

BLACK JACK™

TRAILER JACK



USER MANUAL

Black Jack™ Trailer Jack **1,600kg 12V DC**

P/N: BJTJ-1000

Please read and understand all instructions before use. Retain this manual for future reference.

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1. SPECIFICATIONS

Maximum Load Capacity	1600 kg
Height Range	356mm (254 to 609mm from mounting point. Excluding Drop Leg Height)
Stroke Length	Max stroke length including drop leg 22" (560mm)
Drop Leg Height	Up to 203mm
Foot Plate	Removable 133mm diameter foot plate
Handle	Manual crank override
Ratio	5:1 (manual crank handle)
Tube Diameter	62mm outer Dimension
Construction	Steel tubes and plate and polypropylene cover
Motor Type	Sealed brushless motor
Finish	Powder coat tube, zinc plated inner and drop tubes
Overall Dimensions	H 781 x W 216 x D 140mm
Voltage Rating	12V DC
Circuit Protection	Circuit Breaker 30amp Short Stop, Auto resettable ignition protected
Current Rating	Maximum 28A (Extended), 6A (Retracted)
IP Rating	IP 56

2. INTRODUCTION

The 1,600 kg 12V DC A-Frame Black Jack Trailer Jack is rated to support up to 1,800kg trailer tongue weight. The jack is predrilled to fit with the Patented Black Jack Clamp so that it can be fitted to any A-frame trailer.

The Black Jack features an LED light to illuminate the hitch area at night and a built-in leveling gauge.

3. SAFETY

WARNING! Read and understand all instructions before using this device. The operator must follow basic precautions to reduce the risk of personal injury and/or damage to the equipment.

Keep this manual for safety warnings, precautions, operating or inspection and maintenance instructions.

4. HAZARD DEFINITIONS

Please familiarise yourself with the hazard notices found in this manual. A notice is an alert that there is a possibility of property damage, injury, or death if certain instructions are not followed.

DANGER!

This notice indicates an immediate and specific hazard that will result in severe personal injury or death if the proper precautions are not taken.

WARNING!

This notice indicates a specific hazard or unsafe practice that could result in severe personal injury or death if the proper precautions are not taken.

CAUTION!

This notice indicates a potentially hazardous situation that may result in minor or moderate injury if proper practices are not taken.

NOTICE!

This notice indicates that a specific hazard or unsafe practice will result in equipment or property damage, but not personal injury.

5. WORK AREA

Operate in a safe work environment. Keep your work area clean, well-lit, and free of distractions. Keep anyone not wearing the appropriate safety equipment away from the work area.

Store unused devices properly in a safe and dry location to prevent rust or damage. Lock devices away and keep out of the reach of children.

Do not install or use in the presence of flammable gases, dust, or liquids.

6. PERSONAL PRECAUTIONS

Control the device, personal movement, and the work environment to avoid personal injury or damage to device.

Do not operate any device when tired or under the influence of drugs, alcohol, or medications.

Avoid wearing clothes or jewelry that can become entangled with the moving parts of a device. Keep long hair covered or bound.

Do not overreach when operating a device. Proper footing and balance enable better control in unexpected situations.

7. SPECIFIC SAFETY PRECAUTIONS

WARNING! DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to the device safety rules. If you use this device unsafely or incorrectly, you can suffer serious personal injury.

Use the correct device for the job. This device was designed for a specific function. Do not modify or alter this device or use it for an unintended purpose.

Do not attempt to lift more than the 1,800 kg maximum lifting capacity of this jack.

Always place the jack on a hard, level surface capable of supporting the load. Allow enough clearance around the jack and the load for movement.

Never place any part of your body beneath the trailer that is supported by the jack. A jack failure or shifting of the trailer may cause it to collapse and cause a serious injury or death.

Keep your limbs and body away from any pinch or shearing points while using the jack. Failure to do so may result in a serious injury.

Inspect the jack before each use. DO NOT use if bent, broken, cracked or otherwise damaged, if any suspect parts are noticed or it has been subjected to a sudden or unexpected load (shock loading).

Ensure that all applicable pins, bolts, and nuts are firmly tightened before using.

Do not allow untrained persons to operate the jack.
Secure the load, trailer, and vehicle by chocking all the wheels before using.

Do not place your hands between moving components.

Use only with accessories rated to handle the forces exerted by the device during operation. Other accessories may break and forcefully launch pieces.

Once the load is lifted to the desired height, support the load with jack stands to prevent injury should the jack fail. Do not work under a load that is supported only by a jack.

Ensure that there are no obstructions under the load and that the area is clear before lowering it.

Ensure that the lock pin is properly inserted through the inner and outer tubes, and that there is no load on the trailer before using the manual drop leg extension.

Do not adjust the drop foot while there is a load on the jack.

8. ELECTRICAL SAFETY

Disconnect device from power source before cleaning, servicing, changing parts/ accessories or when not in use

Protect yourself against electric shocks when working on electrical equipment. Avoid body contact with grounded surfaces. There is an increased chance of electrical shocks if your body is grounded.

Do not expose device to rain or wet conditions. Water entering a power device will increase the risk of electric shock.

Do not disconnect the leads in place of using the ON/OFF switch on the device. This will prevent an accidental startup when the leads are connected to the power supply.

Do not alter any parts of the device or accessories. All parts and accessories are designed with built-in-safety features that may be compromised if altered.

Make certain the power source conforms to requirements of your equipment (see Specifications).

Do not operate this device if the leads are frayed or damaged as an electric shock or surge may occur, resulting in personal injury or property damage.

Inspect the leads for cracks, fraying or other faults in the insulation before each use. Discontinue use if the leads feel more than comfortably warm while operating the device.

Keep all connections dry and off the ground to reduce the risk of electric shock. Do not touch the leads with wet hands.

Keep the leads away from heat, oil, sharp edges or moving parts.

Place the leads in a position that prevents them from encountering the device.

Keep any ignition source, such as flames, sparks, or embers away from the battery.

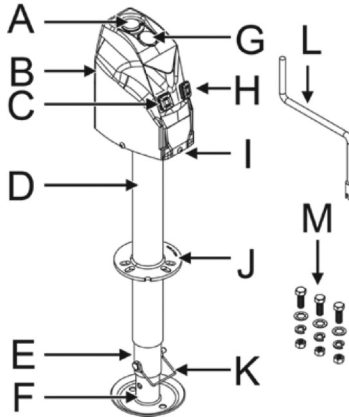
Avoid contact with batteries as they contain sulfuric acid. The acid is corrosive and can cause skin burns.

Install caps over the battery terminals to prevent accidental contact. Discharged batteries may still carry charges and cause electric shock upon contact.

9. IDENTIFICATION KEY

Letter references are in parenthesis (A) refer to the included Identification Key.

- A Bubble Level
- B Housing
- C LED ON/OFF Switch
- D Tube
- E Leg
- F Foot Plate
- G Crank Cap
- H Extend/Retract Switch
- I LED (under housing)
- J Mounting Plate
- K Lock Pin
- L Manual Crank



- M Hardware (3 each of 3/8-16 in. Bolts, 3/8 Star Washers, 3/8 Split Lock Washers and 3/8-16 Hex Nuts)

The Black Jack Trailer Jack also comes with the Black Jack Clamp (Patent Pending NO 20200902039) and the Black Jack All Weather Cover.

10. ASSEMBLY & INSTALLATION

1. Attach and secure the trailer's coupler to the tow vehicle's hitch. Chock the wheels of the trailer and vehicle. Also apply the vehicle's parking brake.
2. Slide the tube (D) into the Black Jack Mounting Bracket hole. Guide the foot plate into the jack's leg (E). Ensure the groove in the leg is aligned with the one on the foot plate. Do not insert the lock pin (K).

3. Position the jack to face the towing vehicle or the side. The design of the vehicle may impair the use of the manual crank (L) based on the jack's orientation.
4. Slide a 3/8 in. star washer (M) between the mounting plate and frame at each bolt hole.
5. Slide a 3/8-16 in. lock washer onto each of the three 3/8-16 in. bolts, then insert the bolts through the mounting plate, the star washers and A-frame.
6. Secure each bolt with a 3/8-16 in. hex nut. Tighten the bolts with a torque wrench to between 15 to 20 ft-lb.
7. Use the Earth cable provided to connect from one of the three bolt positions on the Black Jack Mounting Plate. Ensure the Star Washers provide has clean contact to bare metal. Sanding back this point can also improve this metal on metal contact. Once this has been created attached the other end to your chassis rail. Pre-drill and use the Tek Screw provided to connect the earth cable. Remove the foot plate (F) and position it below the hole in the Black Jack Mounting Bracket.
8. Unravel the black wire and lay it out along the A-frame to the battery. Secure the wire with cable ties. Position the cable in a way to protect it from damage if possible. Connect the wire lead to the battery's positive terminal (+).
9. Press the extend/retract switch (H) to test that the connection is correct, and the jack is working. Also press the LED ON/OFF Switch (C) to confirm the light is working.
10. Push the foot plate up fully and insert the lock pin (K) and retract the jack.

11. ADJUST THE BUBBLE LEVEL

The bubble level will require a one-time adjustment once the jack is installed. The trailer must not be hitched to a towing vehicle during the leveling.

1. The bubble level will require a one-time adjustment once the jack is installed. The trailer must not be hitched to a towing vehicle during the leveling. Chock the trailer's wheels to prevent them from rolling.
2. Extend the foot plate (F) and lock it into place with the lock pin (K).
3. Follow either a. orb. based on your situation:
4. Uncouple the trailer's hitch receiver from the tow vehicle, but do not remove it yet.
5. Leave jack stands supporting the A-frame in place.

6. Remove the bubble level (H) from the housing. Retain the three screws.
7. Place the bubble level on a flat surface of the trailer. Ensure it will not fall off during the leveling process.
8. Lower the levelling jacks on the trailer (if equipped with them).
9. Extend the jack until it clears the hitch or the jack stands. Move the jack stands aside if necessary.
10. Raise or lower the trailer jack until the bubble level indicates the trailer is horizontal and centered.
11. Place the bubble level back into the housing so it remains centered.
12. Screw all three retaining screws back into the cover. Adjust each screw until they are tight, and the bubble is centered.
13. The adjustment is complete. You may wish to raise the jack enough to allow the jack stands to be moved back into place. Once they are in position, retract the jack fully.

12. OPERATION

WARNING! Never apply horizontal force against the jack. The load may shift and cause the jack to fail, creating a dangerous situation for the user or bystanders.

This unit has a built-in circuit breaker which automatically trips and resets.

Press the light switch (C) to turn on the LED when performing these operations in the dark.

13. UNHITCHING THE TRAILER

Chock the trailer's wheels to prevent rolling.

Uncouple the trailer's hitch receiver from the towing vehicle's hitch.

Press the extend/retract switch to extend the jack's leg (E) until the foot plate contacts the ground and raises the trailer off the hitch.

The fully extended leg may not reach the ground. Retract the leg until you have enough room to extend the foot plate.

Remove the lock pin and lower the foot plate until it touches the ground.

Raise the foot plate upwards until the bolt holes in it align with the bolt hole in the leg.

Insert the locking pin and close the clasp.

Move the towing vehicle away from the trailer's hitch receiver.

Level the trailer by pressing the extend/retract switch to raise or lower the jack. It is level once the bubble level is centered.

14. HITCHING THE TRAILER

Press the extend/retract switch to raise the trailer's hitch receiver above the level of the towing vehicle's hitch.

Align the towing vehicle's hitch with the trailer hitch receiver.

Press the extend/retract switch to lower the trailer hitch receiver onto the towing vehicle hitch. Secure the hitch receiver once seated.

WARNING! The hitch receiver must be properly aligned and seated before retracting the leg fully to prevent it from slipping off the hitch and causing an injury to yourself or bystanders.

15. MANUAL OVERRIDE

A loss of power may require you to raise and lower the trailer using the manual crank (L).

Remove the crank cap (G) and set aside.

Insert the manual crank onto the shaft in the housing.

Crank counterclockwise to extend the leg. Crank clockwise to retract the leg. Follow the directions for hitching or unhitching the trailer.

Replace the crank cap when done and store the crank.

16. CARE & MAINTENANCE

Maintain the device with care. A device in good condition is efficient, easier to control and will have fewer problems.

Inspect the device components periodically. Repair or replace damaged or worn components. Only use identical replacement parts when servicing.

Follow instructions for lubricating and changing accessories.

Only use accessories intended for use with this device.

The jack 's motor is sealed and maintenance-free.

Check the wiring from time-to-time. Ensure all the connections are tight and free from corrosion. Ensure the ground wire has a solid metal-to-metal contact with the trailer frame.

Check the battery charge and electrolyte level as directly by the battery's manufacturer.

Disconnect the battery from the trailer jack if it will not require power for several days. This will prevent the battery from discharging.

Maintain the device's labels and name plates. These carry important information. If unreadable or missing, contact Titan Stability Solutions Pty Ltd. for replacements.

WARNING! Only qualified service personnel should repair the device. An improperly repaired device may present a hazard to the user and/or others.

17. LUBRICATION

Inspect and lubricate the device when required. Apply grease to the inner tube when extended and then retract to grease the outer tube

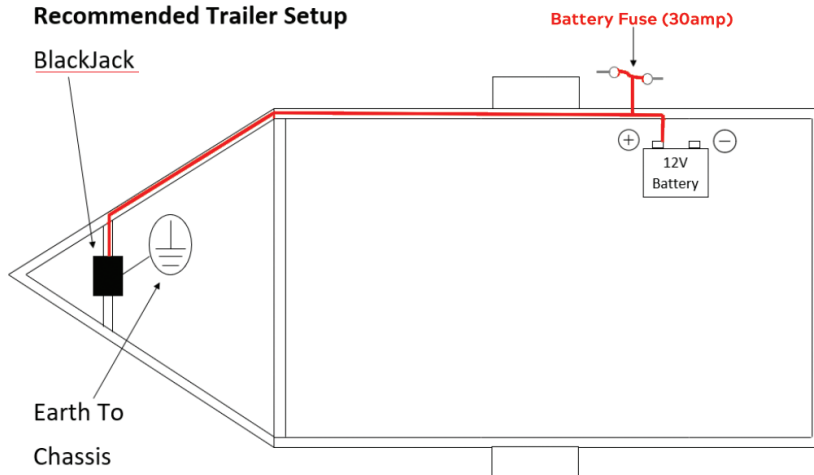
NEVER use a penetrating oil to lubricate the device. Penetrating oil may act as a solvent that can break down the grease and cause the device to seize up.

18. TROUBLESHOOTING

Contact Titan RV for a solution if the device does not function properly or parts are missing. If unable to do so, have a qualified technician service the device.

Problems	Possible Cause(s)	Suggested Solution(s)
Motor is not operating	Poor Ground	Use the Earth cable provided to connect from one of the three bolt positions on the Black Jack Mounting Plate. Ensure the Star Washers provide clean contact to bare metal. Sanding back this point can also improve this metal on metal contact. Once this has been created attached the other end to your chassis rail. Pre-drill and use the Tek Screw provided to connect the earth cable.
	No or Low voltage	Check battery and electrical connections. Power supplied must be at least 10V DC. If the battery is low, plug the trailer cable into the tow vehicle, and start the tow vehicle to provide power to the jack.
	No Power from trailer connector	Check the trailer connector has power. Replace or repair the trailer connectors or wiring.

Recommended Trailer Setup



19. WIRING DIAGRAM

20. INTELLECTUAL PROPERTY

Registered Trademark

Black Jack Trailer Jacks™ is a registered trademark in Australia owned by Titan Stability Solutions Pty Ltd

Patent Pending

The Black Jack Clamp is a registered patent pending in Australia (Patent Pending NO 20200902039).

Registered Design

The Black Jack Clamp is a registered design pending in Australia.

Copyright

This “Black Jack Trailer Jack™ 1,600kg 12V DC User Manual” is copyright protected and owned by Titan Stability Solutions Pty Ltd.

Domain Name



21. COMPLIANCE

1. EMC Compliance

The Black Jack TM is EMC approved and compliant with:

EN 61000-6-3:2007+A1:2011+AC:2012

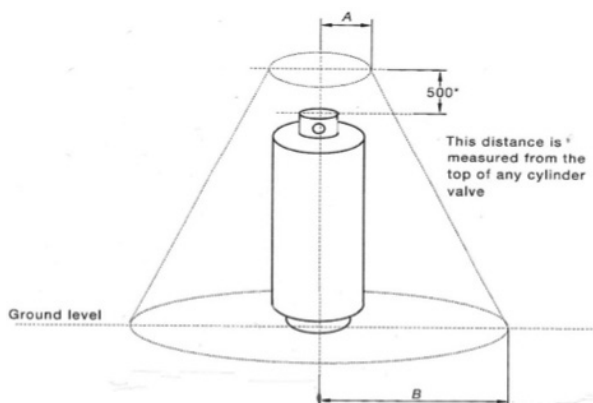
EN IEC 61000-6-1:2019

EN IEC 61000-3-2:2019

EN 6100-3-3:2013+A1:2019

2. Australian Standards for Gas Installations in Caravans

Gas Installations in Caravans AS\NZS 5601.2.2010 & Amendment N0.1 to AS\NZS 5601.2.2013 (Standard)



Ignition source not to be within the encompassed area

	Exchange cylinder mm	In-situ fill cylinder mm
A	500	1500
B	1500	3500

NOTE: Refer to Clauses 2.3.4 and 3.1.4 if installation of in-situ cylinders are being considered.

DIMENSIONS IN MILLIMETRES

FIGURE 3.1 MINIMUM CLEARANCE TO IGNITION SOURCES

The Standard requires that an “ignition source” cannot be located within the clearances of an exchange gas cylinder as set out in the diagram below. The

standard defines an “ignition source” as:

“A source of energy sufficient to ignite a flammable mixture and includes, but is not limited to naked flames, exposed incandescent material, electrical welding arcs, and any electrical or mechanical equipment not suitable for use in hazardous locations”.

The Black Jack is defined as “electrical equipment” however the standard does not define or provide a criterion for the term “not suitable”. However, we confirm:

- A. The Black Jack contains two Single Pole 12VDC rocker switches: an LED Light ON-OFF switch and an UP–DOWN momentary switch. Both switches are enclosed and carry an Ingress Protection (IP) rating of 64, meaning they are completely dust tight and water tight from splashing water.
- B. The Circuit protection used in the Black Jack is defined as a 12VDC Short Stop Automatic Resettable Circuit Breaker. Ignition Protected, IP66, meaning they are completely dust tight and protected against powerful jets of water. Maximum current rating of 30amps @12VDC.
- C. The 12VDC motor in the Black Jack is brushless and fully encapsulated with maximum 28-amp current draw @ 12VDC.
- D. All hard-wired terminal connections are located within the plastic cover head housing.

Based on A. to D. above, the 12 volt DC components in the Black Jack, whilst being deemed “electrical equipment” are not considered an ignition source in keeping with the Australian Standard’s broad definition that includes “naked flames, welding arcs etc., that are sufficient to ignite a flammable mixture”.

ABOUT BLACK JACK™

Black Jack™ Trailer Jacks is a division of Titan Stability Solutions Pty Ltd



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