CHECK)

Before each ride the following items must be checked:

QUICK RELEASE/AXLE BOLTS/THRU AXLES
Are the quick releases or bolts of stem, saddle, front and rear wheel properly secured? More details can be found on page 16–17.

SUSPENSION
Check to make sure the suspension is functioning. Press down on the saddle to check the rear saddle. While holding the front brake, press down on the handlebars to check the suspension fork. In both cases the suspension should move up and down with uniform resistance and without significant noise. No components of the bicycle should scrape or rub together.

TIRES
Sind die Reifen in gutem Zustand? Stimmt der Are the tires in good condition? Is the air pressure correct? More information regarding tires can be found on page 47–50.

LIGHTING
Do the lights stay on when standing still? More information regarding lighting can be found on page 59.

BRAKES
Vigorously pull the brake lever. The levers should stop just before reaching the handlebar. The brake pads on rim brakes must touch the entire rim area while not touching the tire. More details on the brakes can be found on page 33–38.

DANGER!
Quick releases and fittings that are not properly closed can result in severe accidents! Check the tight fit of quick releases, thru axles and bolts even if you parked your E-bike only shortly at an unattended place. Do not ride your E-bike with untightened quick releases.
LOADING
Check the fixation of basket or child seat. The luggage must be fixed securely and nothing should get caught by the wheels. Please note that your E-bike may change under loading.

WEIGHT LIMITS
Check to ensure the gross vehicle weight rating is not exceeded. Please see page 77.

UNUSUAL NOISES
Be aware of any unusual noises or changes to handling characteristics which may indicate a problem. Check the bearings and couplings.

DANGER!
Do not ride your E-bike if concerned about any of these points!
If in doubt please consult your dealer. A faulty E-bike can result in accidents!

ATTENTION!
After a crash or accident your dealer must inspect the E-bike for damages before you use it again.
QUICK RELEASES

Even though quick releases are very convenient, many accidents occur because of their misuse. So please pay attention to this article.

DESIGN OF QUICK RELEASES
The quick release consists of two control elements:
- A lever A on one side of the hub that produces the clamping force.
- A locking nut B which is threaded on the opposite side that sets the tension.

HANDLING OF QUICK RELEASES
- Open the lever A You should now be able to read the word “Open”.
- To close it, move the lever so that on the outside it reads “Close”. At the beginning of the closing movement, about halfway through its travel, the lever must be slightly tight.
- During the second half of the lever’s travel, the leverage increases significantly. Finally, the lever is very tight and is difficult to move. Use the palm of the hand to close the lever. Once closed the lever must be parallel to the wheel and not project out laterally.
• Check the fit by attempting to turn the closed lever. When the lever rotates, it is not safe to use the bike. You have to open it again to retighten it. Do this by turning the locking nut one-half turn (while holding quick release).
• Repeat the closing process and check the fit again. When the lever no longer rotates, it is clamped properly.
• Check the tightness of the wheel: lift the wheel several inches off of the ground and give the top of the tire a little whack. A securely fixed wheel should remain in the frame.
• Check the tight fit of saddle and handlebar by trying to twist them.

⚠️ TIP!

Components secured with a quick release are at risk of theft.
If possible place an additional lock on the wheels when you park the E-bike.

⚠️ DANGER!

Never ride a bike without first checking that the wheels are securely attached to the frame with a quick release or bolt. If not securely attached, the wheel could fall out during the ride and lead to a severe injury!

Check the tight fit of quick releases, thru axles and bolts even if you parked your E-bike only shortly at an unattended place. Do not ride your E-bike with untightened quick releases.
ADJUSTING THE RIDING POSITION

RIDING POSITION
The correct riding position is essential for comfort and power delivery. Your E-bike is designed so that various components can be adjusted to accommodate your body size. This section describes adjusting the riding position on your new Riese & Müller E-bike.

CORRECT SEAT HEIGHT ADJUSTMENT
The necessary height is based on body position while pedaling. While pedaling the balls of the big toes should be over the pedal axle. The leg must not be fully extended at the lowest position of the pedaling circle. If the seat is too high, it is difficult to pedal through this low point and the pedaling is not smooth and circular. If the seat is too low, knee pain is possible.

Check the seat height using the following method and be sure to wear shoes with a flat sole:
• Sit on the saddle and place the heel on the pedal in the lowest position. In this position the leg should be fully stretched. Make sure that your hips remain straight.

DANGER!
The successful execution of the following operations requires some experience, proper tools and expertise. Make sure to conduct a brief check (page 14) and test ride in a traffic free area. If you have any doubts about the adjustments, please discuss them with your local dealer. This can be combined with a normal workshop visit (i.e. initial inspection).

TIP!
With full suspension bikes, the bottom bracket height is inherently greater. It may happen that you can only reach the ground with an outstretched toe.
• To adjust the seat height, you must loosen the clamping screw for the seat post.

![Seat Height Adjustment](image)

• Now you can adjust the seat post height. Make sure that the seat post is greased. If the seat post feels tight, clean and re-grease both surfaces. Never force the seat post and if you have further issues, please contact your local dealer for further advice.

• DANGER!

Never ride when the minimum insertion mark on the seat post is visible. This indicates that the seat post is not inserted far enough into the frame. It could break or damage the frame. If the seat post is ever shortened, a minimum of 80 mm must remain in the seat tube!

![DANGER](image)

• Align the saddle in the direction of travel and tighten the clamping screw to a torque of 9–12 Nm.

• Check the tightness of the seat post. Try to twist the saddle. If it doesn't twist, the seat post is tight.

• Double check to make sure the leg extension is correct. Verify that you can easily and safely reach the ground. If this is not the case, position the saddle lower.
ADJUSTING THE RIDING POSITION

SADDLE ORIENTATION AND ANGLE
The distance between the handlebars and saddle and the angle of the saddle have an effect on riding comfort and riding dynamics. By moving the saddle horizontally, this distance can be altered which has a profound effect on pedaling. Furthermore, the seat should usually be oriented parallel to the ground.

- Loosen the bolt \( A \) three to four turns only, otherwise the entire mechanism may fall apart.
- Move the seat forward or backward as desired. Often this only requires a little bump to the saddle.
- Adjust the angle.
- Tighten the bolt \( A \) to 12–15 Nm.
- Check to see if the tightened saddle moves by alternately loading the front and back of the saddle.

⚠️ DANGER!
When replacing the saddle, be aware that only saddles with a frame diameter of 7 – 8 mm can be used. Using saddles with other frame diameters can lead to failure and cause the rider to fall.

⚠️ TIP!
The Riese & Müller flip flop seat post can be rotated with its head facing forward to get a smaller distance to the handlebar.
HANDLEBAR HEIGHT ADJUSTMENT
The stems at Riese & Müller E-bikes are height and partially angle adjustable. This allows for the adjustment of the seating position.

Upright seating position
Advantages: less strain on the wrist, arms and neck.
Disadvantages: higher load on the saddle.

Outstretched seating position
Advantages: less load in the saddle, more efficient power transfer, more streamlined, more weight on the front wheel.
Disadvantages: higher load on wrists, arms and neck.

HANDLEBAR HEIGHT AT ERGOTEC-STEMS
The height can be reduced by leaving off spacers. But the steerer tube has to be cutted in the same way.

attenTion!

Let your dealer change the handlebar height.
ADJUSTING THE RIDING POSITION

ADJUSTABLE STEM AT KENDU/ LOAD/ PONY
The stem of the Kendu, Load and Pony is adjustable in both height and angle. Both adjustments can be made without tools by means of a locking pin and quick releases.

Angle adjustment:
• Open both quick release levers A on the front hinge.
• Press the side button B and adjust the stem in one of the three angle positions. Release the button again moving the stem until it clicks into place (possibly move the stem a little back and forth).
• Attention: Only use the stem in the three positions in which the pin engages!
• Close both quick release levers A.
• In engaged state both red marks are in one line.

Height Adjustment:
• Open the quick release lever C.
• Press the pin D and adjust the stem to one of five height positions until the pin D engages.
• Attention: the stem should not be extend-ed beyond the “MIN. INSERTION” mark! Use the stem only in the five positions in which the pin engages.
• Align the handlebar in the direction of travel and close the quick release lever C.

ATTENTION!
Before each ride, ensure that the pin is firmly in place and quick-release levers are completely closed. If the bars or stem move while driving by yourself, have your dealer inspect it immediately as this could be very dangerous.
DANGER!

The height adjustment of A-Headset stems requires properly setting the steering bearings and improper installation can result in accidents. Therefore it is recommended that this is only performed by or at least checked by your local dealer.

HANDLEBAR HEIGHT FOR A-HEADSET STEMS
The height is adjusted by using spacer rings.
ADJUSTING THE RIDING POSITION

ADJUSTING THE ANGLE OF THE HANDLEBARS
Adjust the handlebars so that the wrists are relaxed and not too strongly twisted. Adjust the handlebar position by rotating the handlebar.

• The Bosch display may cover the bolts of the handlebar clamp. In this case you must loosen the four display bracket bolts and twist the display.
• Loosen the two bolts F or the four bolts H on the handlebar clamp.
• Rotate the handlebar to the desired position.
• Make sure that the handlebar is clamped exactly in the middle of the stem.
• Tighten the two bolts F to a torque setting of 10 Nm or the bolts H to a setting of 5.5 Nm using an “X” pattern.
• Re-tighten the Bosch display bolts again.

The handlebar clamp at the stem of Load/Kendu/Pony must be tightened first and gapless at the inscribed side (see arrow A). Observe the tightening torque (6–8 Nm). Fix the handlebar by tightening the opposite bolts.

DANGER!
After modifications of stem and handlebar position you must check if all cables are still long enough. It is necessary to have the full steering range without any limitations by the cables.

HANDLEBAR ADJUSTMENT
When adjusting grip position, adding bar ends or changing handlebars, it may be necessary to replace shifting and brake cables with longer ones.
**ADJUSTMENT OF V-BRAKE LEVER REACH**

Riders with small hands can adjust the brake lever closer to the handlebar:

1. Where the brake cable enters the brake lever there is a small screw. Tighten the screw until the desired reach is achieved.
2. Now check whether there is enough free travel of the lever before the brake engages. If this is not the case, the brake cable can be adjusted (see page 20).

**BRAKE LEVER ROTATION**

Loosen the Allen bolts on the brake lever handlebar clamp.

- Sit on the saddle and put your fingers on the brake lever. Then twist the brake levers until your hand and forearm form a straight line.

- Tighten the bolts on the brake lever handlebar clamp to a torque setting of 5 – 6 Nm.

**BAR ENDS**

These provide an additional grip position. They are usually set so that the hands fit comfortably on it when the rider is leaning slightly forward. The bar ends are typically set at approximately 25 degrees to horizontal direction.

**DANGER!**

*The brake lever should not touch the handlebar before full braking is achieved!*

**DANGER!**

*The bolts on the stem, handlebar, grips and bar ends must be tightened to the specified torque settings. The corresponding values can be found on page 78. If bolts are not tightened to the correct specification it may cause the parts to loosen or break which may lead to serious accidents.*
ADJUSTING THE REAR SUSPENSION

DANGER!

If you do not have the special knowledge or the special tools for this work, you must contact your dealer.

Your Riese & Müller E-bike is equipped with a low maintenance rear suspension system (excluding blueLABEL). The shock contains either an air chamber or a combination of steel spring and oil hydraulic damping. To tune the air suspension, please refer to the separately included manual from the suspension manufacturer.

REAR SUSPENSION ADJUSTMENT

With steel spring shocks, the correct spring must be chosen for the desired ride characteristics. Furthermore you can adjust the spring preload and damping.

The standard spring is designed for 90% of all applications. If the bike sinks dramatically when you mount it or bounces when hitting small bumps, you need a stiffer spring. If the bike sinks only a little when you mount it and hardly reacts to bumps, then you need a softer spring. Riese & Müller offers softer and stiffer springs in order to meet specific customer requirements.

The adjustment ring of some E-bike models is fitted with holes and can easily be adjusted by a 3 mm Allen key.
REPLACING THE SPRING

• Hang the bike in an assembly stand.
• Relax the shock fully. Rotate the adjustment ring counterclockwise.

• Prevent the swingarm from accidentally folding down with the help of a stable cord or cable ties between the frame and swingarm.

• Loosen the bolts at both ends of the shock with a 5 mm Allen wrench and a 10 mm wrench. Carefully remove both bolts. Look for the washers and remember their orientation for later reassembly.
• Remove the bushings B from the side of the shock with the adjustment ring.
• Turn the adjustment ring A until it is removed completely from the shock.

DANGER!

If the swingarm is not secured, it could fall down injuring you or damaging the bike.

If the bike is placed on the ground while disassembling the shock, the rear swingarm can fold under suddenly. There is a risk of pinching your hands between the bike frame and swingarm or damaging the bike itself!
ADJUSTING THE REAR SUSPENSION

• Pull the spring plate D and remove the spring.
• Clean the threads and apply some grease.
• To reinstall the shock, repeat the process in reverse order.
• Put the shock back in the frame and tighten the screw connections (torque 7 – 9 Nm).

ADJUSTING SPRING PRELOAD
With spring preload, you set how far the suspension sags when you sit on the bike. Ideally it should be between 20 and 25 % of the total travel.

Sag to great
The shock requires more preload. Turn the adjustment ring A (see fig. at 27) page-clockwise.

ATTENTION!
The adjustment ring should not be tightened more than three rotations. If after three rotations, the preload is still not enough, you require a stiffer spring. For optimal suspension convenience, the spring should require as little preload as possible.

Sag to little
The spring needs less preload. Turn the adjustment ring A counterclockwise or use a softer spring.

ATTENTION!
Ensure the adjustment ring is not too loose. The spring on the unloaded E-bike should not fit loosely.
ADJUSTING DAMPING
Rebound damping of the shock determines how the rear swingarm returns to its original position after being loaded. To test, ride off of a curb. The suspension should bounce back at once. If the suspension oscillates instead of coming directly back to the original position, turn the knob clockwise to increase damping. If the suspension rebounds too slowly and over several closely spaced bumps sinks continually lower, the damping can be reduced by turning the knob counterclockwise.

ATTENTION!
While riding under heavy compression, the fender struts come very close to the frame or rack. From time to time, check the adjustment of the rear fender. The front struts of the rear mudguard (Avenue, Culture and Homage) contain a bend that prevents the struts from grinding on the frame or luggage rack. Grinding struts can permanently damage the frame!

DANGER!
When working on a shock, never load the shock by leaning on the E-bike's saddle, handlebars or racks. One can simply pinch his/her hands compressing the rear suspension.
MAINTENANCE OF THE SHOCK

The steel spring shocks used by Riese & Müller offer very good suspension characteristics and user-friendly service intervals. Shocks used under normal conditions only need to be serviced every 5000 km. When riding on rough roads /trails or harsh snow conditions, it is advisable to perform maintenance more frequently to prevent premature damage.

During servicing, the shock should be removed and the following parts cleaned:

- Mounting bolts
- Bushings A
- Threads B
- Piston rod C

The following parts should be greased:

- Bushings A only for X-Fusion Shocks
- Threads B

For information regarding the maintenance of air suspension shocks please see the separately enclosed manufacturer’s instructions.

⚠️ ATTENTION

Let your dealer do the maintenance work at the suspension.
The stiffness of the seat post can be adjusted (within certain limits) to the weight of the rider.

- Open the seat post clamp on the frame and remove the seat post from the frame.
- Adjust the spring preload with a 6 mm Allen key. Turn clockwise to increase the tension. Rotate counter-clockwise to decrease the preload. The preload can only be reduced to the extent that the adjustment screw \( D \) doesn’t project out of the seat post.
- Install the seat post in the frame (see page 21).

If the lateral play between shaft and outer tube is too great you can rotate the nut \( E \) by hand to make it a bit harder. Make sure that the boot does not slip off of the nut. Do a regular check if the nut \( E \) has a tight fit.
ADJUSTING THE SUSPENSION FORK

AIR SUSPENSION FORKS
With air suspension forks, the preload is set using the standard (supplied) air pump. For details regarding the adjustment of these forks, please see the separately enclosed instructions from the shock manufacturer. Please also visit the manufacturers homepages at the Internet:
- www.ridefox.com
- www.xfusionshox.com
- www.srsuntour-cycling.com

Maintenance of suspension forks
Please refer to the notes in the separately enclosed instructions from the various suspension fork manufacturers.

Suspension fork adjustment
The sag for the suspension fork should also be approximately 20%.

With RST and Suntour suspension forks, you adjust the preload with one or two knobs on the fork crown. Turning the knob towards the “+” will increase the preload, turning it towards the “−” reduces preload.

Should the amount of adjustment prove insufficient, please contact your dealer. He can check if your front fork can be tuned harder or softer.

DANGER!
The suspension components at your E-bike are safety-relevant. Check and maintain the suspension components of your E-bike on a regular base or let this be done by your local dealer.

DANGER!
When rotating in the “−” direction and you receive some resistance, you should not continue turning to prevent over loosening the fitting. This could cause an accident!
USE BRAKES PROPERLY
The brakes on Riese & Müller E-bikes allow you to achieve powerful braking with little hand force. The stopping distance however depends also on the rider’s skill. No worries as this can be trained. When you brake, your weight is shifted to the front wheel from the rear wheel. The strength of the deceleration is the primary factor in bicycle rollover with the secondary factor being the traction of the tires. This can be particularly problematic when riding downhill. During an emergency stop try to shift your weight as far back as possible.

Press both brake levers at the same time and note that the front brake transmits much more braking force due to the shifting weight. Avoid, however, locking the front wheel as this can cause slipping or even a rollover.

On slippery ground you must use the front brake carefully to prevent an uncontrolled slide away of the front wheel.

DANGER!
Make sure to familiarize yourself with the brakes gradually. Practice emergency braking in a traffic-free area until you are able to safely control the E-bike. This can prevent accidents while on the road.

ORIENTATION OF THE BRAKE LEVERS
If your E-bike is equipped with a coaster brake and only one hand brake, the brake lever will be located on the right side and will operate the front brake. If your bike is equipped with two brake levers, the one on the right operates the rear brake and the one on the left operates the front brake.

Familiarize yourself with the orientation or ask your dealer to change them to your liking.

DANGER!
Some dealers change the orientation of the brake levers because there are different opinions as to which orientation is correct. Therefore please check before your first ride, whether the above orientation matches your E-bike and your preferences.
OPERATION
By using a brake lever or reverse pedaling a fixed pad is pressed onto a rotating braking surface and causes friction. This friction causes the rotating wheel to slow. In addition to the force with which the pad presses against the surface, the so called friction coefficient between the fixed pad and the braking surface is crucial. If water, dirt or oil gets onto the braking surface, the friction coefficient is worsened. This is the reason why a rim or disc brake does not respond as well in the rain.

WEAR AND TEAR AT V-BRAKES
The friction between the brake pads and the rim leads to the wearing of both the pad and the rim! Riding often in the rain increases the wear. If the rim sidewall is abraded to a critical level, the tire pressure will cause the rim to burst. The wheel can jam or the tube may burst, both of which can lead to an accident. By the time you have worn through your second set of brake pads, it is time to have your dealer check the thickness of your rims’ sidewalls. For rims with a wear indicator A, the rim must be replaced when the indicator is no longer visible.

ATTENTION!
Moisture decreases the braking effectiveness. When riding in rainy conditions expect longer braking distances! When replacing brake pads, you should only use pads that have been specified for your system. Your dealer can advise you in the matter. The braking surface of rims should be absolutely wax, grease and oil free.

DANGER!
Damaged brake cables in which individual wires protrude must be replaced immediately. Brake failure and an accident can result. Ask your dealer for advice.

ATTENTION!
Have the rims checked at the latest after the second set of brake pads. Worn wheels can lead to material failures and accidents.
BRAKING SYSTEM

DISC BRAKES

Maintenance of Disc Brakes
Check the function of the brakes on a regular base (braking performance, brake pad wear, leakage). Brake pads must be replaced when they are contaminated or thinner than one millimeter. In no condition the brake pad carrier plate must touch the brake disc.

For information regarding hydraulic disc brakes please refer to the separate enclosed instructions from the disc brake manufacturer.

ATTENTION!

• The braking effect of disc brakes can be greatly reduced when contaminated with oil, maintenance, or cleaning fluids! When cleaning your E-bike or lubricating the chain make sure you don’t contaminate the rotors. Oily brake pads must be replaced and brake discs must be cleaned with a brake cleaner.

• After the wheel is removed you should no longer operate the brake lever. The brake pads will press together making it difficult to mount the wheel. After removing the wheel, insert the transportation safety shims to ensure a sufficient distance between the brake pads.

• Before every ride, check the brake system for leaks or kinks in the lines. The loss of brake fluid can lead to the reduction and even failure of the brakes! Go immediately to a dealer to have the leak corrected.

• Do not transport your E-bike with the wheels up as this can render the brakes ineffective.

ATTENTION!

DANGER!

Brake disc and calipers can heat up during heavy braking. This is especially true during long descents. To avoid potential burns do not handle the brakes right after heavy use.

ATTENTION!

Let the dealer replace worn out brake pads.

TIP!

New brake pads only reach their optimum braking performance after 30 to 40 strong braking attempts.
V-BRAKES
V-brakes consist of separately mounted brake arms on the left and right side of the wheel. When the brake arms are pulled together with a cable the pads rub on the rim generating friction.

Function check
• Check that the brake pads are properly aligned with the rim and that they have sufficient thickness. This can be seen by checking the transverse grooves in the brake pad. When these grooves are worn down, it’s time to change them.

• Additionally the front portion of the brake pads should be the first to touch the rim. Once touching the rear portion of the pad should be one millimeter away from the rim. This v-shaped orientation helps prevent the squealing of the brake pads.

• Both pads must simultaneously hit the rim when the lever is pulled.
• The brake lever must exhibit a reserve in its travel. It should not pull up to the handlebars even during emergency braking.

DANGER!
Make sure that the pads touch the sidewall with their entire surface. Otherwise brake failure or wheel lock could lead to an accident. Make sure that the surfaces of the brake do not touch the tires. Incorrectly set brake pads can cause tire rub-through leading to a tire failure.
**V-brakes synchronization**

The V-brakes have to be synchronized by adjusting the spring preload using the respective adjustment screws **A**.

- Turn these screws until the pads are the same distance from the rim.

**Adjusting the brake cable**

When the brake lever pulls all the way to the handlebar, the brake cable must be readjusted.

- Loosen the knurled lock ring **B** where the brake cable enters the brake lever.
- Turn slotted barrel adjuster **C** a few turns. The free travel of the brake lever is reduced.
- Hold the barrel adjuster **C** while tightening the lock ring **B** firmly against it so that the barrel adjuster is locked in place.

- Take care that the slot of the adjustment screw is not orientated to top or front. Otherwise water and dust could enter.

**TIP!**

*Be sure to try the brakes in a traffic free area to get a feel for the newly adjusted brakes.*
HYDRAULIC RIM BRAKES
For information regarding hydraulic rim brakes please refer to the separate enclosed instructions from Magura.

COASTER BRAKES
Some Riese & Müller and blueLABEL models offer a coaster brake option. Coaster brakes allow you to apply the brake to the rear wheel at any time by pedaling backwards. Riese & Müller only use coaster brakes whose braking performance is not influenced by the current gear that one is using.

If your E-bike is equipped with a coaster brake, you brake by pedaling backwards. Then you have no freewheel and you can not move the pedals backwards. The best way to use a coaster brake is with a horizontal position of the pedals. With one pedal on top you will have bad brake performance due a a poor force application. On long downhill passages the brake performance can decrease due to heating up. So also use the front brake on long downhill passages and let the coaster brake cool down.

DANGER!
Before each trip and after any maintenance work, ensure that the coaster brake arm is securely attached to the bracket on the frame. This connection requires a torque of 4 – 6 Nm.
SHIFTING SYSTEM

THEORETICAL FOUNDATIONS
The shifting system on the E-bike is used to adapt one’s own performance to the terrain and the desired speed. The physical work is not reduced by the shifting system rather the force required per crank revolution is changed.

PROPER SHIFTING
Gradients can be powered up using low gears and moderate force but you'll have to pedal faster. Downhill you can travel a greater distance per turn of the crank. The speed will be correspondingly high. Like a car you must maintain your optimum “engine” speed to perform well. What’s key to your performance is keeping the number of crank revolutions per minute (cadence) above 60. Racing cyclists typically ride with a cadence of 90 – 110. This rate naturally falls off a bit during hill climbs but you should still maintain smooth pedaling. The incremental shifting steps and ease of use of modern shifting systems offer the best conditions for an efficient ride that is easy on your knees.

ATTENTION!
Never pedal backwards while changing the gears. The shifting system could be damaged.

DERAILLEUR SYSTEM
The derailleur on the E-bike is currently the most effective systems in terms of power transfer. In a clean and well-oiled system about 97 – 98 percent of the energy placed in the pedals is transferred to the rear wheel. Despite this near optimal performance, many cyclists fear a bike without a coaster brake. This fear is unfounded. The operation of the derailleur system leaves nothing to be desired. With specially designed sprocket teeth, flexible chains and precisely spaced shifting steps, the system shifts very easily. Remember to engage the shifter smoothly and momentarily stop applying pressure to the pedals until the chain is on the next sprocket. Even though the special tooth forms of today’s sprockets allows shifting under load, it shortens the life of the chain and therefore should be avoided.
SHIFTING SYSTEM

SHIFTERS
Riese & Müller models with derailleur system use two different types of shifters:

Twist grip
Rotating the right grip towards the driver leads to an easier gear and rotating the left grip away from the driver leads to an easier gear. The grip indicates which gear you are currently using. The shifter transmits the commands to the transmission via the Bowden cable.

Rapid Fire shifter
The thumb on the right side shifts to easier gears and the index finger on the right side shifts to harder gears.

DANGER!

Practice shifting in a traffic-free area so that you can become familiar with the rotation of the shifters and pressing the levers. The practice area should be free of potential hazards. Practicing in daily traffic could affect your attention to potential hazards.
CHECKING AND ADJUSTING SHIFTING SYSTEM

Your derailleur system was carefully set by your dealer before handing it over to you. During the first few kilometers the shifting cables may lengthen thereby leading to imprecise shifting. The chain then only reluctantly moves to the next sprocket or chainring.

Tensioning the rear derailleur

• Tension the cable using one of the screws through which the cable passes (barrel adjuster).
• After each tensioning check to see whether the chain moves easily to the next larger sprocket. To check this you must turn the cranks by hand or ride the bike.
• If the chain moves easily to the next larger sprocket, then you must also make sure that it also changes easily to the next smaller sprocket. For precise setting, several attempts may be necessary.

⚠️ TIP!

If you cannot properly adjust your shifting system, it could be due to worn or kinked shifting cables. Visit your dealer for replacements.

⚠️ TIP!

In case of derailleur replacement take care of same cage length as the original part. Otherwise a different cage length could lead to shifting problems because the chain tension is to low.

⚠️ DANGER!

The adjustment of the rear derailleur is difficult and should be left to an experienced mechanic. Incorrect settings can cause serious mechanical damage.

If you have problems with the system or after a crash or transport damage, please contact your dealer.
**SHIFTING SYSTEM**

**INTERNALLY GEARED HUB**
One advantage of an internally geared hub (IGH) is the encapsulated construction. The technical mechanisms are almost completely enclosed inside the hub. This prevents contamination from dirt and grime. The chain on an IGH system lasts longer than on an equivalent derailleur system. A disadvantage is the slightly higher power losses within the hub. IGH are sometimes used in combination with a derailleur, freewheel and rim, roller or integrated coaster brake.

**Function and operation**
It uses a twist grip shifter to select the desired gears. The chosen gear is indicated. The IGH requires a momentary pause in the application of pedal power.

**Adjusting gears for internally geared hub**
There are several methods used to adjust gears for IGH and each hub is different. For questions, see your dealer.

**SHIMANO 8-SPEED IGH**
- Shift to the fourth gear.
- Now the two marks on the hub can be brought into alignment. This is done by an adjusting screw that the shifter cable runs through. By turning the screw to the right the markings move towards the front of the bike while turning left moves the markings towards the rear.

![DANGER!](image)

*DANGER!*

*Practice shifting in a traffic free area. Practice also using the brakes. In road traffic you may be distracted from shifting and braking by potential hazards.*
**DUALDRIVE IGH**

- Shift the IGH to the middle gear.
- Now the yellow mark inside the clickbox can be brought into alignment. This is done by the adjusting screw where the shifter cable goes into the clickbox.

**ROHLOFF IGH**

Please follow the instructions in the separately included Rohloff manual.

**NUVinci IGH**

Please follow the instructions in the separately included NuVinci manual.
CHAIN

CHAIN CARE
The old saying is still true: “Whoever oils well, rides well”. The amount of lubrication is not as important as the distribution and regularity of application.

• Clean your chain from time to time with a dry cloth the removed built up dirt and oil.
• Lubricate the most clean chain possible using chain oil, grease or wax. Wax is a very clean lubricant which is recommended for Riese & Müller E-bikes.
• Turning the crank and drizzle or spray the rollers of the chain. Rotate the chain several times. Let the bike stand for several minutes to allow the lubricant to penetrate the chain links.
• Finish up by wiping excess lubricant off with a cloth to prevent it from slinging off while riding.

CHAIN WEAR
Chains are one of the consumable parts on a bicycle but the lifespan of the chain is determined by how the rider maintains it. Be sure the chain is lubricated regularly, especially after riding in the rain. Chains of derailleurs often last from 1,500 – 3,000 km before needing replacement. Greatly elongated chains impair shifting and wear down sprockets and chainrings more quickly. Replacing these items cost much more than a chain so we recommend changing the chain regularly.

CHECKING THE CHAIN TENSION
On bikes with internally geared hubs and without a chain tensioner sometimes the chain is insufficiently tensioned. It is very important to maintain the correct chain tension otherwise the chain will hit the inside of the enclosure and cause noise or a too high tension increases wear.

How to check the chain tension:
• When grabbed in the rear lower section and pulled up, the chain should move a few millimeters only.

TIP!

For the protection of the environment use only biodegradable lubricants because a small amount of lubricant always ends up on the ground, especially during rain.
• If the chain moves more than a few millimeters down, then it could slap the swingarm and should be tensioned.
• Shut off the E-bike drive, lift the rear wheel off the ground and turn the crank. When the crank is stiff and provides uneven resistance when turning, the chain is too tight.

**ADJUSTING THE CHAIN TENSION**

• At models with coaster brake loosen the brake anchor attachment of the coaster brake.
• At models without slider dropouts loosen the axle nuts a few turns. At models with slider dropouts loosen the four bolts A a few turns.

• At models without slider dropouts pull the rear wheel back and tighten the axle nuts slightly. At models with slider dropouts tighten the two adjustment bolts B on both sides with the same number of revolutions. Turning clockwise tightens the chain and counterclockwise relaxes the chain.

• Check the chain tension at different crank positions.
• Check that the rear wheel is aligned correctly in the direction of travel.
• Tighten the bolts A and possibly the brake anchor with the correct tightening torque.

**Checking rear brake and shifting system**
The adjustment of the chain tension changes the rear wheel position. Make sure the rear brake pads are correctly oriented to the rim (see page 40).

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**DANGER!**

Wrong assembly can cause malfunction or failure at shifting and braking system. Absolutely check the function of shifting and braking system after chain tension adjustment.

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**ATTENTION!**

The chain tension at the models Avenue, Culture and Kendu increases a little bit when the suspension starts to work. This is another reason to adjust the chain tension not to tight.
REPLACING THE CHAIN
The replacement of a chain is best left to your dealer who has special tools to accurately measure your chain and to cut your chain to the appropriate length. Many modern chains have no chain lock and a special tool is required to link up the two halves of the chain. Your dealer has all of the tools that match your chain.

DANGER!
A poorly riveted chain can break and lead to a fall. It’s best to let your dealer replace the chain.

REPLACING THE SPROCKET

ATTENTION!
At the models Avenue, Culture and Kendu the front sprocket must always be replaced by parts with the same number of teeth. Using other sprocket sizes affects the chain tension and the chain may snatch or fall down!

BELT DRIVE
If your E-Bike is fitted with a belt drive please follow the instructions in the separately included Gates manual.
The wheels on the bike keep you in contact with the road. They experience heavy loads during riding over irregular surfaces and when carrying cargo. Although the wheels are carefully manufactured and trued, they settle in after the first few kilometers. After a short break-in period from 200 to 400 kilometers, your dealer should true the wheels again. Regularly check the wheels but additional tensioning is rarely necessary.

CONSTRUCTION OF A WHEEL
The wheel consists of a hub, rim and spokes. The tire is mounted to the rim in which the tube is inserted. Rim tape is applied to protect the sensitive tube from the often sharp-edged rim.

TIRES AND AIR PRESSURE
The tire provides grip and traction on the road which is required during braking, accelerating, and cornering. Furthermore, it ensures smooth running. Tires can only work well if it filled to the correct air pressure. The correct inflation pressure also prevents failures such as the crushing of the tube especially when traveling over an edge, the so called “snake bite”. Snake bites are caused when going over an edge such as a curb with a tire pressure that is too low. The manufacturer’s suggested pressure is indicated on the sidewall of the tire in bar and PSI.

TUBE AND VALVE
The tire and rim alone are not airtight. To maintain the pressure on the interior,

⚠️ TIP!
Always ride with the prescribed air pressure and check it regularly. Because Riese & Müller E-bikes are full suspension (excluding blueLABEL) you can always inflate the tires to the maximum recommended pressure. This provides you the best and safest riding position and low rolling resistance which saves energy. Comfort is maintained because of the full suspension system.

⚠️ TIP!
For the model blueLABEL Charger GT we recommend an air pressure range from 1.5 up to 2.5 bar.

⚠️ DANGER!
Never pump the tires below the minimum or over the maximum recommended pressure rating! The tire can spring from the rim or burst leading to an accident!
the tube is inserted into the tire. It is filled through a valve. Riese & Müller E-bikes use presta valves exclusively. Before inflation, the small knurled nut is unscrewed and then pressed back down into the valve. It is normal for a little air to escape during this process.

If the presta valve is not sufficiently tightened, this leads to the gradual loss of air. Check the tightness of the of the valve body in the elongated shaft. Make sure the valve diameter matches the hole in the rim and that the valve stands up straight.

CHECKING THE TIRES
Regularly check the tires.

DANGER!

If the tread is worn or the edges are brittle, you should replace them. The inside of the tire may be damaged if is contaminated by moisture or dirt. Defective rim tape must be replaced immediately. Damage to the tires can lead to their sudden bursting which could be dangerous.
RIM RUNOUT AND SPOKE TENSION

The spokes connect the rim with the hub in the center of the wheel. The uniform spoke tension is responsible for maintaining the concentricity of the wheel. When a spoke breaks when running over a severe bump, the tension of the spokes is no longer in equilibrium. Even before the rider notices the malfunction it is affecting your bike. The side walls of the rims no longer run parallel to the braking surface so braking effectiveness cannot be ensured.

Be sure to check the concentricity (runout) from time to time. Lift the wheel from the ground and spin it with your hand. Watch the gap between the rim and brake pad. If this gap changes by more than one millimeter it needs to be trued by a professional.

WARNING!

Do not ride with wheels that are out of true. If the rim is severely out of true then the brake pad can miss the rim sidewall and actually strike the spokes leading to an accident.

TIP!

The truing of wheels is difficult work and is best left to your dealer!

DANGER!

Check the rims for wear and defects on a regular base. Worn out rims are more delicate for defects. V-brakes cause more wear. A deformed or broken rim may lead to heavy accidents.

TIP!

Please read more on rim wear indicators at page 34.
WHEEL ATTACHMENT
The wheels are attached to the frame via either an axle with a hex nut or a quick release clamped in the dropouts. More information on quick releases on page 18–19.

AXLE NUTS
Note the respective torque settings of the axle nuts.

THROUGH AXLES
Some Riese & Müller models use a front fork with through axle. Please follow the instructions in the separately included front fork manual.

QUICK RELEASES
The quick release consists of two control elements:
• A lever A on one side of the hub that produces the clamping force.
• A locking nut B which is threaded on the opposite side that sets the tension.

DANGER!
Never ride a bike without first checking that the wheels are securely attached to the frame with a quick release or bolt. If not securely attached, the wheel could fall out during the ride and lead to a severe injury!

DANGER!
Check the tight fit of quick releases, thru axles and bolts even if you parked your E-bike only shortly at an unattended place. Do not ride your E-bike with untightened quick releases.
REPAIRING A PUNCTURE

PREPARING TO REMOVE THE WHEEL
Each model has certain things that must be done before the wheel can be removed. These are described below.

Unhook V-brakes
With V-brakes the brake cable must first be unhooked. Grasp it with one hand, moving the cable hanger A and the guide tube B with the other hand. If the brake cable is set to tight, you can reduce the tension by turning the barrel adjuster on the brake lever.

TIP!
Depending on the E-bike model, the removal and replacement of the rear wheel may be more difficult than you are used to. Carefully read the notes on the following pages. Should you encounter any problems your dealer or Riese & Müller are at your disposal.

DISC BRAKES
Please note the tips regarding disassembly of wheels on page 35.
REPAIRING A PUNCTURE

MAGURA RIM BRAKES
Please note the tips in the separately included instruction manual from Magura.

ROHLOFF SYSTEM
Please observe the instructions of the separately included Rohloff manual.

DERAILLEUR GEAR
Before removing the rear wheel of derailleur systems, be sure to shift to the smallest sprocket. Thus the derailleur is all the way to the outside and does not hinder the removal.

SHIMANO IGH
• Shift into first gear.
• Loosen the axle nuts.
• Take the rear wheel out.
• Rotate the fixing ring F counter-clockwise and remove the shifting arm G from the axle.

INTERNALLY GEARED HUB WITH COASTER BRAKE
The brake arm A which attaches to the frame and supports the hub while under brake torque. Loosen the screws B.

SRAM DUAL DRIVE SYSTEM
Before removing the rear wheel, the clickbox must be removed.
• Press the black button D on the clickbox and remove it.
• A push rod is inserted in the axle. Be sure not to lose it.
• Note the position of the washers and axle nuts.
NUVINCI AND NUVINCI HARMONY SYSTEM
Please observe the instructions of the separately included NuVinci manual.

CHANGING THE WHEEL ON BIKES WITH QUICK-RELEASE
Open the quick-release lever as described on page 18.
• To facilitate the removal, draw the derailleur or chain tensioner back with your hand. Lift the bike slightly from the ground and gently press down on the rear wheel.

WHEEL REMOVAL AT AVENUE HARMONY
Instead of removing the rear wheel it is also possible to do the following:
• Open the quick-release of the left brake body.
• Lift the left sidewall of the tire over the rim and pull out the tube.
• Loosen the left axle nut.
• Loosen both bolts of the left slider dropout.

• Remove the left slider A diagonally to the rear top. The tube can be replaced through the now resulted gap.
• Alternatively you can remove the rear wheel and remove the Harmony shifting box (see NuVinci manual). Then it is possible to lift the chain from the rear sprocket. For assembly please note exactly the same position of the shifting box.
REPAIRING A PUNCTURE

REMOVING TIRES
• Unscrew the valve cover and mounting nuts and let all of the air out.
• Press the tire from the sidewall towards the center of the rim. Do this over the entire circumference to make removing the tire easier.
• Insert the brake levers on the right and left side of the valve at the lower edge of the tire. Keep one lever in this position and pry the rim bead over the sidewall with the other lever.

CHECK TIRE AND APPLY PATCH
• Patch hole according to the instructions from the patch manufacturer.
• If you have removed the tire, you should also check the rim tape. It should sit evenly and must not be cracked or damaged and should cover all spoke holes. If you have questions about your rim tape, please ask your dealer.

MOUNTING TIRE
• Make sure when installing the tire that no foreign matter such as dirt or sand gets inside as this could damage the tube.
• Place the rim with a horn in the tire. Press the tire sidewall completely over the rim. This should be possible with every tire without using a tool.
• Insert the valve in the valve hole in the rim.
• Inflate the tube lightly so that it assumes a round shape. Insert it completely in the tire being careful not to crease it.

ATTENTION!

Make sure not to damage the tube with the levers.

• Now you can remove the tube. Make sure the valve doesn’t get caught in the rim and that the tube isn’t damaged.
• Begin the installation on the side opposite of the valve. Press the tire on the rim making sure not to pinch the tube between the rim and the tire. Push the tube repeatedly into the interior of the tire.
• Work both sides evenly around the circumference of the wheel. Towards the end you will need to press the tire down firmly. Pull the already mounted portion deep into the rim as this facilitates mounting the last few centimeters.
• Check again to make sure the tube is well seated and press the tire with your palm over the rim bead. If this fails, you must use tire levers. Make sure that the dull side is facing the tube so as not to damage it.
• Press the valve into the interior of the tire so that the tube is not pinched between the tire and rim.

• Is the valve facing straight up? If it is not remove one side of the tire and readjust the tube. If you want to make sure that the tube is not crushed under the edge, you should halfway inflate the tire and roll it back and forth around the circumference of the wheel.
• Pump up the tire to the desired pressure. The maximum pressure is indicated on the sidewall of the tire.
• Check the fit of the tire specifically the wire (or Kevlar) bead against the sidewall of the rim. The important thing is that the whole tire has a uniform distance from the rim.
REPAIRING A PUNCTURE

REINSTALLING THE WHEEL
The following section covers the reinstallation of wheels in all Riese & Müller E-bikes. Please read the entire section dealing with your specific bike. Essentially the installation process is the reverse of the removal.

FITTING CHAIN AND INSTALLING WHEEL
• On bikes with derailleur or chain tensioner, pull it backwards and set the chain to the smallest sprocket.

CASSETTE JOINT FIXING RING
For bicycles with Shimano gear hubs, the shift ring must be in place before the rear wheel can be reinstalled. The mounting ring must be locked by rotating clockwise. Note the position of the colored dots and that the shifter is in the in the first gear.

• Insert the rear wheel into the dropouts.
• At E-bikes with enclosed drive you must place the rear wheel as shown and set the chain onto the sprocket.

Source: Shimano techdocs
• Take care that the shifting arm point front up. Insert the rear wheel into the dropouts. Take care of correct position of the chain on chainwheel and sprocket.
• Insert the rear wheel into the dropouts. Take care of correct position of the chain on chainwheel and sprocket.

DANGER!
Incorrect installation can lead to functional disruptions or failures in the shifting or braking systems. After installing your wheel, thoroughly check the shifting and braking system!

POSITION OF THE WHEEL AND CHAIN TENSION
• Check that the wheel is centered and if the chain tension is sufficient. More details on the chain tension can be found on page 44 – 45.
• Make sure that the chain is correctly placed on the front chainwheel. Please refer to page 44 – 45.

TIGHTENING THE WHEEL ATTACHMENT
• Tighten the axle nuts or the quick release to the specified torque settings (refer to page 77).
• On bikes with coaster brakes, tighten the brake arm attachment to a torque of 4 – 6 Nm.

CHECK BRAKE FUNCTION
• Hang the brake cable again.
• Check that the cable housing on rim or disc brakes is still correctly positioned.
• After assembly check whether the brake surfaces are free of grease and lubricants.

CHECK SHIFTING SYSTEM
Check the function of the shifting system.

ROHLOFF HUB
On bikes with a Rohloff hub, mount the shift cables (see instructions in Rohloff manual).

NUVINCI- UND NUVINCI HARMONY-SYSTEM
Please observe the instructions of the separately included NuVinci manual.
HEADSET

FUNCTION OF THE HEADSET
The fork, stem, handlebars and front wheel are able to rotate because of the headset bearings. The headset must always move easily. Large bumps or other changes can cause the headset to loosen and develop play.

CONTROLLING PLAY IN STEERING BEARINGS
• Apply the front brake and place the thumb and forefinger of the other hand on the upper steering bearing. Rock the bike forward and backward to check for play in the bearings.
• If you can feel the upper bearing shell moving when the bike is rocked, then it needs to be tightened.

⚠️ DANGER!
Riding the bike when there is play in the headset bearings exposes the bearing and fork to extremely high loads which can lead to serious damage including fork breakage!

⚠️ ATTENTION!
Setting the headset requires certain expertise. Therefore it is best to leave this work to your dealer.
The light at all Riese & Müller E-bikes is switched on and off at the Bosch display. At HS-models the light is automatically switched on.

LOCATING DEFECTS
Visually inspect the entire length of the wire for damage. Verify all of the contact points are intact. Often connections are corroded by salt water or rain. Unplug the power cord and plug it back together.

HEADLIGHT ADJUSTMENT
• The center of the front light’s beam should have half the height at 5 meters in front of the bike.
• The center of the front light’s beam should hit the road at a maximum of 10 meters in front of the bike.
• For correction of the adjustment loosen the mounting screw and tilt the front light as desired. Tighten the screw.

DANGER!
Never use your E-bike without working lights! At night it is very difficult to see obstacles and to be seen by other road users. Serious accidents can result! An incomplete or malfunctioning lighting system is not only illegal but also endangers your life.
CARRIER FOR RACKTIME SNAP-IT SYSTEM
The models Avenue, Culture, Delite, Homage, Kendu and all blueLABEL models allow to use Racktime snap-it products (see www.racktime.com). This makes it easy to fix baskets or child seats. But please note the max. load (see page 77).

CARRYING CHILDREN AND LUGGAGE
Before you start to ride with your loaded E-bike, please check the following points:
• Is the basket or child seat secured correctly?
• Is the child fastened or is the luggage secured?
• Is the maximum gross weight not exceeded?
• Does the child wear a helmet? Do you wear a helmet?
• Does nothing can get caught by the wheel/spokes?
• Is the tire pressure high enough?
  Otherwise there is a risk of a puncture.

ATTENTION!
Do not leave your child in the child seat when the E-bike stands on the kickstand. The bike could fall down and cause injuries.

ATTENTION!
When riding with a full load, the handling is affected and it takes longer to stop. Be sure to make some handling and braking test prior to heading into traffic.

DANGER!
Do not ride your E-bike if concerned about any of these points. Basket or child seat can loosen if not fixed securely and may cause heavy accidents!
TIP!
At page 12 you can see which Riese & Müller models can be fitted with a child seat.

ATTENTION!
Using a child seat on a fast E-bike is allowed but transporting children in trailers is not.

ATTENTION!
In Germany only children until 7 years are allowed to be transported in child seats. The driver must be at least 16 years old.

INTEGRATED LOCK

The models Avenue and Culture have a lock which is integrated at the left side of the frame. The key is used both for the integrated lock and the battery lock.

Pull the cable out of the frame (wrap it around a fence or a post) and push the cable end into the lock.
KICKSTANDS

MOUNTING KICKSTAND
Almost all Riese & Müller E-bikes are fitted with a rear kickstand which is attached directly to the left dropout. Regularly check to see if these screws are tight.

KICKSTANDS AT HS MODELS
According to StVZO the Riese & Müller and blueLABEL HS models are fitted with an automatic folding kickstand. Please notice that a HS model can fall over and may get damaged or damage other vehicles.

ATTENTION!
A loose screw may result in damage to the kickstand mount!

PEDALS

INSTALLATION OF PEDALS
Grease the pedal threads before installation and screw in the right pedal by hand CLOCKWISE 2 – 3 rotations. The right pedal is stamped “R”. Screw in the left pedal in by hand COUNTERCLOCKWISE 2 – 3 rotations. The left pedal is stamped “L”.

Tighten the pedals to a torque of 35 Nm using a torque wrench.

ATTENTION!
The stamp is located either directly adjacent to the threads or on the top side of the pedal body.
The frame of the Load hybrid is separable into front and rear halves to allow for easier transport and storage.

- Lower the main kickstand.
- Open the two clamping screws on the left brake lever and remove the brake lever from the handlebar. Disconnect the headlight wire at the connector located under the cargo area.
- Loosen the screws P on the steering linkage and pull the endpiece out of the steering rod. Attach the steering linkage (eg. with a cable tie) to the front frame.
- Remove the four screws S. It is helpful to have a second person hold the rear of the frame so that it cannot fall down. The front frame remains standing on the front wheel and kickstand.
- Reassemble in reverse order. Use new thread adhesive (medium strength) and use the recommended torque setting. Perform a functional check of the brakes, lights and steering. If necessary, the steering linkage may have to be readjusted.
BOSCH DRIVE

All Riese & Müller and blueLABEL models are fitted with a Bosch drive. All you need to know is to find inside the separately attached Bosch manual. Carefully read the information about battery and charger handling.

If your E-bike has a drive with a performance of max. 250 watts and the electrical assistance is limited to 25 km/h, you have an license-free E-bike. The legal requirements at page 8 apply.

The HS-models do not belong to the bicycles category. Please read the article “E-Bikes – HS-models” at page 10 – 11.

EC-DECLARATION OF CONFORMITY
The EC-declaration of conformity is attached to the Bosch-manual of your bike. Please keep it safe.

⚠️ DANGER!
Your local dealer must maintain your E-Bike on a regular base for a correct and safe operation. Immediately remove the battery from the E-bike when you find a defect at the electric system and contact your local dealer. Also contact your local dealer for questions, problems or defects. Lack of technical knowledge may lead to serious accidents.

⚠️ DANGER!
Remove the battery before you transport or start to work on your E-Bike. An unintended activation of the E-Bike drive can lead to injuries.

⚠️ TIP!
Please note that your E-Bike has no light when the battery is removed or the E-Bike system is shut down.
DANGER!
For your safety the charger must be located on a dry and non-flammable underground.

ATTENTION!
Carefully read the manual of battery and charger before you start to charge the battery. Only use the original charger. Disconnect battery and charger from the power supply system when the charge process is complete.

DANGER!
A defective battery may not be charged or used. The battery can get warm while charging. A temperature until 45°C is allowed. If the temperature gets higher you must end the charging process immediately.

DANGER!
Never send a battery by itself! Batteries belong to the category hazardous material. Under several circumstances the battery can get hot and on fire.

ATTENTION!
Do not open the battery. There is a risk of short-circuit. It also voids your warranty.

Protect the battery from heat, permanent sunlight, fire and immersion in water. This may cause danger of explosion.

Batteries must not be exposed to mechanical damage. Damage and improper use may cause escape of vapours.

Keep children away from the battery.
The electrical components of our E-bikes are designed to operate down to a temperature -10 °C with no problems. You just need to be aware of a few things regarding using batteries in cold weather.

The energy content of a battery is always listed at a certain temperature. In this case it is stated at room temperature (23 °C). At this temperature and above you can use 100% of the stated capacity of your battery.

In cold weather, the internal resistance increases causing the energy content of your battery to drop. You'll notice a shorter range on E-bikes in the winter. This is a normal physical process and does not indicate errors or defects. If you use your battery again when it gets warmer, you can again use the battery’s full energy content.

At temperatures of 10 °C this effect is very low with the loss being in the single digits and you will hardly notice the reduction. With further decreasing temperatures, this effect increases disproportionately.

In the extreme case of -10 °C you will only be able to use approximately 70% of the stated battery capacity.

On cold days we recommend you store/charge the battery overnight at room temperature and then install the battery on the bike just before driving off. It is also important to draw some current from the battery by using the motor support because the drawing of energy warms the battery. This should allow you to achieve the optimal range of your E-bike.

It’s also a good idea to plan a shorter route in the winter or use a lower level of support so you are not surprised by a dead battery.

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**DANGER!**

Please note that condensation can occur at the battery after a sudden temperature change from warm to cold. Avoid this by charging and storing the battery at the same place. Use the original charger only to avoid the risk of fire.

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**TIP!**

Instruction for wintering your E-Bike: charge the battery until 60% of it’s capacity. Recharge it every three months until 60% of it’s capacity.
This section discusses the features and facts for easy startup of your Riese & Müller HS model (HS = High Speed). These fast E-bikes will support up to 45 km/h and have a maximum performance of 500 Watts.

Read more on legal requirements at page 11.

**MOVING QUICKLY**
If you want to ride as fast as a motorcycle (35 – 45 km/h), you must honor all traffic rules to protect you and other road users. Please occupy the center of the lane. Do not worry about impeding traffic as faster vehicles will go around you. Riding in the middle provides you with a buffer zone from the parked cars as well as makes you more visible to other road users. Moreover we also recommend that you ride with the light on during the day so you can be more easily seen.
TRANSPORTING THE E-BIKE

LOCKING YOUR E-BIKE
In recent years, the German Railway and other international railway companies have expanded the opportunities for bicycle transportation so that bicycles can be easily brought along. Be sure to inquire about advanced booking or other formalities, especially in summer when the E-bike compartments are often full. We recommend removing all panniers and accessories prior to locking the bike in the compartment to prevent damage and theft.

TRANSPORTING ON A PLANE
E-bikes cannot be transported in the aircraft. Li-Ion batteries of the size that we use are considered hazardous goods and cannot be transported in aircraft.

TRANSPORTING ON AN AUTOMOBILE
ROOF RACK
All E-bikes from Riese & Müller can be easily transported using roof and luggage racks from Thule and Altera. These systems allow the easy mounting of the bike. Of course there are other systems capable of carrying our bikes but this is simply our recommendation. If interested in another system, please visit your local dealer for more information regarding compatibility. Make sure to conduct a test to see if the rack can accommodate the oversized frame tubes. We also recommend driving more slowly and cautiously while the bike is attached to the car and don’t forget about the bike on the roof when you pull into a garage!

⚠️ TIP!
For safety reasons you have to remove the battery and transport it in the car. Moreover this decreases the E-bike weight and makes handling easier. Some carrier systems have a load limit of 25 kg which you can fulfill by removing the battery.
TRANSPORTING IN A CAR
Whether you can transport the E-bike in a car depends on the size of the car. Riese & Müller E-bikes, despite their full suspension systems, are no larger than conventional bicycles. To make it a little easier, we recommend turning the handlebar and removing the saddle, pedals and wheels. Your Riese & Müller E-bike is relatively portable and fits in most cars. Disassembly and packing the E-bike gets easier once you are familiar with the task.

TRANSPORTING ON AN AUTOMOBILE
REAR RACK
The choice of a rear rack is primarily determined by the type of car. Therefore we cannot make any specific recommendations and we suggest you contact the car manufacturer and your local bike dealer for more information.

Attention! Some bike rack clamps can damage the frame tubes. If in doubt consult your dealer.

BIKES WITH DISC BRAKES
Please review the notes regarding the removal of the wheels on page 35.
ROUTINE MAINTENANCE
The E-bike you have purchased is a very high quality product. When you pick the E-bike up from the dealer, he has already made the E-bike ready for you to ride. Nevertheless the E-bike does require some routine maintenance which is best performed by your dealer. Only then can the safe operation of all parts be guaranteed. This will keep you riding happily and safely for many years.

ATTENTION!
Shut off the E-bike drive and remove the battery before you start to work at your E-bike. Unintended activation of the E-bike drive can lead to injuries.

ATTENTION!
At fast E-bikes only some components can be replaced by different components. You may risk the loss of license and assurance for your fast E-bike. Read more on page x.

ATTENTION!
Only perform maintenance tasks for which you have the appropriate tools and expertise.

WASHING AND CARING FOR YOUR E-BIKE
Dried sweat, dirt and salt from winter riding or from sea air can harm your E-bike. Therefore we recommend regularly cleaning and corrosion protection of all susceptible bike components.

The easiest way to remove dirt and salt is using a pressure washer but this method has serious disadvantages, the high pressure stream of water can push past the seals and into the interior of the bearings. This dilutes the lubrication which increases friction that ultimately destroys the bearing surfaces and the smooth functioning of the bearing. Also, decals are often accidentally blown off by the powerful stream.

ATTENTION!
Do not clean your bike using a pressure washer or steam cleaner at close range. A much more gentle way to wash the bike is with a gentle spray of water or a bucket of water and a sponge/brush.

As part of this regular maintenance, you should check tire pressure, light and brake functions and examine the bike for damage.

TIP!
Note that some cleaning products may detach frame decals.
As part of this regular maintenance, you should check tire pressure, light and brake functions and examine the bike for damage.

**PROTECTING THE FINISH**

After the E-bike is dried, you should protect the paint and metallic surfaces with a hard wax. Also protect spokes, hubs bolts and nuts, etc. with a wax film. Polish the waxed surfaces with a soft cloth so that they shine and repel water.

⚠️ **TIP!**

*Protect all places where cables may rub the frame.*

⚠️ **TIP!**

*After cleaning it is recommended to lubricate the chain if necessary (see page 38).*

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**ATTENTION!**

*While cleaning look for cracks, scratches, dints, or discolorations. If in doubt, contact your local dealer and let them replace damaged components and touch up damaged paint.*

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**CARING FOR ANODIZED SURFACES**

The aluminum parts of your Riese & Müller E-bike are protected by a special anodizing process during which an electrochemical process generates a special protective layer. This layer is very hard and therefore relatively resistant to scratches. Despite the positive attributes the anodized coating requires care. Clean with water and if necessary use mild detergents to dissolve grease. Dry and apply a special anodized surface treatment (available from your local dealer) with a soft cloth which helps remove paint, tar and oil residue. Lastly rub the parts with a soft, clean cloth to remove excess treatment and repel dust.

⚠️ **DANGER!**

*Ensure no lubricant or wax contaminates the braking surfaces of the disc brakes! Imminent brake failure could cause an accident!*
GENERAL CARE / INSPECTIONS

STORING YOUR E-BIKE
If you regularly maintained your bike during the season, you won’t need to perform any special preparations to store it on a short term basis. It is recommended to store the bike in a dry, well-ventilated area.

OVERWINTERING YOUR E-BIKE
When storing your bike for the winter, there are some things to consider:
• During extended storage the tires may gradually lose air. If the tire remains flat for an extended period, it could damage it.
• Clean the bike and protect it against corrosion as previously described.
• Store the bike in a dry place.
• Switch the derailleur to the smallest sprocket so the cables and springs are as relaxed as possible. For Shimano hub gears, shift to the first gear.

TIP!
In the winter months when most bike dealers aren’t very busy, many shops offer special priced annual checks. Take advantage of these seasonal offers and bring your E-bike to the dealer for inspection.

TIP!
Instruction for wintering your E-Bike: charge the battery until 60% of its capacity. Recharge it every three months until 60% of its capacity.
INSPECTIONS
A regular check of the bike guarantees long term function and enjoyment. As with a car, annual inspections can help prevent costly repairs. The adjustment of the bearings or shifting system and the timely exchange of worn parts can prevent severe damage to the operating parts of the bicycle. After the initial break-in period, you should have your E-bike inspected at regular intervals.

The recommended service intervals listed in the table in the appendix (page x) are intended for riders who ride between 1,000 and 2,000 miles per year. When riding more or on poor roads/off-road, these intervals are shortened. This also applies to taking frequent trips in the rain or in a generally humid climate.

ATTENTION!
*After 200 – 400 km, but no later than three months, bring your E-bike back to the dealer for an initial inspection.*

DISPOSAL/ENVIRONMENTAL TIPS

Care products/detergents
Protect the environment while maintaining and cleaning your E-bike. Preferably use biodegradable products. Detergents should not enter drains. Used chemicals must be disposed properly at the respective disposal site.

Brake cleaner and lubricants
Please read the notes of the manufacturer of these products.

Tires and tubes
Tires and tubes are no usual waste and should be sorted for environmental-friendly recycling.

E-Bike batteries
E-bike batteries are no usual waste. Please return batteries that are no longer usable to an authorized bicycle dealer.
Your dealer is legally required to provide an E-bike that is not defective, of reduced value or suitability. Your right to claims ends after two years from the date you accept delivery of the bike from the dealer. Notwithstanding the statutory warranty of quality, we also provide you a five year warranty against frame or swingarm breakage.

Extended warranty claims are only valid if the following conditions are met:
• You are the original owner of the E-bike
• Within four weeks of your purchase, you have registered your bike in our online system: www.en.r-m.de/registration
• The service record in the appendix is completed and all required inspections were performed and noted by the dealer.

In case of damage, the completed service record must be submitted along with the frame or the complete E-bike. Therefore protect these important documents. If all criteria are met, then we will replace the defective item but shipping and labor will be charged to the customer. This warranty only applies to the original buyer. Further claims such as damages or other losses are not covered. Any warranty claims do not extend the original warranty period.

Damages due to wear and tear, neglect (insufficient maintenance), jumping, overloading or amateur assembly or modifications (additions to or alterations of existing components) are not covered.

Damages caused by competitive racing, jumping or other types of overstressing are not covered.

The battery of your E-bike is a consumable item; the electronic components of the system are subject to the two year statutory warranty. We provide a voluntary guarantee for the complete battery of one year. We guarantee that the battery after a year or 500 charge cycles (whichever comes first) will still have a capacity of 60%. Even a “used” battery, which perhaps has only a residual capacity of 55%, can be used for a long time with stable performance. The battery should last over 1,000 charge cycles without a problem.
INFORMATION REGARDING WEAR
Some parts of your E-bike are subject to functional wear. The amount of wear depends on the maintenance of the E-bike and the riding conditions (mileage, riding in the rain, dirt, salt, etc.). Bicycles that are often standing outside in the weather are subject to increased wear. These parts require regular maintenance and care but will (depending on the intensity of use and riding conditions) eventually reach the end of their useful life. These parts must be replaced when they reach their wear limit.

These include:
- chain
- brake cables
- grips
- chain ring and sprockets
- shift cables
- tires
- saddle cover
- brake pads
- rims

The pads or rim and disc brakes are subject to functional wear. Sporty use or riding in mountainous terrain shortens the life of the pads. Check the pads regularly and replace them as needed. You can acquire replacements from your local dealer. Rim brakes not only wear out the pad but also the rim itself. Therefore check the rim regularly such as when inflating the tire. The sidewall of the rim contains a groove that functions as a wear indicator. When this groove is no longer visible, the rim must be replaced. If deformations or fissures in the rim sidewalls occur when inflating the tire, the rim has reached the end of its service life and needs to be replaced.

ATTENTION!

Your dealer has performed the final assembly of the E-bike. He has to perform a final check and a test ride.
Also brake discs are subject to wear. During inspection your dealer must check the disc thickness and replace the disc if required.

The bearings and seals in suspension forks and rear swingarms are always in motion when the suspension is activated. Environmental conditions such as rain, dirt, etc. cause these moving parts to wear out. These areas must be cleaned and regularly maintained. Depending on the operating conditions it is possible that these parts may need to be replaced due to wear such as the development of bearing play.

Your point of contact for claims and services is the dealer from which you purchased the E-bike. Upon request we can refer you to your nearest dealer (dealers can also be found on our website www.r-m.de). Additionally, we recommend that you contact your dealer to ensure the fastest and most cost-effective solution. Please note that if your E-bike is sent to us by your dealer for repair: the E-bike must be sufficiently clean before repairs can take place. Remove any accessory items like computers, mirrors, trailer hitches, locks, etc. prior to shipping. Service is only performed on the original standard equipment. Individual modifications will be restored to the original standard equipment. In the context of service no worn out parts will be replaced and no inspections carried out. In addition, payments and materials are handled exclusively through our dealers. Ensure that either you or your dealer includes sufficient postage.

To ensure a long service life the components must be installed to the manufacture’s recommended torque specifications and the recommended service intervals must be strictly adhered to. Failure to comply with the installation requirements and inspection intervals voids the warranty. Please note that actions/inspections outlined in your instruction manual may dictate the replacement of safety related components such as handlebars, brakes, etc.

The actual standards and tests for E-bikes define an average lifetime of 10 years or 16,500 up to 20,000 km (whichever occurs first). Due to its high own quality standard, Riese & Müller designs its products for a triple lifetime of 60,000 km. But the stress to an E-bike depends strongly on the load, the road conditions and the riding style. Extraordinary stress (gross weight over 110 kg, bad road conditions like cobble stones, potholes or curbstones) will reduce the E-bike lifetime to the normal Standard.

At the end of lifetime Riese & Müller does not grant road safety.
## WEIGHT RATING

<table>
<thead>
<tr>
<th>MODEL</th>
<th>E-BIKE</th>
<th>MAX. WEIGHT RIDER</th>
<th>MAX. LOAD CARRIER</th>
<th>MAX. LOAD FRONT CARRIER</th>
<th>GROSS WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avenue</td>
<td>26.6 – 27.4 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>140 kg</td>
</tr>
<tr>
<td>Culture</td>
<td>26.7 – 27.5 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>140 kg</td>
</tr>
<tr>
<td>Delite</td>
<td>20.2 – 26.4 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>140 kg</td>
</tr>
<tr>
<td>Homage</td>
<td>25.6 – 26.8 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>140 kg</td>
</tr>
<tr>
<td>Kendu</td>
<td>25.8 – 25.9 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>140 kg</td>
</tr>
<tr>
<td>Load</td>
<td>33.2 – 35.1 kg</td>
<td>120 kg(^3)</td>
<td>20 kg(^3)</td>
<td>100 kg</td>
<td>190/200 kg(^2)</td>
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<tr>
<td>blueLABEL charger</td>
<td>19.9 – 24.1 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>130 kg</td>
</tr>
<tr>
<td>blueLABEL cruiser</td>
<td>24.8 – 25.8 kg</td>
<td>110 kg</td>
<td>30 kg</td>
<td>3 kg(^4)</td>
<td>130 kg</td>
</tr>
<tr>
<td>blueLABEL pony</td>
<td>21.9 – 23.8 kg</td>
<td>110 kg</td>
<td>20 kg</td>
<td>—</td>
<td>130 kg</td>
</tr>
<tr>
<td>blueLABEL swing</td>
<td>25.2 – 26.4 kg</td>
<td>110 kg</td>
<td>25 kg</td>
<td>3 kg(^4)</td>
<td>130 kg</td>
</tr>
<tr>
<td>blueLABEL wave</td>
<td>24.6 – 25.8 kg</td>
<td>110 kg</td>
<td>25 kg</td>
<td>3 kg(^4)</td>
<td>160 kg</td>
</tr>
</tbody>
</table>

1. Including weight of basket/child seat
2. First value is valid for HS model
3. Riders weight and luggage weight must not exceed 120 kg in total
4. Including weight of basket
### RECOMMENDED TORQUE SETTINGS

<table>
<thead>
<tr>
<th>PART</th>
<th>FITTING</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coaster brake arm</td>
<td>Mounting screw</td>
<td>4–6 Nm</td>
</tr>
<tr>
<td>Brake lever</td>
<td>Mounting screw</td>
<td>5–6 Nm</td>
</tr>
<tr>
<td>Shock</td>
<td>Mounting screw</td>
<td>7–9 Nm</td>
</tr>
<tr>
<td>Freewheel</td>
<td>Sprocket cluster lock ring</td>
<td>29–49 Nm</td>
</tr>
<tr>
<td>Delite carrier</td>
<td>Mounting screw</td>
<td>8–10 Nm</td>
</tr>
<tr>
<td>Swingarm bushing</td>
<td>Locking screw</td>
<td>5 Nm</td>
</tr>
<tr>
<td>Hydraulic brakes</td>
<td>Mounting screw</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Hydraulic brakes mounting screw</td>
<td>*</td>
</tr>
<tr>
<td>Crankset</td>
<td>Crankbolts</td>
<td>35 Nm</td>
</tr>
<tr>
<td></td>
<td>Chainring bolts</td>
<td>8–11 Nm</td>
</tr>
<tr>
<td>Hub</td>
<td>Quick release lever</td>
<td>9–12 Nm</td>
</tr>
<tr>
<td></td>
<td>Acorn nut for quick release</td>
<td>10–25 Nm</td>
</tr>
<tr>
<td></td>
<td>Axle nut for IGH:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Shimano hub</td>
<td>30–45 Nm</td>
</tr>
<tr>
<td></td>
<td>· Rohloff hub</td>
<td>30–35 Nm</td>
</tr>
<tr>
<td></td>
<td>· SRAM Dual Drive hub</td>
<td>35 Nm</td>
</tr>
<tr>
<td>Pedals</td>
<td></td>
<td>35 Nm</td>
</tr>
<tr>
<td>Pletscher kickstand</td>
<td>Mounting screw M6</td>
<td>12–14 Nm</td>
</tr>
<tr>
<td>Rohloff gears</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Rear light</td>
<td>Befestigungsschraube</td>
<td>3–4 Nm</td>
</tr>
<tr>
<td>Seat post</td>
<td>Mounting screw for seatpost clamp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/2 bolts</td>
<td>12–15/9–12 Nm</td>
</tr>
<tr>
<td></td>
<td>Clamping screw on seatpost</td>
<td>9–12 Nm</td>
</tr>
<tr>
<td>Shifter</td>
<td>Shimano shifter</td>
<td>4–6 Nm</td>
</tr>
<tr>
<td></td>
<td>Twist grip shifter</td>
<td>1–2 Nm</td>
</tr>
<tr>
<td>Derailleur</td>
<td>Mounting screws</td>
<td>8–10 Nm</td>
</tr>
<tr>
<td></td>
<td>Cable fixing screw</td>
<td>4–6 Nm</td>
</tr>
<tr>
<td></td>
<td>Guide pulley bolts</td>
<td>3–4 Nm</td>
</tr>
<tr>
<td>Mudguards</td>
<td>Mounting screw on frame front / rear</td>
<td>3–4 Nm</td>
</tr>
<tr>
<td>Front derailleur</td>
<td>Mounting screw</td>
<td>5–7 Nm</td>
</tr>
<tr>
<td></td>
<td>Cable fixing screw</td>
<td>4–6 Nm</td>
</tr>
<tr>
<td>V-Brake</td>
<td>Mounting screw on frame socket</td>
<td>5–9 Nm</td>
</tr>
<tr>
<td></td>
<td>Cable fixing screw</td>
<td>6–8 Nm</td>
</tr>
<tr>
<td>A-Headset stem</td>
<td>Handlebar clamp 2 / 4 screws</td>
<td>10 / 5,5 Nm</td>
</tr>
<tr>
<td></td>
<td>Stem clamp bolt</td>
<td>12–14 Nm</td>
</tr>
</tbody>
</table>

* See the separate enclosed operating instructions of the component manufacturer.
## COMPONENT CONNECTION TORQUE

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CONNECTION</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame</td>
<td>Connection between the front and rear frames: 4 M10 screws</td>
<td>30–40 Nm</td>
</tr>
<tr>
<td></td>
<td>Fork Stand connection between the front and rear frames: 4 M5 screws</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clamp on steering lever on right side of fork tube: 4 M5 screws</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Swivel head of the steering lever (M8)</td>
<td>12–14 Nm</td>
</tr>
<tr>
<td>Steering linkage</td>
<td>Counter nut M8, swivel head on steering linkage</td>
<td>9–12 Nm</td>
</tr>
<tr>
<td></td>
<td>Front and rear end steering linkage: screw and M6 nut</td>
<td>9–12 Nm</td>
</tr>
<tr>
<td></td>
<td>Universal joint: screw and M8 nuts</td>
<td>12–14 Nm</td>
</tr>
<tr>
<td>Kickstand</td>
<td>Counter nuts M8</td>
<td>12–14 Nm</td>
</tr>
<tr>
<td></td>
<td>Eye bolts and M5 nuts for kickstand spring</td>
<td>5–6 Nm</td>
</tr>
</tbody>
</table>

## STEM AT KENDU/LOAD: TORQUE SETTINGS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CONNECTION</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem</td>
<td>Clamping screws M6 (4 pieces)</td>
<td>7–9 Nm</td>
</tr>
<tr>
<td></td>
<td>Front clamping screws M6 (2 pieces)</td>
<td>7–9 Nm</td>
</tr>
<tr>
<td></td>
<td>Rear clamping screws M5 (2 pieces)</td>
<td>3–4 Nm</td>
</tr>
<tr>
<td></td>
<td>Set screws for quick-release for angle adjustment (2 pieces)</td>
<td>1 Nm</td>
</tr>
</tbody>
</table>
## SERVICE AND MAINTENANCE PLAN

Items marked with • can be carried out by you as long as you have the technical skill and proper tools such as a torque wrench.

If the inspection reveals defects immediate action is necessary. For questions and concerns, please contact your dealer.

Items marked with ✗ should only be carried out by your local dealer during the annual inspection.

![TIP!]

*Always use original or at least equivalent spare parts.*

<table>
<thead>
<tr>
<th>PART</th>
<th>TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting</td>
<td>Check mounting screw</td>
</tr>
<tr>
<td>Tires</td>
<td>Check air pressure</td>
</tr>
<tr>
<td></td>
<td>Check tread and sidewall</td>
</tr>
<tr>
<td>Brakes</td>
<td>Check lever travel, pad thickness and position on rim</td>
</tr>
<tr>
<td>Brake cables</td>
<td>Visual check</td>
</tr>
<tr>
<td>Brake housing</td>
<td>Inspect for leaks</td>
</tr>
<tr>
<td>Rear shock</td>
<td>Maintenance (page 28), check function</td>
</tr>
<tr>
<td>Suspension fork</td>
<td>Check for play and leaks, check function</td>
</tr>
<tr>
<td>Rims</td>
<td>Check sidewall thickness / wear indicator (possibly replace)</td>
</tr>
<tr>
<td>Rear swingarm</td>
<td>Check function and bearing play</td>
</tr>
<tr>
<td>Chain (derailleur)</td>
<td>Check chain tension, oil chain</td>
</tr>
<tr>
<td></td>
<td>Check wear, possibly replace</td>
</tr>
<tr>
<td>Chain (hub gear)</td>
<td>Check chain tension, oil chain</td>
</tr>
<tr>
<td></td>
<td>Check wear, possibly replace</td>
</tr>
<tr>
<td>Crank</td>
<td>Check, possibly retighten, check chain ring wear</td>
</tr>
<tr>
<td>Paint</td>
<td>Protect</td>
</tr>
<tr>
<td>Wheels/spokes</td>
<td>Check concentricity and tension</td>
</tr>
<tr>
<td>Handlebar/stem</td>
<td>Visual check, Exchange</td>
</tr>
<tr>
<td>Headset</td>
<td>Check bearing play</td>
</tr>
<tr>
<td></td>
<td>Relubricate</td>
</tr>
<tr>
<td>Metallic surfaces</td>
<td>Protect (except rim sidewalls, discs)</td>
</tr>
<tr>
<td>Hubs</td>
<td>Check for bearing play, lubricate</td>
</tr>
<tr>
<td>Pedals</td>
<td>Check for bearing play, lubricate</td>
</tr>
<tr>
<td>Seat post</td>
<td>Clean seat tube, lubricate</td>
</tr>
<tr>
<td>Derailleur</td>
<td>Clean and oil</td>
</tr>
<tr>
<td>Quick release</td>
<td>Check that it is properly seated</td>
</tr>
<tr>
<td>Nuts and bolts</td>
<td>Check (possibly retighten)</td>
</tr>
<tr>
<td>Valves</td>
<td>Check that it is properly seated</td>
</tr>
<tr>
<td>Housing shifter/brake</td>
<td>Remove, lubricate and reinstall</td>
</tr>
</tbody>
</table>

---

82
<table>
<thead>
<tr>
<th>BEFORE EVERY RIDE</th>
<th>MONTHLY</th>
<th>YEARLY</th>
<th>SPECIAL INTERVALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>•</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•</td>
<td></td>
<td></td>
<td>• Every 5,000 km</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td></td>
<td>✗ Clean and lubricate monthly, see guidelines of the manufacturer</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td></td>
<td>• After the second set of brake pads at the latest</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>•</td>
<td></td>
<td>•</td>
<td>• From 1,500 km</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td>•</td>
<td>• Every 1,000 km</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td>•</td>
<td>• From 3,000 km</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>•</td>
<td>•</td>
<td>• After a crash, 20,000 km or 4 years – whichever takes place first</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
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<td></td>
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<tr>
<td>•</td>
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<td>•</td>
<td></td>
</tr>
</tbody>
</table>
In the appendix of this manual you’ll find:
• the Riese & Müller service record which should be filled out by your dealer after each inspection/service. In case of a warranty claim this record and a copy of the proof of purchase must be submitted to Riese & Müller. All of the service must be completed by an authorized/registered dealer.
• a service and maintenance schedule can be found on pages 80 – 82
• a list of torque settings for all of the critical parts of your E-bike can be found on page 78 – 79. The dealer requires these for repairs and inspections.

Enclosed you’ll find
• the instruction manuals of various component manufacturers which contain detailed information and instructions. There you can also find details on use, maintenance and care. Make sure to keep the instruction manuals together with this manual.
• the instruction manual for E-bike technology.
• proof of purchase, which proves that you are the first owner and how long you have owned it.

We hope your E-bike will always provide a good ride. Should any issue occur, please contact your dealer for further assistance. In case of additional problems that your dealer cannot resolve, you can call us at any time.

YOUR RIESE & MÜLLER TEAM

-------------------------------------------------------------

ATTENTION!

As the first owner of the E-bike please fill in the service record in the appendix and have all inspections/service listed in there by an authorized/registered dealer.

-------------------------------------------------------------
SERVICE RECORD

Model:

Color:

Number of gears:

Frame number:

Battery number

Date of purchase:

THE TRANSFER WAS MADE:

City:

Date:

Dealer stamp:

Signature of dealer:

Please have your authorized/registered dealer include all inspections performed on your bike in this service record. The extended warranty is only valid if you have registered your bike within four weeks of the purchase, can provide a completed service record (by authorized/registered dealers) and proof of purchase.
# SERVICE RECORD

<table>
<thead>
<tr>
<th><strong>1st Inspection</strong></th>
<th>Replaced or repaired parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 3 months of purchase or within the first 400 km:</td>
<td></td>
</tr>
<tr>
<td>Order number:</td>
<td>Date:</td>
</tr>
<tr>
<td>Stamp/Signature of dealer:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2nd Inspection</strong></th>
<th>Replaced or repaired parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 1 year of purchase or within the first 2,000 km:</td>
<td></td>
</tr>
<tr>
<td>Order number:</td>
<td>Date:</td>
</tr>
<tr>
<td>Stamp/Signature of dealer:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3rd Inspection</strong></th>
<th>Replaced or repaired parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 2 years of purchase or within the first 4,000 km:</td>
<td></td>
</tr>
<tr>
<td>Order number:</td>
<td>Date:</td>
</tr>
<tr>
<td>Stamp/Signature of dealer:</td>
<td></td>
</tr>
<tr>
<td><strong>4th Inspection</strong></td>
<td>Replaced or repaired parts:</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Within 3 years of purchase or within the first 6,000km:</strong></td>
<td></td>
</tr>
<tr>
<td>Order number:</td>
<td>Date:</td>
</tr>
<tr>
<td>Stamp/Signature of dealer:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5th Inspection</strong></th>
<th>Replaced or repaired parts:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within 4 year of purchase or within the first 8,000 km:</strong></td>
<td></td>
</tr>
<tr>
<td>Order number:</td>
<td>Date:</td>
</tr>
<tr>
<td>Stamp/Signature of dealer:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>6th Inspection</strong></th>
<th>Replaced or repaired parts:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within 5 years of purchase or within the first 10,000 km:</strong></td>
<td></td>
</tr>
<tr>
<td>Order number:</td>
<td>Date:</td>
</tr>
<tr>
<td>Stamp/Signature of dealer:</td>
<td></td>
</tr>
</tbody>
</table>
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Text and concept
Riese & Müller GmbH

Graphic design
www.wolf-corporate.de

Photography
Kay Tkatzik, Riese & Müller GmbH

State 03/2015
This instruction complies with the requirements of the European standard EN 15194