Welcome word

Congratulations on your purchase! We are confident that you will enjoy riding your new Trivel T-120 bike as we spent a great deal of time designing it with you in mind!

This manual will get you through the necessary information about safety, usage, and maintenance of your new bike so you can experience the most of it, for many years.

Please read this manual thoroughly before your first ride and keep in handy for future reference.

If some instructions remain unclear to you, please do not hesitate to contact us or your retailer for further explanation.

About us

For over 25 years, the passionate, dedicated Trivel team has been designing and manufacturing quality products for reduced mobility children and adults, thus providing them with hours of fun and pleasure.

To learn more about our products, parts, accessories and services, please visit www.trivel.com

Before your first ride

To ensure your first ride goes smoothly, please make sure to follow these simple instructions:

1. Read and understand this user manual.
2. Adjust the bike to the recommended settings for your size.
3. Proceed to a first safety check on your bike.

You’re good to go! Put your helmet on and enjoy the ride!

Note that the initial assembly, adjustments and the following regular maintenance of your new bike must be done by a qualified technician for the equipment to be safe to use and to be covered by our limited warranty.

It is strongly recommended that you choose a private or closed-circuit road without obstacles, major inclines or vehicles to get used to your new bike handling and to practice safe braking before going for a longer ride with other riders or on public roads.
A Word on safety

Your new Trivel T-120 bike is a very reliable and safe product. Our design team and factory workers spent a great amount of time ensuring that it met the level of quality, performance and safety that is the norm of the industry.

However, riding a bike, like other sporting activities, involves some risks. People who engage in cycling must be aware of the risks involved and personally assume them.

The majority of crashes and injuries are caused by human factors such as bad judgment over a hazardous situation, improper handling or neglecting the equipment’s mechanical maintenance.

Many serious injuries can be prevented by wearing adequate protective equipment such as a homologated helmet.

Respecting the local road laws and getting to know how to properly use and maintain your bike with the help of this manual will also significantly help reducing the risks of injuries.

It is the rider’s responsibility to fully understand how to safely use and maintain the bike.

In the case of a child riding the bike, it is the supervising adult’s responsibility to educate on local public road laws, encourage safe riding activity and ensure the proper fit, adjustment and good mechanical condition of the equipment.

This document is not a complete service manual. We recommend that you seek advice from your retailer if anything is unclear or if you need more information.

Although it is unfortunately impossible to avoid every risks or hazardous situations that can occur, there are several safety advices listed in the following chapter that can help reduce the risk of a crash or accident.

When it comes to safety, always use good sense, ride intelligently and be careful about your own safety and that of the others.

Condition of use

Your new Trivel bike was designed to used under the Condition 2 type of riding based on the standardized bicycle classification usage.

This bike is designed to be ridden on paved road but can also be ridden on smooth gravel roads and light trails with small obstacles like potholes or small roots. Controlled drops of maximum 6” (15 cm) at slow speed such as a sidewalk curb are permitted but they should not be jumped. This bike is not designed for racing, aggressive riding or mountain biking.

Recommended weight limit: 200 lbs (91 kg) total weight including the rider, all the equipment, accessories and luggage.

This bike was not designed to be fitted with a child carrying seat.

If using feet securing device such as toe-clips or clipless pedals, be aware of a possible interference with front wheel when turning sharply.
**Safety recommendations**

Check and make sure that all component connections and accessories are safely attached before every ride. Do not ride your bike with loose components or accessories. Take the bike to your retailer if necessary.

Always wear a homologated helmet; it could save your life. Make sure it is properly attached and positioned.

Wear bright, visible clothes. Preferably closely fitted to your body to avoid entanglement into components. Lace your shoes.

Keep control of your speed at all time and always ride within your capacity and limits.

On public roads, always ensure you are visible to other road users. Make sure your bike has all the reflectors or lights that are required by the local laws.

Know and respect the local laws regarding bicycle use and required safety equipment on public roads.

Never ride under the influence of alcohol or illicit substances. This could seriously impair your judgment, reflexes or balance and may lead to prosecutions, serious injuries or even death.

Never carry a second passenger on the bike.

Do not carry anything on the handlebars or between your legs as this could seriously impact your balance or get caught in the wheels and may cause serious injury or death.

Make sure the bike is properly sized for you and that you are fully able to control it.

Adapt your riding style and behaviour to each type of terrain, situation, and weather condition.

This product and its components were not designed to be used for extreme conditions or stunts. Do not engage in aggressive riding or jumps.

Avoid riding on wet or icy ground if possible. Wet and icy ground greatly increase risk of a loss of control.

Avoid riding at night if possible. If you must, make sure you are easily seen from other road users. Install adequate lights to your bike.

Stay away from potential hazardous situations such as stairs, steep descents, curbs, heavy car traffic, etc.

Avoid getting your bike in direct contact with sea water as it can be quickly damaging to the ferrous parts. Wipe off any sea spray particles or sand whenever possible.

Take note of your bike’s serial number and store it somewhere secured. This unique identification number can be required by Trivel customer service for warranty purpose. It could also help you retrieve your bike if it was stolen.

For California resident: This product may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm, including paint, lubricants, and various metals. Wash hands thoroughly after handling this product. (California Prop 65)
Safety checklist

Before each ride, you should refer to this safety check list to make sure your bike is safe to ride.

Check for cracks or any damage on the frame and fork. If you think you have found damage, do not ride your bike. It is recommended to bring it to your local bike dealer and ask for advice.

Check tire pressure with a pressure gauge. Recommended pressure specific to each tire is written on its sides. Riding your bike with low pressure greatly increase risks of puncture.

Check brake function and brake pad wear. Squeeze both brake levers and push the bike back and forth to see if brakes are functioning. If needed, proceed to brake adjustment section.

Check both wheels attachment and alignment. Raise the front end of the bike and let it fall to the ground to make sure it is securely attached. Look at eye level to make sure both wheels are centered in the frame and fork. Spin both wheels to make sure they are straight.

Check fork, stem and handlebar attachment and alignment. Stand in front of your bike while holding the front wheel steady between your legs and firmly try to rotate the handlebars. None of these components (fork, stem, handlebar or front wheel) should be moving. If any of these components are moving, align stem with the wheel and tighten again.

Check the chain for smooth operation and proper lubrication. Apply oil if needed.

Check the chain tension on single speed models.

Check both pedals and crank arm attachments. Pedals should be properly tightened to the crank arm. If needed, tighten them again. Rock both crank arms from side to side to find any play. There should be none. If needed, tighten crank arm again or have the bottom bracket adjusted.

Check all quick release levers that may be in an open position. Make sure they all are properly tightened and in their closed position.

Check saddle attachment and seat post insertion limit. Saddle should be firmly tightened, and the seat post minimal insertion mark respected.

Check both grip attachments and grip end presence. Firmly try to rotate grips on handlebar. They should not move.

Check for correct attachment of all accessories if any. Make sure that there are no loose components or parts that could interfere with any moving parts on bike when riding.

Check for the presence of reflectors and their proper orientation. No accessories should obstruct the reflectors.

Check for any cracks or damage to your helmet. A cracked helmet should not be used. Attachment straps should also be well adjusted to your head.
Ergonomic recommendations

Keep in mind that these recommendations should only be used as a reference. The theories of the bike fitting science vary even between experienced specialists. No one has the same body proportion, flexibility or injury history. Ideally, you should be comfortable while riding your bike. Achieving the right position can require some experimentation and counselling from a fitting specialist.

Handlebar height

The handlebar can be fitted on a wide range of position changing significantly the torso angle. Set the handlebar high for a more comfortable position or low for a more performant position.

Saddle height

A properly adjusted saddle height allows for a better leg deployment while pedaling. It will prevent joint injuries over longer rides and improve your muscular efficiency.

A simple and common way to determine a rider’s recommended saddle height is to measure the distance from the groin to the ground while standing against a wall (a measure generally called ‘inseam’) then multiply that number by a factor of 0.8

The resulting value can then be used to set the saddle’s height from the chainwheel center as illustrated next.

Foot position on the pedal

The first condition for an efficient pedalling motion is to position the foot straight and with the ball of the foot inline with the pedal axle as per illustration below.

Illustrations above showing a bare foot for bone alignment reference only. Do not ride your bike without shoes.
**Knee angle**
The way the knee bends when pedaling is an important factor for muscular efficiency and to avoid joint injury over longer rides.

A good saddle height should result in a knee angle of about 35 degrees when the rider’s leg is fully extended (with the pedal at the farthest distance from the saddle).

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**Knee over pedal rule**
This simple technique helps position the rider’s hip along the seat tube axis to prevent unwanted hip movement and improve weight distribution over the bike.

Ideally, the rider’s kneecap should be vertically aligned with the pedal axle when the chainwheel arm is on the forward horizontal position.

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**Leg reach**
Ideally the rider should be able to reach the ground with at least the tip of the foot to keep balance without getting off the saddle when coming to a complete stop.
Ergonomic adjustments

Adjusting the saddle height

1. Pull the seat tube quick release clamp lever into ‘open’ position

2. Lift the saddle to the required height

3. Push the seat tube quick release clamp lever back to ‘closed’ position

Do not raise the saddle past the seat post’s minimum insertion engraved mark.

Check for correct saddle alignment before tightening the clamp.
Adjusting the handlebar height

It is recommended to have this adjustment made by a qualified technician as it will require to adjust the headset bearings. An improper adjustment of the headset can result in permanent damage to the component or frame and may lead to a loss of control, resulting in serious injury or even death.

1. Loosen the stem clamp and remove the headset top cap

2. Rearrange the spacers stack above or below the stem to reach the required handlebar height

3. Adjust the headset bearing compression with the top cap bolt

4. Tighten the stem clamp

If the handlebar must be fitted on the lower part of the steering tube, it is recommended to cut some of the exceeding length above the stem. Only a qualified technician with the necessary tooling and hardware should proceed to this.
Riding your bike

Riding uphill
Shift to a lower gear before going uphill. Avoid shifting when the chain is under high tension while climbing a hill to prevent damage to the components.

On the steepest inclines, shift your body weight to the front of the bike to reposition your center of gravity. This will prevent the front end of the bike from lifting.

Riding downhill
Assesses the risks and evaluate your riding capacity before attempting to ride down an incline. Hold the handlebar firmly and keep your fingers on both brakes at all time when going downhill. Be attentive to your braking force to avoid locking any wheel.

On the steepest inclines, shift your body weight to the rear of the bike to reposition your center of gravity. This will prevent the rear end from lifting while braking. You may move your body backwards over the saddle while extending your arms as the hill gets steeper.

Riding off road
Only ride off road trails with a purposely designed bike.

Riding off the paved roads is more hazardous and requires a different set of skills and good balance ability. You must be aware of the risks involved and fully assume the responsibility.

Respect your own limits and experience level.

Equip yourself with the adequate protective gears. Sudden loss of control can happen when riding off road. Learn how to dismount off the bike before falling.

Respect private property and the other users on the trails and slow down when you cross. It is recommended to bring a basic tool set. Be prepared for emergency fixes on your bike. Do not throw away garbage on the trails.

Riding in wet weather
Avoid riding in wet weather if possible as this seriously increases the risk of losing control and falling.

Tire contact with the ground and braking efficiency is greatly reduced on wet conditions. Slow down, start braking earlier than usual and more gently, take extra caution when turning.

Riding at night
If you must ride at night or during lower daylight time, make sure you are visible to the others and that you can also see them well.

Reflectors included with your bike are a minimal safety device and it is recommended (often mandatory too) that you use a proper set of lights when riding at night.

Wear bright colored clothes and accessories. Always double check and confirm that others see you before crossing an intersection or attempting a manoeuvre. Always ride defensively and assume that people did not see you at first.

Riding on public roads
Avoid riding in heavy traffic if possible. It is your responsibility to know and follow the local laws regarding the use of a bike on public roads.
Braking
An efficient braking technique will improve your riding experience and keep you safe. Understand your brakes function and how they react under different conditions is essential for your safety. Very importantly too, remember which lever controls the front brake and which one controls the rear brake.

▪ Left hand side brake lever pulls the front brake
▪ Right hand side brake lever pulls the rear brake

Always use both brakes at the same time and practice modulating the braking force you apply between front and rear brakes to avoid locking the wheels. The braking force is at its peak just before the wheel locks.

Applying too much force on a brake lever will cause the wheel to lock and can result in a loss of control, serious injury or even death.

Shifting gears
Frequent and efficient shifting increases the chain and gears durability and can reduces muscular fatigue.

Make a habit of starting off on a low gear and work your way toward a higher gear as you are accelerating, thus maintaining a comfortable pedaling cadence.

Avoid shifting under high chain tension such as when climbing a steep incline.

For a smooth gear shifting, briefly stop pedaling or reduce the force being applied to the pedals when shifting the gears.

▪ Twist the shifter away from you to shift to a higher gear ( + )
▪ Twist the shifter towards you to shift to a lower gear ( - )

Be sure to shift the shifting lever one gear at a time. During shifting, reduce the force being applied to the pedals. If you try to force operation of the shifting lever or perform multi-shifting while the pedals are being turned strongly, your feet may come off the pedals and the bicycle may topple over, which could result in serious injury.

The gears can be shifted while lightly pedaling, but on rare occasions the pawls and ratchet inside the hub may produce some noise afterwards as part of normal gear shifting operation.

Using the quick release binders
Your bike is equipped with quick release binders. These attachment mechanisms are use on components that often require to be removed and reattached or adjusted such as the seat post clamp and the front wheel.
Technical adjustments

Brake adjustment
When the brakes wear down with normal use, the distance between the brake pads and the rim surface increases. The cable tension then needs to be adjusted to get the brake pads closer to the rim and preserve proper braking force.

To increase cable tension:

1. Turn the barrel adjuster counter clockwise to pull cable
2. Lock the adjustment by turning the locknut clockwise

Adjusting the chain tension
Chain tension must be adjusted so it does not allow the chain to drop from the sprocket.

Correct chain tension is met when there is a movement of about 6 to 12mm vertically when pushing the chain up.

- Loosen the rear wheel nuts
- Pull the wheel to put the chain under tension
- Tighten the rear wheel nuts temporarily
- Check and measure the chain tension
- Pull or push the rear wheel further into the frame if needed until the recommended tension is met
- Check that the rear wheel is centered within the frame center axis
- Firmly tighten the rear wheel nuts
- Check the brake pads position on the rim and adjust if needed

Adjusting the gear hub
Your gear hub transmission must be precisely synchronised to function properly. The cable tension controls the gear synchronism.

Correct cable tension is achieved when the two adjustment witness lines on the hub are aligned while the shifter is set on the 4th gear.

- Put the shifter in the 4th gear.
- Turn the barrel adjuster on the shifter to increase or reduce the cable tension until both adjustment witness lines on the hub are aligned.
Repairing a flat tire

1. Take the punctured wheel off the bike
2. Detach the tire from the rim using tire levers if needed
3. Remove the inner tube and locate the puncture
4. Find the corresponding location of the puncture outside and inside the tire
5. Check if any sharp objects remain stuck in the tire
6. Fix the punctured inner tube with a puncture repair kit or get a new one
7. Pre-inflate the new or repaired inner tube to a low pressure just enough so it keeps its shape
8. Insert the inner tube inside the tire
9. Put the tire back on the rim making sure the tire thread is facing forward
10. Inflate tire to recommended pressure while checking for an even position of the tire on the rim
11. Put the wheel back on the bike

Maintenance

Regular maintenance is essential to keep your new bike riding for many years, for your own safety and to preserve your bike’s limited warranty.

It is recommended to take your bike to a qualified technician once a year for inspection and to take a tune up appointment if necessary.

Additionally, there are a few simple basic maintenance interventions that you can proceed to, by your own at home.

Required tools

The following list of tools is a minimum requirement to proceed to basic maintenance and simple adjustments of your bike.

- Allen keys set (Metric sizes 2mm to 8mm)
- Open end wrench keys set (Metric sizes 8mm to 15mm)
- Screwdrivers (Medium size Phillips head and flat head)
- Bio chain lubricant
- Bio degreaser for metal parts
- Protective gloves
- Protective glasses
- Clean cloth
- Air pump with a pressure gauge

Bike components and accessories uses international metric system sizes bolts and nuts. Do not use imperial system tools, bolts or nuts to avoid damaging the components.

The maintenance of your bike requires to handling of chemical products that can be hazardous to your health. Make sure to follow each product’s safety notice and wear the adequate protective gear at all time when doing maintenance.
Chain lubrication
Clean and lubricate the chain and sprockets regularly. There is no official schedule as it depends greatly on where and how the bike is ridden. However, it is generally recommended to do it after your bike has been ridden in wet or muddy conditions, after being washed or at least each month in normal condition.

The chain should be lubricated with a bike chain specific lubricant. Do not use grease. Ideally, the chain should be cleaned with a bio degreaser prior to lubrication.

Apply only a small amount of lubricant over the full length of the chain by gently pouring fluid over the chain, into each link.

Let the lubricant penetrate for a minute and remove the excess fluid with a clean cloth. This will keep the chain clean and running smoothly.

Be careful not to spill lubricant over the rim as this could greatly affect its braking performance. If you accidentally do, immediately clean the rim with a bio degreaser.

Tire pressure
Keeping your tires inflated inside the recommended pressure range will guarantee their performance and durability. Avoid riding your bike with the tires underinflated to prevent premature wear, rim damage and puncture.

Read the markings on the tire to know the recommended pressure.

On the example above, any pressure between 60 and 80 PSI is acceptable.

Generally, a lower pressure will provide more comfort by reducing road chatter and absorbing impacts while a higher pressure will provide slightly less rolling resistance but transmit more impacts.

To inflate the tires, remove the valve caps, identify the type of valve and fit a compatible pump head or use with an adapter.

Internal gear hub maintenance
In order to maintain proper performance, it is recommended to grease the internal hub about once every two years starting from the first time of use (or once about every 5,000 km if the bicycle is used very frequently).

It is recommended to use only Shimano internal hub grease or lubrication kit when carrying out maintenance. If the special grease or lubrication kit is not used, problems may occur such as the gear shifting not working correctly.
Lifespan and normal wear

A bike’s frame, fork and every component that makes a complete bike are subject to material fatigue and wear.

Normal use of your bike will eventually wear components such as the chain, the brake pads, the tires, the rims, bearings, etc.

Intensive use, harsh conditions and lack of maintenance will cause these parts to wear off faster.

Most of the parts on your bike are replaceable and they should be when they are worn out. Here’s how to find out when some of the components of your bike need to be replaced:

Brake pads

The brake pads get in contact with the rim’s braking track and a small quantity of material wears off every time you apply the brakes.

Replace the brake pads once the material has been worn off down to the engraved limit line.

Rx

Rim

A quality rim can last for many years when used under normal conditions and with timely brake pads replacement. However, it is not eternal and the rim’s braking surface slowly wears out every time you apply the brakes.

A rim should be replaced when the braking track material has been worn off down to the engraved limit groove line.

In order to maintain strong braking power and to prevent premature wear of your brake pads and rim, inspect the brake pads contact surface from time to time. Remove any metal shrapnel present and lightly sand down the material to remove the thin glazed portion of its surface if necessary.

From time to time, of after a hard impact, inspect your rims to spot any deformation in the material. Check every spoke to make sure none of them is broken. If the rim has a deformation, or if a spoke is broken, do not ride your bike. Have the damage assessed by a qualified technician and have the parts fixed if possible.
**Tires**
The tires on your bike will wear out gradually with use. Generally speaking, they will need to be replaced before or when the thread pattern on their outside surface cannot be seen anymore.

Many factors will influence the lifespan of your tires such as the type of terrain you ride on, your braking habits, or if the air pressure is frequently kept too low for long periods of time.

Tires can be damaged when you hit obstacles such as potholes hard. Visually inspect your tires if you suspect they are damaged or need to be replaced.

**Chain**
Your bike being equipped with an internal gear hub and a specially coated chain, you can expect your chain and gears to last for a few seasons without needing replacement provided that you maintain a proper chain tension, frequent lubrication and manage your gear shifting efficiently.

Your chain will ‘stretch’ over time and generally needs to be replaced when it reach an elongation of about 1%. Speciality tools for chain stretch measurement are available at your local bike shop.

**Cleaning your bike**
Keeping your bike clean is an easy and simple way to help extend its performance and look.

Fill a bucket with warm water and mix a biodegradable dishwashing liquid or other soft soap.

Clean transmission components such as the chain, sprocket, and chainring first with degreaser using specially designed brushes or a dedicated cloth.

Thoroughly wash the frame and components from top to bottom with soapy water using a soft brush.

Rinse with water at low pressure (Do not use a pressure washer as it can damage sealed components).

Dry the chain with a clean cloth and apply lubricant before letting it to air dry.

The internal hub is not completely waterproof. Avoid using the hub in places where water might get inside and do not use high-pressure water to clean the hub, otherwise the internal mechanism may rust.
Storing your bike
It is recommended to store your bike in a tempered dry place, preferably indoor or inside a locked shed.

Make sure the chain has been lubricated before storing your bike for a prolonged period.

Check that there is enough air pressure in the tires from time to time, so they don’t get damaged.

If you plan to leave your bike outside, we recommend that you lock it and cover it with a tarp to protect from water but allow circulation of air.

Warranty terms and limitations
By the present, Trivel gives notice to the original owner of a Trivel bike of the provisions of the limited warranty that Trivel offers the owner following the purchase of the equipment from an authorized Trivel retailer.

Warranty against hidden defects
Trivel warrants to the owner that its equipment, when new, is exempt from hidden defects. Should the owner discover what he believes is a hidden defect, he must notify Trivel in writing within three (3) days from the moment when he or she first becomes aware of said defect in order to give Trivel the opportunity to correct said defect if possible, at the sole discretion of Trivel and provided Trivel can establish said hidden defect is present before the expiration of the warranty.

Warranty against apparent anomaly
The owner must verify the apparent condition, the quantity and the contents of the equipment following the purchase and, on the same day, must immediately proceed with a complete inspection of it with the help from the owner’s manual. If there is damage, if a part is missing or is damaged, if the equipment is broken, or if there are other problems of the same kind (hereafter known as: ‘Apparent anomaly’), the owner must contact the retailer immediately and notify Trivel within three (3) days from the date of purchase from the retailer by registered letter, a receipt for which must be kept for reference. Should the owner not advise of the Apparent anomaly within the prescribed time period, Trivel shall not be responsible for any prejudice suffered by the owner due to the Apparent anomaly and the equipment shall be deemed free of any Apparent anomaly when purchased and the owner deemed satisfied with the purchase.

Frame
Trivel warrants to the owner that the bike frame when new, is free from defects in materials and workmanship. This warranty shall expire thirty-six (36) months following the purchase date of the equipment from the retailer. The frame excludes the paint and finish, the front fork, the wheels, the tires, the drive train, the brakes, the saddle
post, the handlebar and stem and any suspension component or part.

**Useful life warranty**
As for any other consumer good, a Trivel bike has a useful life cycle. The length of the useful life cycle can vary depending on the criteria chosen for workmanship and materials of the equipment as well as the kind of use and frequency to which the bike has been subjected. However, Trivel advises the owner that the maintenance and upkeep performed on the equipment during its useful life cycle are very important as a means of prolonging the useful life cycle of the product. Consequently, Trivel advises the owner that the equipment must be checked periodically by the retailer as general maintenance of the product and as a means of detecting stress and/or potential failures including, but without limiting the generality of the preceding, cracks, deformations, corrosion, paint chipping, dents and any other indications of potential problems, improper use or abuse. These regular verifications are important safety checks and they are essential in helping to prevent accidents, bodily injury and premature reduction of the useful product life cycle of the equipment.

**Merchandise return policy during warranty period**
If a defect occurs during the warranty period, the parts will have to be shipped to Trivel directly from an authorized Trivel retailer and, following repairs, Trivel shall ship the parts back without charge to the retailer exclusively. If the shipping address is different than the nearest Trivel retailer’s the customer shall have to pay shipping costs both to and from said different address.

**Validity of the limited warranty**
The Trivel limited warranty is conditional to the equipment having been handled and maintained adequately by the owner in accordance with the notices to the owner and the instructions printed in the owner’s manual and on the equipment having been stored in appropriate conditions. To be able to benefit from the terms and conditions of the limited warranty offered by Trivel, the owner must fill a Trivel limited warranty form (which can be found at an authorized Trivel retailer and on Trivel website) and return it to the retailer with a copy of the invoice obtained at the time of purchase to Trivel within thirty (30) days of the purchase date.

Without limiting the generality of the preceding, the Trivel limited warranty excludes components of the vehicle that are damaged by an error or negligence in the maintenance of the equipment and its components or resulting from a use that does not conform to the notice to the owner and to the Trivel owner’s manual by the owner.

**PLEASE VISIT TRIVEL WEBSITE FOR THE LATEST VERSION OF THIS LIMITED WARRANTY**