

optimover

OPERATING MANUAL

Thank you for purchasing the *OptiMover* by Optitec. Whether you are moving your caravan, boat or trailer at home or away we hope the *OptiMover* and accessories support all of your needs.

Please read this manual prior to first use to ensure safe and effective use of the *OptiMover*. The Optitec team is available to help, please email info@optitec.com.au with any questions.

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Section 1: Familiarise yourself with the *OptiMover*



1a) Included in the box:

- *OptiMover*
- Remote Control (A23 battery not included)
- 1x Anderson to Anderson connector lead
- 1x Anderson to alligator clips connector lead
- Operating Manual



Can be purchased separately:

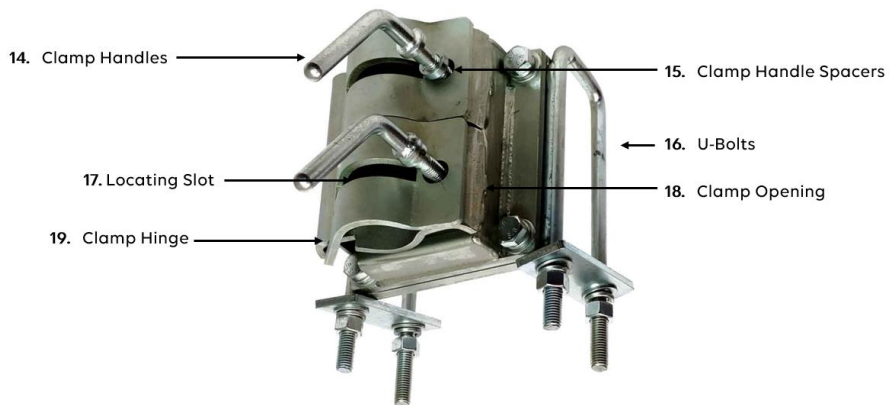
- Heavy duty Double Clamp (multiple sizes available)
- *OptiMover* carry bag on wheels

1b) Product Diagrams

Optitec Mover



Clamp



Remote Control



1c) Product specifications

Motor capacity	12V DC, 50 Amps (max)
Operating Speed	8 metres per minute (Approx.)
Operating Duty	35 minutes on level surface
Weight	22kg
Dimensions	326x220x760mm
Maximum trailer weight	Up to 3500kg
Maximum tow ball weight	Up to 350kg
Remote Control Range	Up to 50 metres
Remote Control Frequency	Complies with Aust Standards

The OptiMover enables users to manoeuvre their caravans, boat trailers and heavy trailers as easily as possible within confined spaces. The Optitec Mover is mounted to your trailer drawbar, in the same way you attach a standard Jockey Wheel.

OptiMover features a powerful motor and machine gearing to move trailers up to 3,500kg (7,700lbs) at a speed of approximately 8 metres per minute. Power needs to be supplied from either a 12V DC auxiliary battery or in-built power to the caravan/boat.

OptiMover is operated exclusively by a handheld remote control. The handheld remote control unit can effectively operate the wheel within up to 50m (164ft) range. Symbols on the control show you the driving directions.

OptiMover supports a loaded weight of 350kg (770lbs). It is extremely portable with total weight of 22kg (48lbs). The size of the 'Wheel' is 326x220x760mm.

It is important that you read this manual carefully BEFORE proceeding with installation and operation. Please keep it handy at all times when using this device. If unsure about any operation or information provided, please contact the Optitec team; info@optitec.com.au

Throughout this manual you will see the following symbols:



This symbol is used to draw attention to critically important safety information. You MUST follow these instructions.











This symbol is used to make the reader aware of important safety information. Make sure you read and understand these points.



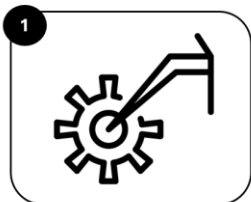
This symbol is used to draw attention to suggestions and advice that will help make the installation and operation easier.

Section 2: Safety

1.  *OptiMover* is a 12V DC powered device. It should not be powered by anything other than a 12V power source under any circumstances.
2.  If the caravan or trailer does not have its own handbrake, the use of the *OptiMover* is not recommended on any incline.
3.  Although *OptiMover* wheel locks when power is 'off', it is not to be used as a parking brake. The trailer braking system must always be used as the primary system.
4.  Never rely on *OptiMover* to provide the braking or stopping capability for the caravan or trailer.
5.  The *OptiMover* should not be operated with the shaft wound 'up'. It should only be operated in the fully 'down' position to prevent damage to the support shaft components.
6.  Remove the power supply as soon as the caravan or trailer is parked so that there is no risk of accidental operation. The machine operates on a public radio signal so please ensure that as soon as the machine is not in use the power is removed.
7.  Do not attempt to tow a caravan or trailer whilst *OptiMover* is still fitted and in contact with the ground. This will damage the unit.
8.  Never allow children or persons who have not read this manual and are not familiar with the use of this device to operate the *OptiMover*. Never operate *OptiMover* or allow others to operate it whilst under the influence of drugs or alcohol.

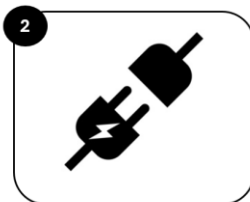
Section 3: Instructions For Use

The *OptiMover* is operated via three simple steps;



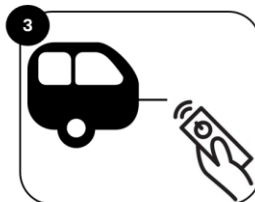
Mount the Optitec Mover to your trailer drawbar

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Connect the Optitec Mover to power & turn on

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Manoeuvre your trailer via remote control

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Before first use of the *OptiMover*,

Do not connect the *OptiMover* to your Caravan or trailer immediately.

Before operating the *OptiMover* for the first time under load, connect the power and then press the forward then reverse buttons about 20 times allowing the motor to run and ensure the relays are activating correctly.

3a) Mounting the Optitec Mover to your trailer drawbar

The *OptiMover* is designed to mount your trailer like a traditional jockey wheel. It needs to be secured to the trailer chassis via a clamp attachment.

Optimal performance of the *OptiMover* requires the use of a suitable clamp for your trailer weight. Trailers over 15,00kg require a heavy-duty double clamp to ensure the *OptiMover* is secured with no movement in the pole when operating.



Heavy duty double clamps can be purchased from the Optitec website; www.optitec.com.au/shop



If you have purchased an Optitec Double Clamp, you can view detailed video instructions to assemble and fit your clamp by scanning the QR code.



To mount the *OptiMover*:

1. Attach *OptiMover* to the caravan or trailer clamp by aligning the horizontal locating key (#3) with the bottom locating slot (#17). Then align the vertical key (#4) to either the clamp hinge or clamp opening to prevent the shaft rotating in the clamp when turning left or right. Fasten both clamps tightly. Please note that the clamp can be attached with either way facing up.
2.  NEVER allow the weight of the caravan/trailer to drop onto the Shaft Keyway Locating Ring (#10). It is designed to only guide the 'Key' into the 'Keyway'.
3.  Use the *Raise-lower handle* (#1) to ensure the Locking key (#6) aligns with the Slot (#5) and lower it to the bottom of main support shaft prior to commencement of any operation. If operating above the locking key, the machine will not turn left or right correctly and you also risk damaging the machine.

3b) Connecting OptiMover to Power

OptiMover requires an external power supply. Power needs to be supplied from a 12V DC auxiliary battery capable of 70Amps. The most commonly used power sources are drawing power from the caravan or using a suitable battery pack.

I. Connect power supply;

- Insert Anderson plug from your caravan (or power cable supplied) into Anderson plug (#7) on *OptiMover* OR
- Connect battery leads: Red to positive (+) terminal of battery or jumpstart or outlet of caravan power supply. Connect Black to negative (-) terminal of battery or jumpstart or outlet of caravan power supply. Please note the machine does not have reverse polarity protection, so do not incorrectly attach positive and negative terminals, this will result in failure of the controller.

Upon connecting to power, you should hear a "**BEEP**" from the machine - if not, power is not getting to the machine. Supply must be capable of 70 Amps at 12 Volts and fully charged.

II. Turn "ON" via the remote;

- Hold down the "ON" button (#2) on your remote until you hear another "**BEEP**". Note you may need to hold down the on button for a full three seconds before hearing the machine turn on.
- If you do not hear a second beep, please check the battery in the remote. It requires an A23 battery and requires strong charge for optimal performance.

Further notes and recommendations regarding power;



OptiMover is a 12V DC powered device. It should not be powered by other than a 12V power source under any circumstances.



The 12V battery source **MUST** be charged and in good condition to ensure *OptiMover* will operate to its full performance specification. We recommend at least a 80ah battery.



If using your Caravan battery via an Anderson plug, make sure that if there is a fuse on the line, it should be a 70amp fuse or greater.



Any connecting cable longer than 2m needs to be a thick cable, we recommend you use a 6 B&S cable. Not adhering to this could result in voltage drop and triggering the "under-voltage protection".



If your machine is operating left and right, but not Fwd and Back, this is an indication that the machine is not getting enough power.

3c) Manoeuvring your trailer





Your caravan or trailer can now be moved with *Optimover* by pressing the buttons on Remote Control Unit as indicated – forward (#4), backward (#5) on the remote.



To change direction of the movement, swivel or pivot the *OptiMover* using the left (#6) and right (#7) buttons on the remote before proceeding to use forward and back controls again.

Please note that the machine will only operate in one direction at a time.




The LED on your remote control will light only whilst a button is pressed and is not an indication of power to the machine. Power will automatically shut off after 15 minutes of inactivity.

Please follow the below steps for each use;

1.  Before commencing any operation of *OptiMover* ensure that the caravan or trailer is on a level, even, firm surface and there is no risk of it moving towards a slope that could allow it to roll uncontrolled.
2.  Release the caravan or trailer hand-brake prior to operation.
3.  Whilst moving the caravan or trailer, it is advisable to ensure the handbrake is easily accessible in case it is required and remember the *OptiMover* is not to be used on any incline if a handbrake is not accessible. A second person may be required to assist with the operation to ensure there is no risk of collision with objects or danger to people during the movement.
4.  As the wheel can be attached either way and also turned 360 degrees, before use, use your remote control with a quick momentary button press to check the direction of wheel rotation. Orientate the Forward and Reverse buttons to ensure expected direction of travel of the *OptiMover* before attempting to carry out full manoeuvring operation.

5.  Once the caravan or trailer is parked in the desired position, turn 'off' power (#9). Disconnect the power supply as soon as the caravan or trailer is parked to avoid accidental operation or drainage of battery power.
6.  Apply the caravan or trailer parking brakes securely and use wheel chocks.

Additional considerations when operating the OptiMover:

7.  *OptiMover* has been tested and effectively used in a wide range of settings. Performance effectiveness will vary on different surface types. There may be limitations on sand, gravel, soft soil, wet surfaces or uneven ground. The Optitec team can provide advice on how to manage these surfaces but it is the responsibility of the operator to determine individual situations and operational ability.
8.  Sufficient down force must be applied to *OptiMover* to ensure adequate traction to move the caravan or trailer safely and accurately. Be aware of your caravan weight distribution characteristics.
9.  If the *OptiMover* is operated on a van weight or terrain beyond its power capability it will trigger the over-load limit. In this scenario, the motor will stop, and a continuous 'beep' will sound. This event does not damage the machine. Press the 'Off' button to reset the machine. You can recommence usage but may need to adjust the terrain and or weight limit you are attempting to move.

Section 4: Maintenance and Support

4a) Warranty

As of April 2024, Optitec Pty Ltd offers a 36-month parts warranty commencing from date of purchase.

Proof of purchase receipt will be required if a warranty claim is made.

This warranty extends to the original purchaser only and is non-transferable.

What is Covered?

- I. The Warranty offered by Optitec Pty Limited covers defects in material or workmanship in the OptiMover.
- II. Optitec Pty Limited will replace at no charge for parts only or, at its option, replace any product or part of the product that proves defective because of improper workmanship and/or material, under normal installation, use, service and maintenance.

What is Not Covered?

Optitec Pty Limited will not cover any problem, damage or failure caused by:

- I. Any abnormal use including water damage, excessive use such as business, commercial or industrial applications.
- II. Conditions, malfunctions or damage not resulting from defects in material or workmanship.
- III. Conditions, malfunctions or damage resulting from (1) normal wear and tear, improper installation, improper maintenance, misuse, abuse, negligence, accident or alteration. As the manufacturer/supplier has no control over its use, it will not cover any subsequent loss or damage to other equipment or property.
- IV. Accessories, connected materials and products, or related products not manufactured by Optitec Pty Limited.

4b) Maintenance

Ongoing care and maintenance are recommended for the *OptiMover* to remain in great operating condition.

The *OptiMover* should be stored in a weather proof location. It can be stored lying flat or upright but care should be taken to ensure it is not vulnerable to falling over or having other objects fall on the machine. The optional *OptiMover* Carry Bag offers safe and secure storage, or you can continue to store the *OptiMover* in its original box and packaging.

Maintenance or servicing of the machine can be carried out by the user or an Optitec service person and is recommended every two years.

Recommended Service Procedures:

I. Basic Visual inspection

- a. Check that all Allen bolts attaching Motor and Gearbox are secure.
- b. Check that main support pole bolts are secure to mounting frame.
- c. Check integrity of wheel and tyre
- d. Check operation of lifting handle and mechanism.

II. Full Service – 2 Yearly

- a. Remove OptiMover Cover (stretch rubber sealing ring over the pole. Remove two screws in shell cover and lift off over the pole).
- b. Remove Main Drive Gear box four 10mm Allen Bolts.
- c. Slide Gear-box away from mounting frame.
- d. Lubricate planetary gears (use Marine Grade adhesive grease such as Mobil grease XHP220).
- e. Lubricate input drive shaft (same grease).
- f. Refit Gearbox to Frame and attach Allen Bolts.
- g. Remove Main Drive Motor and lubricate secondary gear if required.
- h. Refit Main Drive Motor and attach Allen Bolts.
- i. Check Turning Motor/Gearbox operation.
- j. Grease Turning Gearbox pinion gear and crown gear.
- k. Check wiring terminals and clean Anderson Plug connections.
- l. Refit main Cover and Rubber Seal.
- m. Test all operations of the machine.

4c) Troubleshooting

If your *OptiMover* is not working as expected, please check the following:

1. Power Supply: Check power supply source of *OptiMover* to ensure it is 12V DC and the battery is fully charged and the fuse is capable of supplying 70 Amps. (**Note**: Some caravans don't allow supply from house battery back to Anderson plug). See 3b) Connecting Optitec Mover to Power to ensure you are getting enough power to the machine.
2. Power Connection: Check the plug connection at *OptiMover* to ensure it has been fitted properly. Check that no wiring has pulled out of its connection points. Push the electrical plug securely into the socket on *the OptiMover* and check that the positive (+) and negative (-) cables are correctly connected onto the terminals of battery or caravan or trailer power supply with correct polarity. You must hear a "Beep" when power connects.
3. Remote Controller: Check the A23 battery (12V) of the remote-control handset to ensure it remains charged. Ensure that the Red LED lights whilst any button is pressed. (**Note**: The LED will 'light' at only 5V so it's not an indication of the battery condition so ensure battery is the full 12V).

If following these checks the *OptiMover* is still not working as expected, please contact the Optitec team via email: info@optitec.com.au

Optitec is a customer-first business. If you have any questions or need any support, we would be very pleased to assist. You can email info@optitec.com.au or the retailer from whom you purchased your machine.



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