THE ARK USER MANUAL.

The manuals will explain all equipment provided, their use, the securing for transport, as well as methods of placing the container.

The full 'manual' package consists of a general manual (this one) and then a number of separate manuals on individual items.

The existence of a manual in itself will not make the use of equipment, or an activity, safe. It is the responsibility of the user to apply this information sensibly and measured, and in relation to the user's specific activity with the Ark. Good planning and preparation of your project is essential. Every user needs to create a risk assessment and safe operations manual related to their specific activity or project, prior to signing of the 'User contract'. We can help you with this planning and the risk assessment and we will check the content of the Ark with you, to help see if all eventualities are covered for your activity.

The General manual:

- Open the Ark, General Layout and Storage: *page1-9*
- Moving and Placing of the container: page
- First aid, Fire extinguisher and housekeeping
- General set-up: ladder, whirly bird, workbench
- Running electrical cables, the use of cable trays

Separate Manuals:

- The electrical system and solar
- Winch-ups and Trussing
- Tarpaulin roofs

1. OPENING, GENERAL LAYOUT, STORAGE and INSPECTION OF CONTENT.

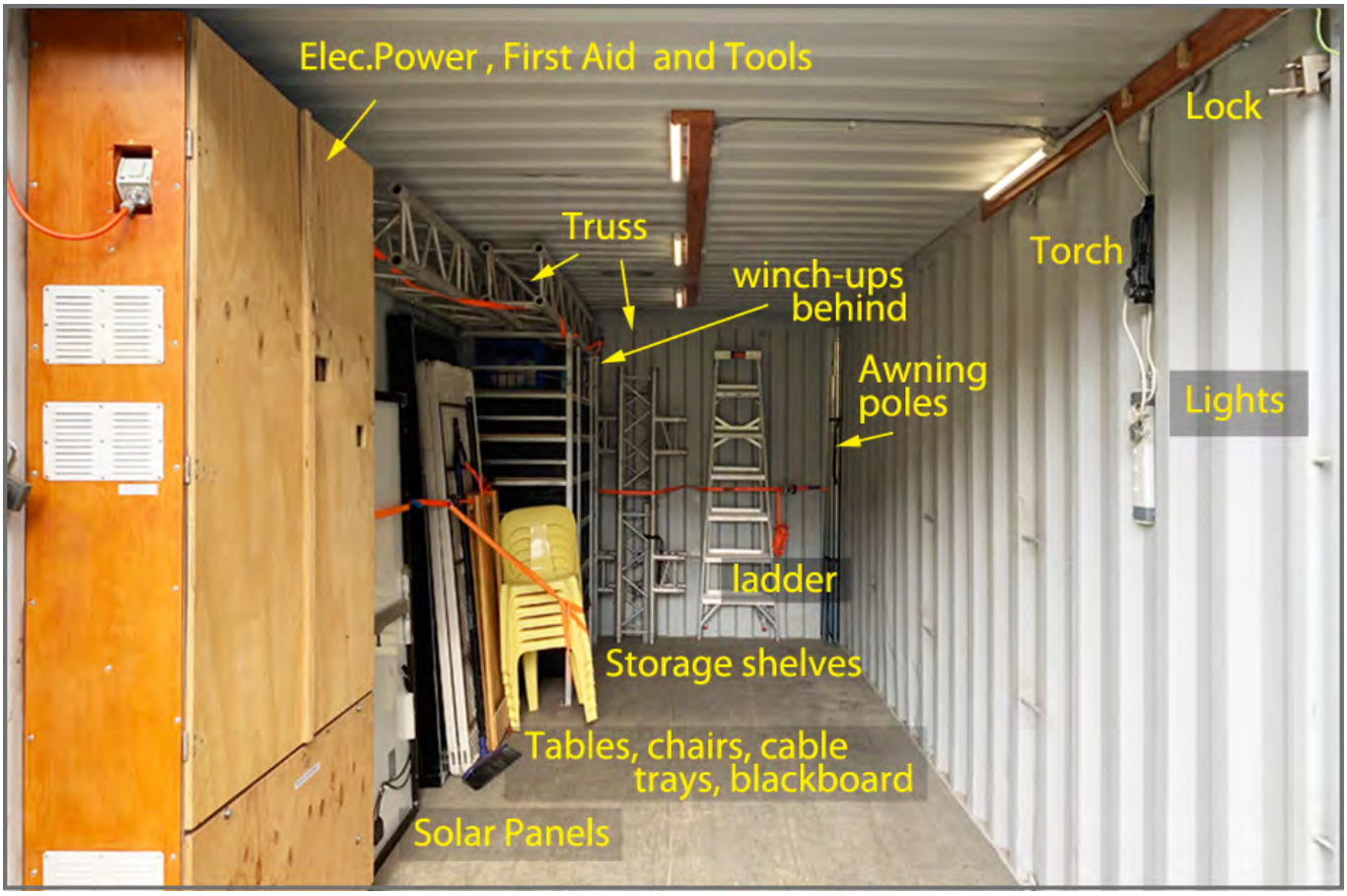
The ark comes with a set of keys; 3 the same keys to open the container and 1 key for the electrical cupboard.

OPENING THE CONTAINER: Unlock and remove the padlock. Open the *right* door by pulling on both handles. Repeat this to open the left door. For safekeeping, place the lock on the inside of the container over a tie-off bar, directly behind the right door, top right (see image). Take care on opening; objects may have moved and be pressing against the inside of the doors.

NOTE: In windy conditions and when in use for long periods, open doors fully, back against the sides and hook the ties on the door's corners to hooks on the sides.

GENERAL LAY OUT. 'What's-in-the-Box' is seen in the image below.

It is possible to deliver the Ark empty, if the user so wishes. Even the steel shelving can be taken out. This version requires some work though: the user may need to provide external storage and staff to implement the transition.



Immediately inside to the left is the **electrical cupboard**, with inverter, fuse box, power connectors and batteries. As well as the **First Aid Kit** and **a set of tools** and spare nuts and bolts.
Next to that are the 4 x 270 Watt **solar panels**.

Next again are **three tables**: 2 folding tables and one workbench. For that workbench here are two sets of legs: one set for a 90 cm high table and one set for a 40 cm high stage rostrum with 1 step. There are **6 chairs**.

The 4 x 1m **heavy traffic cable trays** are stored behind the tables

Last against the left wall is a steel **shelving unit** with storage crates and loose items:

- Solar panel charging cables
- Power cables and power boards
- Ropes and ratchet straps.
- Star picket pegs and Hammer
- Steel components for the winch ups
- Fire extinguisher
- The whirly bird for ventilation
- Bin and cleaning materials
- A 25 l. insulated water container on wheels
- Safety helmets
- Tarpaulins
- Spare parts and Manuals

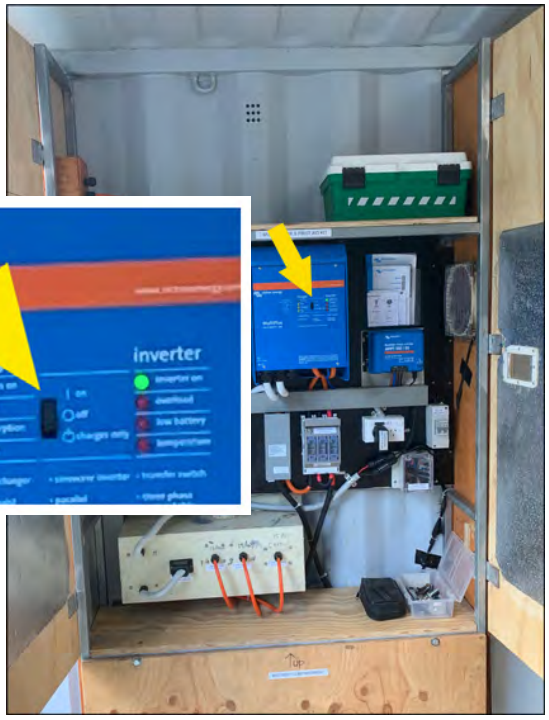
In the left back corner, tucked away, are two **winch-ups** for lights or sound.

On top of the shelving unit and against the back wall are **lighting truss** components. A number of different configurations are possible for lighting and video projection.

Against the back wall more truss and a 2.1 m tall **A-frame ladder**, convertible to a 3.9 m straight one.

In the right back corner there is a bundle of steel **Awning poles** for both tarpaulin roofs.

The first thing to do <u>on entering</u> is to switch the lights on and have excess to tools.



Open the right door of the electrical cupboard by pressing against it (near the lock) while turning the key. Directly in front of you are: **240 Volt/2000 W inverter** (blue), **fuse box** and **power sockets**. The **First Aid Kit** is on the top shelf. A **little Toolkit** with essential bolts, tools and spare parts is on the bottom shelf, as well as an electricity **multi meter**. Below and behind the bolted plywood panel are the batteries. These do not need to be accessed by the user.

<u>LIGHTS.</u> The last chapter in this manual is on using electricity and a separate manual discusses charging and solar panels. For now it is important to just switch the inverter on so that the lights can be used. Press the top of the black toggle switch to ON and in 4 seconds a green LED should light up. The inverter is now supplying 240 Volts. The switches for lights are on the power board directly opposite, against the right wall.

The key for this cupboard can be taken out and kept from public use. Items of value, like ticket sales and personal belongings can then be locked away on the top shelf.

<u>STORING, PACKING and LASHING FOR TRANSPORT</u>. While taking you on a tour past all components of the ARK, the method of storing and securing for transport is explained. The Ark comes with a number of straps to tie down loads. We can demonstrate their use on that tour.

<u>NOTE</u>. To save on space, items need to be stored things upright and as hard up against the walls as possible. It does mean that items could be unstable when just standing unsecured. Some items therefore still need to be lashed to the walls even when not preparing for transport.

<u>SOLAR PANELS</u>. The Ark comes with 4 x 270 Watt panels. Careful handling with 2 people is compulsory. Each panel weighs 15 kg. Each panel has its own stand to adjust the angle to sun's position, both according to the season and time in the day in. Loose cables and chains must be tucked away neatly in their own frame, using the little foam blocks provided. Their use will be explained in detailed in the separate manual on all aspects of electrical power.

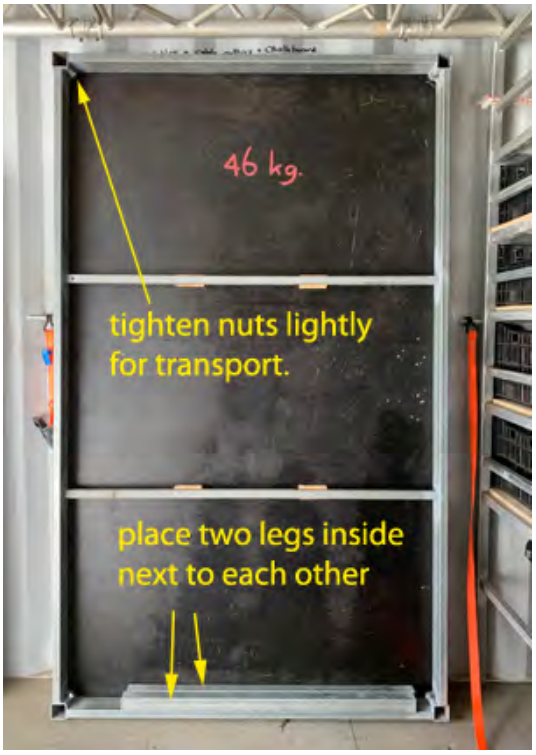
Their fixed spot in the container is directly to the right of the electrical cupboard. The image without the panels shows the

prepared ratchet strap and the wooden block screwed to the floor. This block is to make the panels are always lean into the wall and not fall forward. The panels are placed with the solar cells facing the wall. The first 2 are pushed against the steel flap on the left and hard up against the wooden block on the floor. The remaining panels should then be stacked neatly against the other with no gaps between them, top and bottom. Make sure that the ratchet buckle is not jammed between the cupboard and panels. You can gently kick each panel hard up against each other. Then tie the panels off.

TABLES, CHAIRS, CABLE TRAYS and BLACK BOARD A-FRAME.

The main item here is the workbench/stage rostrum. It comes with two sets of legs for two heights. The 900 mm legs are stored here while the 400 mm legs are in one of the crates.

Prepare the ratchet straps as shown and place 1 of the legs in the corner between the floor and wall. Then stand the 4 cable trays upright, with the bottoms against the steel leg and the tops snug in the corrugations of the wall. Then place another leg against the cable trays on the floor. Kick these tight against each other, into the wall. Then stand the Workbench upright, with the topside facing the wall, against the 2nd steel leg. Please note, it weights 46 kg and handling with two people is essential.



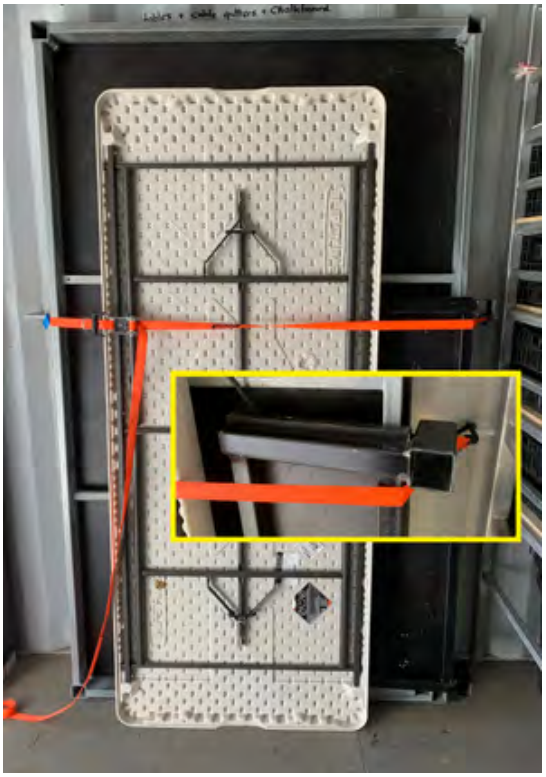
Kick against the bottom to get it really tight. NOTE; with the steel legs on the floor, the workbench top should now be leaning into the wall and not fall towards you. Test this and have someone hold the table if necessary, until it is secured. Then place the remaining 2 legs in the inside of the table frame, one before the other.

See the images in the next page for the following steps

Next, place the step of the table, upright on top of the legs, with the top of the step facing the wall and both corner tubes outside of the table frame. The strap on the right should now be lower then the top corner tube (see inset). Then lean the two folding tables against the workbench, next to and touching the step. Now lock off the whole stack with the ratchet strap.

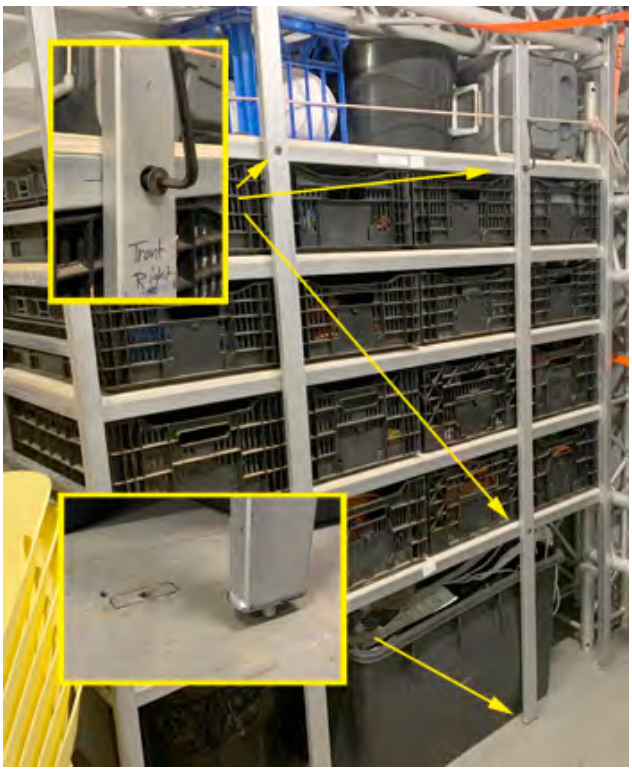
Place the blackboard A-frame against both the step and the folding tables. Then feed the remainder of the ratchet strap through the hinges of the legs and tie off to anything you can find. Then place the

stack of chairs in the corner between the blackboard and the storage shelves and tie off with a separate nylon strap or rope. The broom can be stored here to.



THE SHELVING UNIT: Top shelf, Crate shelves and Floor space. Several crates are empty for your use.

The crates can be pulled out fully or partially. In the latter case they can be dropped forward and 'hooked' behind the shelf above, without them falling out. In this way several crates can be pulled open for inspection and to move content from one to another.
The crates need to be locked in place for transport.



Use the 2 steel posts as shown in the right image. First check which post goes where and which side needs to be facing you, indicated on the posts as 'Front Right' or 'Front Left'. Take one and insert the pin at the bottom of the post in the hole in the floor.

The holes in the post should now line up nicely with the holes in the unit. Use the countersunk bolts and hexagonal Allan key to fix the posts in place. (Store the bolts in the little toolbox in the electrical cupboard, while the posts are stored upright with the other posts in the back right corner.)

The posts also block the Top shelf and Floor space. It is likely though that those items still need to be secured with a rope or ratchet strap. In the image only the top items are secured. Those items shown, fit perfectly in that space. They are from left to right: a milk crate, a tub with the whirly bird (to be mounted on the roof), and the 25 litre water cooler on wheels. In the floor space you will find a waste bin with liner and lid and a big black crate for random loose items that do not fit in the crates.

WINCH-UPS, TRUSSES, and LADDER

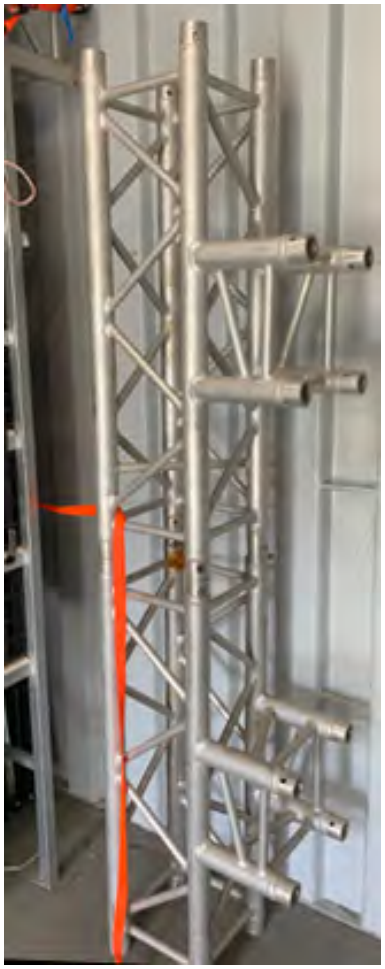
The 2 winch-ups are foldable tripods that can be used for lights and sound. They are quite heavy (25 kg) and cumbersome to handle. Handle with 2 people and watch your fingers. When folded in for storage they also do not stand securely on their own. The corner where they are stored, between the shelving unit and the back wall, is a secure place for them. How they are folded in will be explained in the *Winch-up and Trussing manual*

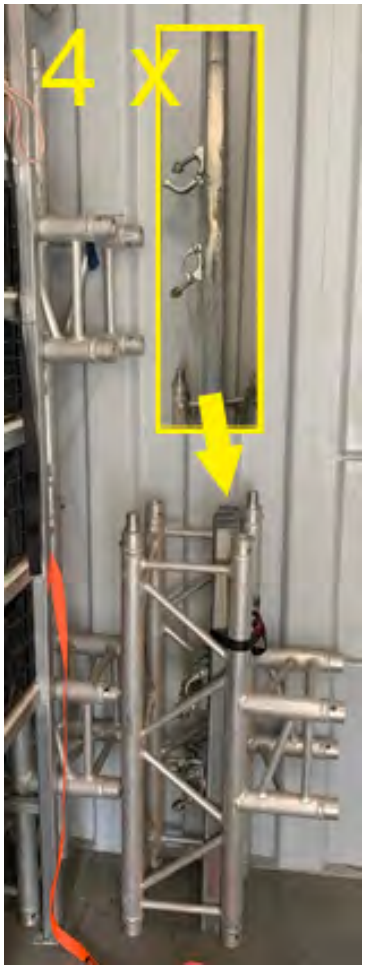
1. Prepare the lashing as shown in the 2nd image below. Once the winch-ups are stowed in the corner, it is hard to get to those lashing points. The blue one is to hold the winch-up in the corner. The orange one is for trussing and the ladder.

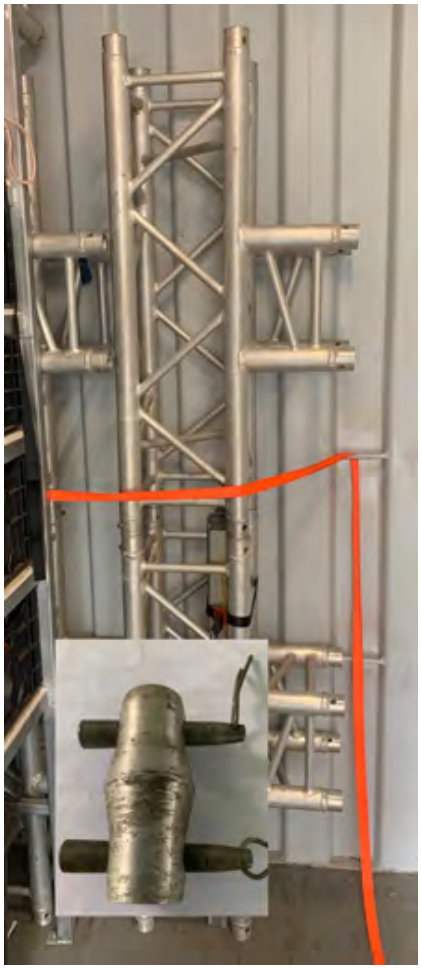
2. Place the 1st tripod against the wall with the winch handle facing you and leaning into the shelving unit. (Please note how the handle itself is hanging vertically down.)
3. Than stand the 2nd against the 1st, with the handle now facing away and the winch leaning into the back wall. Make sure to wriggle it in its tightest and best fitting spot and that it is standing vertical.

4. Tie both units together as shown above. Do not overdo it and pull it off the vertical again.

Now stand a section of truss, shown in the 1st images below, against them. This piece is actually 2 of the T sections connected together. This connecting will be explained also in the *Winch-up and Trussing manual.* Before sliding the truss in its place, feed the ratchet strap through the truss at the same height as its lashing point. Once in place, tie it off with the remainder of the blue strap used for the winch-ups.







Then place a third T section against it, as shown in the 2nd image above. Find the 4 heavy steel pipes with scaffolding couplings attached (see truss manual), drop them into the centre and tie them off to the T truss itself.
In order to then place the 4th T section on top of the 3rd, you need to have at least 2 of the aluminium truss connectors fitted to the ends of the bottom T truss (see inset 3rd image. How they are fitted will be explained in the truss manual). Now continue wrapping the strap around that stack and feed through the lashing point in the middle of the back wall.
Last for this pack is the ladder. Place the ladder against the wall with the shortest leg against the wall so it leans into the wall instead of falling back in the space. If you are using the ladder for something during your project but not the truss, then it is important to secure the truss on itself by finish the lashing directly to the lashing point in the middle of the back wall.

The Awning Poles. The Ark comes with two awnings using: tarpaulins, pegs, guywires and steel poles. Those poles are stored upright and lashed in the back right corner. There you can also store and tie off the steel posts used to secure the crates in the shelving unit used for transport only. Those poles can be dangerous just leaning against the walls on their own.

Two straps are tied of to the corner lashing points and should remain there for that purpose. There is still space on the lashing points behind for other ratchet straps

LONG TRUSS STORAGE.

The final item to be stored is the remainder of the truss. It lives on top of the shelving unit. There is a 4 m piece, made up of 4 x 1m sections, and a single 3 m piece.

Step 1. Place the 4 m. section on top of the unit first. Do not push it all the way to the back wall. Instead, only push it till the end touches the lashing point in the top of the corner. The reason is that the truss needs to sit hard up against the sidewall.

More then half of the 4m is sticking out to the left of the shelving unit. It wants to be tipping down but can't because the ceiling holds down the other end. It will be rectified once the ratchet strap is in place. Prepare a 6 m. ratchet straps as shown in the image below.

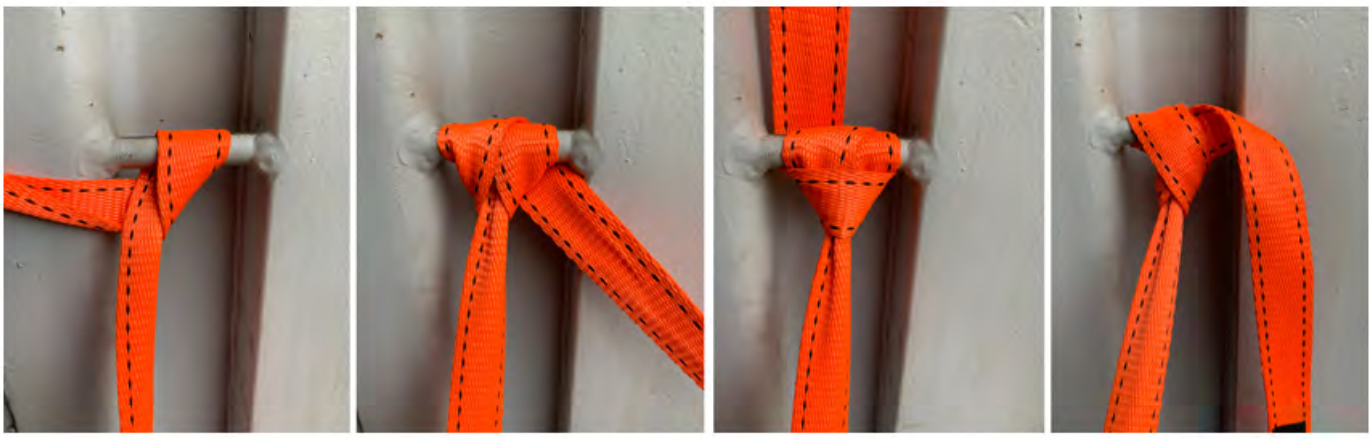
Step 2. Lay the 3m section on top of the unit in front of the 4 m section, with the end touching the wall.

3. Once in place, drop the square steel pipe (#1) into the hollow right vertical of the shelving unit, then tighten the bolt; (#2). The ratchet strap should then go past the front of the steel pipe (#3). The pipe has a welded lip to hold down the truss. Line up the arrows. The other vertical does not need a pipe.

4. The ratchet strap path through the truss. At point A feed *through* the centre and bottom of the truss (not behind) and then back up through the bottom of the 3m truss. This will lift up the 4m truss. Come out around the tube, then *through* the shelving unit's frame and then around the front of the tube again. This will push the 3m truss back. Then finish off as per #3 above.

ABOUT STORING, LASHING and TYING OFF.

- It is important to place things upright when possible, as that take up less space.
- When object could be falling back into the space, then they must be held there by a person until it is secured.
- Do not leave a gap between the bottom of an object and the wall when lashing it. During transport it could bounce up repeatedly and slowly creep to the wall after all. The ratchet could then loosen and drop down. Use a block of wood or shorter objects to bridge the gap.
- There are plenty of lashing points throughout the container. In the image with the ladder you can see a lashing eye near the ceiling, similar eyes are in the floor corners, while bars can be found in the corners as well as in the middle of the wall.
- As mentioned before, make sure to let YouTube teach you 'how to use a ratchet strap'.
- All ratchet straps have hooks. But sometimes you still need to make a knot. Try to wind the rope or strap, around itself a few times before finishing off with a knot. If you make a knot immediately, the full tension in the rope could tighten a knot so much that it cannot be undone, and will need to be cut. See these images below.
- CM members could potentially help you pack the Ark before the first transport.



2. MOVING AND PLACING THE CONTAINER.

This can be a complex operation depending on a number of situations. We are happy to help you work this out.

An empty 6 m. shipping container weighs about 2400 kg. The Ark with its standard equipment weighs about 3100 kg. You need to make an educated guess on its total weight after loading up any additional equipment you bring.

There are 2 ways of moving a container; a flat bed tilt tray truck, or, a side loader.

The tilt tray truck is the cheaper option. We regularly use a transport company with a slightly bigger truck suitable for up to 6 ton loads, operating from the Byron Bay light industrial area. Generally a return transport within the Byron Shire will be between $ 360 and $ 450. Sometimes, in tight spots, a side loader or even a crane is needed.
You need to communicate the following information to your transport company:

- The total estimated weight. (see above)
- The height of the container; A standard box (2.59 m) plus welded air-vent on top; **2.730 m**.
- The final position (address or coordinates). Provide images of the site and the access from the road. Include height restrictions like trees, and access variations like occupied parking bays.
- Organise a time of delivery and make sure you are there to receive it.
- Have the Ark's box of wooden blocks with you and mark out the exact spot (see below).

The transporter can find all access issues on public roads through Google Erth, but probably not the specifics of your site. In some cases they need to perform a site visit prior to delivery. The sooner and the more information you can provide, the bigger the chance that it is not needed, making it cheaper for you.

CHOOSE A SPOT. On your site, what are some of the things to consider?

- The container has a Whirly Bird air vent, but still, you may want to choose a shady spot.
- Orientate the Ark for easy access for whatever project you are doing. Please note; the Ark comes with a rainproof/shade roof, to be attached to either side. When you use that option, include a 3 m. parameter around that for guy-lines and pegs. (see the Tarpaulin manual)
- Make sure that there is enough overhead height for tipping the tilt tray or for side loading.
- If you need to charge the batteries with the solar panels, you need a sunny spot for them but not more then 10 m away from the Ark's doors. (It is currently not possible to place the panels on top of the roof. They need to be tied down and are not equipped for that.)
- The container spot cannot be on too much of a slope or special levelling method needs to be developed for that spot

THE PLACING ITSELF. Once you have the spot and ahead of the Ark arriving, mark out the exact points for your 4 wooden blocks on which the Ark will be sitting. The Ark comes with a milk crate with 300 x 300 mm plywood blocks of various thicknesses. The 4 points for them are directly under the 4 steel corners blocks of the box. The *centres* of the wooden blocks need to be placed on the corners of a marked-out rectangular space of 5.7 x 2.2 m. The blocks can be placed more precisely during the dropping of the Ark. The drivers will mostly get you to help them with that. If you want to be really precise you can also level the blocks before the truck arrives. (a level is not provided)

NOTE 1; As soon as it is dropped, test that the doors can open and close. If not, one of the front corners may need to be dropped or lifted, using the truck's capacity to lift it and then adjusting the height with wooden blocks

NOTE 2: Even on solid ground you may need the wooden blocks if damaging the surface could be a problem.

NOTE 3: If you are using one side of the Ark as a workspace (with or without tarpaulin roof), then make sure the container angels down towards the opposite side by at least 2 cm over the full width.

3. **FIRST AID, HOUSEKEEPING** and **EMERGENCY INFO**

The first aid kit lives during transport on the top shelf of the electrical cupboard. Once on site you may need to find a more accessible place available to everyone, depending on the amount of people and event. Find out if anyone amongst your crew or guests has a first aid certificate and ask the person(s) to look after the kit. If items are used, write them down and replace a.s.a.p. or on return of the Ark.

An incident form in word is downloadable from our website. It is recommended that you fill in this form after all incidents and accidents for later reference by medical staff, police and insurance.

The fire extinguisher lives in a crate for travel purposes. On arrival it must be taken out and placed in a central point, easy to locate and reach. It comes with a cradle that can be mounted to a tree or post with screws, or to a table leg or the sound tripod using cable-ties or steel wire. One spot is prepared in the container, on the left door of the Electrical cupboard. The bolts and wing nuts for fixing the cradle are kept in their holes.

Housekeeping. It is important that decisions are made in regards to toilet needs, hygiene and responsibilities. All parties involved in the project, need to be informed on these decisions, to the extend that is appropriate to their role. Workers will need more information than guests. Housekeeping decisions/rules need to be anticipated during the planning stage and included in the risk assessment.

One housekeeping rule I would like to mention here. Every time a new activity is undertaken, such as putting up a tarp or the solar panels, a 'tool box talk' needs to be held during which the manual on that activity is read and each step examined on possible risks and what actions needs to be taken to minimise the risks.

Emergency Info must be displayed. These are: First Aid kit and fire extinguisher position, available mobile reception, emergency numbers, the responsible first aid people, and the (production) manager.

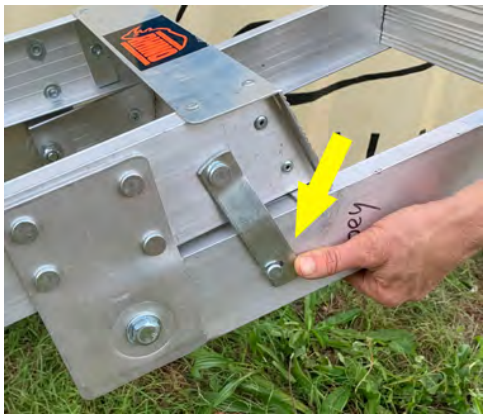
4. GENERAL SET-UP.

THE LADDER.

The ladder is needed for many tasks, such as: fitting the whirly bird for ventilation, fitting the tarpaulins to the container roof, keeping electrical cables off the ground and setting up a lighting and sound system. The Ark comes with a 2.1 m A-frame ladder that is extendable to a 3.6 m straight ladder. It may be that you need to bring an extra ladder depending on your activities.

To set-up the ladder as an **A-frame** is pretty simple. The folded ladder is stood vertically, than one leg is pulled away till the steps are about horizontal. The 'spreader' fitted to the 'front' leg is hinged out and attached to the receiving knobs of the 'back' leg. Make sure it is properly engaged. Always test the ladder for stability and chock one leg if needed. The Ark comes with a crate of chocks of many sizes.

To make a **straight ladder**. This can be done with one person but it is recommended to do this with 2 people. Lift the little latch at the top of the front leg to about 45^0 (see top arrow), then unlock the spreader and fold back to the front leg. Then lift the back leg and pull out gradually, all the way to flat. You can use your thigh to rest it on. (This straightening can also happen on the floor) Then lock the little latches over their receiving knob on both sides (below left). The ladder is now safe to use as a straight ladder.



Placing a straight ladder. The best place to set up a straight ladder against the container is against one of the front or back corners. The corner prevents it from sliding off to that side and can be used to tie the ladder off to prevent it sliding the other way. When setting up the ladder against other structures or trees, tying the ladder off is always sensible and often required by law.

The ladder has the right angle when you are standing upright, have your toes touch the legs, while grabbing the ladder with horizontal straight arms. In the case of the Ark's ladder, you can simply adjust the angle till the tops of the steps are horizontal.

THE WHIRLY BIRD.

When the Ark is placed in a sunny spot and it is hot, then installing the whirlybird for ventilation is a good thing. A hole with a high collar has been made in the roof and the whirly bird fits over it. The hole must covered during transport with a steel cap fixed with tight bolts. The whirlybird lives in a black round tub, usually on top of the shelving unit.

Before taking the tub to the roof. You need to undo the R-pin through one of the bolts, accessible from the inside. The R-pin prevents the bolt from coming undone during transport and by exploring youth or vandals.

On top of the roof, undo the bolts with welded washers, using the shifter from the toolbox. Lift the steel cap vertically up off the hole, taking care that it does not jam. Then place the whirlybird over the collar while lining up the white arrow on the roof with the one on the whirlybird collar. Refit and tighten the bolts and refit the R-pin on the inside.

Place the cap in the black tub and store. Reverse these actions prior to moving the container. *Take care* to again line up the arrows on the steel cap, before lowering it vertically down to prevent jamming.

WORKBENCH / STAGE ELEMENT.

The top measures 2 x 1.2 m. high. It can sustain a maximum load of 6 people, or 510 kg, evenly spread over the surface. No jumping allowed with that amount of people. The surface is made from form-ply with an anti-slip surface. The top alone weighs 46 kg and must be handled by 2 people minimum.

The workbench version has 900 mm legs, the stage element has 400 mm high legs and a step. To build, start with the top upside down on the ground, insert either of the set of legs in the corner tubes and tighten with supplied spanner or shifter. *Do not* overdo the tightening. *Note*: the bolts are normally screwed in fully to not loose them during transport, and they then need to be undone first.

After the legs are fitted, turn it upright. When the table is unstable then use wooden chocks provided to level it.

When on soft ground, the legs may sink in the ground and the maximum load may not be possible. Either reduce the maximum load or put wooden spacers under each leg.

When a stage element is build then the step can be added. Place the step on the ground in front of either of the side, lift the table up and drop the legs into the hollow squares. Then simultaneously lift the two sides of the step till it is about 20 cm off the ground and level, then lock it off. Again, do not overdo the tension. No more then 2 people can be on the step at the same time.

When a workbench is needed then the step can be used as an under-bench storage shelf. Do the same as above but simply start off with having it inside the legs.



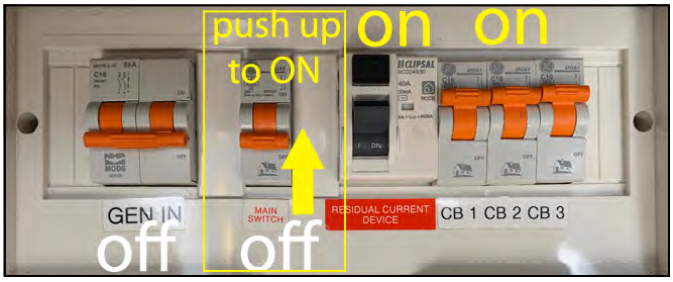
5. DRAWING POWER and RUNNING ELECTRICAL CABLES.

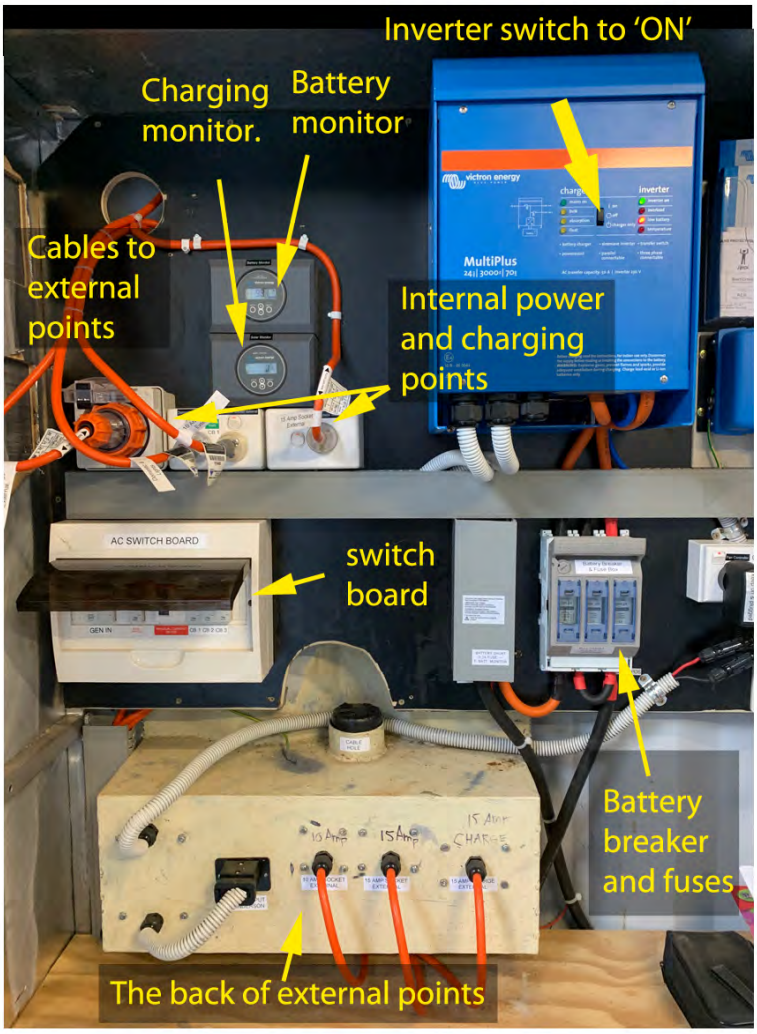
This chapter deals with the use of electricity and running cabling safely. There is separate manual specifically about the inverter, reading the dials, the fuse board, and charging the batteries with or without the solar panels.

The batteries should be fully charged on your first use. So you can draw power for a while, allowing you time to set the system up for charging.

On arrival on site an on opening the container, the first things you need to do are:

Push the main circuit breaker in the switchboard to ON. The fuses to the right should already be in the ON position. The fuse to the left is off; "GEN IN' is for charging only.





Switch the inverter to ON (See the bigger arrow in the right image). The inverter activates about 4 seconds after pushing the button and a green LED will light up. From that moment you can use 240 V power, up to 2000 W maximum.

The internal lights should have come on automatically at that moment. If not, try the switches of the power board on the wall directly opposite the electrical cupboard. Switch the lights off when not needed.

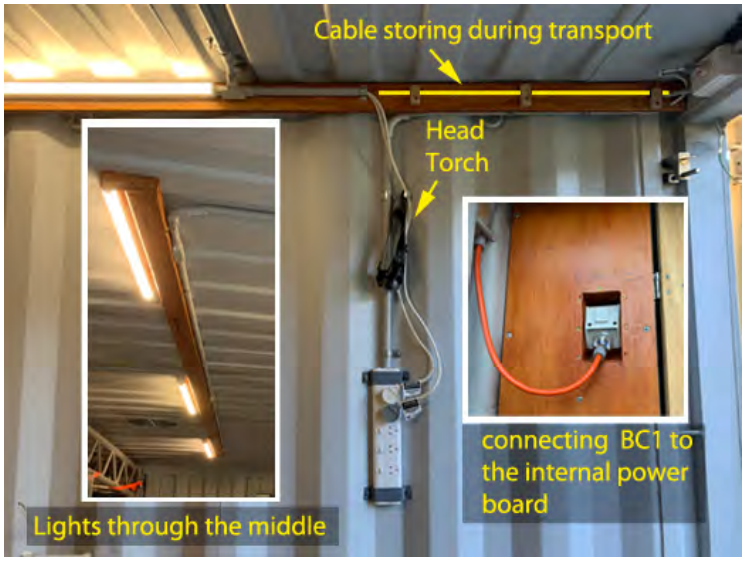
The inverter (blue box) transforms the 24 Volt DC of the batteries, to normal 240 V AC. (it also regulates the charging but that is in the separate manual

That power can be accessed through the 3 internal power points: CB1, CB2 and CB3. We prefer you not to use those internal points so that the cupboard can stay closed as much as possible. We have therefore connected those points with orange power cords to power points outside of the cupboard.

ELECTRICITY INSIDE THE CONTAINER.

Immediately on entering to the right, you find a power board fixed to the wall with two power cables already plugged in. These are for the internal lights. A head torch is hung just above it.

The power board is reset into the corrugation of the wall. If the plugs for the lights are in the way of storing for transport, then they can be pulled and stored along the top of that wall using its special wooden 'hooks'.



Other electrical components inside are: the row of lights in the middle, a socket just outside the electrical cupboard to connect the power board, and a second power point for that same purpose just above the door.

The Ark comes with a set of electrical cables, power boards and work lights, stored in 3 crates in the shelving unit. There is a 4th crate with all cables for charging, which will be explained in the separate electrical manual. All electrical equipment is tested and tagged, or under 1 year old.

4 x 30 W LED work lights
1 x rain proof, residual current protected distribution board, 4 x 15 Amp
1 x rain proof, residual current protected single 10 Amp power point. (used for charging)
2 x 10 Amp power board
2 x 15 Amp cable (1 x 20m + 1 x 10m)
8 x 10 Amp cable (2 x 25 m, 1 x 20, 1 x 15, 2 x 10 and 2 times 5.)

ELECTRICITY OUTSIDE of the container.

The power and charging points are recessed in the outside wall of the container, directly behind the electrical cupboard. Each point is labelled for its purpose. The charging points are explained in the separate electrical manual, the power points here.

In the image above you can see a black circle above the power points in the middle. This hole allows for cables to be run from the outside directly to the inside. For instance, if a sound recording outside is made with the equipment inside or, when the computer for a projector cannot be outside in case of night dew.

The two single power points on the outside are rated 15 and 10 Amp (image next page). The 10 Amp orange cable is plugged in directly. The bright orange distribution board (dizzy board) with blue cable is plugged into the 15 Amp point. It is not waterproof but will cope with some rain. It has 4 x 15 Amp switched power points suitable for both 10 and 15 Amp cables. It has a 15 Amp fuse that will trip all 4 points at once if their combined use is more then that. It also has a Residual Circuit Breaker (RCB) which protects humans for sustained electrical shock from a failure, a faulty cable or when water enters the plug of one of the cables or the dizzy board itself.

If the RCB trips, the cause may be known because of a clear incident. But if not, then the cause must be determined through trial and error:

1. Unplug all cables,
2. Reset the RCB
3. Plug the cables in one by one until one trips it.
4. Isolate the faulty cable and examine.

NOTES:

- If the cause is unknown but it is raining then the cause is likely that water has entered a plug or equipment. It simply needs to be dried.
- It could be that the RCB inside the electrical cupboard trips before the one on the dizzy board. The procedure to find the cause is the same.
- It could be that the dizzy board itself is faulty or wet.
- The working of the RCB can be tested manually.

Testing of the RCB. It is recommended that the RCB is tested monthly but in our case every new user should test it. The lever on the right will switch off if too much power is drawn. When power *loss* is detected, or when the RCB is tested then the switch will also be turned to off.

CABLES RUNNING ON THE GROUND.

When the cables need to cross a road or a heavy traffic area, like the audience lining up or passing, the cables need to be protected from damage, but them being a trip hazard needs addressing also. This can be done in 3 ways:

1. Lifting them of the ground by hanging from trees or buildings.
2. Dig into the ground.
3. Or use the cable trays provided.

NOTES:

- Never use steel wire to tie cables to something, use tape, rope or plastic cable ties.
- If there is some strain on the cable where it is tied off, then protect the spot with fabric or tape.
- It is better not to use cable trays on a footpath. They are a trip hazard, especially when people are lining up and cannot see the floor.
- When using the cable trays, traffic must be slowed down to less than walking speed.
- Do not lay sound data cables and electrical cables directly next to each other.

The cable trays are connected to each other with their puzzle shaped lips and cradle. In this way the lids open all the same direction. There are 4 trays of 1 m. They are supposedly rated for up to 30 ton vehicles. I prefer that this be not tested.

========== END OF THE GENERAL MANUAL ==========