

# ***Variant Trailer Manual***



[www.varianttrailers.com](http://www.varianttrailers.com)

## My Trailer

Model:

VIN:

Purchase date:

Reg. or License:

### Service and Inspection

Date:

Licensed  
Dealer or  
Service  
Facility:

Date:

Licensed  
Dealer or  
Service  
Facility:

Date:

Licensed  
Dealer or  
Service  
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Dealer or  
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Facility:

Date:

Licensed  
Dealer or  
Service  
Facility:

To ensure that your Variant trailer is ready and safe to use, it is recommended that you have it serviced at your local Variant dealer.

We recommend that trailers with brakes are serviced and inspected every 10,000 km or once annually.

Brake service, adjustments, and repairs should be performed by licensed service facilities only.

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## **Congratulations on the purchase of your new Variant trailer.**

To get the full benefit of the trailer, you should follow certain advice and directions. Read, observe, and save this manual and other user manuals for additional equipment.

Pay extra attention to areas marked with this symbol ⚠

At the same time, it is also important to read and observe the instructions and warning signs on the trailer before commissioning.

If questions arise when using the trailer that this manual does not immediately answer, you are of course always welcome to contact your dealer.

### **IMPORTANT INFORMATION:**

Trailers are not toys! Children are unable to properly assess the hazards that the trailer may cause, and they may be injured when playing on or around the trailer.

- Do not let kids play around trailers without adult supervision.
- Keep children at a safe distance when moving trailers.

My trailer

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# ***Operator Instructions - all models***

## **Connecting the trailer to the tow vehicle**

1. Connect and lock the trailer latch on the vehicles tow ball  
(Use correct ball size and grease the ball)
2. Cross connect the safety chains or wires between trailer and vehicle.
3. Connect trailer power plug to the towing vehicle.
4. If the trailer is equipped with a jack, then make sure it is raised up and locked in place.

## **Before departure**

1. Check that all lights are working.
2. Make sure the cargo is evenly distributed and secured in the trailer.
3. Make sure all gates, ramps, and latches are locked in place.
4. Check and make sure trailer accessories are locked in place if such is being used.
5. Check trailer tire pressure.

## **Towing**

- ⚠ Towing tall trailers, or trailers with high tarpaulins in very strong crosswinds should be avoided, especially if the trailer is empty.

Reversing with a trailer takes a little practice. When reversing, the trailer is steered using the ball on the towbar. Therefore, you must turn the car in the opposite direction of the way you want the trailer to move. "practice makes perfect".

- ⚠ Always pay attention to speed limits for trailer towing as they vary between states and provinces and some states and provinces have different laws and regulations for trailer towing. Check with your local licensing authorities and insurance company for advice.

## **Trailer Disconnect**

1. Use wheel chokes in front and behind tires.
2. Disconnect the lights by pulling the plug out. Do not pull on the wires.
3. Remove safety chains or cables.
4. Release the coupler latch and extend the trailer jack (if equipped) and lift the trailer off the ball.
5. Keep hands and feet away from the area where the trailer coupler and jack will be placed.

## Trailer Loading

When driving with a trailer, it is important for stability that you drive with the correct ball load. The pressure must be at least 4% of the actual total weight of the trailer. Greater weight is usually an advantage, but you must observe the maximum ball load of the towbar/car.

The trailer is designed so that the center of gravity is in the middle, slightly in front of the axle. When loading the trailer, you should therefore try to distribute the load evenly. Rather a little more in front than in the back.

## Torquing of lug nuts

 It is very important that the wheel bolts are retightened after approx. 20 miles or 30 kilometers of towing. Remember to regularly re-tighten wheel bolts to 80 ft. Lbs.

## Trailer Handbrake (for trailers with brakes)

All Variant trailers with brakes are equipped with a handbrake (park brake), which is recommended to be activated when parking. For long-term parking, the handbrake should not be used.

The handbrake is activated by pulling the handbrake upwards, after which the gas spring tightens the brake and keeps it engaged.

If the handbrake is not applied completely, the trailer may be braked for forward driving, but not for reverse driving.

## Coupler lock

A good lock for the coupler reduces the risk of theft.

Your local Variant dealer will be happy to show you the lock types and solutions that can be used on your trailer.

## Overloading

The trailer's registration certificate and / or VIN and Tire tags show the payload capacity. We advise against any form of overloading, as towing safety is significantly impaired. Driving with a higher weight than permitted may result in damage to the tires, axle and any chassis frame, and all warranty will lapse.

Towing an overloaded trailer is also illegal.



## Accessories

There is a wide range of accessories available for your Variant trailer, making it possible to put together a trailer for virtually any need. The selection includes jack wheels, tarpaulins, locks, extra high sides, mesh grilles and ramp sets.

Equipment on the trailer must always be correctly mounted, secured and locked to the trailer. Securing accessories is the sole responsibility of the operator before towing the trailer.

See more at [varianttrailers.com](http://varianttrailers.com) or ask your local dealer so you get the equipment that meets your needs.

### ***Cargo Trailers***

1. Before closing and locking doors and ramps, check that there are no people and animals inside the box. (Danger of suffocation and lack of oxygen).
2. Be careful when opening side doors. Ensure that the doors are secured using door stops/holders prior to loading and unloading. Always hold the doors firmly in strong winds.
3. When opening, closing and using ramps, take care that there are no people and animals in the Workspace. The risk of accident and crushing may occur.
4. Be careful when the ramp is folded down. There is a risk of falling if the ramp is wet and slippery. Only enter the ramp from the rear - not from the side.
5. **IMPORTANT:** Please make sure rear reflectors are not covered when loading and unloading.

### ***Utility and Flat Deck Trailers with Ramps***

1. Before opening, closing and using ramps, check that there are no persons and animals in the work area. Risk of accident and crushing.
2. Be careful when the ramp is folded down. There is a risk of falling if the ramp is wet or slippery. Only enter the ramp from the rear - not from the side.

### ***Boat Trailers***

We recommend that when you first use your boat trailer, you give yourself plenty of time to get the boat properly adjusted. You will save the time spent again many times over, as future loading and unloading will be quick and seamless. Your Variant dealer will be happy to help with advice and guidance.

## **The trailer must fit the size of the boat!**

The boat's data such as weight and length are important. Weight is important in relation to the trailer's payload. Remember that the weight for any equipment, engine and gasoline must be added to the boat's own weight.

The length must also be right to avoid overloading the hull.

It can be tempting to use the boat as a large trunk but be careful not to overload the trailer.

If you are in doubt about the total weight, we would recommend that you have your trailer and boat weighed at a commercial scale.

# Trailers with Electric Dump (TIP)

## Trailer Use and Application



Important tips when dumping the trailer bed:

1. For rear tipping, the bevel bolts must be placed in the 2 rear tipping brackets.
2. When tipping to the left, the safety bolts must be placed in the 2 left tip brackets, and at the right tip in the 2 right tip brackets. For safety reasons, the securing brackets must be placed in the correct brackets before tipping the bed. For 1-way tipper trailers, safety bolts are fixed.
3. The trailer must always be connected to the car when tipping.
4. Be aware that there are no people on the trailer and in the vicinity of the tipping area, as this may be dangerous. The trailer must be on a flat and firm ground during tipping, otherwise the trailer may tip over.
5. Regularly check the legibility of the warning sign on the front. It must be clearly stated the danger of staying under the cover.
6. The emergency pump is only intended for tipping the battery in case of lack of battery. When using the emergency pump, the electrical stop is not working.
7. After use, the main switch must be turned off, so as not to discharge the battery.
8. Remember to activate the trailer's hydraulic system, with the included key.

### WARNING!

**⚠ Never stay under the raised bed without the safety pole activated. There is a risk of being trapped between the lower frame and the box on the trailer. Always have service work performed by qualified personnel. Never leave a tipped and unsecured dump trailer unattended.**

### Dump with wired remote control

The box is raised up by pressing   
Lower the box by pressing   
The key must be turned to the key icon to activate the remote control.



### Dump with the Icarus App

The trailer can be controlled remotely with the Icarus blue App on your smartphone. The app can be downloaded for iOS and Android platform. After downloading, launch the App and follow the instructions for pairing with the trailer. The app uses Bluetooth communication.



At the first activation, turn the key on the corded remote control and raise the trailer bed to a suitable height so that the safety support can be placed. Once the safety support is placed, turn the key onto the antenna. Check that the Icarus blue control unit is flashing green. Press the Teach-In button on the control box charge 3 times.

Wait for the control box LED light to flash green, faster than usual. When the LED changes between green and red, the smartphone is connected.

After the tip function is finished, the connection between the trailer and the telephone must be disconnected to avoid accidental activation. In the App's menu, select "Disconnect" to disconnect from the trailer. It is possible to pair the same phone to multiple trailers, but only one trailer can be operated at a time. For further help with the App, click on <http://www.icarus-blue.com>

### **Dump with wireless remote control.**

For the use of a wireless remote control, the key must be turned around so that it is on the logo with the antenna. The remote control's middle ON/OFF button is pressed and held for 3 seconds (until the light is on). After that use the arrow keys to tip the bed up and down, respectively.

After use, it is recommended to turn off the remote control so that it is not inappropriately activated. If the remote control is not used for 60 seconds, it switches off automatically.



### **Raise and Lower Functions**

Machine tippers (dump trailers) and 1-way tipper trailers have a built-in safety function in the hydraulic system. When the maximum level is tipped, a clicking sound is detected, which means that the bed cannot be lowered again. To lower the bed again, press the lower button once or twice. After 20-30 seconds, the system is ready, and the bed can be lowered. It is not recommended to keep the load tipped to the maximum position. Tip the load to the desired position and if the maximum position is reached, immediately lower the bed about 5 cm.

### **Service and Maintenance**

Service work on an electric tipping system must only be carried out by qualified personnel.

General control of the hydraulic system:

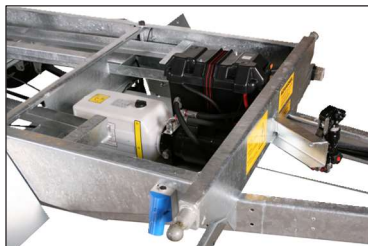
1. The oil level of the system must be checked daily. In the event of major oil spillage, the system must be checked for leaks.
2. When filling oil, use hydraulic oil BP Bartran HV 15, or an equivalent product.

The trailers are equipped with a charging system that is used when charging the battery (even when the battery is covered).

The charger is located inside the lid, on the battery case.

The connector is mounted on the left main crossbar near where the drawbar is mounted. Cable for connection to the mains is supplied loosely (next to the pump).

For further information, please refer to the enclosed instructions for the charger.





# Trailers with Electric Dump Option

## Battery Maintenance:

1. Check regularly with an acid meter the specific weight of the liquid.
2. Please note that the battery terminals are always clean and corrosion-free.
3. Make sure that the plates are always below the liquid level.
4. In case of extraordinary power consumption, the battery should be charged regularly.
5. The resting voltage should be checked at regular intervals. This should be above 12.4V.
6. The Icarus blue App can display the current battery voltage if the function is activated in the App's menu.
7. If the trailer is not used for a period of 1 month or longer, the battery must be charged regularly.
8. Charging must take place in a ventilated room, as explosive gas may be emitted.
9. During charging, smoking and open flames near the battery are prohibited.
10. The starter relay may be damaged by repeated use with low battery capacity.

**If the trailer is not used for a long period of time (more than 1 month), the battery must be treated as if it has been put into storage. The following guidelines apply to the storage of the battery:**

1. Only store the battery in a fully charged state (min. 12.7 Volt battery voltage).
  2. The battery's voltage must not fall below 12.4 Volts, as there is a risk that the battery's cells will collapse.
  3. Check and measure battery voltage at least every 2 months and charge as needed.
  4. Charge the battery regularly and at least when the voltage drops below 12.4 Volts.
  5. The battery must be stored in a dry and cool place, but frost-free.
  6. There must be no consumption of the battery when it is charging.
- Special complaint provisions when recommending battery-mounted trailers for a longer period (more than 1 month):

It is the owner's responsibility to ensure that the guidelines for proper storage of the battery are followed and complied with. If the instructions are not followed, there is a risk that the battery's cells will collapse. If the battery is destroyed it must be replaced.

Variant Trailers does not accept complaints about batteries that have been incorrectly stored, and thus can be found to have collapsed.

# Trailers with Manual Dump Option

## Lowering and securing the platform

- If fitted with 2 standard locks, check that the locks are closed correctly.
- If fitted with 1 or 2 locks with additional internal safety lock, further check that the safety lock is in the lock position.
- Never drive without the locks closed and secured properly!
- If the trailer is equipped with a manual hydraulic tipping function, the truck is tipped by first turning the valve to the closing position, followed by hand pump operation.
- When the load is in the horizontal position, turn the valve to the opening position. The bed lowers automatically.

## WARNING!

- When tipping, the trailer must always be coupled to the vehicle, and stand on flat and firm ground.
  - Make sure that there are no people on the trailer and in the vicinity of tip area, as this may be associated with danger.
  - Never stay under the bed while tipping/unloading.
- The risk that they are trapped between the lower and top of the trailer, and the underlay is present.

## Trailer Care

To best maintain the appearance and extend the shelf life of your trailer, the entire trailer should be washed thoroughly with clean water after each drive.

Mechanical components such as ball coupler, park brake, shutters and hinges are checked at least every 6 months, and lubrication is added if this is missing.

Steel and aluminum do not tolerate acid and certain chemicals.

If parts of the trailer come into contact with fertilizer or chemicals, they are no longer covered by the warranty.

## Galvanized Components

Galvanization can peel off by e.g. stone chips, or other impacts, this is normal and does not fall within the warranty.

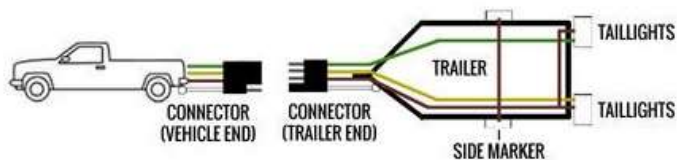
In addition, at times, the assembly of galvanization in a thicker layer may occur, this does not impede the life or function of the trailer and does not fall within the warranty.

The beautiful finish is best preserved by regular application of auto wax.



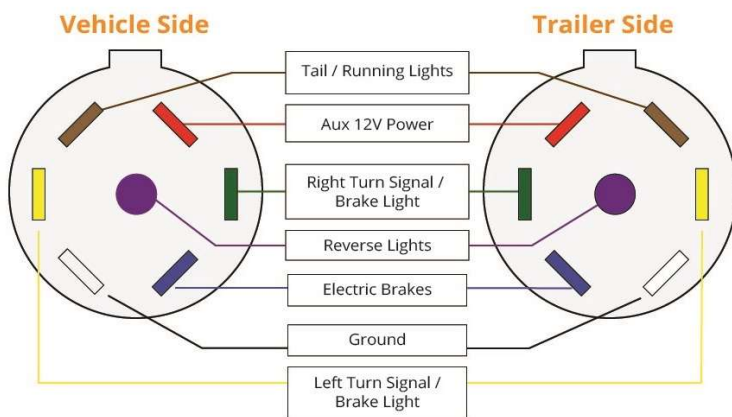
## Trailer Wiring and Plugs

### 4-WAY TRADITIONAL HARNESS



BROWN: TAILLIGHT/SIDE MARKERS  
GREEN: RIGHT TURN/STOP  
YELLOW: LEFT TURN/STOP  
WHITE: GROUND

### 7-Way RV Plug Wiring



# Tire Pressure and Tire Load

## Settings

Different types of tires need different tire pressures to work optimally and not wear out too quickly.

Tire pressure must always be checked before the trailer is taken into use and subsequently checked regularly in accordance with the tire pressure table below.

For longer storage, the trailer should be jacked up with wheels and tires off the ground. (Smaller trailers can be parked vertically).

This avoids point loads, which can otherwise lead to "dented" tires.

Tire Pressure and Load			
Tire Size	Tire Pressure at Max Load		Max Load on Each Tire
	Bar	Psi	Per Tire in KG.
4.00-8 4 PR	4,25	60	265
4.00-8 6 PR	5,25	76	265
145/80 R10	2,80	40	375
145 R10/145 B10	2,50	36	375
195/55 R10 C	6,20	90	750
185/60 R12 C	6,50	94	900
195/60 R12 C	6,60	95	900
145 R13	2,80	40	375
145/70 R13 (74N/78N)	3,20	46	425
145/70 R13 (84N)	3,70	54	500
145/80 R13	2,80	40	425
155 R13	3,10	45	500
155/80 R13	2,9	42	500
155 R13 C	4,50	65	615
165 R13 C	4,50	65	710
185/70 R13 C Savero	6,00	87	950
195/50 R13 C	6,50	94	900
185 R14 C	4,50	65	900
185/65 R14	3,40	49	650
195 R14 C	5,00	72	900

Lug Nuts Must be Torqued to 85 Ft LBS.





Authorized Dealer



## **Variant Trailers By SunLite Trailers Inc**

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