

Bin Handling Systems

Increase Productivity & Reduce OH&S Risk

WheelieSafe Electric Bin Handling System

Instructions for Use

Receipt of your WheelieSafe System

Upon receiving your Wheeliesafe System check that all the components of the system are present:

- (a) trolley unit complete with two batteries,
- (b) 240-volt charger,
- (c) two ignition keys, and
- (d) a handling bracket (supplied separately if required)

Assembly

Some minor assembly is required. For transport purposes the trolley shafts have been made in two parts with the top section separated and folded down.

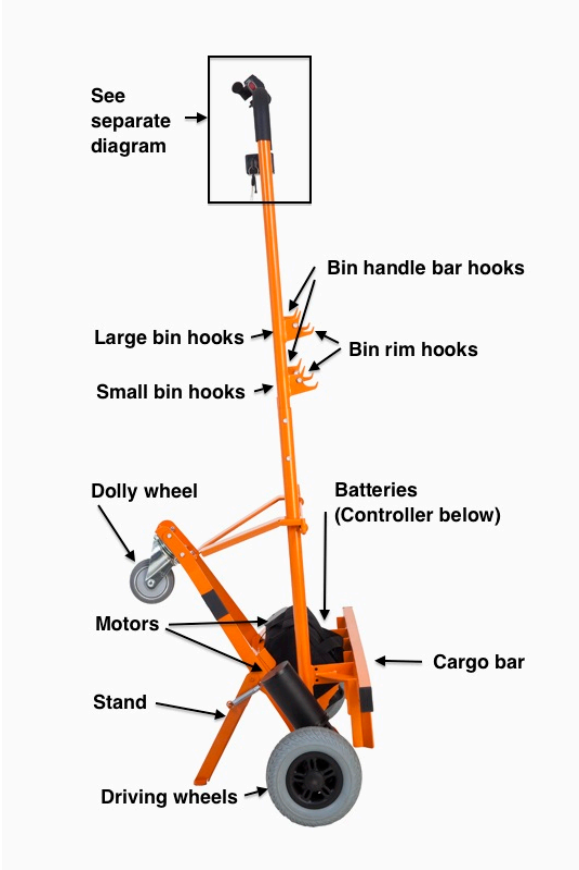
To perform the assembly:

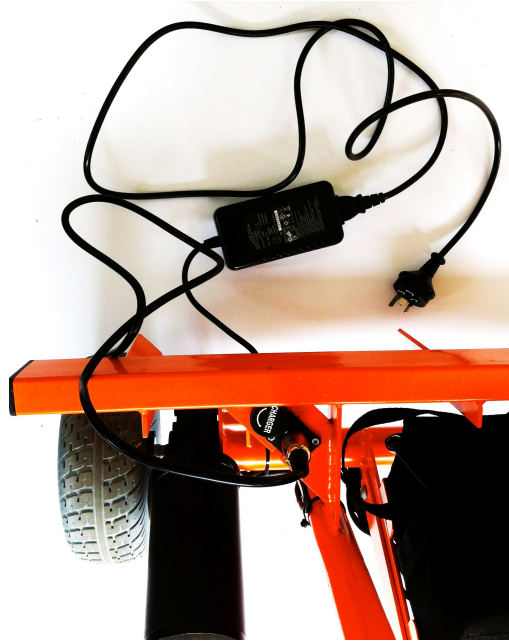
- (a) **carefully** remove the packaging that is protecting the control cable inside the break in the shafts.
- (b) **gently** slide the top section of the shafts inside the bottom section, taking care not to damage the control cable inside.
- (c) fit the bolts provided through both sections and attach the self-tightening nuts **taking care not to over-tighten** them.
- (d) Attach the two struts that connect the trolley shafts to the dolly wheel assembly. (They should lock around the horizontal bar in the process)
- (e) Remove the protective cover from one of the keys and place it in the ignition.

Charging the batteries

Plug the charger into a mains outlet and insert the other cable end into the charging inlet located just above the left hand wheel. (See illustrations below) Make sure the power lead is pushed firmly home in the charger and the charging cable is pushed home firmly into the charging inlet, otherwise the batteries will not charge. A red indicator light will show on the body of the charger. It will remain red whilst the batteries are charging and turn green when the process is complete. **Regardless of whether a green light appears, leave the charger on for 24 hours before the trolley is used to ensure it is fully charged. The trolley should be placed on the charger when not in use to ensure that the batteries remain fully charged.** It is not possible to overcharge the batteries.

WheelieSafe Electric Components & Controls





The left hand illustration above shows the location of the charging inlet adjacent to the left hand motor. The right hand illustration shows the charger plugged into the charging inlet ready to be connected to mains power.

When inserting the charging plug into the inlet ensure that the prongs in the charging plug are correctly aligned with the orifices in the charging inlet.

The indicator light on the battery condition gauge on the handle bar will glow green when the ignition key is turned to on.

Be sure to turn the ignition switch off when the trolley is not in use, otherwise the batteries will discharge. **The trolley should be placed on the charger when not in use to ensure that the batteries remain fully charged.** Disconnect the charger if the trolley is not going to be used for an extended period (say, three months), but be sure to charge it for 24 hours before using after a prolonged period off the charger.

SAFETY NOTICE – Must be read prior to use

- **The WheelieSafe Electric trolley must not be used to handle a single bin exceeding the total weight of 100kg.**
- When handling heavy loads take care when lowering bin to the ground and reversing the trolley. Uncontrolled disengagement of the trolley from the bin can cause the trolley to roll back suddenly striking the user's legs. **Stand to one side before engaging reverse and pressing the throttle.**

- When handling multiple bins the bins must be only moderately laden or empty (i.e. the total combined weight not exceeding 60kg)
- The trolley must not be used on inclines of greater than 25%.

The Hook System

Two sets of loading hooks are provided – an upper set and a lower set. The lower set is designed for loading small (eg: 120 litre, 140 litre) bins and the upper hooks for loading 240 litre and some 360 litre bins.

Each set of hooks is made up of a right and left hand combination hook, which has a forward hook and a hook located closer to the shafts of the trolley and above the forward hook. The two most forward hooks are used when picking up a bin from the side or the front of a bin and are designed to fit under the side or front lip of the bin to temporarily re-locate it if that is necessary. The inner hooks adjacent to the trolley shafts are employed to pick up the bin using the bin's handlebar and will be employed when the bin, or bins, are to be moved some distance.

The following instructions should be read in conjunction with viewing the demonstration video which is on the WheelieSafe website

(<http://wheeliesafe.com.au> or the YouTube link
http://www.youtube.com/watch?v=f_uqJpfW2E4

This video shows the loading procedure using a manual trolley but the process is the same using the electric version except that there is no manual brake to hold the trolley while the operator pulls backwards to load the bins. With the electric model the unit is simply driven forward whilst restraining the top of the shafts. For those unable to avail themselves of the YouTube link, the following written instructions are provided:

Loading a Single Bin

For regular use load the bin from the rear, using the bin's normal handlebar. A single bin can be loaded from side edges, the front edge, or using the bin's handlebar. Generally, loading from either side or the front will only be employed to move the bin into a position where it can be loaded using the handlebar.

To Load a Bin

Stop the trolley about 300mm short of the bin. Incline the trolley forward at a sufficient angle to allow the inner hooks to locate under the bin's handlebar. Drive the trolley forward gently until the hooks on the shaft engage with the handle bar of the bin. Now exert a backwards pressure on the handle bar of the trolley whilst continuing to drive the trolley forward. As you pull back on the trolley handle bar the bin will be raised and come to rest against the trolley Cargo Bar.

Manoeuvring the Trolley

If the bin and trolley need to be temporarily reversed, select 'S' (for 'Slow') on the Fast/Slow switch and 'R' (for 'Reverse') on the Forward/Reverse rocker switch.

Ensure your way backwards is clear before pressing on the throttle control. Press gently on the throttle control to ease the loaded trolley backwards, turning if necessary to provide a clear way forward. When the way ahead is clear select 'F' (for 'Forward') on the Direction Control. Select the speed appropriate to the task on the Speed Selector.

To Unload a Single Bin

Bring the loaded trolley to a halt by releasing the throttle trigger. Tilt the trolley forward until the leading edge of the bin touches the ground. Select 'R' (for 'Reverse') on the Forward/Reverse rocker switch and 'S' (for 'Slow') on the Fast/Slow rocker switch. Ensure your way backwards is clear. **Stand to one side before engaging reverse and pressing the throttle.** Restrain the trolley handle bar whilst pressing gently on the throttle trigger. The trolley will move backwards allowing the bin to come fully to rest on the ground and the trolley to disengage from the bin.

Loading Two Bins Piggyback

In order to negotiate narrow gate or doorways, two empty or lightly loaded bins may be loaded piggy back. Load the heaviest or largest bin as described above. Place the handling bracket across the front lip of the loaded bin and move the loaded bin so that the bracket is located under the handle bar of the second bin. Tilt the trolley backwards and drive it forwards as described above and the handling bracket will pick up the handle of the second bin, loading it.

Loading Two Bins Abreast

Place the two bins side by side with their inside wheels cheek to cheek. With two even sized bins place the handling bracket across the **front inside corners** of the bins. Apply the trolley as described above except that the trolley hooks should be located so that they pick up the inside end of each of the bins' handlebars. This should be done so that the horizontal Bin Retaining Pillars on the inside face of the hook assembly locate adjacent to the inside face of the bin handle bar bracket. This prevents unevenly loaded bins from sliding sideways during operation. (See Illustration below)



When bins of equal or unequal size place the smaller bin slightly behind the larger bin. The larger bins should be loaded on the top hook closest to the shaft and the smaller bin on the lower hook closest to the shaft. When the bins are loaded the Bin Retaining Pillars will locate against the face of the bin handle bar bracket as shown. The pillars are of different lengths to accommodate different sized bins.

Loading Three Bins

With the handling bracket located as described above present the two loaded bins to a third bin until the bracket hook is located beneath the handlebar of the third bin. Drive the trolley forward and pull back on the trolley handlebar until the bracket locates under the handlebar of the third bin. Keep pulling the trolley handlebar back until the third bin lifts clear of the ground. It is only possible to carry three empty or lightly-laden bins.

Braking

The gearing of the worm drives and the ability to provide a small amount of throttle will normally brake to load if it is necessary to stop while proceeding up a slope. Should this be insufficient the throttle should be released and the load allowed to move backwards. After a short distance the emergency brake will operate to stop the trolley until it is possible to resume the journey.

Stowing the Handling Bracket

The handling bracket can be stowed on the horizontal bar that runs horizontally across the trolley shafts about 400 mm above the drive wheels.

Stowing the Trolley

The trolley will free-stand using the kickstand provided. Using the stand considerably reduces the space occupied by the trolley when it is not in use.

Lubrication

The trolley bearings are sealed and do not require regular lubrication.

Appropriate Loading

The trolley should not be overloaded. The combined weight of the loaded trolley must not exceed 129 kgs.

Tyres

Ensure that the tyres are maintained at the appropriate pressure (30 lbs/sq.in or 207 KPA).

General Maintenance

The tyre treads should be kept free of detritus as far as possible. Clogged treads may affect the grip the drive wheels are able to obtain on a wet surface.

The trolley frame and the handling bracket are powder coated and should remain rust-free indefinitely. Nevertheless, it is advisable to keep them clean as dirt may contain corrosive elements that will attack the finish.

If you have ANY questions regarding the safe and efficient use of the WheelieSafe Trolley please email the manufacturer at: info@wheeliesafe.com.au

Loading One Heavy Bin

When handling bins weighing over 60kg care must be taken to reduce the strain to the user's back, shoulders and neck. Loads over 60kg require the balance point of the trolley to be below 912mm (the average safe handling height for males and females*). The swivel castor assembly has been specifically designed to reduce strain when handling such heavy loads by limiting the handle height to 912mm.

Uncontrolled disengagement of a heavy bin from the trolley can cause the trolley to roll back suddenly and strike the users legs. To remove the bin, stop the trolley and lower the bin until it touches the ground. Care should be taken when lowering the load. **Stand to one side as directed above.**

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- 912mm is the mid point between the male and female 5th percentile of elbow height in standing – tables drawn from Stevenson MG, 2000, Notes on the Principles of Ergonomics.