

The Mule Owner's Manual

Part Number 39-0100



Warning:

Carefully read and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury



Thank you very much for choosing this product! For future reference, please complete the owner's record below:

Part Number: 39-0100 Purchase Date: _____ Purchase Order Number _____

Save the receipt, the warranty, and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This product is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted us to determine if it can, or should, be performed on the product.

For technical questions, please call 800-376-7209

Intended Use

Kingsley brings an easy way to move heavy carts with the Mule, a heavy-duty adjustable cart mover with two powered wheels and one caster. It is the perfect way to move heavy carts across long distances and up ramps. The handlebar and built-in 24V battery and 500w motor is perfect for moving further distances easily and comfortably with just the push of a trigger.

Technical Specifications

Weight	110
Type	Cart Transport
Power Supply	DC 24V, 7 Ah
Model	The Mule
Max Load	600 lbs (136 kg)
Dimensions	23.625" W x 48.75" D x 36" H 600mm W x 1238mm D x 914.5mm H

General Safety Rules

WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in serious injury.

1. Always know your Mule. Take time to fully read the user's manual to understand your mule and its operations.
2. Always avoid contact with battery fluid. This may occur under extreme use or temperature conditions.
3. Always dispose or recycle the battery according to local ordinances/regulations.
4. Always protect terminals with insulating tape prior to disposal to prevent shorting.
5. Never charge damaged battery packs and change damaged batteries immediately. If a damaged battery is put to charge, it may short and cause a fire.
6. Never incinerate the battery pack even if its severely damaged or is completely worn out.
7. Never operate or store the mule in an environment containing explosive or combustible material.
8. Always remove the battery when the unit is not in use for extended periods of time.
9. Always use the mule charger to charge the battery pack. Other charger types may cause damage to the battery which could result in personal harm and property damage.
10. Never operate the charger with a damaged cord or plug. If the plug is damaged, replace immediately.
11. Never use the mule charger to charge other batteries.
12. Never operate the charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.
13. Never charge the battery in damp or wet environments. Do not cover the charger with clothes or similar items during charging. Excess heat buildup to the charger may damage it or start a fire.
14. The use of accessories which are not recommended or supplied by the charger manufacturer may present a risk of fire, electric shock, or personal injury.
15. Always charge battery at temperatures between 32°F-120°F (0°C-49°).
16. Always store the mule at a location where temperatures are between 32°F-86°F (0°C-30°C).
17. Always disconnect the charger when the battery is fully charged.
18. Always charge the battery every three months if not in use.
19. Do not exceed the maximum capacity of 600lbs.
20. Make sure the pin is placed in the cart coupler properly before use.
21. Always use Kingsley approved mounting hardware, components, and accessories.
22. Do not use the Mule to move people
23. Do not operate the Mule under the influence of alcohol or drugs.
24. Be sure to remove any elements or obstacles that may hinder the safe operation for the mule.

Save These Instructions

CAUTION: Do not allow persons to operate or mule until they have read this manual and have developed a thorough understanding of how the mule works.

WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product but must be supplied by the operator.

Working Area

- Be aware of bystanders and obstacles while operating the mule. Distractions can cause a loss of control or an accident.

Personal Safety

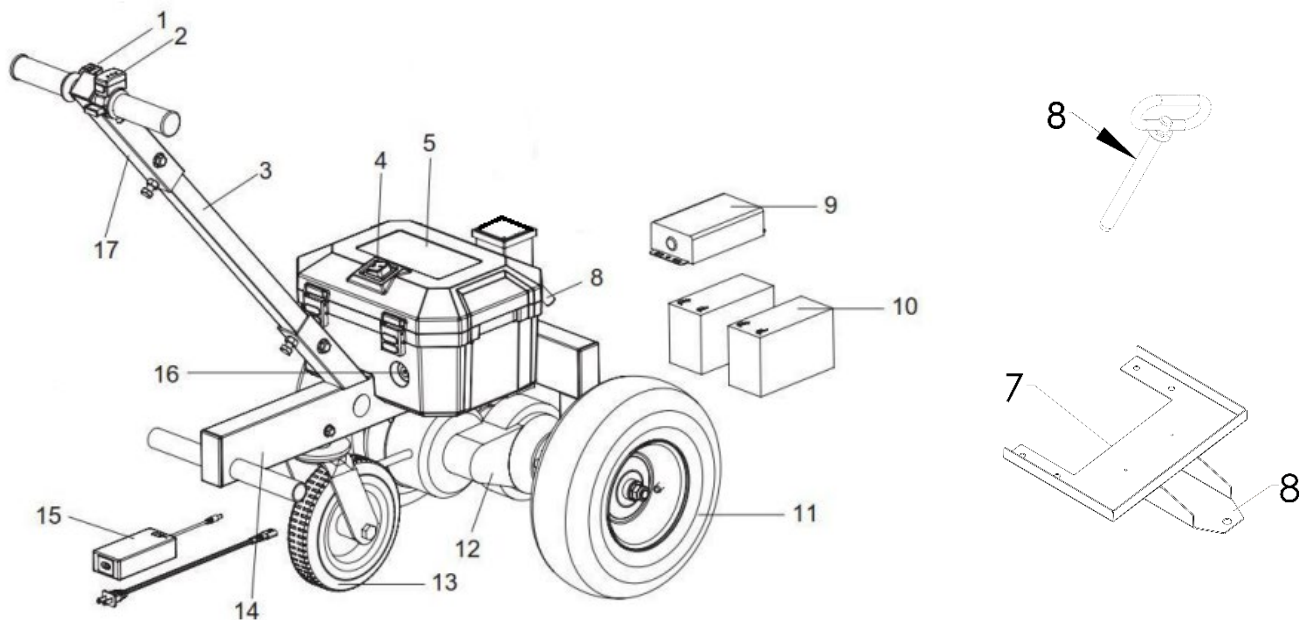
- Stay alert, watch what you are doing and use common sense when using the mule. Do not use the mule while you are tired or under the influence of drugs, alcohol, or medication. Inattention could lead to personal injury or damage to property.
- Be aware that loose clothing, dangling objects, jewelry and long hair could get caught in the moving parts.

Mule Use and Care

- Do not modify the mule in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment and void the warranty.
- Periodically check for damaged or worn-out parts before using the mule. Replace or repair damaged or worn-out parts immediately.
- Do not exceed the mule's load capacity of 600lbs.
- Confirm that tire pressure is at 3-4 PSI.
- Kingsley suggests that the carts be pulled versus pushed by the mule. The steering is much easier and intuitive when performed in such a manner.
- When the mule is not in use, store it in a secure place out of reach of children. Inspect the mule for good working condition prior to storage and before re-use.

Structure and Introductions

1. Switch button – switch forward and reverse.
2. Speed controller – driver with various speed.
3. Connecting rod – Connects the handle to the frame.
4. Power Switch – Start this before use of the mule and shut down after use.
5. Battery Box – Lead acid battery and controller installed inside.
6. Coupler Pin Bracket – Place the coupler pin through this hole before pulling cart.
7. Axle Mount Bracket – The bracket is attached to the axle.
8. Coupler Pin – Coupler pin to connect
9. Motor Controller.
10. Batteries – two 12V – 7AH lead acid battery.
11. Rear Wheel – Drive wheels.
12. Motor Axle – Electric driven axle.
13. Caster Wheel – Rear castor wheel.
14. Main Frame – Support for battery box, motor, axle, and other components.
15. Input 100~240 VAC, Output 28.8V - 2.0A
16. Recharge socket – Connect with the charger to recharge the batteries.
17. Handlebar – For steering, power control, and throttle.



Battery Cable Connection

Electrical schematic diagram

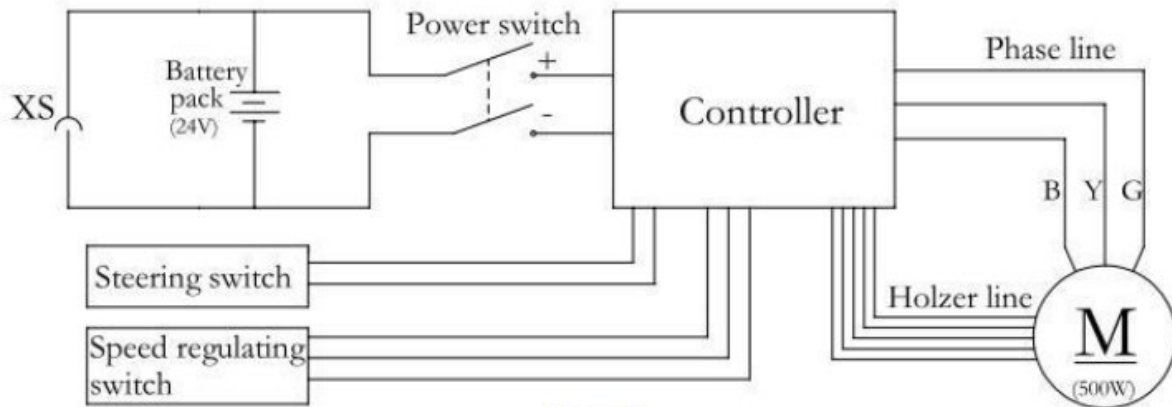
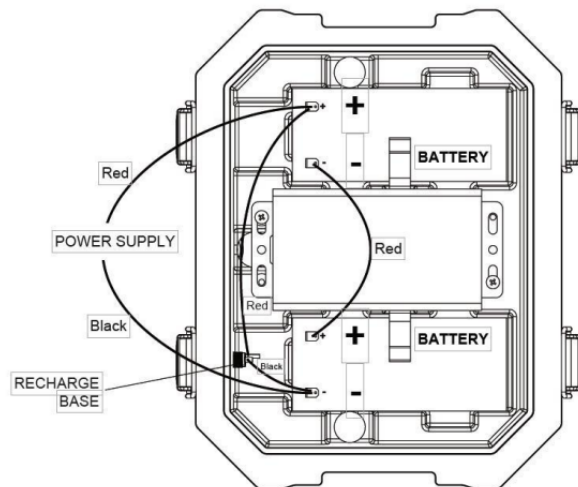


Figure 9

Battery

Caution: Incorrect battery wire connection may cause a short-circuit or fire. It may lead to battery damage, cause a fire, or lead to physical damage.

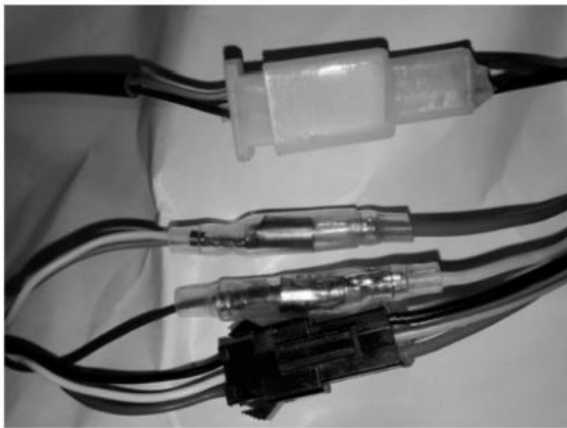


Power Switch Connection

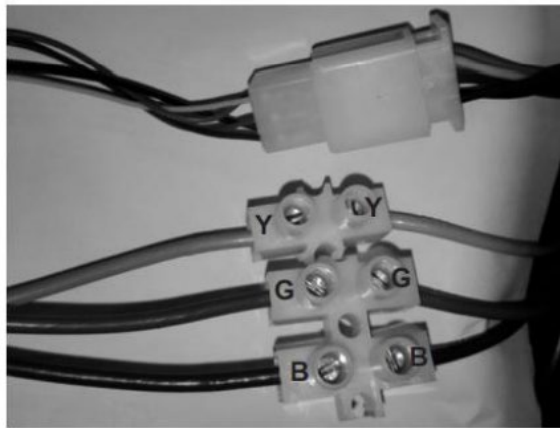
Caution: Incorrect power switch cable connection may cause a short-circuit, it may destroy the battery, cause a fire, or physical danger.



Contol Switch Controller

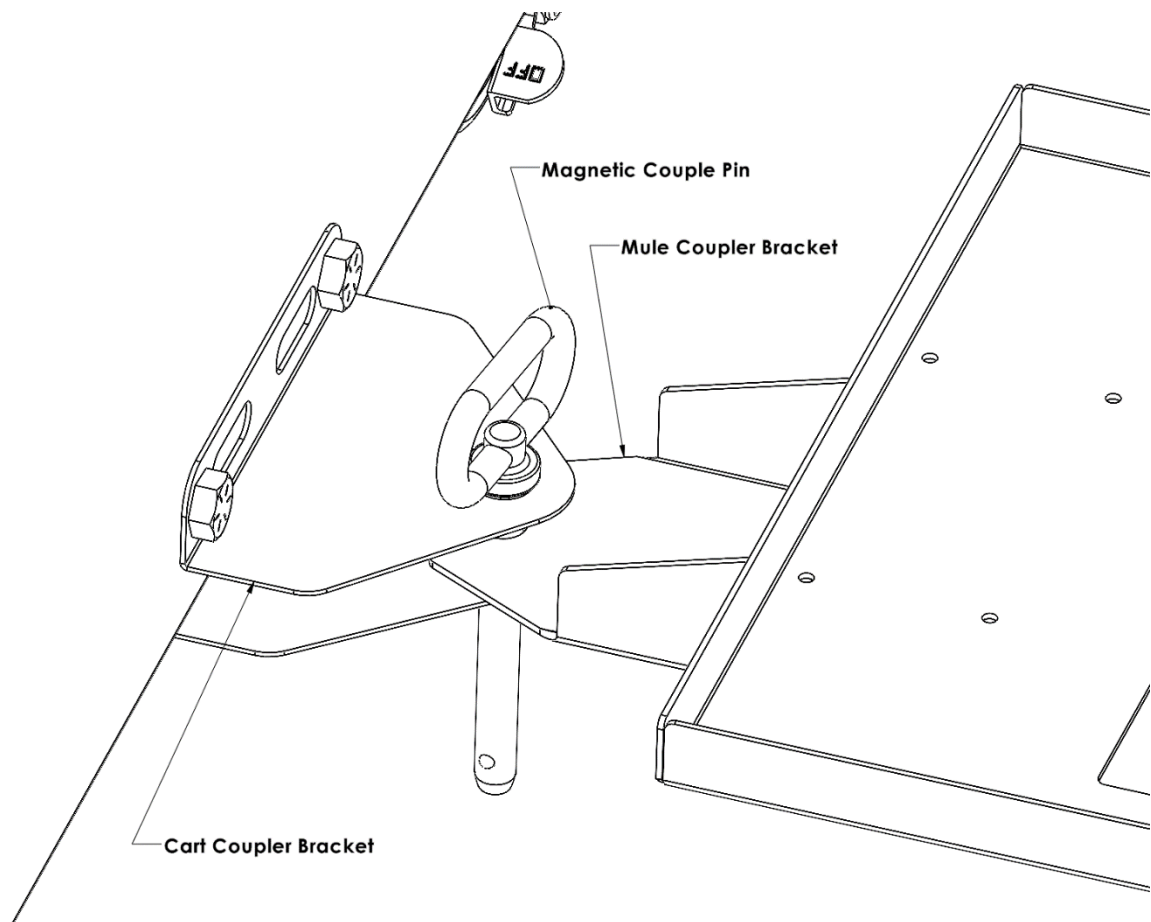


Motor Connection

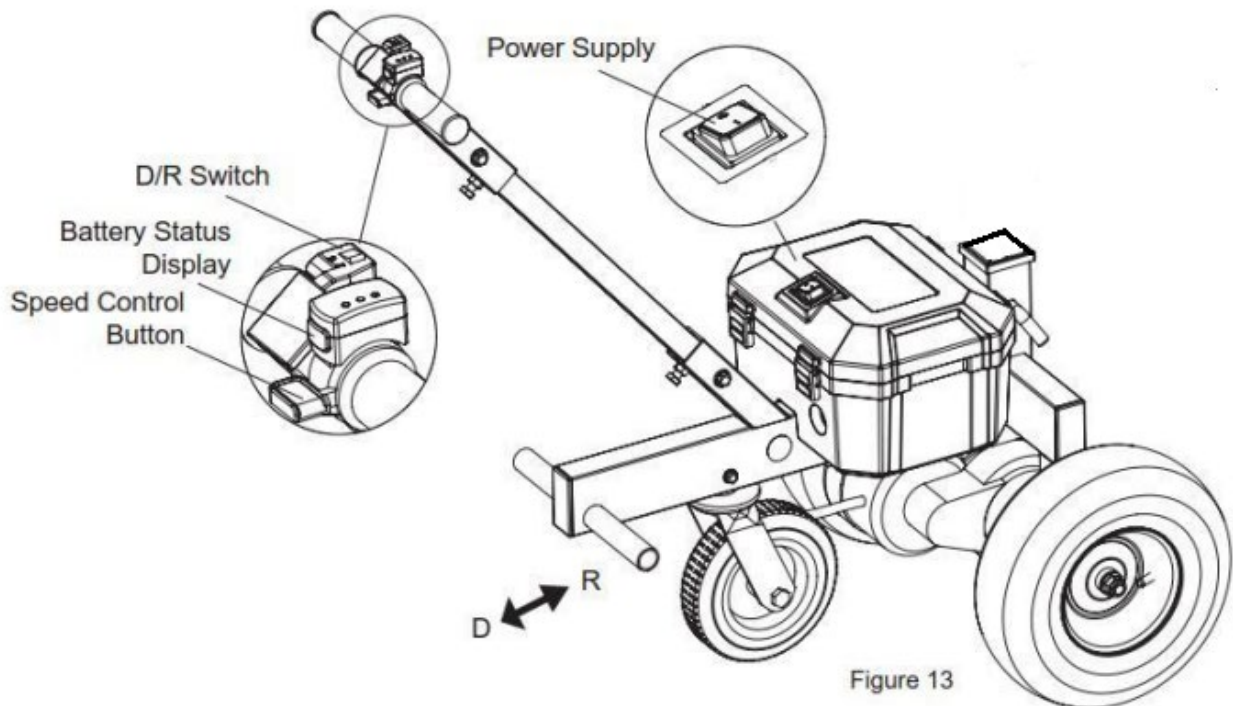


Operation

1. Move the mule close to the cart and align the coupler on the mule to the cart.
2. Place the magnetic pin coupler into the holes as shown below.



3. Switch on the power and speed controller button. Check the battery status. Switch the button into forward or reverse and move the Mule with the speed controller lever. The speed can reach a maximum of 1.5mph.
4. Shut down the power after use. Park the Mule in a safe location. To maximize battery life, recharge the battery within 3 months if not in use.



Overload Protection

The mule is equipped with an overload protection system, it will shut down if overloaded. This will protect the machine. Please do not try to restart when the Mule is overloaded and shut down, please re-start the machine first.

Troubleshooting

Problem	Possible cause	Corrective Action
Mule does not work.	Power shut down.	<ol style="list-style-type: none"> 1. Check the battery status 2. Check the power switch 3. Check the cable connections
Mule stops during use.	<ol style="list-style-type: none"> 1. Batteries are low 	<ol style="list-style-type: none"> 1. Recharge the mule in full.

Maintenance

It is recommended that the general condition of the mule be examined before it is used. Keep the mule in good repair by adopting a program of conscientious repair and maintenance. If any abnormal vibrations or noise occurs, have the problem corrected before further use.

Kingsley Companies Ergo Powered Warranty

All of us at Kingsley appreciate our customers and their needs. The below Mule warranty is our commitment to provide answers to any Warranty concerns you may have. All Kingsley products go through a vigorous Quality Control procedure at every level of manufacture and again at the point of packaging and shipment. Rest assured that with the vast majority of shipments, there will never be a Warranty issue. If one does arise, be assured that every effort will be made to return your Mule to working condition in the shortest time possible.

Exclusions & Limitations to all Warranties herein:

Kingsley uses a “Common Sense” approach to Warranty Exclusions & Limitations.

THIS WARRANTY COVERS ONLY WHAT KINGSLEY HAS MANUFACTURING CONTROL OVER in Design. Manufacture or assembly.

The following is outside our control and resulting damages are not covered under any provision within this Warranty

- Abuse, neglect, or use for other than intended
- Vandalism
- Damage from impact/collision, Accident
- Normal wear & tear
- Natural disasters like hurricanes, hail, tornadoes, excessive winds, earthquakes, etc.
- War or acts of terrorism
- Customer or unapproved Reseller modification of any type voids all Warranties
- Improper operation, maintenance, or storage
- Failure to adhere to the product instructions
- Lack or neglect of needed repair or service
- Exceeding the weight Limit of the unit
- Wear items: Fuses, Tires, Casters

The following parts will be repaired or replaced at our discretion, free of charge, for the following allowable time periods from the date of purchase.

- Five-year limited warranty for structural frame components, metal bracketry, and welds.
- One-year warranty on all electronic parts including controllers, battery chargers, wiring, motor, and controls.
 - Note: an increase in operating noise of the motor/gearbox does not constitute a defect. With normal wear and tear operating noise is expected to increase.
- Six-month warranty on the batteries.