BOSCH BRC3600 LED Remote Control Unit Instruction Manual

Contents

BOSCH BRC3600 LED Remote Control Unit

Safety instructions

Read all the safety information and instructions. Failure to observe the safety information and follow instructions may result in electric shock, fire and/or serious injury

Save all safety warnings and instructions for future ref-erence.
The term battery is used in these instructions to mean all original Bosch eBike rechargeable battery packs.

- Read and observe the safety warnings and directions contained in all the eBike system operating instruc-tions and in the operating instructions of your eBike.
- Do not attempt to secure the display or operating unit while riding.
- The push assistance function must only be used when pushing the eBike. There is a risk of injury if the wheels of the eBike are not in contact with the ground while using the push assistance.
- When the push assistance is activated, the pedals may turn at the same time. When the push assistance func-tion is activated, make sure that there is enough space between your legs and the turning pedals to avoid the risk of injury.
- When using the walk assistance, make sure that you can control the eBike and that you can hold it securely at all times. Under certain circumstances, the walk as-sistance may stop (e.g. if the pedals hit an obstacle or if you accidentally let go of the button on the operating unit). The eBike may suddenly move backwards onto you or tip up. This presents a risk for the user particularly if there is additional load on the eBike. When using the walk assistance, do not bring the eBike into situations in which you cannot hold the eBike using your own strength.
- Do not stand your bicycle upside down on its handle-bars and saddle if the operating unit or its holder pro-trude from the handlebars. This may irreparably dam-age the operating unit or the holder.
- Do not connect a charger to the eBike system if the eBike system displays a critical error. This may result in damage to your battery. The battery may catch fire, thereby resulting in serious burns and other injuries.
- The operating unit features a wireless interface. Local operating restrictions, e.g. in aeroplanes or hospitals, must be observed.
- **Caution**! When using the operating unit with Bluetooth®, this may cause interference that affects other devices and systems, aeroplanes and medical devices (e.g. pace-makers, hearing aids). Likewise, injury to people and

an-imals in the immediate vicinity cannot be excluded en-tirely. Do not use the operating unit with Bluetooth® in the vicinity of medical devices, petrol stations, chemical plants, areas with a potentially explosive atmosphere or on blast sites. Do not use the operating unit with Bluetooth® in aeroplanes. Avoid operation near your body for extended periods.

- The Bluetooth® word mark and logos are registered trade-marks owned by Bluetooth SIG, Inc. and any use of such marks by Bosch eBike Systems is under licence.
- Observe all national regulations which set out the ap-proved use of eBikes.

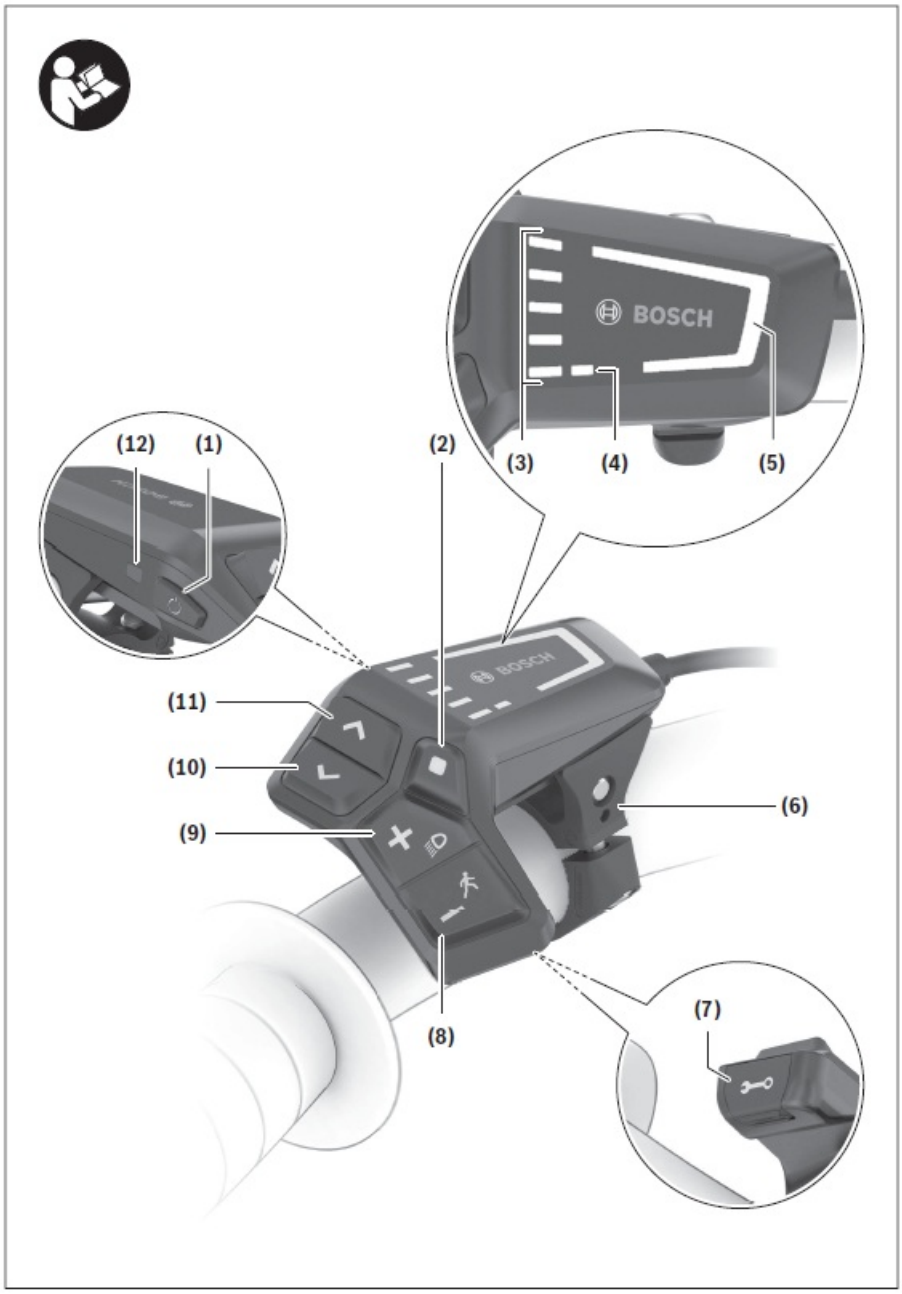
Privacy notice
When you connect the eBike to the Bosch Dia-gnosticTool 3, data about Bosch drive unit (e.g. energy con-sumption, temperature, etc.) is transferred to Bosch eBike Systems (Robert Bosch GmbH) for the purposes of product improvement. You can find more information about this on the Bosch eBike website at www.bosch-ebike.com.

Product description and specifications

Intended use
The LED Remote operating unit is designed to control a Bosch eBike system and control an on-board computer. You can also use it to change the assistance level in the eBike Flow app. So as to be able to use the operating unit fully, a compatible smartphone with the eBike Flow app is required. The eBike Flow app can be accessed via Bluetooth®.

Depending on the smartphone’s operating sys-tem, the eBike Flow app can be downloaded free of charge from the Apple App Store and the Google Play store. Use your smartphone to scan the code in order to download the eBike Flow app.

Product features
The numbering of the components shown refers to the illus-trations on the graphics pages at the beginning of the manual. All illustrations of bike parts except for the drive unit, on-board computer (including operating unit), speed sensor and the corresponding holders are a schematic representa-tion and may differ on your eBike.



1. On/off button
2. Select button
3. LEDs for battery charge indicator
4. ABS LED (optional)
5. Assistance level LED
6. Holder
7. Diagnostics connection (for servicing purposes only)
8. Button for decreasing support level –/ walk assistance
9. Button for increasing support level +/ bike lights
10. Button to reduce brightness/ go back
11. Button to increase brightness/ go forward
12. Ambient light sensor

Technical data

Product code		BRC3600
Max. charging current of USB portA)	mA	600
USB port charging voltageA)	V	5
USB charging cableB)		USB Type-C®C)
Charging temperature	°C	0 to +45
Operating temperature	°C	–5 to +40
Storage temperature	°C	+10 to +40
Diagnostic interface		USB Type-C®C)
Internal lithium-ion battery	V mAh	3.7 75
Protection rating		IP54
Dimensions (without fastening)	mm	74 × 53 × 35
Weight	g	30

Bluetooth® Low Energy 5.0

– Frequency	MHz	2400–2480
– Transmission power	mW	1

1. **A**) Specification for charging the LED Remote; external devices cannot be charged.
2. **B**) Not included as part of standard delivery

3. **C**) USB Type-C® and USB-C® are trademarks of USB Implementers Forum.

The licence information for the product can be accessed at the follow-ing Internet address: **https://www.bosch-ebike.com/licences**

Declaration of Conformity

Robert Bosch GmbH, Bosch eBike Systems, hereby declares that the LED Remote radio communication unit complies with Directive 2014/53/EU. The full text of the EU Declara-tion of Conformity is available to view at the following web-site: **https://www.bosch-ebike.com/conformity**.

Robert Bosch GmbH, Bosch eBike Systems, hereby declares that the LED Remote radio communication unit complies with the Radio Equipment Regulations 2017 (SI 2917/1206). The full text of the UK Declaration of Conform-ity can be accessed at the following Internet address: **https://www.bosch-ebike.com/conformity**.

Operation

Prerequisites

The eBike system can only be activated when the following requirements are met:

- A sufficiently charged battery is inserted (see battery op-erating instructions).
- The speed sensor is connected properly (see drive unit operating instructions).

Operating unit power supply

If a sufficiently charged eBike battery is inserted into the eBike and the eBike system is switched on, then the operat-ing unit battery is powered and charged by the eBike bat-tery. If the state of charge of the internal battery is very low, you can charge the internal battery via the diagnostics connec-tion (7) with a USB Type C® cable using a power bank or an-other suitable power source (charging voltage 5 V; charging current max. 600 mA). Always close the flap of the diagnostics connection (7) so that no dust or moisture can enter.

Switching the eBike system on/off

To switch on the eBike system, briefly press the on/off but-ton (1). After the starting animation, the state of charge of the battery is displayed in colour with the battery charge in-dicator (3) and the set assistance level with the (5) display. The eBike is ready to ride. The display brightness is controlled by the ambient light sensor (12). Therefore, do not cover the ambient light sensor (12). The drive is activated as soon as you start pedalling (except at assistance level OFF). The motor output depends on the settings of the assistance level. As soon as you stop pedalling when in normal operation, or as soon as you have reached a speed of 25/45 km/h, the eBike drive switches off the assistance. The drive is automat-ically reactivated as soon you start pedalling again and the speed is below 25/45 km/h. To switch off the eBike system, press the on/off button (1) briefly (< 3 s). The battery charge indicator (3) and the as-sistance level LED (5) go out. If no power is drawn from the eBike drive for about 10 minutes (e.g. because the eBike is not moving) and no button is pressed on the on-board computer or the con-trol unit of the eBike, the eBike system will switch off auto-matically.

Battery charge indicator

The battery charge indicator (3) displays the eBike battery's state of charge. The state of charge of the eBike battery can also be checked on the LEDs of the battery itself.
In the (3) display, each ice-blue bar represents 20 % capa-city and each white bar represents 10 % capacity. The top-most bar shows the maximum capacity.

Example: Four ice-blue bars and one white bar are dis-played. The state of charge is between 81 % and 90 %. If capacity is low, both of the lower displays change colour:

Bar Capacity

2 × orange	30 % to 21 %
1 × orange	20 % to 11 %
1 × red	10 % to reserve
1 × red flashing	Reserve to empty

If the eBike battery is being charged, the topmost bar on the battery charge indicator (3) flashes.

Setting the assistance level
You can set how much the eBike drive assists you while ped-alling on the operating unit using the (8) and (9) buttons. The assistance level can be changed at any time, even while cycling, and is displayed in colour.

OFF	Motor support is switched off. The eBike can just be moved by pedalling, as with a norma l bi- cycle.
ECO	Effective support with maximum efficiency, for maximum range
TOUR	Steady support, long range for touring
TOUR+	Dynamic assistance for natural, sporty cycling
eMTB/ SPORT	Optimal support whatever the terrain, rapid ac- celeration when starting from a standstill, im- proved dynamics and top performance

TURBO	Maximum support even at a high cadence, for sport cycling
AUTO	The support is dynamically adapted to the rid- ing situation.
RACE	Maximum support on the eMTB racetrack; very direct response and maximum “Extended Boost” for the best possible performance in competitive situations
CARGOA)	Steady, powerful support, so as to be able to safely transport heavy weights

The CARGO assistance level can have an additional description. The designations and configuration of the assistance levels can be preconfigured by the manufacturer and selected by the bicycle re-tailer

Adapting the Assistance Level

The assistance level can be adapted within certain limits us-ing the eBike Flow app. This gives you the option of adjust-ing your eBike to your personal requirements.

It is not possible to create a completely new mode. You can only adjust the modes that have been enabled by the manu-facturer or dealer on your system. This may be fewer than 4 modes. Due to technical limitations, you cannot adjust the eMTB and TOUR+ modes. In addition, restrictions in your country may mean that it is not possible to adjust a particular mode.

The following parameters are available for making adjust-ments:

- Assistance in relation to the base value of the mode (within the legal requirements)
- Drive response
- Top limit speed (within the legal requirements)
- Maximum torque (within the limits of the drive)

The parameters are dependent on each other and influence each other. For example, it is not fundamentally possible to simultaneously set a low torque value and high assistance.

Note: Please ensure that your modified mode retains the po-sition, name and colour on all on-board computers and con-trols.

Interaction between the eBike system and gear- shifting
The gear shifting should be used with an eBike drive in the same way as with a normal bicycle (observe the operating in-structions of your eBike on this point).
Irrespective of the type of gear shifting, it is advisable that you briefly reduce the pressure on the pedals when changing gear. This will aid gear shifting and reduce wear on the powertrain. By selecting the correct gear, you can increase your speed and range while applying the same amount of force.

Switching bike lights on/off
Check that your bike lights are working correctly before every use. To switch on the bike lights, press the (9) button for more than 1 s. You can use the (11) and (10) buttons to control the bright-ness of the LEDs on the operating unit.

Switching the push assistance on/off
The walk assistance makes it easier to push your eBike. The speed in this function depends on the selected gear and can reach a maximum of 4 km/h. The push assistance function must only be used when pushing the eBike. There is a risk of injury if the wheels of the eBike are not in contact with the ground while using the push assistance. To start walk assistance, press the (8) button for more than 1 s and keep it pressed. The battery charge indicator (3) goes out and a white moving light in the direction of travel shows that it is ready. To activate walk assistance, one of the following actions must occur within the next 10 s:

- Push the eBike forwards.
- Push the eBike backwards.
- Perform a sideways tilting movement with the eBike.

After activation, the motor begins to push and the continu-ously filling white bars change colour to ice-blue. If you release the (8) button, walk assistance is stopped. You can reactivate walk assistance within 10 s by pressing the (8) button. If you do not reactivate walk assistance within 10 s, walk as-sistance automatically switches off.

Walk assistance is always ended if:

- the rear wheel jams,
- the bicycle cannot move over ridges,
- a body part is blocking the bike crank,
- an obstacle continues to turn the crank,
- you start pedalling,
- the (9) button or on/off button (1) is pressed.

Walk assistance has a roll-away lock, i.e. even after walk as-sistance has been used, rolling backwards is actively curbed by the drive system for a few seconds, and you cannot push the eBike backwards or can only do so with difficulty. The push assistance function is subject to local regulations; the way it works may therefore differ from the description above, or the function may even be deactivated completely.

ABS – anti-lock braking system (optional)

If the bicycle is equipped with a Bosch eBike ABS, the ABS LED (4) lights up when the eBike system starts. After moving off, the ABS internally checks its functionality and the ABS LED goes off. In the event of a fault, the ABS LED (4) lights up, together with the orange flashing assistance level LED (5). You can acknowledge the error with the select button (2); the flash-ing assistance level LED (5) goes out. While the ABS LED (4) is lit up, the ABS is not in operation. For details on the ABS and how it works, please refer to the ABS operating instructions.

Establishing a smartphone connection

In order to be able to use the following eBike functions, a smartphone with the eBike Flow app is required. Connection to the app occurs via a Bluetooth® connection. Switch on the eBike system and do not start riding the eBike. Begin Bluetooth® pairing by pressing and holding (> 3 s) the on/off button (1). Release the on/off button (1) as soon as the topmost bar on the battery charge indicator shows the pairing process by flashing blue. Confirm the connection request in the app.

Activity tracking
In order to record activities, it is necessary to register and log into the eBike Flow app. To record activities, you must consent to the storage of your location data in the app. Without this, your activities cannot be recorded in the app. For location data to be recorded, you must be logged in as the user. <eBike Lock> The <eBike Lock> can be activated for each user via the eBike Flow app. In the process, a key for unlocking the eBike is saved on the smartphone. The <eBike Lock> is automatically enabled in the following cases

- Switching off the eBike system via the control unit
- Automatically switching off the eBike system
- Removing the on-board computer

If the eBike system is switched on and the smartphone is connected to the eBike via Bluetooth®, the eBike will be un-locked. <eBike Lock> is linked to your user account. If you lose your smartphone, you can log in to your user ac-count on the eBike Flow app using another smartphone and unlock then the eBike. Warning! If you select a setting in the app that could have negative consequences in combination with the <eBike Lock> (e.g. deleting your eBike or user account), you will be shown warning messages beforehand. Please read through these thoroughly and adhere to the warnings that are is-sued (e.g. before deleting your eBike or user account). Setting Up the <eBike Lock> In order to be able to set up the <eBike Lock>, the following conditions must be fulfilled:

- The eBike Flow app is installed.
- A user account has been created.
- The eBike is not currently updating.
- The eBike is connected to the smartphone via Bluetooth®.
- The eBike is stationary.
- The smartphone is connected to the Internet.
- The eBike battery is sufficiently charged and the charging cable is not connected.

You can set up the <eBike Lock> in the eBike Flow app in the Settings menu item. From now on, you can deactivate the assistance from your drive unit by switching on <eBike Lock> in the eBike Flow app. This deactivation can only be can only be overridden if your smartphone is in the vicinity of the eBike system when the system is switched on. To do this, your smartphone must have Bluetooth® switched on and the eBike Flow app must be active in the background. The eBike Flow app does not need to be open. When the <eBike Lock> is activated, you can continue to use your eBike without assistance from the drive unit.

Compatibility

The <eBike Lock> is compatible with these Bosch eBike product lines:

BDU374x	Performance Line CX
BDU33xx	Performance Line

How it works

In combination with the <eBike Lock>, the smartphone functions similarly to a key for the drive unit. The <eBike Lock> is activated by switching off the eBike system. As long as the <eBike Lock> is active after the function is switched on, this will be indicated by the operating unit LED Remote flashing white and by a padlock symbol on the display.

Note: The <eBike Lock> alone does not provide adequate theft protection; it is simply a supplement to a mechanical lock. The <eBike Lock> does not provide any form of mech-anical lock for the eBike. Only the assistance from the drive unit is deactivated. The drive unit will be unlocked for as long as the smartphone is connected to the eBike via Bluetooth®.

If you wish to give other users temporary or permanent ac-cess to your eBike or you want to take your eBike to servi-cing, you will need to deactivate the <eBike Lock> in
the eBike Flow app in the Settings menu item. If you wish to sell your eBike, you will also need to delete the eBike from your user account in the eBike Flow app in the Settings menu item. When the eBike system is switched off, the drive unit will emit a “Lock” sound (i.e. an audio signal that is played once) to indicate that the assistance from the drive unit is switched off.

Note: The audio signal will only be played if the system is switched on.

When the eBike system is switched on, the drive unit will emit two “Unlock” sounds (i.e. an audio signal that is played twice) to indicate that the assistance from the drive unit is enabled again. The “Lock” sound will help you determine whether or not the <eBike Lock> on your eBike is active. The audio signal is activated by default, but it can be deactivated in the eBike Flow app in the Settings menu item by selecting the lock symbol below your eBike.

Note: If you can no longer set up or switch off the <eBike Lock>, please contact your bicycle dealer.

Replacing eBike Components and the <eBike Lock>

Replacing the Smartphone

1. Install the eBike Flow app on the new smartphone.
2. Log in with the same account that was used to activate the <eBike Lock>.
3. The <eBike Lock> is displayed as set up in the eBike Flow app

Replacing the drive unit

1. The <eBike Lock> is displayed as deactivated in the eBike Flow app.
2. Activate the <eBike Lock> by pushing the <eBike Lock> controller to the right.
3. If you are handing in your eBike to a bicycle dealer for maintenance, it is recommended that you temporarily deactivate the <eBike Lock> to prevent false alarms.

Software updates
Software updates must be manually started in the eBike Flow app. Software updates are transferred to the operating unit in the background of the app as soon as it is connected to the app. During the update process, a green flashing on the battery charge indicator (3) shows the progress. The system is then restarted. You can control the software updates via the eBike Flow app.

Error messages
The operating unit shows whether critical errors or less critical errors occur in the eBike system. The error messages generated by the eBike system can be read via the eBike Flow app or by your bicycle retailer Via a link in the eBike Flow app, information about the error
and support for rectifying the error can be displayed.

Less critical errors
Less critical errors are shown by the assistance level LED (5) flashing orange. Pressing the select button (2) confirms the error and the assistance level LED (5) once again continuously shows the colour of the set assistance level. You can use the following table to rectify the errors yourself if necessary. Otherwise, please contact your bicycle retailer.

Number	Troubleshooting
523005	The indicated error numbers show that there is interference when the sensors detect the magnetic field. See whether you have lost the magnet while riding. If you are using a magnet sensor, check that the sensor and magnet have been properly installed. Make sure too that the cable to the sensor is not damaged. If you are using a rim magnet, make sure that you do not have any magnetic field interference in the vicinity of the drive unit.
514001	
514002	
514003	
514006	

Critical errors
Critical errors are shown by the assistance level LED (5) and the battery charge indicator (3) flashing red. Follow the instructions in the table below if a critical error occurs

660001	Do not charge the battery and do not continue to use it. Please contact your Bosch eBike dealer.
660002	
890000	– Acknowledge the error code. – Restart the system. If the problem persists: – Acknowledge the error code. – Perform software update. – Restart the system. If the problem persists: – Please contact your Bosch eBike dealer.

Maintenance and servicing

Maintenance and cleaning

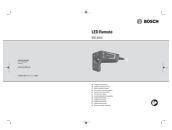
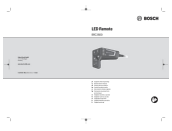
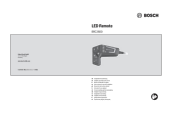
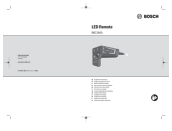
The operating unit must not be cleaned with pressurised water. Keep the operating unit clean. Dirt can cause faulty brightness detection. Clean your operating unit using a soft cloth dampened only with water. Do not use cleaning products of any kind. Have all repairs performed only by an authorised bike dealer.

After-sales service and advice on using products
If you have any questions about the eBike system and its components, contact an authorised bicycle dealer. For contact details of authorised bike dealerships, please visit **www.bosch-ebike.com**.

Disposal

The drive unit, on-board computer incl. operating unit, battery, speed sensor, accessories and packaging should be disposed of in an environmentally correct manner. Check that your personal data has been deleted from the device. Do not dispose of eBikes and their components with household waste. In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/ drained batteries must be collected separately and recycled in an environmentally friendly manner. Please return Bosch eBike components that are no longer usable free of charge to an authorised bicycle dealer or to a recycling facility. Subject to change without notice

Documents / Resources

	**BOSCH BRC3600 LED Remote Control Unit** [pdf] Instruction Manual BRC3600 LED Remote Control Unit, BRC3600, LED Remote Control Unit, Remote Control Unit , Control Unit, Unit
	**BOSCH BRC3600 LED Remote** [pdf] User Manual BRC3600 LED Remote, BRC3600, LED Remote, Remote
	**BOSCH BRC3600 LED Remote** [pdf] User Manual BRC3600 LED Remote, BRC3600, LED Remote, Remote
	**BOSCH BRC3600 LED Remote** [pdf] User Manual BRC3600 LED Remote, BRC3600, LED Remote, Remote

References

- Bosch eBike Systems | Premium drives for eBikes
- Bosch eBike Systems | Premium drives for eBikes & pedelecs
- Declaration of conformity - Bosch eBike Systems
- Licences Products - Bosch eBike Systems