

Electric Power Dolly Operator's Manual





WARNING:

Read carefully and understand all INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury. Save these instructions in a safe place and on hand so that they can be read when required. Keep these instructions to assist in future servicing.



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1. WARNING

DO NOT USE THIS PRODUCT TO MOVE TRAILER LOADED OR UNLOADED ACROSS ANYTHING OTHER THAN LEVEL PAVED SURFACES WITH LESS THAN A 4° GRADE. DO NOT USE ON A SLOPED DRIVEWAY.

DO NOT ATTEMPT TO USE THIS PRODUCT ON A BOAT LAUNCH. THIS PRODUCT IS NOT INTENDED TO REPLACE YOUR VEHICLE.

- Thoroughly review the "Installation and Operation Guidelines" and familiarize yourself with your electric dolly and its operation.
- Never store the battery pack together with nails, screws, keys and other metallic or sharp objects. These items may cause short circuit of the battery terminal resulting in damage to the battery and may cause a fire, endangering personal safety.
- Avoid contact with any fluid that leaks from the battery. Dispose of all batteries in appropriate manner as these batteries will be dangerous and should no longer be used.
- Be sure to dispose of or recycle the battery according to local regulations.
- Before disposal, be sure to protect the terminal with insulating tape to prevent short circuit.
- Do not to disassemble or tamper with the battery in any way. Any such tampering will automatically void your product warranty.
- Do not attempt to charge a damaged battery pack. Replace it immediately. A damaged battery pack may cause a short circuit or fire.
- Battery packs are covered by manufacturers product warranty and will be replaced by vendor if product is still under warranty.
- Do not burn the battery pack.
- Do not operate the dolly in an environment containing explosive or combustible materials.
- When the dolly is not in use, be sure to cut off the battery power.
- Be sure to use the charger and lead-acid battery packs provided by Superhandy only. Other types of batteries may burst and cause personal injury.
- Do not to use chargers with damaged wires or plugs. Chargers with such issues should be replaced immediately.
- Do not to use the charger provided by Superhandy to charge other batteries.
- Do not charge the battery in a humid environment, and do not cover the charger with clothes or other items during charging.
- The use of accessories not recommended or provided by the charger manufacturer may lead to the risk of fire, electric shock or personal injury.
- Always charge the battery at a temperature of 32°F-120°F (0°C-49°C).
- Always store the battery at a temperature of 32°F-86°F (0°C-30°C).
- Be sure to disconnect the charger when the battery is fully charged.
- Be sure not to completely discharge the battery. If not in use, be sure to charge the battery every 3 months.
- DO NOT exceed the maximum Tow limit of this Trailer Dolly.
- Check that the hitch ball and the trailer coupler are securely mounted, and that the brake control system of your trailer is in good working order before connecting it to the Trailer Dolly. NEVER pull a RV, yacht or any other trailerwhich has no brake or has faulty brakes.
- Always use factory approved mounting hardware, components and fittings.
- NEVER pull a load with this Trailer Dolly on any steep grade or non-paved road. Always make sure theroad surface is paved, level and less than a 4 degrees grade.
- Do not use the dolly to move people.
- Do not operate this dolly under the influence of alcohol or drugs.
- Be sure to remove any objects or obstacles that may hinder the safe operation of the dolly.
- When assembling, maintaining or prepping the dolly for storage, be sure to disconnect the power supply from the dolly.
- DO NOT operate or install the dolly without reading or understanding the operator's manual.
- Do not operate this dolly if you are under 16 years old.

2. TECHNICAL SPECIFICATIONS

Main Use

Superhandy electric power dolly is compact in structure and convenient in operation. It is used for towing trailers, RVs, etc. equipped with ball head couplings. It has the functions of forward, backward and basic steering. It is intended for movement of trailers over short distances or in compact confined spaces.

SKU	GUO094
Description	Electric Power Dolly
Power supply	DC24V,9Ah
Power	800W
Maximum bearing capacity	Trailer Weight: 7500lbs (3400kgs) Tongue Weight: 1250lbs (560kgs)
Hitch ball specification	2-5/16"
Auxiliary wheels	W/
Dimensions	60"x28"x39" (1525x712x992mm)
Net weight/Gross weight	183/227lbs (83/103kgs)

Product Packaging List

- 1. Handle bar assembly*1
- 2. Dolly body*1
- 3. Hitch ball adjusting stem assembly*1
- 4. Rear support assembly*2
- 5. Charger assembly*1
- 6. Accessory kit (pin assembly*2, square pin*2, bolt M10x55*1, nut M10*1, and domed plug*1)



Fig. 1

3. MAIN COMPONENTS

- 1. Start switch: Control the dolly to move "forward" or "backward"
- 2. Transformer: Voltage conversion, 24V to 12V
- 3. Controller: A device to preset instructions
- 4. 7-core socket: Provide 12V power supply to the electromagnetic brake or lift
- 5. Power wheel: Transmit the traction
- 6. Adjusting stem: Adjust the position of the hitch ball forward and backward as well as up and down
- 7. Hitch ball: To be connected with the trailer coupler
- 8. Frame nut: Used when the hitch ball is installed in a low position
- 9. Rear support bar: Prevent the equipment from cocking
- 10. Universal wheel: Control the direction of traveling
- 11. Charger: INPUT100~240VAC, OUTPUT: DC28.8V- 2.0A
- 12. Batteries: Two 12V 9AH lead-acid batteries
- 13. DC charging socket: For the charger
- 14. Power switch: Turn "on" or "off" the main power. When the vehicle is not working, please disconnect the power
- 15. Voltage and battery level indicator: Indicate the voltage and battery level of the battery
- 16. Rear axle motor assembly: Source of power



Fig. 2

4. ASSEMBLY

1. Installation of the handle bar assembly (See Fig.3)

Open the lid of the control box, thread the handle assembly lead through the square opening at the front of the frame (Step 1) and lead it out through the large round hole on the side of the control box (Step 2). Insert the handle bar (Step 3), align with the holes and insert the bolts M10x55 (Step 4), and tighten the M10 nuts (Step 5).

2. Connection of connectors (See Fig.4) Connect the handle bar leads to the corresponding 2P and 3P connectors.

3. Installation of the hitch ball adjusting stem assembly (See Fig.5)

Align the trough of the hitch ball adjusting assembly with the frame and select appropriate holes (Step 1), insert two pins (Step 2) and then insert two B-type pins for fixation (Step 3).





Fig. 4







5. Battery cable connection (See Fig.7)



Electrical Schematic Diagram

Fig. 7

5. OPERATION

Commissioning and preparations

- 1. Before operation, check that all bolts are securely tightened, and the hitch ball stem is Securely fastened to your desired position and locked.
- 2. Make sure that the tires are not cracked, bulging or otherwise defective, and that the tire pressure is maintained at 60±2psi (4.2±0.1kgs/cm²).
- 3. Make sure that the battery has sufficient power. Check that the switches work and can be smoothly operated.
- 4. Test the dolly with no load to confirm that the universal wheels rotate flexibly, go forward and backward freely.
- 5. Make sure that the weight of the pulled trailer is less than the maximum bearing capacity of the dolly.
- 6. Check that the hitch ball and the trailer coupler are tightened and that the brake control system is reliably working before attaching the trailer.
- 7. Make sure the working road surface is level and less than 4 degrees grade.

Selection of hitch ball position

 In order to ensure that the dolly operates with the maximum traction and sufficient friction is maintained between the wheels and the ground, please select the appropriate hitch ball position according to the use scenario. As shown in the figure, when the machine travels in the D direction, please put the hitch ball adjusting stem at the Gear A position; when it travels in the R direction, please put the hitch ball adjusting stem at the Gear B position. (See Fig.8)





2. The hitch ball height of the dolly can be adjusted up and down (Figure a), or the hitch ball can be installed directly on the main frame (Figure b), with the lifting range of the hitch ball height:17.2"-25.6". When installing the trailer, always make sure the connecting rod is parallel to the ground, because any tilt will affect the traction efficiency and even the safety risk of overturning (Figure c). (See Fig.9)



3. The rear support wheel assembly is intended to provide support and increased stability during towing., and according to the road conditions, can position can be adjusted up and down as well as forward and backwards relative to the main wheels. DO NOT operate trailer dolly without the support wheel assembly properly attached and secured in place. i. (See Fig.10)

Towing Procedure

- First move the dolly near the trailer coupler of the trailer, and adjust the height of the hitch ball according to the height of the trailer coupler, until the hitch ball is slightly lower than the trailer coupler. Move the dolly so that the hitch ball and the trailer coupler are coaxial (Step 1), lower the trailer slowly via the lifter until the trailer coupler fully engages with the hitch ball (Step 2), and lock the safety hook after making sure that the hitch ball and the trailer coupler are connected securely (Step 3). (See Fig.11)
- Turn on the power switch (Step 1) and check if the voltage and battery level indication is full (Step 2). Press the start switch in the same direction as the dolly (Step 3) and then the vehicle starts to move slowly at a speed of 1.5km/h. (See Fig.12)





3. Shut down the power after use. And park the dolly in the correct position. Please maintain the battery charge level. BATTERY CHARGE LEVEL MUST BE MAINITAINED REGUALRLY OTHERWISE THE LEAD ACID BATTERY MAY BECOME FULLY DISCHARGED, RESULTING IN DAMAGE TO THE BATTERY OR FAILRE FOR IT TO MAINTAIN ANY CHARGE.

OVERLOAD PROTECTION

The dolly is equipped with overload protection system, which will shut down the dolly when it detects an overload situation. This will protection is for both user and the product. To prevent the potential risk of damage or destruction of the machine, or injury to the operator.. Please do not try to start when the dolly overloaded and shut down, please re-start after the loading weight has been reduced to within the max rated capacity of the product.

6. SERVICE GUIDE

Replacement of the start switch

a. Pry open the snaps on both sides of the start switch (Step 1) to remove the switch, and disconnect all terminals (Step 2). (See Fig.13)



Fig. 13

b. Installation of a new start switch. Referring to the wiring diagram, insert the corresponding terminals (Step 1), press the start switch (Step 2) to make sure that the dolly moves in the same direction as shown by the switch arrow, and then align with and push the start switch into the square hole (Step 3). (See Fig.14)



Fig. 14

Replacement of the power wheels

 a. Remove the four M14 nuts (S/N 7) and knock the power wheel down alternately with a soft hammer from left to right (S/N 8). (See Fig.15)

 b. With the inflating inlet of the power wheel facing outward, align the mounting holes over the bolts, tighten the 4 M14 nuts diagonally. (See Fig.16)





Replacement of the controller

a. Remove the M4 screws on both sides of the control box, open the lid of the control box (Step 1), pull all the terminals out of the controller, and remove the controller (Step 2).
 (See Fig.17)



b. Installation of the controller. Insert the controller into the box compartment, connect the corresponding color wires and controller terminals according to the diagrams (Figure a, Figure b and Figure c), close the box lid and tighten the screws on both sides.
 (See Fig.18)



Replacement of power switch

a. Open the lid of the battery box (Step 1), disconnect the battery terminals (Step 2) first (to prevent safety accidents caused by short circuit), and then pull all the terminals out of the power switch (Step 3). Press the snap feet on the inside of the switch inward to push the switch out. **(See Fig.19)**





b. Align the power switch with the square hole of the lid and press it directly to the bottom (Step 1), make sure the snap feet is secured firmly, insert the terminals according to the electrical diagram, and then turn on the power after confirming that it is correct (Step 2). (See Fig.20)
Battery "+" (Black)
 Controller "+" (Black)
 Controller "+" (Red)
 Battery "+" (Red)
 Step 2
 Fig. 20

Replacement of batteries

- a. Open the battery lid, pull all the terminals out of the batteries (Step 1), remove the 2 M5 screws, and remove the fixing bracket and batteries (Step 2). **(See Fig.21)**
- b. Install new batteries in the reverse order of the steps described above, and connect the terminals according to the electrical diagram.
 Note: Due to transportation conditions, please purchase the same model NPP 12V 9A of batteries locally for replacement.

Note: Please disconnect the charging plug and the tool power switch before the above maintenance operation. Maintenance shall be carried out under the professional guidance of the manufacturer, service agent or similar full-time personnel to avoid danger. Damaged machines, accessories and packaging materials must be treated by classification according to local environmental protection requirements.



7. MAINTENANCE AND STORAGE

- 1. For storage, the product shall be stored in a cool, dry and dust-free place, to avoid direct sunlight and rain.
- 2. During the transportation, loading and unloading of the product, it is prohibited to cast, drop, throw, trample and perform other barbaric operations on the product.

8. WARRANTY

Twelve (12) months for workmanship of the product, except for wearing parts. Warranty period starts from the product purchase date. Warranty covers material quality and workmanship only. Warranty does not cover product for issues caused by improper usage or any operation not in accordance with the specifications of this manual. Any modification or tampering with the product in any way voids the warranty.

9. TROUBLE SHOOTING

Problem(s)	Possible Cause	Corrective Action
Power dolly do not works.	Power shut down.	 Check the battery status make sure it in full . Check the power switch in power on status. Check the connect cable without loose.
Power dolly stop during working.	 Batteries in low. Power dolly overloaded. 	 Recharge the power dolly in full. Reduce the loading weight with the capacity and re-start.

10. EXPLODED AND PARTS LIST



Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Handle sleeve	2	29	Square pin	4
*2	Start switch	1	30	Tab	8
3	Switch box	1	31	Washer	6
4	Handle bar assembly	1	32	Pin assembly	2
5	Hex nut M24×3	2	33	Rear axle 24V 800W	1
6	Split pin 4×50	2	34	DC socket	1
7	Nut M14×1.5	8	35	Battery box assembly	1
*8	Power wheel 16.5×6.5-8	2	*36	Power switch	1
*9	Controller 24v 800w	1	37	Voltage and battery level indicator	1
10	US-style 7-core socket	1	38	White one-sided sponge tape	2
11	Screw assembly M5×16	8	*39	Battery 12V 9Ah	2
12	Holder	2	40	Fixing bracket	1
13	Binding post	1	41	Harness 6	1
14	Control box assembly	1	42	Harness 5	1
15	Adjusting stem assembly	1	43	Harness 1	1
16	Hitch ball mount	1	44	Harness 2	1
17	Hitch ball	1	45	Harness 3	1
18	Square pin	2	46	Bolt M10×55	1
19	Flange gear assembly	2	47	Charger 24V 2A	1
20	Bearing	4	48	Universal wheel 8"	2
21	Gear cover plate	2	49	Bolt M8×65	3
22	Plug Φ26	3	50	Domed plug	1
23	Frame assembly	1	51	Nut M8	3
24	Bolt M10×30	20	52	Terminal	2
25	Nut M10	21	53	Harness 4	1
26	Rear support assembly	2	54	Transformer	1
27	Support wheel installation assembly	2	55	Screw M4×8	7
28	Universal supporting wheel 3"	2			

Note: "*" is the quick-wear part of the product.



Great Circle USA Support Line: 1-866-493-0524 help@greatcircleus.com www.greatcircleus.com

Size: 145x210mm

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