

Kalk OR

Manual

cake



Hello & Welcome!

We are extremely flattered that you have chosen to ride a CAKE electric motorbike. It's our obligation to do the best we can to serve you with product, information, service and spare parts for an effortless experience.

Our ambition is to develop uncompromising high-performance off-road motorbikes. CAKE's mission is to inspire people, contributing to speeding up the journey towards a zero-emission society, combining excitement with responsibility.

To optimize the performance and benefits for an off-road motorbike with an electric drivetrain, establishing a new category, we needed to start from scratch. Every little detail, hard and software has been engineered, designed and chiseled for perfection while considering the perspectives of sustainability.

This manual should be your tool and guidance for general maintenance, safety precautions, service matters - stretching from what may be dealt with by yourself and what needs to be handed over to professional mechanics, tuning, warranty aspects, handling, and troubleshooting.

Explore with Respect

Stefan Ytterborn Founder & CEO



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1. Introduction and Getting started

1.1 Introduction

Please read the manual to its entirety to ensure that you understand the functions and operation of this vehicle before you drive.

To get the most out of your Kalk, electric motorcycle, and to ensure safe operation, it's critical that you fully understand the features of this bike. This manual includes important information that every rider needs to fully understand. Please study this manual cautiously in its entirety before your first ride on your new CAKE, Kalk. Do not ride the motorcycle until you've attained enough understanding of its controls and features.

1.2 Unpacking

You will receive your CAKE Kalk in a cardboard box.

To ensure that the unpacking process is smooth and that you don't damage the Kalk or yourself, make sure to go to www.ridecake.com/manuals and see the unboxing manual and how to unpack and assemble the bike. The manual features easy step-by-step guidance with pictures and what tools are needed.

1.3 Getting started

Before you are ready to take your first ride on the Kalk. Please follow the steps below to make sure to not make any damage to the vehicle, property or injure yourself or others. During transportation, the bike might have become damaged. We can't guarantee the bikes drivability as it's been strapped down for up to several weeks before you receive it. During this time, some components might have become loose or even damaged.



- Read the manual and understand the information. If anything is unclear, please get in touch with us.
- Charge the battery.
- Make sure that the handlebar is tightened firmly and in a comfortable driving position.
- Check the suspension.
- Go to www.ridecake.com/manuals and see the Öhlins user manual on how to tune your suspension properly. The suspension is racing grade, in order to get the most of your CAKE Kalk, it's important to tune the suspension according to your body weight and riding style.
- Make sure that the headset is tightened correctly.
- Go through the chapter "Regular Inspection and Maintenance" and go through the checklist on "Before each ride".

2. General information

2.1 Safety advice

Riding

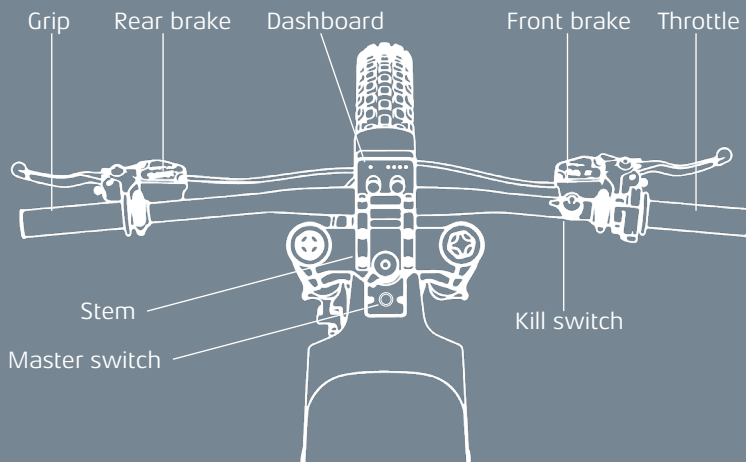
When riding a CAKE bike for the first time, there are a few things to consider. The bike has an electric motor with instant torque and a primary drive with no gears which means you have all the power available at all times in the throttle. It's very sensitive and it's highly recommended to start riding in the 1st riding mode to get used to this kind of vehicle.

There is no clutch on the CAKE Kalk, instead, you have the rear brake positioned on the left side of the handlebar. This means that there are neither rear brake or gear shifter to be found by the rider's feet. This can feel very unnatural for experienced combustion motorcyclists.

- Never ride the bike under the influence of alcohol or drugs.
- Never ride the bike on public roads.
- Never ride 2 persons on the bike.
- Always check your local laws and regulations where to ride.
- For off-road/racing purposes only. Not for highway use.



2.2 Controls and Power modes



Rider controls and Components

- Grips
- Throttle
- Kill switch
- Rear brake
- Front brake
- Stem
- Dashboard
- Master switch

Brakes

Please note that, unlike a regular petrol motorcycle, both the rear and the front brake is located on the handlebar and there is no foot brake. The rear brake is located on the left side of the handlebar and the front brake is located on the right side of the handlebar.

Kill switch

The kill switch is located on the right side of the handlebar. When the kill switch is connected with the magnet, the bike is activated.



When you are done riding or in case of an emergency, pull the kill switch to turn off the bike.

ALWAYS wear the kill switch strap around your wrist when riding. This is to prevent further damage to the rider, the vehicle or other property. When falling, losing control or feeling unsafe, release your right hand from the handlebar and pull it back, this will disconnect the kill switch and turn the bike off.

ALWAYS disconnect the kill switch when not riding. As the bike makes no noise when on standby mode, it's impossible for bystanders to know if the bike is on or not. This can cause accidents if people are pulling the throttle while expecting a turned off bike.

Dashboard

The dashboard on the stem is the bikes control panel. Here you can see the bikes SOC (state of charge), Ride mode, Brake mode and warning notifications.

State Of Charge indicator

The application also contains Battery SOC estimator, which estimates SOC of the battery using an algorithm. SOC is displayed with 4 LEDs on the dashboard.



Initialization procedur

Controller is getting information from battery during initialization procedure. This state is indicated by gradually increasing white LEDs on dashboard. There are two special states, in which initialization color change from white to yellow or orange. These information is showed after startup for hours specified in parameter serdur.



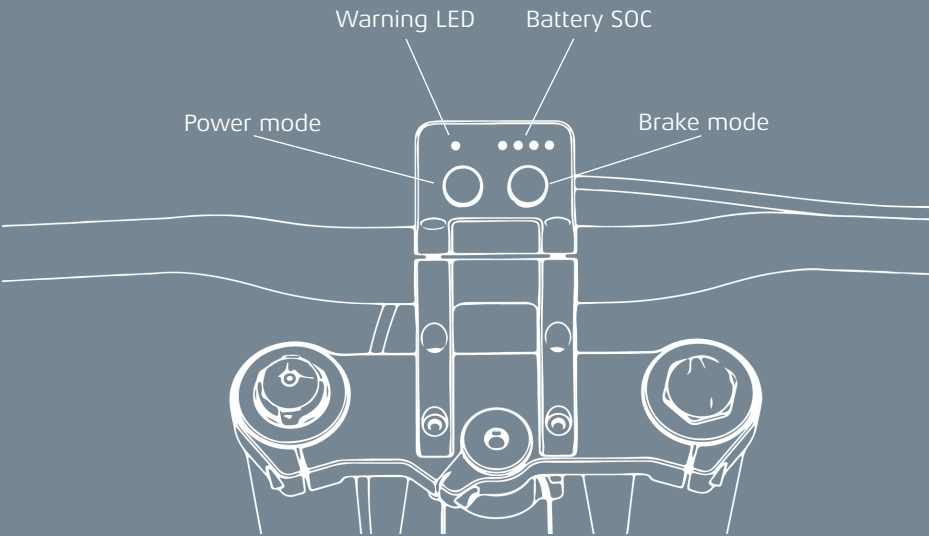
These colors indicate information about service intervals to the user:

- ● ● ● Service interval 1 is activated
- ● ● ● Service interval 2 is activated

Performance state indicator

This application informs the user about performance limiters/issues on dashboards LEDs. Below is the list of indicated states (The most upper thing has the most prior visualization on dashboard):

- ● ● ● Communication issue
- ⊗ Controller error (16bit error code)
- Controller overheating
- ⊗ Battery over/under temperature
- Battery over/under voltage
- ⊗ Motor angle sensor error
- Motor overheating
- Normal working state



Brake mode, the knob to the right

On the knob to the right, you can put the bike into 3 different braking modes. This ranges from a freewheel experience, much of what you feel on an MTB, which is suited for mellow riding on flats, to a hard engine brake, that is similar to the engine brake on a 4-stroke motorcycle, which is suited for technical riding. All the energy from the braking goes back into the battery for extended range.

Brake mode 1

No motor brakes. Gives the same sensation as riding a bike, perfect for mellow riding and the ultimate freedom experience.

Brake mode 2

Moderate engine brake. As you release the throttle you feel the bike slowing down at a slow pace. This can boost your confidence when riding a bit more technical terrain as you get better control over the bike. The braking power is regenerated to the battery for extra range.

Brake mode 3

Hard engine break. When releasing the throttle, the bike will slow down significantly. This could be uncomfortable for novice riders as the braking is quite hard. This brake mode is best suited for technical tracks where full control for the bike is needed. All the braking power is regenerated to back to charge the battery for extended range.

Power mode, the knob to the left

There are 3 different power modes to choose from when riding the bike. Never ride the bike above your comfort level and always ride according to your personal riding skills. We always recommend a new CAKE-rider to start on the first mode to get used to the bike and the differences between an electric motor and an Internal combustion engine. The 3 different ride modes have different attributes in terms of top speed, acceleration, and torque to suit riders of all riding levels, from beginners to professionals.

Power mode 1 - Easy

This mode is ALWAYS recommended when riding a CAKE bike for the first time. It has a limited top speed of 45 km/h (28 mph) and soft acceleration.



This power mode still has a high torque for rideability off-road as well as something for new riders to progress with. This mode is perfect for tracks where control is more valued than power.

Power mode 2 - Medium

With a top speed of 70 km/h and a good acceleration, this mode is perfect for enduro riding out in the woods.

Power mode 3 - Full

With no restrictions when it comes to the performance, this mode is perfect when you need all power available. This mode is highly recommended for highly skilled riders only.

2.3 Starting procedure

Before you start the vehicle, please remember that this is an all-electric vehicle which is completely silent when it's on.

Battery connected

To see if the battery is connected properly. Remove the seat by unscrewing the 2 screws found under the saddle with a 5 mm Allen key. When the saddle is removed, check that the battery is screwed down with the two screws properly, so it's secure and has no play. Make sure that the black 8 pin connector on the top of the battery is connected properly so that the grove inside the connector is aligned with the mating connector and that the connectors are locked together by screwing the the latch on the battery connector. You can leave the battery connected the bike for longer periods of time, such as storage, as long as you turn off the master switch.

The master switch

The master switch is the silver button between the front of the seat and the triple clamp.

When the master switch is turned off, all electricity in the bike is turned off as well as the battery is disconnected from the the system. The master switch needs to be turned on (pressed down) in order to start and ride the bike. Press the button again to turn the bike Off.



Kill switch

The kill switch is located on the right side of the handlebar. When the kill switch is connected with the magnet, the bike is activated. When you are done riding or in case of an emergency, pull the kill switch to turn off the bike.

ALWAYS wear the kill switch strap around your wrist when riding. This is to prevent further damage to the rider, the vehicle or other property. When falling, losing control or feeling unsafe, release your right hand from the handlebar and pull it back, this will disconnect the kill switch and turn the bike off.

ALWAYS disconnect the kill switch when not riding. As the bike makes no noise when on standby mode, it's impossible for bystanders to know if the bike is on or not. This can cause accidents if people are pulling the throttle while expecting a turned off bike.

2.4 Charging

When charging the bike, do the following steps. ALWAYS read the charging manual before charging.

1. Make sure that the battery is connected to the bike.
2. Disconnect the kill switch.
3. Turn on the master switch (pointing forwards).
4. Make sure that your charger's voltage settings correspond to the voltage in your outlet. If the charger has the wrong settings, it will break. If you're unsure on what voltage you use in your country, try a Google search or calling your electric utility provider.
5. Plug the charger into the outlet.
6. Plug the charger into the bike (charger connector can be found on the right motor fender, or directly on the battery which is accessed by removing the seat). Take away the protective plug on the charger connector by pressing the silver button on top while pulling on the plug. When the charger is connected, it will show a red light. When the charging is done, it will light in green. Don't forget to put in the protective plug in the connector to avoid any dirt inside.

- Never charge the bike without supervision.
- Never let the bike charge unattended.
- Never use the charger in any other application than with the CAKE Kalk bike.
- Never use any other charger than the original CAKE charger.
- Never have the kill switch on the handlebar connected as the bike can be turned on and ridden while the charger is connected. This can cause severe injuries to people or properties.

2.5 Specifications

Top speed: 80 Km/h

Torque: 42 Nm

Power: 11 kW

Ratio: 12/80 direct drive

Battery capacity: 50 Ah

Wheel size: 24" Bicycle

Fork: 38 mm Öhlins, CAKE specific

Travel: 203 mm

3. Regular inspection and maintenance

3.1 Before each ride

To make sure that your bike is always in good condition and avoid injury or damage, please make sure to always take care of your CAKE Kalk bike by the following steps.

- Check the wheels (*see Chapter 3.3 - Wheels and Tires*).
- Check the chain.
- Clean your bike (*see Chapter 5.2 - Cleaning*).
- Check suspension.
- Check that the headset is properly tightened.



3.2 Service table and Service intervals

Service intervals - After every:	Ride	Interval 1	Interval 2	6 months	Crash
Check tire pressure		x			
Check thread depth, tire		x			
Check rims for damage		x			x
Check spoke tension	x				
Check brake discs		x			
Check brake pads			x		
Check brake fluids				x	
Check braking ability test drive				x	
Check brake hoses for damage				x	
Check front wheel bearings				x	
Check rear wheel bearings				x	
Check screws on brake disc, front & rear			x		
Check screw on rear sprocket			x		
Check rear sprocket for damage			x		
Check screw on motor sprocket				x	
Check motor bearing				x	
Check damage on motor sprocket				x	
Check chain for damage		x			
Check chain tension	x				
Oil chain	x				
Change chain				x	
Check headset		x			
Check footpegs			x		
Check rear axle		x			
Check pressure in forks				x	
Check linkage and screws				x	
Check seat and subframe				x	
Check frame and swing				x	
Check cable harness				x	
Final check: Check that the motorcycle is reliable for use and testride	x				

3.3 Wheels and Tires

With new factory wheels, you have to check and tighten the spokes after riding. To make sure the wheels are in their best shape you need to tighten the spokes after your first rides of a couple of hours. You will find some loose spokes for sure, this is because the spokes and rim will work a bit when they are new. Be sure that when you start to tighten your spokes the hub is completely cooled down, because the braking hubs get warm.

Tighten your spokes as follow. Use a spoke wrench and tighten the nipple which is found where the spoke and rim meets. Check all spokes with your spoke wrench and tighten loose spokes. Don't tighten loose spokes too firm otherwise you will pull the wheel out of his straight position. Spokes that are still tightened don't need to be tightened extra firm. Keep repeating to check the spokes after your second and third ride. You will find that the spokes keep nicely tightened because they are now "settled" in the hub and rim.

Now your CAKE wheels are ready to race. Keep checking your spokes regularly. By checking regularly, we don't mean that the spokes have to be tightened every time. You just need to make sure that there are no loose spokes in the wheel. If you tighten the spokes every time you check them the result can be that after a while the spokes are all way too tight. Keep in mind: A spoke needs to have the possibility to "stretch" with big impacts. When the spokes are over tightened the spoke cannot stretch and it can break.

- Check that the tires are inflated with the correct pressure.
- Check the tires tread pattern is at least 3 mm deep.
- Check for bent spokes.
- Check that all spokes have the correct tension.
- Check that the brake discs are straight.
- Check that the axle of the front wheel is tightened correctly.
- Check that the rear axle is tightened correctly.
- Check that the axle of the rear wheel is adjusted correctly and evenly on both sides, according to the swing arm markings.

3.4 Handlebar and Cockpit

Headset

Make sure that the headset bolt is tightened firmly and that there is no play between the head tube and triple clamps when suspending the forks.

Adjusting the handlebar angle

See the instruction video on ridecake.com/en/makka-manuals-and-videos/.

Tool: Allen key 5 mm.

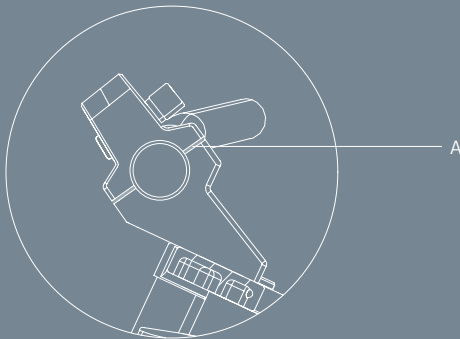


Fig. 1

1. Loosen the 4 stem bolts.
2. Adjust the handlebar angle and center the handlebar. Make use of the handlebar guidelines.
3. Tighten the 4 stem bolts to 10 Nm.
4. Ensure to tighten the upper and lower bolts equally. Check that the gap (A) between the upper and lower stem is equal. See Fig 1.

3.5 Suspension

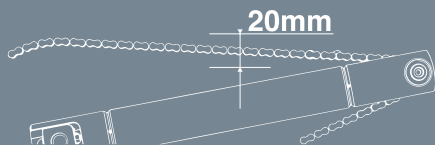
Linkage

Read the Öhlins manual at www.ridecake.com/manuals to change the factory settings for your bodyweight and riding style. If the bike is not used for longer periods of time, the fork might start leaking oil. This is due to that the rubber gaskets dry up. It's therefore recommended not to let your bike stand for too long periods at a time. Make sure that the linkage has no damage. Make sure that all bolts on the linkage is firmly tightened.

3.6 Drivetrain and Chain

Chain

Make sure that the chain tension is correctly adjusted, as described on the swingarm. Make sure that the chain is in good condition.



3.7 Brakes

Look at the front and rear calipers to see that they or the brake brackets are not damaged. Look at the front and rear brake pads to see that they are not worn out. Look in the window to see that there is enough brake fluid in the brake housings on the handlebar. Make a brake test to check that both the front and rear brake works properly.

4. Remove and Installation

4.1 Battery and Seat

In order to remove the battery please follow the steps below. Make sure that the bike is standing securely before removing either the seat and/or the battery pack.

Removing the seat

Use a 5 mm hex key and unscrew the screws under the seat. Then pull the seat upwards and backward in order to remove the seat.

Removing the battery pack

Use a hex key in order to remove the 2 screws that's holding the battery pack down. When removed, put away the 2 screws nearby. There are two steel rods holding the battery in place, make sure to lift the battery straight up using both hands. Note that the battery pack is heavy, and you might want the help of a friend to assist.

When mounting the battery in the bike, make sure that there's no dirt or objects on the battery rubber floor or where the connectors are. This can cause the battery to not connect properly. Look through the holes in the battery pack making sure that you match up the holes and the metal rods before gently sliding it down. Use help of a friend if needed.

Disconnect the black 8 pin connector on the top of the battery by unscrewing the latch on the connector and pull the battery apart.

When connecting the battery connector again, make sure that the connector from the bike is stowed away so it is not squeezed between the battery and the battery compartment.

When connecting the black 8 pin connector, the grove on the inside of the connector should align with the mating connector before connecting them, proceed by screwing the the latch on the battery connector to lock them together.

When you don't have the battery inside the bike, always be careful handling the battery. If dropped, inspect it visually and get in contact with a CAKE employee if there's any damage to it.

Slide the seat on and make sure that the metal tongue gets full contact with the pin without any cables getting in the way. Before screwing on the 2 bolts in the rear seat, make sure that the seat has good contact with the carbon frame, both in the front and on the side.



5. Owning and Operation

5.1 Maintenance

It's important to keep the bike in good condition in order to get the full performance of the bike and increase its lifetime. When you are done riding, always clean the bike and follow the "Regular inspection" checklist. Charge the bike to a minimum of 30% State Of Charge. Turn the bike off with the main switch if it will not be used for more than a week.

5.2 Cleaning

Always be cautious when cleaning the bike. The bikes electrical components can be damaged if cleaned improperly which can damage the bike, property or persons.

Always make sure that the bike is standing firmly before washing and don't forget to turn the bike off.

Never use a pressure washer or a water hose in order to clean the bike. It's recommended to use pressurized air, a bucket of water together with a cloth and brush. When cleaning the chain, use chain cleaner and scrub the chain with a brush. Repeat the cleaning before drying the chain and apply chain lube.

5.3 Storing

Follow these following steps to ensure that your CAKE Kalk is always in a good condition and to extend the life of the bike. We recommend you to ride the bike at least once every month as some of the bike's components needs to be used in order for them to be in the best condition. Store the bike indoors away from sunshine to avoid unnecessary aging or discoloration.

Make sure to turn the bike off with the main switch (pointing backwards) as it's otherwise in standby and will drain the battery to an unhealthy level which will shorten the lifespan of the battery.

Never store a bike with an empty battery. The optimal SOC is 30% (1-2 green LEDs on the dashboard). If the bike will be stored for a longer period of time,



charge the bike to 30% SOC (see under dashboard) to maximize the lifespan of the battery. Never store your bike in below 10° C, if you are unable to store the bike in temperature above that, remove the battery and bring it inside. If the bike is unused for too long. The oil inside of the forks can start to leak.

5.4 Crash

In the case of a crash, please go through the bike for any visual or structural damage. If you find any damage affecting the handling of the vehicle, stop riding to prevent further damage to the vehicle, yourself or the environment around you.

For inspection, please go through the procedures under Chapter 3 “Regular Inspection and Maintenance”. In case of a broken or damaged component, visit www.ridecake.com/spareparts to order spare components. If you can't find what you are looking for or have any questions, please get in contact with CAKE directly.

5.5 Troubleshooting

If your bike isn't working properly, please read the following use cases to find the solution. If you can't find the problem you are experiencing or a solution that works for you, contact CAKE directly.

My bike won't turn on

- Start with checking that both the main switch and kill switch is turned on properly.
- Remove the seat to check that the battery is properly connected to the bike.
- Carefully try to give the bike some throttle to climate the possibility of a malfunctioning dashboard.
- Get in contact with CAKE directly for further instructions and troubleshooting to solve the issue.

My bike doesn't give me full power

Check the Dashboard temp signal. The bike will protect itself and can under certain circumstances limit the performance. This happens at if any of the drivetrain components gets overheated, under-voltage, over-voltage etc.



Start with making sure that the bike is properly charged through the LEDs on the dashboard. As the battery gets close empty, the battery cells inside lose the ability to have a high discharge (full power).

Please be careful when checking if the controller or motor is overheated as you could get burned. This will be shown by the Dashboard Temp LED glowing in RED. If it does, please let the vehicle cool down sufficiently to avoid permanent damages to either the motor, controller or battery.

The dashboard is blinking in weird colors

Check the picture with different warning signals under "Dashboard". If the dashboard blink in colors/pattern that is not covered by this picture, please take a 30 second long video of the dashboard and send it to service@ridecake.com

My charger doesn't work

Follow the instructions and functions of the charger under chapter 2 "Charging". Check the small fuse on the charger. Change to a new one if necessary. If the charger does not work as usual. Get in contact directly with CAKE, describing the issue in detail.

My motor is sounding strange or won't spin

If the motor sounds strange when giving throttle and does not run properly. Please turn the bike off and do not give the bike any throttle as the motor can still be overheated by the battery current. This could potentially happen if the sensors in the motor get humid/water. The issue is temporary, please put the bike inside to let it dry for 24 hours. Get in touch with CAKE directly regardless if the issue disappears or not.

My bike won't turn on after a long time of inactivity

Does the dashboard turn on when the main switch and kill switch is turned on and connected properly? While the battery is connected to the bike, turn on the main switch and measure the voltage with a multimeter in the small yellow connector on the battery. If the voltage is under 48V, get in contact with CAKE.



Oil has started leaking from the fork

This can happen if the bike is stored for too long without being ridden. When the suspension is static for too long, the gasket in-between the moving pipes can dry out. If this happens, wipe the oil off, test the suspension to see if it works normally and see if the leaking disappears. If it doesn't, get in contact with CAKE directly.

Theres play between the front suspension and the frame

This is due to the that the headset is not tightened properly/has become loose.

Put the bike on a stand. Start with unscrewing the 4 screws on the upper triple clamp so they become loose (don't unscrew completely). Push the lower triple clamp upwards so the head tube gets full contact with the frame. Loosen the headset bolt just a bit before tightening it hard. Tighten the screws on the upper triple clamp and test the suspension to see if the play is still there. Repeat if necessary. Get in contact with CAKE if the issue doesn't resolve after the actions above.

5.6 Tools

To properly maintain and to keep you Kalk in mint condition, we always recommend you to use quality tools and to handle the bike with care. If you feel unable to do needed maintenance, please get in touch with someone who has the proper experience.

For the Kalk, CAKE recommends you to buy and use the following tools

- Hex keys in mm, 1-10 mm
- Screwdriver.
- Torx keys, T7-T45.
- Rubber hammer.
- Wrench kit in mm.
- Tire iron.
- Pressurized air pump.
- Air pump, forks.
- Multimeter.
- Spoke wrench.
- Bleeding kit for brake fluids.



6. Contact and support

If you have any problems or questions regarding the bike, send an email to service@ridecake.com

For general questions and information, get in contact with us at hello@ridecake.com

www.ridecake.com

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This manual is constantly being updated.
Please make sure that you have the latest one on
www.ridecake.com/manuals



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