

RMB EV

Read this manual completely
before assembling and riding our
RMB EV PROTEAN

– PROTEAN –



Owner's Manual

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RMB EV

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Technical Information

PROTEAN

Model No.	RMB PROTEAN
Product size	45 L x 27 W x 44 H inch (115 x 68 W x 113 cm)
Type of motor	Permanent-magnet brushless DC wheel motor
Motor power	500 w Wheel motor, 48 V
Battery type	sealed lead acid battery
Battery capacity	48 Volt, 12Ah
Charger	110V-240V, UL approved
Charging time	4-6 hours
Max. speed	Up to 16 MPH (26 km/h)
Single charge	Up to 31 MILES (50 km)
Max capacity	350 LBS (139kg)
Net weight	101 LBS (46 kg)

Warning Statement

PROTEAN



IMPORTANT!

Before you operate your PROTEAN, please read carefully:

YOUR EXISTING INSURANCE POLICY MAY NOT PROVIDE COVERAGE FOR ELECTRIC VEHICLES, YOU SHOULD CONTACT YOUR INSURANCE AGENT TO DETERMINE IF COVERAGE IS PROVIDED.



Do not ride this scooter until you read and thoroughly understand the owners manual. It contains information critical to your safety. If you have any questions about the operation of the scooter, you should consult your authorized dealer.



It is extremely important that you follow the safety guidelines contained in this manual in order to ensure maximum safety.



Failure to comply with the standards outlined in this manual could result in fire and/or serious injury.



RMB EV is not liable for any damage or injuries caused by unsafe or faulty repairs. Any repairs made to this product by unauthorized service technicians are the sole responsibility of the owner.



Our products are designed to be ecologically conscious, please dispose of used batteries in compliance with local laws.

WARNING

THE RMB PROTEAN IS NOT A TOY AND SHOULD NOT BE OPERATED BY ANYONE UNDER 12 YEARS OLD.

Safety Instructions:

(Please take note of the following before each ride)

- The maximum weight capacity is 350 lbs.
- Only one person at a time should ride.
- Always wear protective gear including knee and elbow pads and an approved safety helmet when riding the PROTEAN.
- Before riding, be sure to check that all pivot points, locking buttons, quick releases, and latches are secured properly.
- The power switch lock must be in the “off” position when the PROTEAN is being charged.
- Do not use the PROTEAN when it is raining.
- Do not place the battery near heat or fire.
- Do not expose the charger to water or any moisture.
- Check if batteries are properly charged and installed.
- Charge Batteries after each use.
- Always ride on dry paved surfaces. Gravel, wet, extreme incline, and uneven surfaces are a hazard.

Check if all tires are properly inflated.

List of Parts

PROTEAN



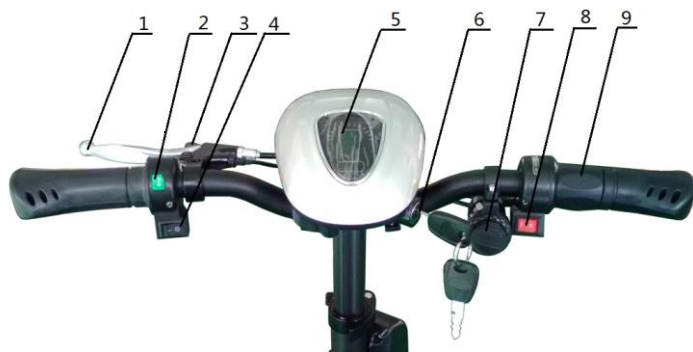
List of Parts

PROTEAN

- 1 Throttle
- 2 Multi-function Instrument
- 3 Brake lever
- 4 Alloy handlebar tube
- 5 Basket
- 6 Optional wire basket mount/lamp bracelet
- 7 Seat
- 8 Ring-pull steel pin
- 9 Rear wheel
- 10 Battery
- 11 Charger port
- 12 Front foldable tube
- 13 Ring-pull bolt
- 14 Front fender
- 15 Controller
- 16 Front fork
- 17 Motor

Front Bar

PROTEAN



- 1 Brake lever
- 2 Horn switch
- 3 Lock mechanism switch
- 4 LED switch
- 5 Multi-function Instrument
- 6 Key switch
- 7 USB port
- 8 Forward/reverse switch
- 9 Throttle

Tool Kits In The Tool Bag

PROTEAN



- 1 Screwdriver
- 2 Allen wrench (2.5mm)
- 3 Allen wrench (3mm)
- 4 Allen wrench (5mm)
- 5 Allen wrench (6mm)
- 6 Wrench (8 x 10mm)
- 7 Wrench (16 x 18mm)
- 8 Wrench (16 x 18mm)
- 9 charger

Assembling The PROTEAN

PROTEAN

1. Unpack the Protean carefully so that you do not misplace any of the parts.



2. Place Protean on a flat surface, take out the two rear wheels, then mount them on the axle. Tighten them with one spring washer and one nut provided.



3. Lift up the front of the floor deck by either stepping on the tow hitch pivoting on the rear wheels or lifting with your hand until male threaded bolt of front end aligns with floor deck. The front end of Protean will now be upright. Secure by screwing on the Ring-Pull bolt and inserting the cotter hair pin through

Assembling The PROTEAN

PROTEAN

the hole in the top of the male threaded bolt.



4. Extend the handle bar/ folding structure assembly to full upright position, and slide it into steering tube.



5. Ensure that the handlebar is facing front, the brake on the left side and the throttle on the right, then tighten the handlebar tube collar clamp using the enclosed 5mm wrench.

Assembling The PROTEAN

PROTEAN

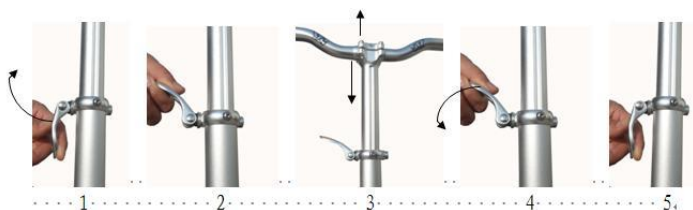
*Note: The tube shaft is intentionally off center to allow handlebars to fold to the side. Be sure to align hinge on throttle side to allow handlebars to fold to the right of the scooter.

Lift lever
to tighten



Twist
lock ring

NOTE: Handle bar height adjustment. Handle bar height can be easily adjusted by opening the quick release on the handlebar tube to preferred height, then firmly closing quick release.



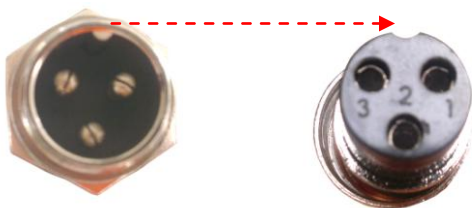
Assembling The PROTEAN

PROTEAN

6. Connect the power plug to the corresponding connectors on the battery box and secure wires with zip ties.



7. Match the pins of the plugs to the holes of the sockets. Note the alignment notches.



Assembling The PROTEAN

PROTEAN

8. Securely plug connector into the junction box.



Folding The PROTEAN

9. To fold the scooter to lowest position, remove safety hair pin and relieve weight from center hand pull screw by either applying pressure to the tow hitch with foot or by lifting slightly upward by hand. With downward pressure relieved from Pull screw, unscrew and gently lower floor deck. The front and rear will pivot downward until the special support wheelie touches the ground. Fold front end of Protean back to rest on the floor deck. Adjust handle bars and front wheel according to desired shape and secure with bungee cord if traveling.

Assembling The PROTEAN

PROTEAN

With
handlebar
extended



With
handlebar
folded



With
handlebar
removed
placed on
Floor deck



Charging The Batteries

PROTEAN

● Before you ride the PROTEAN for the first time you must charge the batteries for 4-6 hours or until the charger light turns green using only the supplied charger.

● To charge the batteries, plug the charger into the charger socket located on front left side of floor deck. Then plug the charger into a wall outlet. Red light on charger indicates charging, green light indicates charged.

Warning: Never charge scooter longer than 10 hours. If the charger does not turn green by 10 hours or you smell a Sulphur odor after a long charge there is a problem and contact the dealer for instructions.



Charging The Batteries Outside Scooter

PROTEAN

1. Turn off the key switch.
2. Lift the floor mat. Unscrew two bolts that secure the battery cover and remove it.



3. Unplug power connector, remove battery, then charge it.



Charging The Batteries Outside Scooter

PROTEAN



Riding The PROTEAN

PROTEAN

● Once you have completed the initial charge you are ready to ride. Remember, this is not a toy. The PROTEAN can reach speeds up to 16 mph depending on the terrain and the weight of the rider. You must wear a helmet and protective pads. Be aware of all local laws and ordinances that govern and/or restrict the use of powered scooters. The laws and ordinances vary greatly from municipality to municipality. It is your responsibility to know and abide by your local restrictions.

● To ride, insert the key into the key switch and turn the key in clockwise direction till the first click. The battery gauge will be illuminated indicating that the battery is in operation. If you want to turn on the front light, please turn the key to the second click in clockwise direction.



● Hold onto the front bar with both hands. Your left fingers will control the brakes and your right

Riding The PROTEAN

PROTEAN

hand will control the throttle. As you turn the throttle towards yourself, the speed will be increased. Release the throttle and apply the brake to stop the scooter. You will control the speed of the scooter by using both the throttle and the brake. **When the brake handle is squeezed it cuts power off the throttle.**

NOTE 1: WARNING: Never try stunts. Always maintain a safe speed.

NOTE 2: When scooter is parked, please remove the key, this will avoid anyone from accidentally turning the throttle causing the scooter to speed forward. Failure to do this could lead to an accident.

NOTE 3: If you need to stop in an emergency or kill power quickly, you can turn the key off.

NOTE 4: Depending on skills of the driver, the PROTEAN comes equipped with an adjustable speed button located on the controller which allows you to limit speed to 8mph or switch to max speed of 16 mph. When the button is pushed in, the max speed is 8 MPH. When the button is released, the max speed is 16 MPH.

Riding The PROTEAN

PROTEAN



NOTE 5: When you use reverse, the scooter must be stopped, and then push the reverse switch to “R”, the horn will send out a noise, then **GENTLY** turn the throttle to back up. **Warning, do not twist throttle to full power when in reverse.** When finishing reverse, push the reverse switch back to “F”.



Riding The PROTEAN

PROTEAN

NOTE 6: The Maximum output of dual port USB is 5V, 2A which will charge all phones and tablets.



Folding The PROTEAN

PROTEAN

1. Turn off the key switch
2. Twist the ring lock so that the securing tab disengages from the vertical lever.



3. Pull lever downward to unlock folding mechanism.



Folding The PROTEAN

PROTEAN

4. Tilt handlebar/folding mechanism downward.



5. Carefully place the handlebar tube on the footrest frame



Maintenance

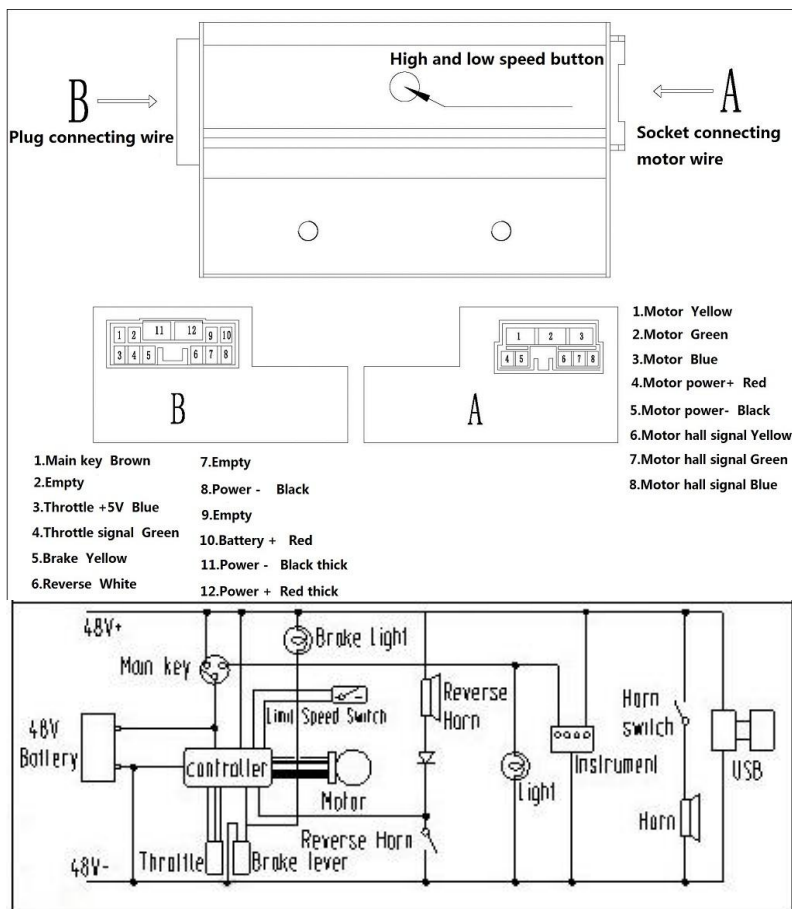
PROTEAN

Battery: (for professional use only)

The RMB PROTEAN is powered by 4, 12 volt, rechargeable batteries housed in a single compartment. Other than recharging, these batteries need no maintenance. To prolong battery life, recharge the battery after each use. You must also charge your PROTEAN if it has not been used for 30 days or more. If you need to replace the battery pack, it is located inside the battery compartment on the footboard. To get to the battery pack, remove the compartment cover by loosening the screws. To remove the batteries disconnect the wires from the battery terminals. Replace the battery pack with a new one and reconnect the wires. Follow the instructions on charging batteries to charge the new batteries.

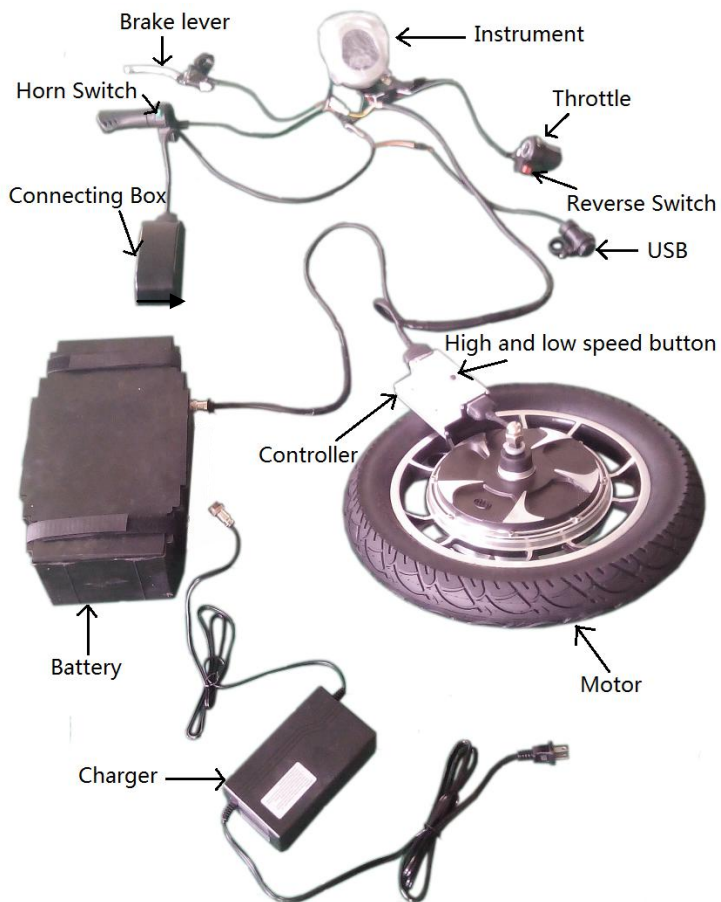
Wiring Diagram

PROTEAN



Wiring Diagram

PROTEAN



Trouble Shooting Guide

PROTEAN

Problem	Cause	Solution
The power light on the instrument does not illuminate when the PROTEAN is on.	<ol style="list-style-type: none">1. Battery is discharged.2. Loose connection inside PROTEAN.3. Fuse is blown.4. The instrument is defective.	<ol style="list-style-type: none">1. Recharge your PROTEAN.2. Remove the screws that hold the battery compartment cover and raise the cover. Visually inspect all wire connections making sure there are no loose wires, reconnecting those that are.3. Replace the fuse.4. Replace the instrument.
The power indicator on the instrument illuminates but PROTEAN still does not work.	<ol style="list-style-type: none">1. The throttle handle is not operating properly.	<ol style="list-style-type: none">1. Replace the throttle handle. Call Customer Service to order a new throttle

Trouble Shooting Guide

PROTEAN

When the brake lever is squeezed the PROTEAN does not stop.	1. The brakes are not adjusted properly.	1. Adjust the brake by loosening the bolt on the rear brake wheel, pull the cable and retighten the bolt.
Scooter is losing speed.	1. Low battery 2. Battery is defective. 3. Low tire pressure.	1. Recharge your battery for 4~6 hours. 2. Replace battery. Call Customer Service to order a new battery. 3. air tires up to correct pressure.

Warranty

PROTEAN

The Limited Warranty does not cover or apply to the following: Normal wear and tear; any damage, failure and/or loss caused by accident, misuse, neglect, abuse and/or failure to follow instructions or warnings as stated on the product or in the applicable owner's manual or other printed materials provided with the product; damage, failure and/or loss caused by the use of the product in any other manner for which such products were not specifically designed.

RMB EV warrants the PROTEAN for six (6) months according to the following terms. Batteries and tires are warranted for three (3) months. This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase. Any part of the RMB EV product manufactured or supplied by RMB EV and found in the reasonable judgment of RMB EV to be defective in material or workmanship will be repaired or replaced by an authorized RMB EV service dealer without charge for parts or labor. RMB EV is responsible for the expense of delivering the warranty replacement parts. However, if the customer chooses not to replace the parts, the **expense of**

Warranty

PROTEAN

delivering the PROTEAN to the factory / authorized service dealer for warranty work or the expense of returning it back to the owner after repair/ replacement will be paid for by the owner. RMB EV's responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any RMB EV product. Proof of date of purchase will be required by the dealer to substantiate any warranty claim. An authorized RMB EV service dealer must perform all warranty work. The warranty is limited to thirty (30) days from the date of purchase for any RMB EV product that is used for rental demonstration, commercial purposes, or any other income producing purpose. This warranty does not cover any RMB EV product that has been subject to misuse, neglect, negligence or accident, or has been operated in any way contrary to the operating instructions as specified in RMB EV's owner's manual. This warranty does not apply to any damage to RMB EV products that is the result of improper maintenance or to any RMB EV product that has been altered or modified so as to

Warranty

PROTEAN

adversely affect the products operation, performance, or durability, or that has been altered or modified to change its intended use. This warranty does not extend to repairs made necessary by normal wear and or by use of parts that are incompatible with RMB EV products. In addition this warranty does not cover items that experience normal wear and tear. RMB EV reserves the right to improve the design of the product without assuming any obligations to modify any product previously manufactured. All warranties are limited in duration to the six (6) months warranty period. Any such implied warranties including merchantability, fitness for a particular purpose or otherwise are disclaimed in their entirety after the expiration of the appropriate thirty day warranty period. RMB EV's obligation under this warranty is strictly and exclusively limited to the repair and replacement of defective parts and RMB EV does not assume any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. RMB EV assumes no responsibility for incidental consequential or other damages including but not limited to expense of returning

Warranty

PROTEAN

the PROTEAN to an authorized service dealer and expense of delivering it back to the owner, mechanics travel time, telephone charges, rental of a like product during the time the warranty service is being performed, travel loss, or damage to personal property, loss of revenue, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations may not apply to you.

WHAT RMB EV WILL DO:

RMB EV will, at its sole option, either repair, replace or refund the purchase price of any unit that does not conform to this limited warranty. RMB EV may choose at its option to use functionally equivalent reconditioned, refurbished or new units or parts or any units. You are responsible to get the unit back to RMB EV.

Warranty

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HOW TO GET WARRANTY SERVICE:

To obtain warranty service, please call or fax to the following telephone numbers for RMB EV Customer Service - warranty repair

Tel. 1-707-568-3388 or Fax.1-707-526-1409,
Email: info@rmbev.com

DO NOT RETURN YOUR PRODUCT TO ANY ADDRESS.

Please call, email, or write for the location of the RMB EV authorized service center nearest you and for the procedures for obtaining warranty claims.

Instructions for optional attachments

PROTEAN

Installing the optional dc to ac inverter

1. Turn off the key switch
2. Remove seat post from seat



3. Install special seat post on seat



4. Put floor mat through tube, and align nipples to corresponding holes in floor deck.

Instructions for optional attachments

PROTEAN



5. Install quick release and seat.



6. Put out the connecting wire harness of inverter, connect well the inverter and charger port, then tie to the post by bind.

Instructions for optional attachments

PROTEAN



8. When using the inverter, turn on the power switch.



Inverter specification:

- Input voltage is DC 48V
- Output voltage is AC 110V 60Hz

NOTE 1: Do not expose to water drip or spray.

NOTE 2: Shock hazard. Keep away from children

- Do not insert foreign objects into the inverter's

Instructions for optional attachments

PROTEAN

ac outlet or vent openings.

- Do not under any circumstances. connect the inverter to power utility AC distribution wiring.
- Failure to follow the above instructions may result in personal injury or damage to the inverter.

NOTE 3: Do not expose the inverter to temperatures in excess of 104°F(40°C).

Instructions for optional attachments

PROTEAN

How to install the trailer

1. Turn off the key switch
2. Put the trailer tongue into the slot, after aligning the holes, place the two bolts through the holes. Twist the bolts, and tighten them with the nuts provided.



3. Place the trailer connection plate (A) into the trailer connection frame (B) of front of trailer tongue. After aligning the holes, place the trailer pin through the hole. Secure the trailer pin with the cotter pin.



Instructions for optional attachments

PROTEAN

How to install the solar panel

1. Turn off the key switch
2. Put the front support(A) onto the riser(B), aligning the holes, place the two bolts through the holes, then twist the bolts, and tighten them with the nuts provided.



3. Put the left front frame(A) onto the front support(B), aligning the three holes, place the three bolts through the holes, then twist the bolts, and tighten them with the nuts provided. The right front frame is the same as the left front frame.

Instructions for optional attachments

PROTEAN



4. Install the rear frame onto the scooter with the two bolts, and tighten them with the nuts provided.



Instructions for optional attachments

PROTEAN

5. Install the rear support (A) onto rear frame(B) with the two bolts, and tighten them with the nuts provided.



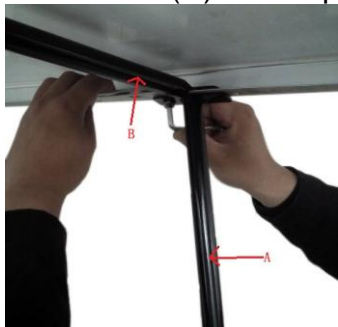
6. Fix the rear support and seat post with one bolt, and tighten them with the nuts provided.



Instructions for optional attachments

PROTEAN

7. Fix the solar panel onto the front frames(A) with support pipe(B), fix the solar panel onto the rear frames(C) with support board(D).



the front frame



the rear frame

7. Connect the wiring harness well.
Firstly, confirm that the switch on the solar panel is closed (solar panel display lamp(A) is extinguished), then connect controller connector(C) and battery connector(D), battery display lamp(B) is light, turn on the switch, solar panel display lamp is light.

Instructions for optional attachments

PROTEAN

A: Solar panel display lamp

B: Battery display lamp



the upper rear frame



the lower rear frame

Instructions for optional attachments

PROTEAN

NOTE 1: When not using the solar panel for more than one week, please close the switch of solar panel.

NOTE 2: When disassembling the solar panel, please close the switch of solar panel.

Instructions for optional attachments

PROTEAN

Instructions on the use of the alarm

1. Take out the alarm.



2. Connect the battery well, and install the alarm well.



3. The “1” button is the alarm button. When pressing it gently, the horn will ring one loud, after three seconds, the scooter will be on alert. If touching the scooter or forcing to move the scooter, the horn will ring continuously.

4. The “2” button is the disarm button. Pressing this button gently, the horn will ring one loud,

Instructions for optional attachments

PROTEAN

then the alert is removed.



Instructions for optional attachments

PROTEAN

Instructions on the use of the LED rope

When you use the led rope, the head light must be turned on, and then push the led rope switch to “1”, the led rope will be illuminate. Push switch “0” to turn off the led rope.



Instructions for optional attachments

PROTEAN

Instructions on the use of wireless controller

Adopt IR remoter to control the led controller, which has 24 buttons, the function of each button as the table below:

Brightness+(Speed up)	Brightness-(Speed down)	Off	On
Static red	Static green	Static blue	Static white
Static orange	Static pea green	Static dark blue	3 color jumpy change
Static dark yellow	Static cyan	Static brown	All fade out & fade in
Static yellow	Static light blue	Static pink	7 color fade change
Static straw yellow	Static sky blue	Static purple	3 base color jumpy



Instructions for optional attachments

PROTEAN

**NOTE : Before using wireless controller,
please remove the plastic sheet(A).**