

Operator Instructions for

BOBKART

'G' Model, vault transporter by M.b.R.



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SAFETY WARNINGS:

1. Instructions are necessary before operating or servicing machines. Read and understand the Operation & Maintenance Manual / Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals, and elsewhere, when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.
2. These machines are NOT toys, and they are meant for adult professional use only. They are designed to haul burial vaults only and NOT people.
3. Do NOT use machines in an atmosphere containing explosive gas. The BOBKART is an electric powered machine that uses a 12 volt direct current operating system. A lever at one corner connects and disconnects power to one 12 volt battery, or two 12 volt batteries wired in parrallel (Pos. to Pos. and Neg. to Neg.). A crane type pendant has buttons which are pressed for forward and reverse direction.
4. WARNING: AVOID INJURY OR DEATH When operating the machine: Stay clear by 3 feet, or more from machine during operation.
5. Do NOT put any portion of your body under any part of the machine or the load, at any time.
6. Do not use if BOBKART is damaged, worn out, or in poor condition.
7. Make sure the ramp, planks, or any other surface BOBKART is driven and/or parked on is of more than adequate strength and stability to hold the BOBKART plus the load, plus any additional pressure or forces.
8. All tie-down loops for strapping the load, and chaining to the truck, or trailer should be fully welded. Check before each use for full welds absent of cracks in them and the surrounding areas.
9. As machines age and get used, more frequent inspection is required. The life of machines are limited.
10. Follow all Federal, State, and Local laws and OSHA requirements.

BECOMING FAMILIAR WITH YOUR BOBKART:

1. BOBKART is an electric hauling device designed and intended to transport concrete or metal burial vaults on sod or harder surfaces, on flat or gentle grades of slope.
2. BOBKART uses 1 or 2 automotive or marine type batteries to store power. Two 6 volt in series, or one 12 volt battery, or two 12 volt batteries wired in parrallel (Pos. to Pos. and Neg. to Neg.).
3. BOBKART can be strapped to the burial vault and lifted with the vault by the strap loops. Chain loops can be used to secure the kart and vault to the truck or trailer for transport.
4. BOBKART can be driven off of a truck or trailer with a vault loaded on it by using extreme caution and common sense.

5. BOBKART has lift rollers to raise the vault 1/2 inch for exchanging vaults set on blocks or to unload by rolling off at the cemetery. Tri-pods are usually used to lift the vault off at the point of internment.

MAX. LOAD:

1. The maximum load the BOBKART is designed for is 3000 pounds.
2. The maximum slope that this machine is to be used on is 30 degrees.
3. The maximum climb with a 1 hp option is 30 degrees at 3000 pounds INTERMITTENTLY.
4. BOBKART will NOT do a continuous climb at 30 degrees & 3000 pounds without special gearing.
5. Slower gearing will increase torque and decrease speed.
6. NOTICE: Chain binders will significantly increase the load on the axles and can cause damage if too much tension is put on the tie down chains. Do NOT use cheater pipes on chain binders.

OPERATION:

BATTERIES:

1. **If you have one charge plug hanging out of the battery box you have a 12 volt system.**
2. **Open the battery box by sliding the lid to one end or the other. It will only slide one way. Then lift slightly and slide back the other way to remove it. Once removed, the deck can be lifted off also.**
3. Install one or two batteries and connect such that you will have 12 volts between ground and the red wire to the charge plug.
4. If you are using 2, 12 volt batteries - Connecting POSITIVE to POSITIVE and NEGATIVE to NEGATIVE will keep the same overall voltage as each individual battery. THIS IS PARALLEL. Two 12 volt batteries in Parallel will have 12 volts.
5. Two 6 volt batteries need to be in series to get 12 volts.
6. We recommend that you use only DEEP CYCLE (Marine type) Batteries.
7. You may use **ONE** - OPTIMA Commercial Yellow Top Battery, **Type D31A or D31T.**
www.optimabatteries.com/home 888-8optima (888-867-8462)
8. **Secure batteries tight with clamp and make sure all connections are tight and that no wire will short out.**
9. **Charge batteries in accordance with the Battery Manufacturer's instructions.**
10. **Battery charging may be accomplished by using the extra charge plug included with the BOBKART and wiring it to the truck. This should be wired in such a way that it disconnects when the truck is shut off and should have a CIRCUIT BREAKER such as the kind used with an ELECTRIC WINCH.**
11. **Charging may be done with the master switch on or off. Turn off when BOBKART is not in use.**
12. **In emergencies, a 12 volt extension cord could provide power to the BOBKART.**
13. **Additional charge plugs could be used to operate lights and other accessories off of the BOBKART.**

OPERATION:

LOADING AND TRANSPORTING:

1. The BOBKART has 2 strap points. One is at the bottom of the side of the battery box and the other is on the opposite end of the BOBKART.
Any time a vault is hauled on the BOBKART a strap should be used to tie it on. This is the **FIRST THING** you need to do, and the **LAST THING** to remove before removing the Vault. Check before each use for full welds absent of cracks in strap rods and the surrounding areas.
2. The loops on the frame toward the middle of the rollers are for chaining the BOBKART to your truck or trailer. Check before each use for full welds absent of cracks in loops and the surrounding areas.
3. When placing boards, blocks or other items of spacing below vaults, keep your fingers and thumb to the sides, and **NOT** on top or bottom, such that you will not get them pinched or smashed should the vault suddenly come down.

OPERATION:

CONTROL:

1. After batteries are installed and charged, the master switch must be turned on to operate the BOBKART.
2. A crane type pendant has buttons which are pressed for forward and reverse direction. When looking at the BOBKART control panel the top pendant button should make the BOBKART go away from you, and the bottom one, toward you.
3. When using the BOBKART on inclines it is best to move the vault 6 to 12 inches in the uphill direction and restrap it to transfer the center of gravity upwards.
4. The brake is operated by moving the brake rod, that extends above the battery box, in either direction. Spring tension (adjustable) will return it to center position.
5. Planning should be done prior to use to make the the direction of travel as straight as possible.
6. The BOBKART can be **TURNED** slightly while operating it by pushing on the vault or by using a maneuvering rod that is approximately 1 1/4 inch in diameter and about 4 foot long. Place it in one of the square receptacles beside the battery box.
8. **TURNING the BOBKART** can also be accomplished by making a turning board out of 2 pieces of plywood with formica surface. Cut 2 circles approximately 3 foot in diameter and bolt them together with one bolt in the center. Make sure the Formica sides are together and put some grease between them. A heavily loaded BOBKART will turn easily when driven on to this.
9. A 1 inch rod can be used to operate the **LIFT ROLLERS**. The **LIFT ROLLERS** are designed to be able to turn while in the **UP** position. This can be eliminated by bending the stop tabs or removing the small bolts that stop them from rotating all the way to the deck.

10. When operating over soft or muddy ground, it is advisable to make a roadway out of 3/4 plywood cut to 2 foot by 8 foot pieces, or use 2 plank rows spaced about 2 foot apart, or other roadway material. KEEP MUD OUT OF THE CHAINS.

ADJUSTMENTS:

Brake:

1. Add 5/16 washers under adjusting nut on caliper and adjust so Brake Handle has 3 to 4 inches of movement from center or 7 overall.
2. If brake disc has an excessive amount of wobble, tap lightly and carefully with a small hammer to correct it. Re-Adjust as needed.

ADJUSTMENTS:

Chain:

1. Loosen 1/2 inch bolts (3/4 wrenches) and slide pillow block bearings in or out as needed.
2. Adjust so each chain has 1/4 inch flex from center or 1/2 inch overall.

MAINTENANCE:

EVERY 90 DAYS: Grease bearings, adjust chains, adjust brake, check brake pads for wear, clean battery, check all electrical connections, check all fasteners, oil chains, check all components for wear and replace as needed to guarantee safety.

WARRANTY:

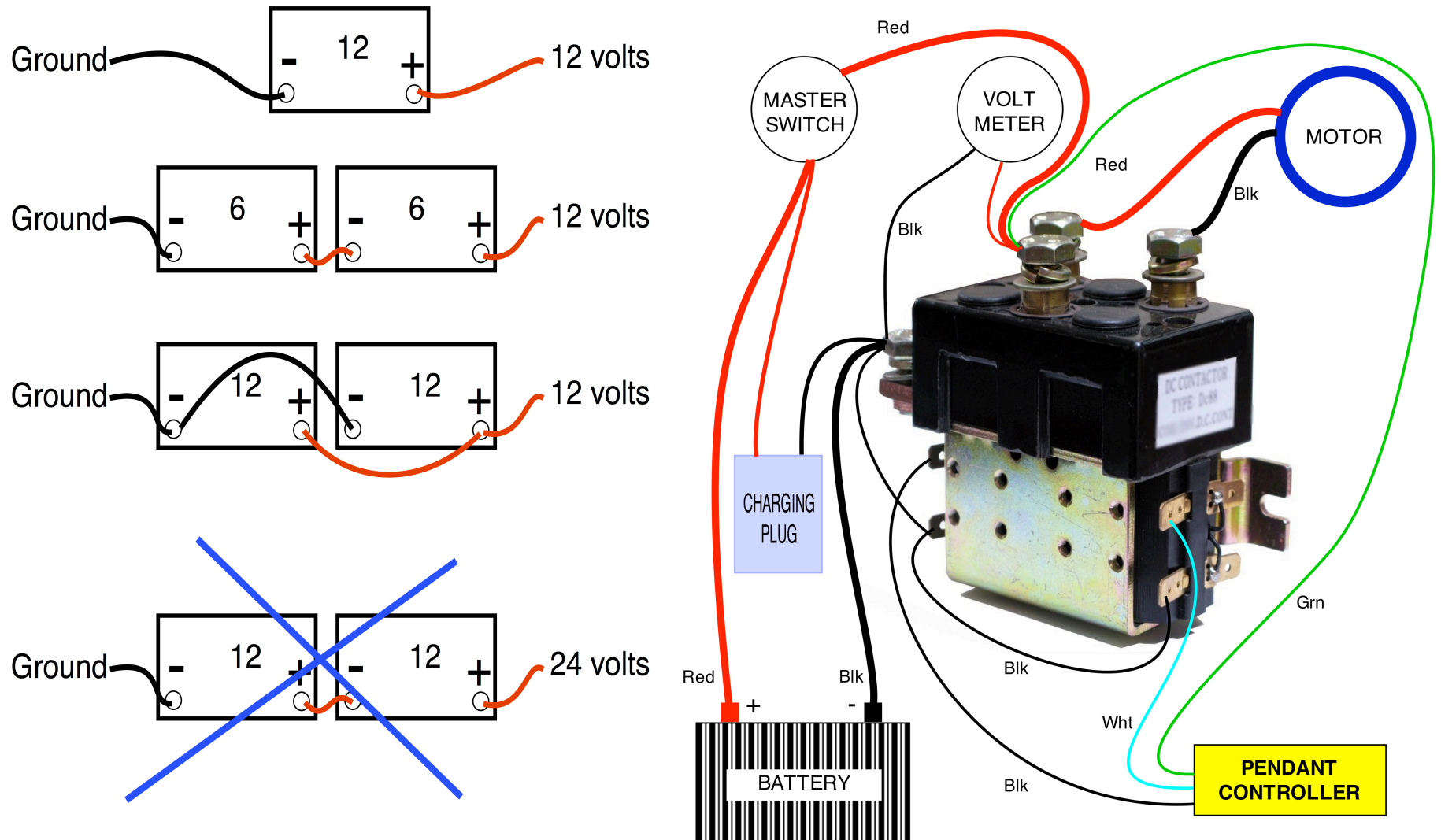
1. M.b.R. , herein referred to as Manufacturer, warrants that the equipment is free from defects in material and workmanship under normal use and service. This limited warranty is effective for a period of **1-year** from the date of original retail purchase (determined by the coded serial number) and applies to metal structure only (excludes finish and applied decals). The provisions of this warranty shall not apply to any equipment which has been subject to misuse, vandalism, negligence, alteration, accident, or improper installation, or which has been repaired outside Manufacturer's place of business in an way as, in the reasonable judgment of Manufacturer, to adversely affect its performance and reliability, nor to normal deterioration due to wear, tear and exposure, corrosion, damage caused by rain, fire, tornado, or other natural causes or acts of nature.
2. Manufacturer's obligation under this warranty is limited to repairing or replacing, at its option, any equipment which is returned to Manufacturer's place of business with return authorization, and which, upon examination, shall disclose to Manufacturer reasonable satisfaction to have been thus defective. Manufacturer will make the repair or replacement of defective parts under this warranty without charge for parts.
3. Purchaser may be responsible to pay the shipping/delivery .
4. The duration of any implied warranty of merchantability or fitness for a particular purpose shall be limited in all respects to the duration of the limited warranty and the warranty described above shall be in lieu of any other express warranty. Some states do not allow limitation on how long an implied warranty will last so the above limitation may not apply to you. Manufacturer neither assumes nor authorizes any other person to assume for it any other liability in connection with Manufacturer.
5. The buyer's sole and exclusive remedy against the Manufacturer shall be for the repair or replacement of defective merchandise as provided above. No other remedy, including but not limited to, incidental or consequential damages for lost profits, lost sales, injury to property, or any other incidental or consequential loss shall be available to him/her. Labor to remove, ship, and/or reinstall is not covered by manufacturer's warranty.

Because some states do not allow the exclusion or limitation of incidental or consequential damages, the above limitation or exclusion may not apply to you. Before using, user shall determine the suitability of the product for its intended use and user assumes all risk and liability whatsoever in connection therewith.

6. Rollers are warranted for 3 YEARS. Manufacturer reserves the right to send individual replacement disks if possible to repair rollers. Warrantee does not include shipping costs.

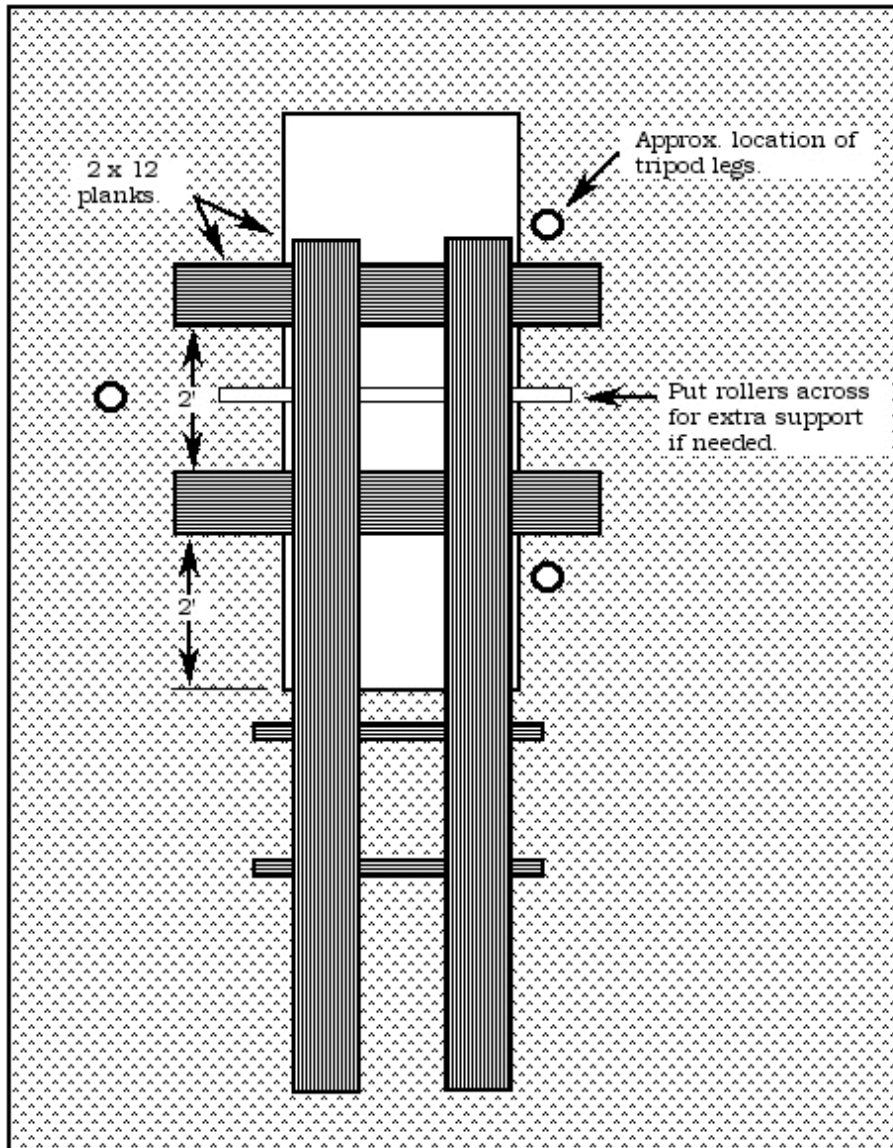
7. This warranty gives you specific legal rights. You may also have other rights, which vary from state-to-state.

All in one Solenoid Used on G models of M.b.R. Bobkarts.
12 volt 200 amp Albright Updated 15-12-21
www.MbRNebraska.com

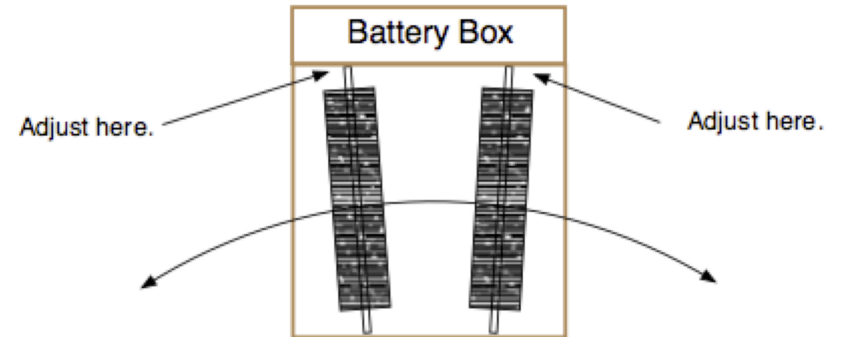


BOBKART is a trademark of M.b.R. a division of Jame Kari LLC, Hebron NE.

Suggested plank and tripod layout:

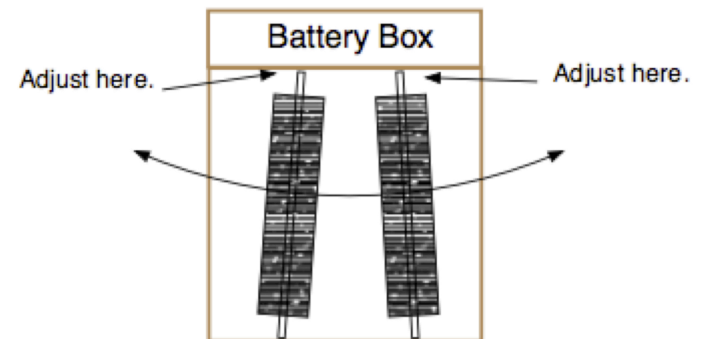


Slide the rollers bearings apart to make it curve away from the battery box.



Keep chains tight on this end, adjust the other end.

Slide the rollers bearings together to make it curve toward the battery box.



Keep chains tight on this end, adjust the other end.

BOBKART roller alignment

11/27/2018

BOBKART BATTERY LIFE

BATTERY LIFE: Battery draw is zero when not moving. Time below is the time in motion.

Worst case: A 1 HP motor can take 140 amps at 12 volts under full / maximum load. (rarely happens)

Best case: On a smooth flat surface the motor will draw only about 20 amps.

An average automotive battery might have a capacity of about 70 amp-hours.

So, if you are drawing 70 amps, then it would last 1 hour. (1/2 hour at 10 degrees outside)

If you have 2 batteries, then it would last 2 hours. (1 hour if it is only 10 degrees outside)

Trojan Battery # SCS225 has 130 Amp-hour rating. Cost is about \$200. (in 2017)

With 2 of them, you would have 260 Amp-hours. At a 70 amp draw, you could go about 3 1/2 hours.

It is rare for a Bobkart to draw over 80 amps.

The solenoids are only rated for 80 amps, but they can take a lot more amps for a short time.

If you are going up ramps on to a truck with vault on the kart and stop. When you hit the button to go up you will probably use 140 amps for 1/2 second, to get things rolling, then about 80 amps the rest of the way up.

COLD WEATHER: When it is 30 degrees out, the battery has 2/3 of its power. At 10 degrees it has 1/2 of it's power.

CHARGE TIME:

If you were getting a charge of 35 amps from the truck while hauling it, it would take 2 hours to charge a completely dead 70 amp battery. If the truck engine is running for close to 2 hours, you should be fine for an average use at the cemetery.

Often times drivers will let the truck run in the winter, during the service, to warm up. This gives the batteries the extra charge they need in the cold weather.

MUDDY CONDITIONS:

In thick heavy mud, it can get into the chains and really drag things down. We recommend that 8 foot planks be placed on the ground to drive on. This keeps the cemetery ground looking nice too. Sometimes they leave them in place for the family to walk on.