



# Tiny House Owner's Manual

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The information provided in this manual is general in nature and is not intended to replace the advice of industry professionals. Please consult your local council, plumber, gasfitter, electrician, engineer, towing company, or builder (as applicable). We recommend you seek site-specific advice from these professionals when moving and setting up your Tiny Home on Wheels. Build Tiny Limited makes no warranties of any kind with respect to the information provided in this manual. Build Tiny Limited does not accept responsibility for the accuracy or quality of the information contained in this manual. Build Tiny Limited will not be responsible for damages resulting from the use of information contained within this manual.

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# Preparations

## Selecting your site

There are many factors to consider when selecting a site to park your tiny house, make sure you've looked into local council bylaws, as well as checking for property covenants before committing to your site. Doesn't hurt to check with the neighbours too. Here are some other considerations:

- *Access*: The most important factor to consider is access to the site – it's a bit of a deal-breaker as you can imagine! It's primarily about getting your Tiny House onto the site, but also consider your needs for practical daily access. Walk the pathway that the tiny house will take during delivery, go slowly and check there is enough space for it to be manoeuvred both in width, length and height, and don't forget about the length of the towing vehicle. Height can be hard to gauge, so cut a piece of pipe to match the height of your tiny house, and use this to test the height of any low hanging objects you're unsure about. Check for trees, narrow gateways, sharp changes in gradients, low hanging power lines etc. Make notes of what work needs to be done before delivery i.e., pruning tree branches.
- *Unloading space*: If your tiny house is being moved off its own chassis via a truck, (common for overweight/oversize tiny homes) then you will need a generous amount of space at the point of destination to offload the tiny house from the truck back onto its own trailer chassis. Significant space is required for this, and it needs to be level. Discuss this with us or your delivery company. A site visit may be necessary.
- *Geotech*: It's a good idea to consider any environmental factors that can cause issues on your site such as flood zones, tsunami evacuation zones, land stability, liquefaction etc. Getting a Geotech report from a professional consultant would highlight any concerns.
- *Access to water and power*: To make set up of your tiny house simple, ideally you would have access to mains pressure water and mains power, however if you do not have mains water, you may need to consider positioning for water tanks. See the 'connections' section for more information about the standard water and power connections supplied.
- *Sun*: If you plan to rely on the sun for power, make sure you've taken into consideration the orientation and position of your tiny house in relation to the

sun. You don't want your solar panels to be in shade at all if you can help it. Don't forget that things will change over the seasons, trees that might not shade your roof in the summer, may become a problem in winter when the sun is lower and shadow are longer. Do some research into the average sunshine hours in your region, as well as the likelihood of snow covering the panels.

- *Grey water:* Does the site offer you options for suitable onsite greywater treatment? Alternatively, is it in close proximity to a 'dump station' whereby you could collect and then dump your grey water? See the 'connections' section for more information.
- *Privacy:* Tiny houses tend to generate a lot of interest. Having privacy from neighbours and passers-by is your best protection from unwanted attention.
- *Rubbish collection:* Will you have access to regular rubbish collection, or are there facilities nearby for you to take rubbish and recycling?
- *WIFI and phone coverage:* Most of us need phone and WIFI coverage, particularly those who work from home, so don't forget to check with these service providers to ensure that there is adequate coverage at your site.

*Reminder:* Build Tiny are able to conduct site visits if you're located within a reasonable distance from our workshop location in Katikati (Bay of Plenty). During a site visit we can offer advice, primarily regarding access.

## Preparing your parking surface

### Concrete pad

If you have an existing concrete pad that can be utilised for parking your tiny house that's great. It's a reliable, stable surface that will keep your tiny house level, and it's low maintenance. If you plan to pour a concrete slab for your tiny house, take a look at the 'Tie-Down Your Tiny House' section of this manual and consider embedding tie down points into the pad. You will need a schematic diagram of your trailer with locations of the tie-down points noted for you. Consider as well that the jockey wheel and jacking points sit outside the footprint of the tiny house structure, so you may want to ensure that the size of your concrete pad is bigger than the footprint of the house itself to accommodate for those points. *Contact us before pouring your concrete pad so we can provide a dimensioned trailer schematic and recommend a size for your concrete pad.*

## Concrete strips

Some of our past clients have opted to go with 2 strips of concrete rather than a full concrete pad, this is a fairly good option to reduce cost and reduce the impact to the land. As with our advice for the full concrete pad, *contact us before pouring your concrete strips so we can provide a dimensioned trailer schematic* and recommend sizing for your concrete strips.

## Hard fill surface

Hard fill is a reasonably good surface to park a tiny house on, *provided that it's well compacted*. This is really important. Your tiny house is heavy and if the hard fill isn't compacted it will sink down into it, and be very difficult to manoeuvre, level and stabilise. Also make sure that the hard fill is as level as possible. Even with well compacted hard fill, it's likely that over time your tiny house may go out of level, that's OK, you may just need to re-level it once or twice as it settles into place. See the 'Levelling your tiny house' section for more advice about how that's done.

## Dirt or grass surface

Ensure that the ground is compacted and dry, especially on the delivery day. Where possible, try to move your tiny house in summer when the ground is likely to be hard and dry. This will avoid damage to the ground by the tiny house or tow vehicle. Another recommendation is to lay polythene under your tiny house. This will help reduce rising moisture and stop weeds and grass from growing underneath. This could be pinned down with weed mat pins, or edged with pavers or similar.

## Planning your delivery

As your tiny house nears completion, get in touch with us to book in your delivery. Your build schedule (which can be viewed on the BuilderTrend App) will indicate the expected completion date, but please contact us prior to making any travel or transport arrangements. Read the 'transport' section of this manual to see the options available for delivering your tiny home to site.

A few tips for delivery day

- *Enlist friends and family*: Many hands make light work! Setting up your tiny house is relatively straight forward, but having extra hands (and eyes!) around

can be really helpful, especially if there is a tight spot to navigate, or lots of removable items that need to be put back into the tiny house.

- *Have lengths of timber at the ready:* When navigating potholes, curbs, or other sharp changes in gradient, long, wide lengths of timber come in handy, they can be placed under the wheels to safely pass over these obstacles without damaging the underside of your trailer.
- *Chainsaw at the ready:* Despite your best efforts to trim trees and prepare beforehand, there may be a need for some on-the-fly trimming on delivery day, so a ladder and a chainsaw are a handy piece of kit to keep nearby.
- *Machinery:* If you have a challenging site, access to a digger or tractor can be immensely helpful, particularly for sharp turns, steep gradients, and small spaces. We can assess the need for this with a site visit.
- *Get involved:* Even if you have contracted a tow company and arranged an assisted delivery (having the Build Tiny team there to set up for you), we recommend that you observe and take part in as much of the set-up process as you can. That way, if you need to move it again, or even just re-level it, you will feel much more confident in doing so.

## Change of ownership

Once the final payment has been made on the tiny house, we will process the change of ownership with NZTA, we'll reach out to you to request the following information in order to change the ownership:

- Full name of registered person
- Business registered to (if applicable)
- Physical address
- Driver's license number
- Driver's license version number
- Date of birth
- Email

## Insuring your tiny house

Your tiny house is insured by Build Tiny whilst under construction in our workshop. The moment it leaves our premises, it is your responsibility to insure it. Our tiny homes are easily insured as custom made caravans, and you can even include a contents policy for your 'caravan'. If you're operating your tiny house as an Airbnb then you will need a different type of policy to someone living in their tiny home. Reach out to your preferred insurer for advice, or we can put you in touch with our broker who has arranged insurance for many of our clients.



# Transport

## Regulations

In New Zealand, Tiny homes are built onto 'light simple trailers'. The regulations for this class of vehicle can be seen [here](#) (NZTA Factsheet 13D February 2017 ISSN 1172-0689 (print) ISSN 1172-0778 (online)). The critical factors are weight and size. It's the responsibility of the driver to ensure that all regulations are met during transport on public roads.

Tiny homes over 2.55m wide need to meet the 'over dimension vehicles and loads' regulations, you can see these [here](#). (Fact sheet 53a Over dimension vehicles and loads ISSN 1172-0689 (print) ISSN 1172-0778 (online)) while being transported on public roads. Most tiny homes do not exceed 3.1m wide, therefore the only additional requirement to meet is displaying hazard signs at the rear of the tiny house.

The delivery options available to you will depend on the weight of your tiny house. Your tiny house will be weighed upon completion, and this will dictate the delivery options.

## Option 1: Road legal Tiny Homes - DIY towing

If your tiny house is 3500kg or less (or items can be stripped out to be 3500kgs or less by transporting removable items in a separate vehicle), then you can tow your own tiny house. You will need a tow vehicle capable of towing 3500kg, and you will need to be an experienced driver confident with towing large loads. You will require a class 2 licence if the combined GMV of the tiny house and your towing vehicle exceeds 6000kg

## Option 2: Road legal Tiny Homes - Professional Tow

If your tiny house is 3500kg or less (or can be stripped out to be 3500kgs or less by transporting removable items in a separate vehicle), and you *don't want* to tow your own tiny house then you can contract almost any towing company to tow your tiny house for you.

We do have recommendations for companies that tow our tiny homes regularly, so reach out to us and we can organise a quote for you, or put you in touch directly.

### Option 3: Overweight Tiny Homes - Truck Haulage

If your tiny house exceeds 3500kg, then you'll need to transport your tiny house on the back of a truck. Firstly your tiny house is jacked up off its trailer so that a 'low-loader' truck trailer can be backed in underneath. These 'heavy trailers' can easily take the additional weight. The tiny house is secured to the truck, and delivered to site. Your tiny house trailer needs to be towed separately to your site. Once the house arrives, the house is jacked back up, and lowered back down onto your Tiny House trailer again. Keep in mind, that a large area of level ground is required on (or very near) the site for this unloading procedure.

This delivery method is preferable as it means that you don't need to strip any removable items from your tiny house and reinstall them onsite – everything that can be secured can stay in the tiny house during transit. Keep in mind that this delivery method is more expensive, as a larger tow vehicle is required. Particularly with inter-island travel, as it much more expensive to take larger trucks on the ferry.

We do have recommendations for haulage companies that tow our tiny homes regularly, so reach out to us and we can organise a quote for you, or put you in touch directly.

### Assisted delivery service

This manual should give you all the information you need to set up your tiny house by yourself with the help of friends and family, but we also offer an assisted delivery service. So if any of the set up described in the 'Set-up' section below seems daunting, we'll happily send a small team of experts to assist in the initial delivery and set up. We can also transport any removable items or the tiny house trailer depending on the delivery method selected above. Contact us with your delivery address and we can arrange a quote for you.

# Set-up

## Levelling your tiny house

Ideally the place you've decided to site your tiny house is fairly level and has a compacted / hard base. If the ground is not hard or compacted, you'll find it difficult to level your tiny house, and it will likely come out of level over a short period of time. So if you can, invest the time and money to create a good surface to park on. See the "Selecting and preparing your site" section of this manual for more advice.

If your tiny house is not level, it will become difficult to live in. Internal sliding doors may not stay open or closed, Aluminium windows and doors may not open properly, and water may not drain correctly out of your gutters and wastewater pipes.

1. Once in position place a long spirit level on the floor inside the tiny house lengthways so that you have an accurate indication of when its level end to end.
2. Raise or lower the jockey wheel (on the draw bar) to get it close to level. It helps to have someone inside the house watching the level and giving instructions to the person operating the jockey wheel.
3. At this point, the trailer Jacks need to be put in place.

### How to use the jacks:

4. Once your tiny house is levelled end to end, place the jacks into each of the 4 (or 6 in some cases) jacking positions, making sure to insert the locking pin so that they are secure.
5. Now place the spirit level across the width on the floor inside, ideally in line with the outside jacks or as close as possible.
6. Make sure you have a solid foot under the jack (like a piece of timber etc), then wind the jack down until you start to feel weight coming onto the jack (it will become harder to turn the handle).
7. Have a 2<sup>nd</sup> person inside watching the level and calling instructions, and wind the jack accordingly to make your tiny house level side to side. This may take a few goes at each jack. Do the same process at either end of the house, ideally in line with the outside jacks or as close as possible.

8. Check the levelling of your tiny house periodically. Unless you're parked on concrete, you will find that the house will settle into place over time, and may go slightly out of level. Just repeat the steps above as necessary.

*Reminder:* Build Tiny offers an assisted delivery service for the initial delivery, so if you're not confident in your ability to follow the above steps, or you don't have anyone to help you, we can send a couple of people from our team to site and take care of this part of your tiny house set up for you, just contact the Build Tiny team to discuss your delivery.

## 'Blocking' your tiny house

The trailer jacks are very useful for levelling your tiny house, and for lifting your Tiny House off its trailer chassis. However, they're not rated for prolonged outdoor use, as some components may rust. Depending on how long you're going to be parked in one place, you may choose to make waterproof covers for the jacks so that you can use them as supports for your tiny house, however most people choose to instead 'Block' the Tiny House with timber from underneath, they then remove the jacks and keep them stored somewhere out of the weather. Use the following steps to set up 'blocks' for your tiny house.

**Blocking/Support kit:** Tiny homes built after November 2021 will have received a blocking support kit. This includes 100 x 100mm H5 RS Pine @600mm (x8), 150 x 50mm H4 RS Pine (x8), 14g x 125mm Galvanised Bugle Screws (x24), 1 x Bugle Driver bit

- Identify suitable blocking points. Depending on the length of your trailer, you may want to have around 8 blocking points - one in each corner, and then 2 each on either side of the axels of the trailer.
- Once the tiny house is level (follow steps above) and at the desired height, raise the Tiny House by 10mm to give enough clearance for the blocks.
- If you have soft parking surface, wait for 10 minutes to ensure the house remains level. It may also pay to dig through the soft layer to firmer ground, so the block does not sink.
- Work your way around the tiny house, assembling each block
- Lay 150x50 H4 Pine on ground below the support position you have chosen.
- Fit the 100x100 H5 Pine vertically from the centre of the 150x50 H4 Pine up to the underside of the trailer. It may need to be trimmed to length as they are provided oversize.

- Once you have the correct fitment of the 100x100, screw the bottom of it into the 150x50 using 3 x Bugle Screws (you will require a drill or Impact driver for this).
- Repeat this for all the chosen blocking points.
- Once all blocking points are in place, evenly wind down the jacks until the tiny house is supported back on its wheels and the blocking just fitted.
- Ensure the wheels of your Tiny House are still in contact with the ground as this will give the house stability, however the blocks now in place will disperse the load and give relief to the trailer parts.

*Reminder:* Build Tiny offers an assisted delivery service for the initial delivery, so if you're not confident in your ability to follow the above steps, or you don't have anyone to help you, we can send a couple of people from our team to your site and take care of this part of your tiny house set up for you, just get in touch with the Build Tiny team to discuss your delivery options prior to the completion of construction.

## Tie-down your tiny house

If like most people you're planning to be situated in one place for some time, consider utilising the 'tie-down points' that have been welded to your trailer to create a connection between your tiny house and the ground. You'll find these tie-down points in the 4 corners of your trailer near the container locks.

This is particularly important if you're parking in an exposed area or high wind zone. Much of New Zealand is also susceptible to earthquakes, so tie-downs give you piece of mind that that you're as secure as you can be during any high winds or seismic events. You can find information about the wind zone of your parking spot using this [BRANZ map tool](#). (Search for your address, click the 'layer' icon, select only the 'wind zone layer', then click on the 'information' icon to see the key for the wind zone colours).

How you create a connection to the ground will depend on the surface you're parked on, and we recommend you consult with an engineer for advice. Here are a few ideas:

- If you're pouring a concrete pad to park on, consider embedding an anchor point into the concrete that you can tie down to. You can then use a load rated turnbuckle with some connectors to connect to the trailer chassis.

- If you're parking on hard fill or dirt, there are a few types of ground anchors that might be suitable. Check [out Duckbill anchors](#), or [ground screw anchors](#). Again, use turnbuckles to create a connection to the trailer.

**Tip from a past client with a concrete parking surface:** *"We used SwiftLift load rated [clutch's](#) and [anchors](#) which we embedded in our concrete pad when we poured it. These we connected to a load rated turnbuckle and truckers chain. It took all of 20 minutes to tie the house down and all I have to do is check the turn buckles every few months to ensure they're not working loose. Not the cheapest setup but great piece of mind and made it really easy to position the THOW as the anchors are flush with the pad."*

*Note:* it's important to also ensure that the container locks (the mechanism used to connect the trailer chassis to the house) are in their locked position. It's all well and good tying the trailer down to the ground, but if the house isn't properly connected to the trailer then you're not secure!

## Detachable trailer chassis

### Why would you want to remove your trailer chassis?

All of our tiny homes (unless you have specified otherwise) have a detachable trailer chassis. This means that the house can be lifted up off the trailer with the jacks provided, and you can remove the trailer out from underneath. In order to be exempt from the Building Act (and therefore not require a building consent) your Tiny House needs to be meet the definition of a 'vehicle' *and* remain movable. Therefore we recommend that the trailer *stays connected* to the tiny house for the majority of the time.

However this feature is useful for 3 reasons:

1. You can remove the trailer for regular maintenance and also take the trailer away to get a WOF at a vehicle testing station without needing to take the tiny house with you.
2. You can turn the trailer so that the drawbar is at the other end of the tiny house. This can be very useful if constraints on your site make it difficult to get your house into position, as it means the tow vehicle can be on the other end of the tiny house. *But this must be used with caution*, as the tiny house has been designed to be towed from one end (the heavy end) in order to get safe weight distribution, so you must never tow your tiny house the wrong way around on public roads at speed. It is

suitable on your site for manoeuvring purposes, and *only on level ground at very low speeds*.

3. From time-to-time you may wish to utilise your trailer chassis for transporting other items! You have a very strong, very large trailer sitting under your tiny house, why not make use of it if you have the need.

### Steps for removing your detachable trailer chassis

Please follow these steps when detaching your trailer chassis: This process requires 4-6 people, this is for safety and to prevent damage to your tiny home.

1. Firstly, check the weather conditions. Do not remove your tiny house trailer in adverse weather conditions. Strong winds are particularly unsuitable and can be unsafe.
2. Locate the jacks that were provided with your Tiny House. Depending on the length of your Tiny House, you will have been supplied either 4 or 6 jacks. Tiny homes 8m long or less will have 4 jacks, anything longer than this will have 6 jacks.
3. Fit the jacks into the jacking points. You will find one on each corner (about 1m from each end). Ensure that the locating pin is in place in behind the external sleeve mounted on the trailer. If you have 6 jacks, there will be two additional jacking points near the centre of the trailer.
4. Wind each jack up until the foot of the jack contacts the ground and just starts to take load. (Tip – pull the bottom of the jack towards you as it contacts the ground, so it is wedged inside the locating sleeve on the trailer. This will make the house much more stable when on the jacks)
5. Next locate the container locks in the 4 x corners of the house under the trailer. Loosen the locking nut by turning it clockwise (a gentle tap with a hammer may be required if it's stiff).
6. Once loosened push up on the lock and turn the handle 90 degrees. Then let the lock drop down again.
7. The lock is now unlocked. Repeat for the remaining 3 locks.
8. When all 4 container locks are unlocked it's time to lift the house off the trailer. The next stages are only able to be done with either 2-4 people (for tiny homes 8m long or less) or 3-6 people (for tiny homes longer than 8m). This is to stop your house from twisting and causing damage.
9. With a person on each jack wind in time with each other to bring the house up evenly until all of the services and stabilisers are clear of the trailer.

10. Once you have the clearance required you can release the hand brake on the trailer and pull it out from under the house. (Be careful not to hit the jacks as you bring the trailer out).
11. Lower the house down to its lowest jack position as soon as it is safe and practical to do so. Do not leave you tiny house elevated up high for any extended period.
12. Make sure to wind the house down evenly, winding the jacks in unison until you have the required height.
13. To put the trailer back in place just repeat these steps in reverse order, ensuring that the trailer brake is on before the house is placed on it and the container locks are located correctly and tightened in place.

## Security

It is very rare to hear of tiny home theft in New Zealand, in-fact, in all of our time in the industry, we have heard of it happening only once, and it was eventually returned to the owner. However there are some basic steps that you can take to safeguard your tiny house. The following are a list of options to consider:

- *Padlock the drawbar hitch:* padlocking the hitch prevents a tow vehicle from being able to connect their vehicle to your tiny house.
- *Remove the drawbar all together:* Some tiny house trailers (especially those 9m+) will have a bolt on drawbar. By removing this you will make it extremely difficult for any would-be theft. Note that not all tiny house trailers have this ability.
- *Wheel clamp:* Purchase a wheel clamp and attach it to one of the trailer wheels.
- *GPS tracking:* Purchase a GPS tracking device to attach to the tiny house, that way if it is stolen, you will be able to find it.
- *Security cameras:* Digital security systems are affordable and are very convenient. With motion detectors and smart phone integration, you can see on your phone (from anywhere in the world) if there's any activity around your tiny house while you're away.
- *Park it somewhere difficult:* If your tiny house was really difficult to get into position due to constraints on your site, chances are it will be difficult to get out again too. This is a great deterrent to would-be thieves. Likewise having a locked gate to the property will have a similar effect. Just make it as difficult as you can to move it and likely they will move on to an easier target.



# Connections

## Connecting power to your tiny house

Good news, this is quite possibly the easiest part of setting up your tiny house. It's simply plug-and-play. Build Tiny supplies a 16amp caravan power cable with all tiny homes sold (unless you have purchased a watertight shell with no electrical installation). The standard cable supplied is 10m long. Longer cables are available 'off-the-shelf' up to 25m long, and you can purchase these from any motorhome parts retailer. If you anticipate needing this, please let us know well prior to delivery and we can supply this longer cable for you. If your source of power is further away, and you need an even longer cable, you will need to have an electrician make a custom cable for you – again, we can arrange this for you if given enough notice. Due to the thickness of cable required for longer cables, this can be very costly so try to position your tiny house close to the source of power where possible to avoid the extra cost.

## Solar power

### Operating instructions

If you have a solar system installed by Build Tiny, you will need to look in your client 'hand-over pack' for the manufacturers operating instructions that are specific to your system. We supply different solar systems depending on each client's needs and budget as well as what technology is available at the time of installation. Therefore each tiny house is different. If you need any advice about your solar system, contact us in the first instance, and we can put you in touch with the specialist installer that installed your system for advice.

### Backup power

Is there an opportunity to connect to mains power if you're running low on power or your solar system becomes faulty? If not, we recommend you obtain a generator to top up your batteries, ideally one that has the ability to start up automatically if the power level in your batteries drops below a certain critical threshold. If you are connecting a generator please contact us so we can put you in touch with the installer of your system to discuss how to connect it safely.

## Connecting water to your tiny house

### Water Supply Features:

1. Inlet: Our Tiny Homes come with a 20mm female fitting, normally located at the front of the Tiny House under the floor. The location of this fitting may vary depending on the layout of your home.
2. Isolating Tap: Adjacent to the female fitting there is an isolating tap which allows you to turn on/off the water supply going into the house. Knowing the location of this tap will be useful, you will need to use it when connecting and disconnecting your water supply, and any time you do any plumbing work inside your Tiny House.
3. Pressure limiting Valve: There's also a pressure limiting valve just beside the tap, do not tamper with this valve, you must get advice from a registered plumber before adjusting this valve. Any tampering with the pressure limiting valve voids all warranties on the tapware and gas califont.

### Pipework:

When selecting pipe to connect your tiny house fresh water supply, ensure that you use pipe that is safe to use for drinking water. This could include, PVC pipe, black polyethylene pipe or the blue polyethylene pipe used by plumbers.

### Pressure

We recommend your water supply be pressurised in the range of 150kpa to 350kpa. This could be either a council supply or if you have a tank system you will need a small electric pressure pump.

### Fittings

The fittings you'll need depend on what sort of pipe you're using and the size of the supply fitting. If you're using 'snap-lock' type fittings, ensure you use really good quality ones and use a pipe that's suitable for drinking water (not your typical garden hose). We would recommend using new fittings each time you set up in a new site. Remember you'll need to use thread tape when you screw into the 20mm inlet to ensure there's no leaks.

## Advice

If you're unsure about connecting your Tiny House up to its water supply, you should be able to contract a local plumber to complete this task for you. Please ensure that you seek advice from your local council if you're planning to make any permanent connections to a council water supply.

## Connecting grey water

Grey water is the wastewater that comes from your shower, washing machine, dishwasher, sinks and basins. How you deal with grey water is something you will need to plan for before your tiny house arrives. You'll need to set up a greywater collection/treatment system on site, here are some resources to get you started thinking about this topic:

- <https://www.level.org.nz/water/wastewater/on-site-wastewater-treatment/greywater-recycling/>
- <https://www.level.org.nz/water/wastewater/on-site-wastewater-treatment/greywater-recycling/greywater-systems/>

Our tiny homes are normally supplied with off-grid toilets (composting, incinerating, or chemical etc) that eliminate black water (sewerage), meaning that there's only grey-water requiring treatment/disposal - contact your council to discuss the requirements for this in your area.

If you've decided to include a flushing toilet in your tiny home, it's your responsibility to have this plumbed in on-site into an acceptable sewerage system, and make sure you meet any requirements under the Building and Resource Management Acts.

Build Tiny supplies a 4m length of grey water hose with all tiny homes (except 'watertight shell' tiny homes where there has been no plumbing installation). If you require a longer length of hose, please let us know well prior to delivery and we can supply this. Some tiny homes may have two grey water outlets (this is typical for tiny homes where the kitchen is at one end, and the bathroom at the other) and therefore you'll be supplied with 2 x 4m lengths of grey water hose. If this is the case for you, you will need to connect these two outlets under the trailer.

## How to connect your grey water hose to the outlet

To connect the grey water hose, simply place the connector over the outlet and pull back on the two handles evenly. This locks it into place.

## Avoiding airlocks

It's important that your grey water hose has adequate 'fall' from where the water exits the tiny house, to wherever it's going. Aim for an even and consistent fall, avoiding any low points in the hose as they will create airlocks even if there is fall from the outlet to the exit. If you don't have adequate and consistent fall, you'll find that either the water drains very slowly, or water may actually come back up the pipes and into your sinks or shower tray. When you've set up your grey water pipes, run taps from multiple places in the tiny house to test the system. You should be able to have water running out of multiple places (i.e. shower, washing machine, and sink) at once without any trouble. Water should drain away quickly like in a normal house. If that's not the case, carefully inspect your pipes to ensure adequate, even and consistent fall. If you have trouble with an airlock, try attaching your hose to a rigid piece of wood with cable ties, or running the hose through a rigid PVC pipe.

## Connecting gas and hot water to your tiny house

Our tiny homes are supplied with gas hot water heating systems, with a dual regulator for connecting two gas bottles. You will need to have two gas bottles connected to your tiny house at all times, and we recommend having a third available as a spare so that you don't run out. Connecting the bottles is just the same procedure as connecting a gas bottle to a BBQ.

- We recommend that you have a raised, level surface to place your gas bottles on directly beneath the gas regulator - paving stones are a good option.
- Have your two 9kg gas bottles ready and in position on the paving stones. Their valves should be in the closed/off position.
- Use the chain provided (attached to the trailer below the gas regulator) to secure your two gas bottles into place against the Tiny House.
- Ensure that the yellow regulator valve is in the 'Off' position (horizontal).
- Screw the regulator hoses into each of the gas bottles, creating as tight of a connection as you can.
- Open the valves of both gas bottles by turning the knob in the direction indicated on top of the knob.

- Turn the yellow valve on the regulator to the 'Open' Position (Vertical)
- Ensure that the gas hot water califont is plugged into the adjacent power outlet and switched on.
- Ensure that the yellow valve connected to the califont is in the open position (vertical).
- Your system should now be up and running. Test your hot water tap and the gas appliances inside the Tiny House. It may take a few try's the first time as gas fills the lines for the first time.

## Connecting data / WIFI to your tiny house

### Is my tiny house pre-wired for an internet connection?

If a data connection was specified on your tiny house electrical plan then our electrician will have prewired for connecting your tiny house to the internet.

*Tiny homes built before August 2021* will have a CAT 6E data cable if there is 'data' indicated on the plans. Check your electrical plan to see where the outlet is in your house, it will be marked as 'DATA'. The data cable will run from the outlet down the wall and out the floor to a conduit box underneath the trailer. Once on-site you can access this cable from under the trailer. Contact your internet service provider to arrange the installation of a phone, ADSL or VDSL connection.

*Tiny homes contracted after October 2021* have the option of three types of data connections. The type of connection you specified should be documented in your electrical plans or specifications.

If your tiny house was not pre-wired for any form of data connection, you can easily have it retrofitted or use satellite internet such as 'starlink'. Just contact an internet service provider to see what services they offer in your area and arrange for a technician to do an installation. The installer may need to run cables through conduits on the interior or exterior walls as appropriate.

### Types of prewire connections offered from October 2021

Check your plans and specifications to see if your tiny house has any of the following connection options.

1. *Prewire for an ADSL, VDSL and phone connection* (CAT 6E data cable mentioned above). The data cable will run from the outlet (marked on your electrical plan as 'data') down the wall and out the floor to a conduit box underneath the trailer. Ready for an electrician/lines technician to connect your internet. Contact your Internet service provider to arrange the installation.
2. *Prewire for a Satellite connection* (An Exterior CAT 6, and an External COAX (RBK240). Contact your internet service provider to arrange the installation.
3. *Prewire for a Fibre connection:* (Fibre cable running from the 'ONT' point (marked on your electrical plan as 'data') down the wall and out the side of the building. The cable is 'capped off' ready for the Chorus lines technician to connect an ETP and install your fibre connection on site. Contact your internet service provider to arrange the installation.

# Moving Your Tiny House

The great part about tiny homes is that they're made to move. If you get a new job or buy your own section, you can take your house with you!

When you first received your tiny house, our team will have made your tiny house 'travel ready' by following our predelivery checklist to ensure that everything is safe, secure and ready for transport to your site.

In the future, when you go to relocate your tiny house you will need to do this yourself, so the following is a list of important things to check before you get on the road.

## Pre-transport checklist

### Interior

- *Remove or secure personal items:* If your tiny house is being towed on its own chassis then all personal items need to be removed. If you're transporting your tiny house vial truck haulage where weight is not an issue, then you may choose to keep all your personal items inside the tiny house for transit. Keep in mind that drawers and cupboards with heavy items inside them will need to be well secured to stop them opening during transit.
- *Strip out the tiny house:* If the tiny house is to be towed on its own trailer chassis (as opposed to truck haulage – see the 'Transport' section for more information), then it's critical that you ensure your tiny house is light enough for travel. All of our tiny homes are weighed after construction, and you will have a document in your handover pack that tells you the weight of your tiny home and includes a 'removable items list' that stipulates everything you must remove from your tiny house in order to achieve the safe towing weight. If you need a replacement copy please let us know, we keep these on file.
- *Remove or secure items* that could move or open during transit, including furniture, drawers, shelves, appliances, artwork, mirrors, oven racks, loose shelves, laundry racks, pull out pantry shelves, gas hob grates, pendant lights, ceiling fans, etc.
- *Doors:* Cavity slider doors can easily be secured in place by screwing a block of timber into the top track up into the jamb (do not rely on the locking mechanism of

a cavity slider door, these are not secure enough for transport. Barn sliders doors will need to be removed, and hinged doors should be fixed shut or removed.

- *Toilet:* Check that the toilet has been emptied before moving the tiny house.
- *Windows:* Are all windows securely locked?
- *Window coverings:* Insect screens and roller blinds can easily be removed to avoid movement and damage during travel.
- *Shower:* Don't forget to secure the shower door and shower slide handle. A strong construction 'duct' tape is usually quite effective at securing these.

## Exterior

- *Disconnect services:* Disconnect your power, water, gas, grey water, and any internet cable that have been installed.
- *Shut down your solar system:* If your tiny house has solar, follow the shutdown procedure. If you have loose batteries, remove these for travel.
- *Fire flue:* If you have a fireplace installed, the flue might need to be removed to avoid damage and to fit within height restrictions.
- *Gas califont:* Turn the yellow valve on your gas califont to the off position (horizontal). Unplug your gas califont and cable tie the electrical cable in a coil to stop it flapping in the wind.
- *Gas regulator:* With the gas bottles disconnected, secure the chain, and regulator hoses with cable ties. Ensure that the yellow regulator valve is in the off position (horizontal).
- *Container locks:* Check that the tiny house is connected securely to the trailer with the container locks in the locked position.
- *Vents:* Where there are external exhaust vents with movable flaps on the tiny house, tape the flaps down as they can dislodge and fly off in the wind during travel (if your vents have been painted to match the colour of your cladding then use tape cautiously so as not to damage the painted finish)

## Trailer



- *Brakes:* Check the brakes are in good working order and haven't seized. Ensure that the battery for your braking system is fully charged. When you're securely hooked up to the tow vehicle, don't forget to check the handbrake on the trailer is off.
- *Tyres:* Check the condition and pressure of the tyres. The pressure should be at 70 psi.
- *WOF and Rego:* Check your tiny house trailer is displaying a current WOF, registration and number plate.
- *Lights:* Check the lights and indicators on the trailer and tow vehicle are working correctly.
- *Service:* If in doubt, or your tiny house has been in one place for a significant amount of time, consider having a mechanic come to your site and give it a service before you leave.
- *Trailer orientation:* If your tiny house trailer was rotated after manufacture for any reason (e.g. site access), you **MUST** ensure that the heavy end of your tiny house is at the draw bar end for transport on the road. If your tiny house is being transported on the road on its own chassis, correct weight distribution is essential. **Incorrect weight distribution could result in a serious road accident.** Please contact us if you're unsure of the correct towing direction for your tiny house.

## Insurance

- Make sure your insurance policy is up to date, and that it covers the transportation method you're using. We don't recommend relying on any insurance policy offered by the driver/tow company, as their own actions or inactions during delivery may negate the validity of their insurance policy. Consult with an insurance expert for advice.

## Weight & Size

- It's worth mentioning one last time that if you plan to move the Tiny House on its own trailer chassis via public roads, it is the responsibility of the driver to ensure that you don't exceed any of the 'light simple trailer' category's limitations around weight and size. If caught towing it on public roads, and it exceeds the limitations, you could face fines of up to \$10,000.

## Plan your route

- Discuss the route with your driver, there are bridges and tunnels in New Zealand that are lower than the height of most tiny homes (4.3m). So it's essential that you and your driver are very familiar with the roads you'll be travelling and have planned to avoid and detour around any low structures. When travelling in residential areas pay close attention to trees.
- Consider the timing of your trip, aim to avoid busy traffic times as a courtesy to other drivers, but also to minimise pressure on the driver.

## Weather

- To reduce any risk while on the roads we do not recommend towing your tiny house in poor weather conditions. Always ensure there is little-to-no wind, good visibility, and good traction on the roads. Do not tow your tiny house in high winds or extreme weather such as snow, hail or sleet.

## Enlisting Professionals

Most people enlist the help of a professional to tow their tiny house. Especially those whose tiny home exceeds the weight restriction (3500kg) of the light simple trailer. If you do enlist professionals to help move your tiny, here is our advice:

- Do your research and ask us and or other tiny house owners for recommendations. Tiny houses are a unique type of load, so it's beneficial to have a professional who has experience moving Tiny Homes, especially if the transport method requires the trailer to be detached.
- Make sure you understand how the professional plans to move your tiny house and whether that is legal. Unfortunately, some operators in New Zealand are offering to tow over-weight Tiny Homes at low prices. This can seem like an attractive option given the lower cost, but keep in mind that it's illegal. The risk of the fine (up to \$10,000) does fall to the driver, but doing so will also void the warranty of your trailer. In addition, your insurance (or the drivers insurance) likely won't cover any damage should something go wrong.
- If your Tiny House needs to be lifted off its own trailer for transport, make sure the transport company has experience doing this and that the full costs are included in the quote they have given you. Also remember that with this option, you will need a

secondary tow vehicle to transport that trailer itself at the same time. See the 'Transport' section for more information.

We're happy to arrange transport on your behalf for the initial delivery after manufacture. Any subsequent moves will need to be arranged by you, however we are always available to recommend companies and offer advice.

# Looking After Your Tiny House

## Maintenance schedule

Please refer to the maintenance schedule that is included in your handover pack. This covers the tasks that need to be completed by you in order to maintain the tiny house over time.

## Varnished timber and ply

Many of our clients opt for a varnished birch or poplar plywood wall and ceiling linings, and sometimes it is even used for flooring in lofts. It's a beautiful Scandinavian aesthetic, But it's important to keep in mind that with exposure to the harsh NZ sun over time that the plywood will likely darken slightly. If you hang pictures on the wall or place objects on the floor for a period of time, expect the areas behind these objects to be remain the lighter colour as the timber around it darkens. Consider not hanging any artwork on your walls for the first 6 months or so until all the plywood has changed colour evenly to avoid getting uneven colouring in your ply.

## Vinyl flooring

If you have vinyl sheet flooring in your tiny house (this is a popular flooring choice in tiny homes), please be aware that you should not use any floor mats that have a rubber underside. The rubber reacts with the vinyl and can cause the vinyl flooring to turn yellow. The same goes with chair legs with rubber feet, or ladders with rubber feet. Avoid leaving any rubber objects on the flooring for longer than a few days, especially where exposed to heat/the sun.

## Ventilating your tiny house

If you do not have a mechanical ventilation system installed in your tiny house (e.g. Lunos E2 system) then you will need to ventilate your tiny house manually by opening windows

and doors regularly. This is the case with all housing in NZ, but is particularly important in tiny homes due to the lower volume of air inside.

Moisture from cooking, showering, and breathing can build-up inside tiny homes and cause moisture damage if the owner is not regularly ventilating the space. Moisture damage such as this is not covered under the warranty provided by Build Tiny.

It's important that the bathroom and kitchen extractor fans are utilised whenever cooking or showering is occurring in the tiny house.

All tiny homes built after September 2021 have a shower dome installed as standard (unless you have opted out of this), please make sure you read the instructions for how to use your shower dome in your handover pack (you need to close the door for 10 mins after showering then re-open it). If your tiny house was built prior to this, and a shower dome was not included, then we recommend this as a way to reduce moisture from entering other areas of your tiny house. Custom low-height shower domes can be manufactured for installation in low ceiling height spaces (as it typical for tiny homes).

## WOF, Rego and EWOFF

### WOF and Rego

New tiny homes come with a 3 year warrant of fitness (WOF) and 1 year of registration (Rego). You can renew your registration online with Waka Kotahi (NZTA). WOFs need to be completed at a vehicle testing station, so to renew your WOF, you will need to remove your trailer (see the 'Detachable Trailer Chassis' section of this manual), and take it to your local testing station.

There's some debate as to whether it's necessary to keep these up to date. It's possible to put your Rego on hold with Waka Kotahi, but we recommend that you keep both current as there is conflicting guidance (and court cases rulings) around whether this is an important factor in determining whether a tiny house is a building or a vehicle under the Building Act.

However if you plan to tow your tiny house on public roads, then it will of course require a current WOF and Rego.

### EWOFF

As a vehicle, your tiny house has been issued with an Electrical Warrant of Fitness (EWOFF). This comes with a 4-year term and needs to be renewed after that. Contact a local electrical

inspector to have them come to your site and renew your EWOFF once its due. You will likely find the sticker for the EWOFF displayed on the front panel of your internal electrical switchboard, or in a window of your tiny house- This will show the expiration date. You can find the location of your switchboard on your electrical plan.

## Warranties & Defects

Build Tiny are proud of the tiny houses that we build and take great care in our choice of materials, design and craftsmanship. We're proud to extend a 3 year limited liability warranty on our Tiny Houses that will give you peace of mind.

The warranty covers any workmanship failures or faults that occur under normal conditions.

For the warranty to apply the purchaser must notify Build Tiny within 7 days after becoming aware of a fault by phone (07 549 2864), or email ([info@buildtiny.co.nz](mailto:info@buildtiny.co.nz)). Build Tiny Ltd must be notified of any faults prior to arranging any 3<sup>rd</sup> party contractors.

Where an ancillary product is installed into the Tiny House (i.e. Oven, gas heater, refrigerator, etc) then the manufacturer's warranty for that product shall apply. All such warranties supplied by manufacturers shall be provided to the purchaser in the handover pack.

The following exceptions apply to the warranty and are not covered:

1. Damage caused to the Tiny House due to misuse or negligence
2. Damage caused to the Tiny House due to a failure to follow the maintenance schedule provided
3. Damage to the Tiny House caused by fire, earthquake, flood, or any other natural disaster
4. Damage caused to the Tiny House due to a road incident/accident during transport