

Kunray 36-1000

Kunray 36V 1000W BLDC Mid Motor Kit Instruction Manual

Model: 36-1000

1. PRODUCT OVERVIEW

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Kunray 36V 1000W BLDC Mid Motor Kit. This kit is designed for various applications including Go Karts, E-bikes, Scooters, mini Motorcycles, and Quad ATVs.

Key Features:

- **High-Speed Powerful Mid Motor:** 36V 1000W Brushless DC Motor with a rated speed of 3100 RPM and a rated current of 27.7A.
- **Efficient Design:** Compact and lightweight aluminum shell for improved power efficiency and durability. Features a wind-cold hole for heat dissipation.
- **Positive & Negative Rotation:** Motor direction can be controlled via a reversing wire or handlebar reverse switch.
- **3-Speed Functionality:** Offers Low (50%), Mid (70-80%), and High (100%) speed settings.
- **12-Mosfet 30A Brushless Motor Controller:** High-quality controller with Hall 3-speed, reverse throttle, charging, e-braking, power lock, and light functions.

2. SAFETY INFORMATION

Please read all safety warnings and instructions carefully before installation and operation to prevent injury or damage to the product.

- **Burn Hazard:** Do not touch the motor with your body during use, as it can become hot and cause burns.
- **Installation:** Ensure all connections are secure and correctly wired according to the instructions to avoid electrical shock or damage.
- **Off-Road Use:** Kunray motors are designed for off-road use only. Always check and comply with local laws and regulations regarding electric vehicle use.

- **Traffic Safety:** Always yield to pedestrians and obey traffic regulations. Be aware that riding on sidewalks may be prohibited in your area.
- **Not a Toy:** This device is not a toy. Keep it away from children.
- **Electrical Safety:** Disconnect power before performing any maintenance or installation. Avoid exposing electrical components to water or extreme moisture.

3. WHAT'S IN THE BOX

The Kunray 36V 1000W BLDC Mid Motor Kit includes the following components:

- 1000W BLDC Motor
- Speed Controller (12MOS 30A)
- Handlebar Twist Grip Throttle
- Foot Throttle
- Power Lock Key
- T8F Tooth Plate Ring (Sprocket)
- T8F Chain
- 3-Speed Switch
- Wiring Connect Box, Screws & Tools (for free)



Image 3.1: Overview of all included components in the Kunray 36V 1000W BLDC Mid Motor Kit.



Note *Due to manual measurement 1-3 mm error occurs

Image 3.2: Labeled diagram of the kit components, including brushless controller, foot pedal, twist grip throttle, 3-speed switch, T8F chain, 54T T8F chainring, E-lock key, and wiring connect box with screws and tools.

4. SETUP AND INSTALLATION

Careful installation is crucial for optimal performance and safety. It is recommended to have basic electrical and mechanical knowledge or seek professional assistance.

4.1 Motor Mounting

1. Identify a suitable mounting location on your vehicle (Go Kart, E-bike, etc.) that allows for proper chain alignment and clearance.
2. Secure the motor using its integrated mounting bracket. Ensure it is firmly attached to prevent movement during operation.
3. Install the T8F Tooth Plate Ring (sprocket) onto the motor shaft.
4. Align the T8F chain between the motor sprocket and the vehicle's drive sprocket. Adjust tension as needed.



New Upgrade HeatSink!

The motor is equipped with a heatshield device, which makes the motor heat dissipation faster, effectively reduce the motor temperature, and extend the motor service life. Efficient heat dissipation Stable performance.



Removable HeatSink!

Convenient detachable heatsink that can fit the needs of different of different vehicle models.



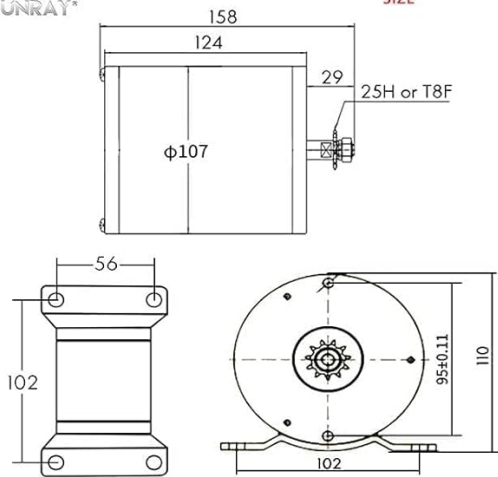
Upgrade Heatsink Add 0 Money.

grease pad include. Effectively combined with the motor, the use will not easily fall off.

Image 4.1: The motor equipped with its heatsink device, designed to reduce motor temperature and extend service life.

CUNRAY®

SIZE



110MM / 4.33"

108MM / 4.25"

158MM / 6.22"



84MM / 3.30"

45MM / 1.77"

175MM / 6.88"

Image 4.2: The motor shown with its convenient detachable heatsink, which can be added to fit various vehicle models. A thermal grease pad is included for effective heat transfer.



Image 4.3: Detailed dimensions for both the motor and the controller, providing measurements in millimeters and inches for installation planning.

4.2 Wiring Connections

Refer to the wiring diagram below for correct connections. Ensure all connections are tight and insulated.

1. **Battery Connection:** Connect the battery positive (+) and negative (-) terminals to the corresponding wires on the controller.
2. **Motor Phase Wires:** Connect the three motor phase wires (typically yellow, green, blue) from the motor to the controller.
3. **Hall Sensor Wires:** Connect the Hall sensor wires from the motor to the controller.
4. **Electric Lock:** Connect the electric lock wires to the power lock key.
5. **Charging Port:** Connect the charging port if applicable.
6. **Reversing Wire:** Connect the reversing wire or switch if reverse functionality is desired.
7. **3-Speed Switch:** Connect the 3-speed switch wires.
8. **Brake Light & Brakes:** Connect brake light and brake lever wires.

9. **Throttle:** Connect the twist grip or foot pedal throttle.
10. **Indicator Light:** Connect the indicator light if included.



Image 4.4: Detailed wiring diagram illustrating connections for battery, motor phase, Hall sensors, electric lock, charging port, reversing, 3-speed, brake light, throttle, indicator light, and brakes.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

Insert the key into the power lock and turn it to the 'ON' position to power on the system. Turn the key to 'OFF' to power off.

5.2 Speed Control

The kit includes both a handlebar twist grip throttle and a foot pedal throttle. Use the one appropriate for your application.



BRUSHLESS CONTROLLER



FOOT PEDAL



TWIST GRIP THROTTLE



3-SPEED SWITCH



T8F CHAIN



54T T8F CHAINRING



E-LOCK KEY



**WIRING CONNECT BOX
SCREW & TOOL FOR FREE**

Image 5.1: The twist grip throttle, featuring controls for low, medium, and high speeds, as well as a forward/reverse switch. Dimensions are provided.



Weight: 430g

Note *Due to manual measurement 1-3 mm error occurs

Image 5.2: Detailed dimensions of the foot pedal throttle, including length, width, and height measurements.

- **Throttle Operation:** Gently apply the throttle to accelerate. Release the throttle to decelerate.
- **3-Speed Switch:** Use the 3-speed switch to select between Low (50% power), Mid (70-80% power), and High (100% power) settings.

5.3 Direction Control (Forward/Reverse)

The BLDC motor supports both positive (forward) and negative (reverse) rotation. This can be controlled via a dedicated reversing wire connected to the controller or a switch on the handlebar throttle.

- **Caution:** Do not operate the motor in reverse for extended periods, as this is not recommended for motor longevity and safety.

5.4 Braking

Engage the brake levers to activate the e-braking function and mechanical brakes (if installed). Ensure brakes are functioning correctly before operation.

6. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your motor kit.

- **Regular Inspection:** Periodically check all electrical connections for tightness and signs of wear or corrosion.
- **Motor & Controller:** Keep the motor and controller clean and free from dirt, dust, and debris. Ensure the heatsink fins are clear for optimal cooling.
- **Chain & Sprocket:** Inspect the chain and sprockets for wear. Lubricate the chain regularly to reduce friction and extend its life.
- **Wiring:** Check all wiring for fraying, cuts, or damage. Replace any damaged wires immediately.
- **Battery:** Follow the battery manufacturer's guidelines for charging and maintenance.

7. TROUBLESHOOTING

This section addresses common issues you might encounter. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Motor does not run or has low power.	<ul style="list-style-type: none">• Loose or incorrect wiring connections.• Low battery charge or faulty battery.• Controller malfunction.• Motor damage.	<ul style="list-style-type: none">• Check all wiring connections against the diagram (Image 4.4). Ensure they are secure.• Verify battery charge and condition. Test with a known good battery if possible.• Inspect the controller for visible damage.• If motor is hot or making unusual noises, discontinue use and inspect.
Motor runs in the wrong direction.	<ul style="list-style-type: none">• Reversing wire/switch incorrectly set or wired.	<ul style="list-style-type: none">• Check the position of the reverse switch or the connection of the reversing wire.• Ensure prolonged reverse operation is avoided.
Sprocket or chain issues (e.g., chain coming off).	<ul style="list-style-type: none">• Improper sprocket alignment.• Incorrect chain tension.• Worn chain or sprockets.	<ul style="list-style-type: none">• Ensure motor and drive sprockets are perfectly aligned.• Adjust chain tension to be neither too tight nor too loose.• Inspect chain and sprockets for wear and replace if necessary.
No response from throttle.	<ul style="list-style-type: none">• Throttle wiring issue.• Throttle unit malfunction.• Power lock not engaged.	<ul style="list-style-type: none">• Check throttle connections to the controller.• Ensure the power lock key is in the 'ON' position.• Test throttle unit if possible.

8. PRODUCT SPECIFICATIONS

Specification	Value
Brand	Kunray
Model Number	36-1000
Voltage	36 Volts
Horsepower / Power Output	1000 Watts
Rated Speed (No-load)	3100 RPM
Motor Rated Current	27.7A
Controller Type	12Mosfet 30A Brushless Motor Controller
Material	Aluminum
Motor Weight	Approximately 3.3 kg (7.3 lb)
Motor Wiring Length	Approximately 150 cm (59 inch)
Package Dimensions	14 x 12.1 x 8.4 inches

Suitable for the following series of models



motorcycle



Dune Buggy



electric bicycle



Electric scooter



Kart

Image 8.1: Examples of suitable applications for the motor kit, including motorcycles, Dune Buggies, electric bicycles, electric scooters, and Karts.

9. WARRANTY INFORMATION

For detailed warranty information regarding your Kunray 36V 1000W BLDC Mid Motor Kit, please refer to the seller or manufacturer's official website. Warranty terms and conditions may vary based on purchase location and specific product policies.

10. CUSTOMER SUPPORT

If you encounter any issues or have questions not covered in this manual, please contact the seller or manufacturer directly for assistance. Provide your product model number (36-1000) and a detailed description of the issue to facilitate support.

