THINGS TO KNOW

Acceptable internal storage inside the tent:

You can travel with Bedding / pillows, blankets etc inside the tent when closed. The Interior cavity measures the footprint of the tent x 100mm height when closed. On the interior of the tents roof you will see the pulley strings that operate the lift of the tent – also located at the rear is the RV winch and some electronic cabling. The Cabling goes to a 'Limit switch' – This switch is fragile and carries 12 Volt power. Ensure that any bedding etc carried in the tent does not exceed 100mm in height, and that it cannot catch or interfere with the moving pulley ropes, winch, extending arms or limit switch mechanism. In Particular – Storage of metal objects (like an uncovered Ladder) on top of bedding is not recommended. Vehicular vibrations can cause wear on the roof, as well as potential electrical short circuits and extended travel can cause sharp objects to wear and cut into pulleys and cords.

The Tent closes under gravity alone. If when closing the tent, effort is required to "push it shut' its overloaded. Remove some items and try again. Overloading the tent will result in damage to internal components. The interior Light and Fans are the first to go. Pressure internally on these components can contribute to tearing off rivets in the roof lining , as well as pushing upwards on the roof itself which can also lead to small leaks.

DO NOT OVERLOAD THE TENT AND FORCE IT SHUT – DO NO USE OVERRIDES TO 'FORCE COMPRESS' THE TENT UNDER WINCH POWER – It will damage tent and the evidence is obvious. (Not warranted).

Storage of the tent – outside in weather and when not in use:

Bundutop Tents have the largest internal mattress and internal Volume of all the Tents available on the Hard shell RTT market at time of writing. As such – they will hold the largest amount of humidity and body moisture also.

It is wise to open the tent after use and 'air it out as soon as practicable. Good practice is to open it every day after use, and to store it open and away from Sunlight or welding flash. If the Tent is left permanently mounted to your vehicle and parked in the weather – The Tent needs to be opened weekly to allow airflow to remove any condensation build up. If you live in a cold /wet/damp climate – (Seasonal) with high temperature variations daily (Desert Conditions) temperature variations will create a 'milk bottle' condensation effect daily and moisture will accumulate – condensation and mould will occur fairly quickly.

This can be stopped by leaving the tent open as if in use – The tent should not be mounted on any vehicle and left closed for any period longer than a few days at a time – In wet and tropical conditions a roof top tent can become mouldy in under one day after being closed damp from morning dew.

CONDENSATION DAMAGE AND MOULD ARE NOT COVERED BY WARRANTY.

Daily use – what to look out for and when to act:

1. Check that the tent aligns perfectly when closing – Its Ok if it requires a shove to line up. More than that it needs adjusting. See Below on how to adjust alignment of the tent.
2. Ensure that Over centre latches can be locked down using just one finger of pressure. If they are too tight – make sure that the tent base is aligning with the tent top and all canvas is tucked away properly. If the latches are too tight – Loosen them and try again until the right tension is achieved. Continued over loading of latches will damage the tent.
3. Air out the tent at every opportunity. It is designed to be used daily. Don't leave it closed for any extended period. If its mounted permanently on your daily drive – open it on weekends and leave it open all day. It needs to breathe.
4. Canvas stitching and in particular the walls will not repel water 100% If using the tent for the first few times in extreme rain it's a good idea to 'season' it first by hosing it all down until soaked several times before use. Water expands the fibres and increases its waterproofing dramatically after being wet a couple of times.
5. If you get the tent soaking wet in bad weather, water moving down the inside of the walls will pool in the channels in the base of the tent – at the next dry opportunity – fold the mattress in half, secure using a strap and put the mattress outside to dry. Towel up any internal moisture and allow the tent and mattress to fully dry out in sunlight before closing it up again. Remember Condensation is going to occur. Air out, Dry out, repeat.
6. Do not allow the roof to twist or bend out of alignment – usually this will only happen if you have broken a string – if the roof does not sit flat or level when erected – support the 'sagging' side and use the turnbuckles inside to tighten the string corresponding to the sagging corner. If the turnbuckle does not give enough throw to achieve the desired tension – take the string off the turnbuckle and shorten it and repeat until correct level is achieved. The best replacement string is a 3mm Polyester coated spectra – Available at any marine store. A good alternative is an low stretch or pre-stretched polyester rope (3mm). Lawn mover starter cord is an ideal back up and is available at most hardware stores around Australia.

THINGS TO KNOW

Electrical – what to know

1. The Tent lights, fans and Winch all run on 12Volt power – The Electronic components are all fairly basic and are designed to be repairable, replaceable on the road without tools or spares. There is a Headlight relay, 2 6amp Diodes, a 15 amp fuse and 2 limit switches that make up the entire set up. All are available as spares at major 12 volt electrical stores (Jaycar in Australia).
2. Low voltage (below 11V) will stop the buttons opening or closing the tent. The tent will however still open and close at low voltage by applying power directly via the 'Over ride' electrical terminals The Over ride power terminals are a direct winch feed – there is no limit switch to prevent over winching and damage so be careful to take the power off as the tent reaches height. Also be careful not to overwind the winch on the way down or the winch will back wind and the winch strap will fall off the winch. (Then the winch will turn but no longer lift the tent). You will then have to manually lift and prop the tent to open it and re spool the winch. (So don't overwind / back wind the winch).
3. There is a detailed Electrical Diagram available at **www.bundtec.co.za** – it is attached on the back page of this document.

Buttons failure – using emergency over ride terminals:

1. In the event of the buttons not opening and closing the tent. Use jumper leads or similar to open and close the tent using the over-rides. RED /positive applied to the bottom terminal will send the tent DOWN, RED/Positive on the Upper terminal will send the tent UP. USE EXTREME CAUTION that you don't overwind the winch too high or you will destroy the tent. Don't winch past the down position either or you may overwind the winch. Stop AS SOON as the tent is lowered. Ensure that you get the Power terminals the right way around before you attempt Over ride. If you over wind either way damage will occur.
2. Contact bundutec or your dealer when practicable 9-5 Monday to Friday for further electrical trouble shooting. In the meantime. Use the over rides. If used correctly no damage will occur and their 100% reliable as they do not have any fuses, buttons in the way. Direct feed to the winch.
3. **DO NOT OVERWIND THE WINCH WHEN USING EMERGENCY OVER RIDES. OVERWINDING WILL OCCUR WITHIN ONLY 3 SECONDS OF THE WINCH TURNING AND THE ROOF BEING IN THE LOWERED FOR CLOSING POSITION.**
4. **DO NOT OVER EXTEND THE TENT WHEN USING THE WINCH TO LIFT THE TENT. THE INSTANT THE TENT CANVAS WALLS ARE AT NORMAL/LIGHTLY TAUGHT THE POWER NEEDS TO BE REMOVED FOR THE WINCH WILL CONTINUE PUSHING AND TEAR THE CANVAS WALLS OFF THE TENT and DAMAGE OTHER COMPONENTS (Roof, Strings, lifting arms etc).**
5. **DESTROYING OR DAMAGING COMPONENTS OF YOUR TENT BY OVER-WINCHING is NOT COVERED BY WARRANTY**

More advanced tips and tricks on electrical trouble shooting

1. Limit switches can fail – usually due to foreign objects bending them out of shape. They are easily replaceable ($4 each at jaycar) and faults can be diagnosed by bypassing the limit switch using a loop wire (Just plug the two limit switch terminal ends together ensuring they don't earth out to the tent body) and then try the buttons again. If the buttons now work – The limit switch is at fault.
2. You will see on the Electrical Diagram attached that the Bundutop has two diodes (6 amp) – They are positioned on the same circuit as the Limit switches. They will blow only if Power is applied Polarity reversed, or if the Limit switch wires earth out to the tent body. They will usually both Blow out at the same time. If replacing them – Do them both – But before you put power back on – ensure that power is coming in the right way round – and that any potential earth in limit switches is eliminated. In the workshop we use an Amp Meter to test Ampage going into the tent when buttons are pressed. Usual Ampage is 21 amps on press up – rapidly dropping to 15ams after initial motor spool up. Ampage down will sit typically on around 10-12 Amps. A short circuit in the limit switch or on the cables going to it will usually show amps in excess of 45 amps on button press. If the short is evident on the up button press – The Limit switch or wiring to examine for faults is the one in the tents ARM. If it's the down button – It's the limit switch and or wiring located on the roof up above the winch strap.
3. We have seen the winch over tightened to a point where the retaining bolt on the join between the 4 pulley ropes and the winch strap is pulled back far enough to hit the upper limit switch housing and bend it onto the limit switch causing the short circuit. Check the mechanism at full height to see that this is not causing the problem.

Tent upper and lower body alignment procedure

1. Each arm lifting the tent has a turnbuckle present at the back of the mechanism. Test tension in the pulley lines by 'twanging' them like tuning a guitar. The slacker of the pulley lines will likely also be the corner of the tent that is aligning inwards and causing the tent to sit 'over' the top of its desired position at the other end. Tighten the slackest line first about 5 or 6 full turns, lower the tent and re-check alignment. If its improved – walk around the tent and again asses which corner is now the slackest and repeat. It's a trial and error process but immensely rewarding when you get it right and immensely frustrating while your failing... But you will get there. Even after doing 20 or so here it's a trial and error every time. Big tip is to unload the pulley tension before trying to tighten the turnbuckle ... It helps a lot.
2. Repeat over time. Canvas breathes and stretches with time. It will move. When the 'nudge' is not enough. Check the strings periodically.

THINGS TO KNOW

Latches:

The tent has 4 over centre latches – Set yourself a strict regime of unlatching the 4 latches, then counting the latches out aloud again on a second circuit of the vehicle. "1 Latch, 2 Latch, 3 latch, 4 latch."

IMPORTANT: Do not attempt to open the tent with any latch locked. Erecting the tent with any latches down can cause major damage to the tent and will void the tents conditional 12 month warranty.

Opening the tent using the buttons:

After ensuring all latches are open – press the 'up' button for 1 second or so and pause for a few seconds to allow air to suck into the tent cavity. Repeat with another short press to lift the tent approx. 2cm then walk around the tent checking if all sides have lifted evenly (No latches down).

When you visibly see that all 4 corners of the the tent have 'pop' up off its seal – you may then hold down the 'Up' button until the tent reaches its upper limit.

The Upper limit of the tent is reached when the canvas walls of the tent are tight. You will hear the winch motor start to load up. This is high enough!

It is wise not to put up the tent with loud music blaring as you will not hear the winch.

Closing the tent using the buttons:

1. Push the down button and hold it down for around 4 seconds until the tent reaches about 6 inch from the fully open position.
2. Pause and then walk around the tent – Checking that the wall batterns have began to fold Inwards towards the centre of the tent. If they have – you can move on to step 3. If any of the batterns have collapsed 'outwards' physically push them inwards by hand unitl they pop 'Inwards' .
3. To Continue the closing of tent, again push the down button until about 1 inch from totally shut... Now Check that the tent corners align perfectly top to bottom. It is normal that a shove is required to align the top of the tent to the base. Once aligned and any loose canvas is tucked away inside the tent – press the down button again to close the tent.
4. Clip up and latch down to lock out the over centre latches. You will see that the over centre latches have a bent clip at the top to allow them to lock out and stay in position better. If an over centre latch repeatedly undoes during travel – First check that the tent alignment is correct – If it is – check that the over centre latch clip is facing the right way (Bend in towards tent) – If the bend is not enough, the clip screws out and can be bent further using a vice and a wooden mallet taking care not to not damage the thread. Key ring clips are also provided to ensure lock out but we would recommend only using them in emergencies as its one more thing to do and can lead to you then forgetting to undo the latches!

Accidental string breakage – latches left down – what to do:

1. In the event of buttons being pressed and latches being down – Firstly don't stress out. Strings will be broken – accidents happen – you will need to be replace the broken string – and you will need to prop the broken string affected corner of the tent to keep the roof level. You can use a stick or tent pole, a shovel – whatever is handy.
2. The Procedure to rudimentary repair the broken string is below.
3. Put the tent back down, un- latch whatever caused the roof to be locked down
4. Get the assistance of another person – You will need them to prop the damaged corner of the tent using a shovel or similar. If nobody helps you - As the tent is lifted – the broken string side of the tent will sag and start to put enormous strain on the roof – (The flex can cause tears in sealant and result in leaks down the track).
5. Get the Lifting assistant to lift the sagging corner as the tent goes up – keeping the roof Level as possible minimises further damage.
6. While the lifting assistant holds the sagging corner – get inside the tent and prop it up level so that they may rest. The weight of the corner lift is about 10kgs so they will tire quickly. Have your prop ready – about 95cm long and not sharp at the ends. I usually cut a 50mm diameter branch or similar with a book or magazine to protect the roof lining..
7. Once the tent is propped up and is secure – pull out the broken pulley line and replace with another one. See detail above on desired string to use.... Tie it off copying the other arms. Use the turn buckle to get tension up and similar to the other arms. Tent alignment will likely be affected – SEE ALIGNMENT ABOVE.
8. Contact your dealer and let them know – I would advise having the roof exterior caulked at some stage to ensure roof seal is not compromised. 4/10 customers will at some stage forget to unlock a latch and will break a string – It's not the end of the world and be upfront with your dealer – they can then accurately diagnose what will need checking and repair (if any) to ensure no long term dire effects to the tent.

THINGS TO KNOW

Warranty terms

- All tents / Canvas and Parts are covered by 12 month Back to base warranty. If your tent has a manufacturing issue it will be repaired FOC.
- Roof re-sealing is offered FOC inside of first 12 Months in the Event of leaks due to unknown causes (vehicle flex , improper factory seal etc).
- Damage occasioned by Erecting tent with Latches down is not covered by warranty. Repairs carried out on the road that cause further problems are also not covered by warranty.
- Electrical failure / Button failure is covered by warranty for first 12 months – Including all componentry required to repair or replace .
- Damage caused by Mould ingress is not covered by warranty.
- Bedding replacement in case of Mould ingress or water damage is not covered by warranty
- Tent removal, re-installation of additional components like awnings, brackets, roof racks, solar panels etc are not covered by warranty unless installation was incorrectly performed or occasioned by the installer.
- Electrical components warranty is void if tent is returned with electrical tampering evident (not carried out by expert 12Volt personel).
- FREE Roof Resealing is not possible in the event of un-authorised persons attempting their own roof reseal before seeking professional help. Please note: Silicone sealing the tent yourself will not work. Custom paint jobs, plastic coating etc makes it hard for the repairer to work on the tent. The silicone then has to be removed before the re-seal can be done properly. This will be at your expense.
- All warranty terms above are to be diagnosed at the discression of the Dealer.
- The Dealer is not responsible for any transportation costs involved in failure of tent / nor alternative accommodation etc occasioned in the event of a failure. The Tent is for use only as a Leisure Item and should not be considered the only shelter resource for remote area travel.

Final note

Remember – remote touring is not easy. Stay prepared and enjoy the challenges. If relying on 12 Volt power always carry appropriate tools and spares, and learn to diagnose, repair and continue.

Everything breaks and wears in this rugged country. Be careful with your equipment – treat it with care and respect and it will serve you well for a lifetime.

Mark Sills (Tough Touring)