

LITERATURE NUMBER MPD 87083

# POWER JACK

RV and Marine Applications

ENGLISH, FRANCAIS (et Canada)

•Installation •Operation •Maintenance

Effective 11/21/07

### SAFETY ALERT SYMBOLS

Safety Symbols alerting you to potential personal safety hazards. Obey all safety messages following these symbols.



#### WARNING

avoid possible injury or death



#### CAUTION

avoid possible injury and/or property damage

### FOR YOUR SAFETY READ ALL INSTRUCTIONS BEFORE INSTALLATION AND OPERATION

**Installer:** Provide these instructions to the consumer.  
**Consumer:** Keep documents for future reference.  
 The Atwood Power Jack is a 12-volt DC motor driven screw jack intended for use on recreational type and marine trailers. Patent # D349800. Jack is used to level trailer or raise and lower coupler for hookup to tow vehicle.



#### CAUTION

#### PERSONAL INJURY/PROPERTY DAMAGE

- Retract jack fully before towing.
- Do not use blocks to increase height of jack.
- Use 3500 lb. Heavy Duty Power Jack if you use equalizer bars between the trailer and the tow vehicle.



#### CAUTION HAND OR FINGER INJURY

- Hold foot pad near the bottom of the tube, when installing foot pad or caster.

10. Place foot pad, or caster for Marine power jack, over the end of jack, align holes, and place pin through holes. A cotter pin clip goes through the hole in the pin, preventing pin from coming out.

### OPERATION

1. To raise or lower jack, press switch marked "EXT" or "RET". "Extend" and "Retract" refer to the jack, not the trailer.
2. Release switch when jack nears full retraction or full extension to prevent unnecessary wear on motor clutch.
  - a. When jack reaches its maximum extended or retracted length or maximum load, a clicking noise will be heard. This is the overriding clutch built into the motor to prevent overload. Release switch immediately when clicking is heard. If the jack has been over extended or retracted, it may bind. If so, operate with the manual override handle, per STEP 3 below, to break it free.
  - b. When the heavy duty power jack is being retracted, there may be some audible noise, coming from the brake area. This is normal and is due to the high load for which this jack is rated.
3. **In case of electrical failure-** raise or lower jack as follows:
 

#### STANDARD & LIGHTWEIGHT POWER JACKS

  - a. Remove top cover by loosening the four screws.
  - b. Remove screws holding motor to mounting plate.
  - c. Lift motor off jack.
  - d. Turn hex drive nut with wrench or optional manual drive handle, part # 87891 (FIG 1-C).
  - e. To reinstall electric motor on jack, rotate hex drive nut so the pin in the hex drive nut aligns with slot in motor drive shaft.
  - f. Tighten hex nut to 25 inch lbs. torque.
  - g. Reinstall motor and fasten with screws.
  - h. Reinstall top cover and fasten with screws.

#### SHORT, DELUXE OR MARINE JACKS

Place manual override handle (FIG 1-C) into alignment tube and engage drive pin. Rotate handle clockwise to raise or counter-clockwise to lower the camper.

|                       | LIGHT WT | STANDARD | DELUXE SHORT | HEAVY DUTY | MARINE |
|-----------------------|----------|----------|--------------|------------|--------|
| Max. Lifting Cap. Lbs | 1500     | 2500     | 2500         | 3500       | 1000   |

### INSTALLATION

1. Block tires of trailer and securely support trailer tongue.
2. The Atwood RV Power Jack is designed to attach to the top surface of an A-frame type tongue having mounting holes typical of the Atwood A-frame couplers FIG 1. Use coupler installation instructions (MPD 87984) if installing coupler. The Marine Power Jack attaches to the side of a straight tongue trailer.
3. A lower support plate must be used for side support of the RV jack on the lower surface of the A-frame FIG 1.

**HOLE DIAMETERS:** Light Weight 2.02" (MIN) 2.09" (MAX)  
 Standard / Short / Deluxe / Heavy Duty 2.20" 2.28"  
 Hole in lower support plate must align with hole in coupler.

**TO ORDER LOWER SUPPORT PLATE:** Light Weight - Atwood MPD 80263  
 Standard / Short / Deluxe / Heavy Duty - Atwood MPD 80570  
 Using 1/8" fillet weld, No. E6011 AWS welding rod 1/8" diameter, machine amps (AC or DCRP) at 160-180 with 50 volts, weld plate full length on each side to underside of A-frame. The maximum frame height is 6 inches.

4. Place RV jack through holes in coupler and lower support plate, FIG 1-A. Attach with three (3) bolts (3/8" dia. x 5/8" long, grade 5, (provided) FIG 1-B. NOTE: Torque bolts to 15 foot lbs. minimum /20 foot lbs. max.

Note: There must be metal to metal contact between jack and coupler. The three mounting bolts with attached star washers must be used. The star washers are designed to remove paint on the surface of jack flange. The bolts also should remove paint from the mounting holes in coupler. If there is a grounding problem (i.e. no power) check these two surfaces to be sure there is metal to metal contact between jack and coupler. For wiring, see **WIRING ILLUSTRATIONS** FIG 2 & 3.

**HEAVY DUTY POWER JACKS**

Place manual override handle (FIG 1-C) into alignment tube and engage drive pin. Rotate handle counterclockwise to raise or clockwise to lower the camper.

**MAINTENANCE**

1. Before each use, inspect jack tubes and replace if bent or damaged.
2. If wiring is connected to battery terminal, inspect at least twice each year for corrosion. Clean with a solution of baking soda and water, then apply a thin coat of grease. NOTE: The motor ground screw (FIG 1-D) and mounting bolts (FIG 1-B) must be cleaned too if a ground continuity problem occurs.

3. Once each year, extend jack as far as possible and clean inner ram tube. Coat tube with light coat of silicone spray lubricant. The Electric Drive Motor Landing Leg system is protected by a 30 amp fuse. If replacement is necessary, replace only with a Buss Type AGC-30 fuse or equivalent, available in automotive supply stores.



**Power Jack**

**TROUBLE SHOOTING GUIDE**

Effective: 11/21/07

Guides are only intended for use on Atwood® products by service technicians who have successfully completed Atwood® training. This guide should be used in conjunction with the appropriate Instruction Manual provided with the product and any applicable Industry Standards. This is not intended to be a complete list.



**WARNING**

**PERSONAL INJURY AND/OR PRODUCT DAMAGE**

- If any of the following conditions develop, the trailer must not be used until proper corrective action is taken.

**CONDITION WITH SOLUTIONS**

**MOTOR WILL NOT OPERATE**

- No or low voltage ..... Check battery & electrical connections. Must have minimum of 10 VDC
- Jack flange not making good contact to provide adequate ground with coupler surface ..... Clean paint or dirt from coupler frame
- Blown fuse ..... Replace with 30 amp AWG fuse
- Loose wires on ON/OFF switch ..... Secure wire connections
- ON/OFF switch faulty ..... Replace switch
- Motor faulty ..... Replace motor

**POOR GROUND**

- WHEN BUTTON IS PRESSED ON JACK -
- Jack doesn't operate ..... Inspect motor mounting bolt for Loctite®. If Loctite® found, replace with new 1/4-20 x 3" screw and two lock washers. If bolt unavailable, clean present bolt and hole with wire buffing wheel. Inspect bolt
  - Jack operates only partially up or down, or
  - Jack runs intermittently

**MOTOR CLUTCH ENGAGES**

- Normal if jack leg is at fully retracted or extended position ..... None, but let go of switch when you hear the clutch
- Worn worm gear ..... Replace jack ram
- Dirty inner ram tube ..... Clean ram tube and coat with light coat of silicone spray
- Bent inner ram ..... Replace inner ram
- Clutch faulty ..... Replace motor
- Jack at angle ..... Secure mounting bolts and ensure a support plate is used.
- Excessive tongue weights ..... Determine if jack is adequate for tongue weight.

**UTILITY LIGHT DOES NOT WORK**

- Loose wires on the ON/OFF switch ..... Secure wire connection
- Bad light bulb ..... Replace bulb

**AMP DRAW**

- Range of motor ..... 8-45 amps

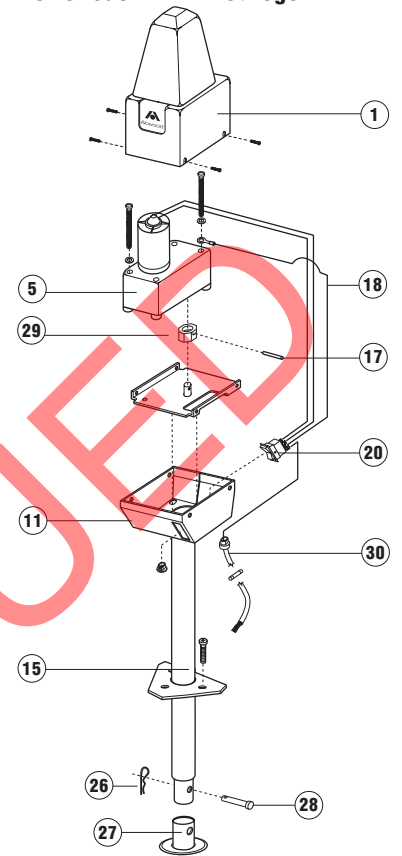
**IMPORTANT CAUTION - If equalizer bars are attached to the tow vehicle and the trailer while operating the power tongue jack, you may experience the motor clutching the moment the jack sees load.** This will occur because you are lifting both the tongue of the trailer and the rear of the tow vehicle. The 1500 lb. and 2500 lb. acme screw jacks cannot lift this excessive weight. To overcome this excessive weight, you should upgrade to the 3500 lb. power jack. The ball screw mechanism utilized in this jack should allow you to lift this load.

## REPLACEMENT SERVICE PARTS / PIÈCES DÉTACHÉES

| ITEM ARTICLE | LIGHT WT LÉGER | STANDARD STANDARD | SHORT NORMAL | DELUXE DE LUXE | HEAVY DUTY LOURD | MARINE MARIN | DESCRIPTION DESCRIPTION   |
|--------------|----------------|-------------------|--------------|----------------|------------------|--------------|---|
| 1            | 87571          | 87571             | 87595        | 87595          | 87595            | 87595        | Upper Cover<br>Couvercle supérieur  |
| 2            | 87060          | 87060             | 87057        | 87057          | 87057            | 87057        | Cover Screw<br>Vis du couvercle   |
| 3            | 87055          | 87055             | 87942        | 87942          | 87942            | 87942        | Motor Ground Screw / Vis<br>Vis de terre  |
| 4            | 86111          | 86111             | 86111        | 86111          | 86111            | 86111        | Lock Washer<br>Rondelle de blocage  |
| 5            | 75367          | 75367             | 75625        | 75625          | 75625            | 75625        | Motor and Terminals<br>Moteur et bornes   |
| 6            | N/A            | N/A               | 87916        | 87916          | 87916            | 87916        | Cover Tube<br>Tube du couvercle   |
| 7            | N/A            | N/A               | 87108        | 87108          | 87108            | 87108        | Bevel Gear Kit<br>Pignon conique  |
| 8            | N/A            | N/A               | 88002        | 88002          | 88002            | 88002        | Gear Housing Cover<br>Couvercle de la boîte de vitesse                                  |
| 9            | N/A            | N/A               | 70298        | 70298          | 71132            | 70298        | Drive Pin<br>Goupille d'entraînement  |
| 10           | N/A            | N/A               | 87941        | 87941          | 87941            | 87941        | Drive Shaft<br>Arbre d'entraînement   |
| 11           | 87573          | 87573             | 87597        | 87597          | 87597            | 87597        | Lower Cover<br>Couvercle inférieur  |
| 12           | N/A            | N/A               | 87585        | 87585          | 87585            | 87585        | Wire & Light Bulb*<br>Ampoule électrique*   |
| 13           | N/A            | N/A               | 87591        | 87591          | 87591            | 87591        | Lens / Lentille   |
| 14           | 87035          | 87035             | 87035        | 87035          | 87035            | 87035        | Hole Plug<br>Bouchon de l'orifice   |
| 15           | 80237          | 80512             | 87489        | 87500          | 87559            | N/A          | Jack Hsing & Ram Assy 16" trvl<br>Enveloppe du vérin et corps du cric à course de 16 po |
| 16           | N/A            | N/A               | 87847        | 87847          | 87847            | 87847        | Washer Support<br>Support de rondelle   |
| 17           | 70229          | 70229             | 70667        | 70667          | 70667            | 70667        | Pin / Tige  |
| 18           | 87568          | 87568             | 87598        | 87598          | 87598            | 87598        | Ground Wire<br>Fil de terre   |
| 19           | N/A            | N/A               | 87586        | 87586          | 87586            | 87586        | Light Switch<br>Commutateur d'éclairage   |
| 20           | 87570          | 87570             | 87570        | 87570          | 87570            | 87570        | Motor Switch<br>Commutateur du moteur   |
| 21           | 87327          | 87327             | 87327        | 87327          | 87327            | 87327        | Strain Relief Bushing<br>Bague de bride de cordon                                       |
| 22           | N/A            | N/A               | 87599        | 87599          | 87599            | 87599        | Jumper Wire & Fuse<br>Fil de connexion et fusible                                       |
| 23           | N/A            | N/A               | N/A          | N/A            | N/A              | N/A          | Fuse▲ / Fusibles▲   |
| 24           | 87176          | 87176             | 87176        | 87176          | 87176            | 87176        | Mounting Bolt / Boulon  |
| 25           | OPTIONAL       | OPTIONAL          | 87891        | 87891          | 87891            | 87891        | Manual Drive Handle<br>Manette de commande manuelle                                     |
| 26           | 70269          | 70269             | 70269        | 70269          | N/A              | 70269        | Cotter Pin<br>Goupille fendue   |
| 27           | 80238          | 87021             | 87021        | 87021          | 87021            | --           | Round Foot Pad<br>Coupelle ronde  |
| 28           | 87709          | 87709             | 87709        | 87709          | 70215            | 87709        | Clevis Pin<br>Axe de chape  |
| 29           | 87077          | 87077             | N/A          | N/A            | NA               | N/A          | Hex Drive Nut<br>Écrou de commande hexagonal  |
| 30           | 87569          | 87569             | N/A          | N/A            | N/A              | N/A          | Fuse Wire<br>Fil du fusible   |
| 31           |                |                   |              |                |                  | 87150        | Bracket / Patte   |
| 32           |                |                   |              |                |                  | 84037        | Caster / Roue pivotante   |

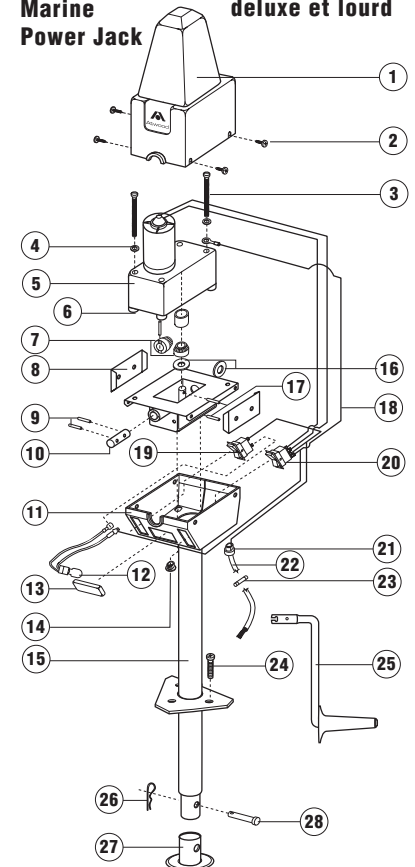
### Standard & Lightweight Power Jack

### Cric électrique service normal et léger

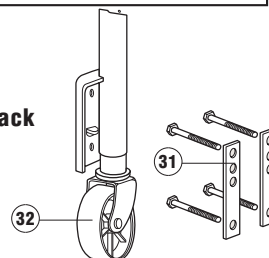


### Short, Deluxe, Heavy Duty & Marine Power Jack

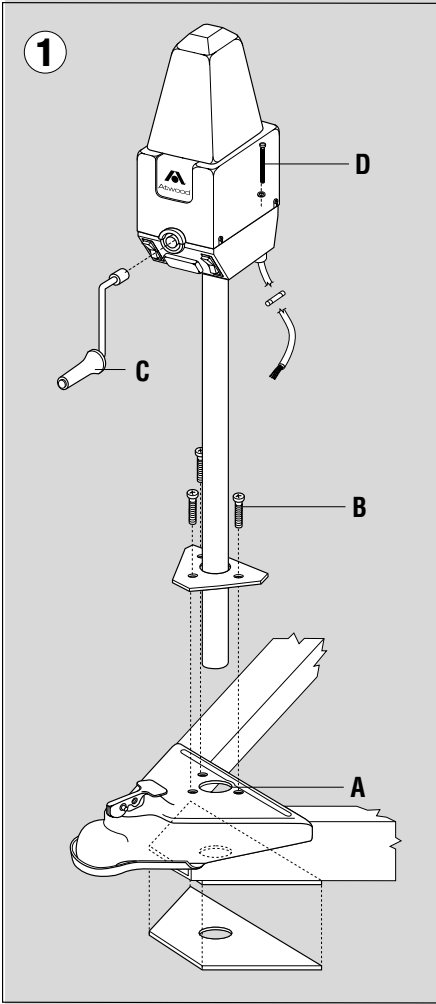
### Cric électrique service court, deluxe et lourd



### Marine Power Jack

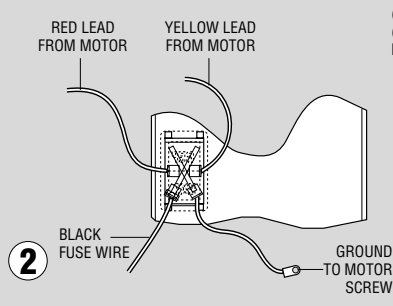


\*912 type T5 12 candle power    \*912 type T5 12 candelas  
▲Buss Type AGC-30 amp fuse    ▲Buss type AGC-30 à fusible

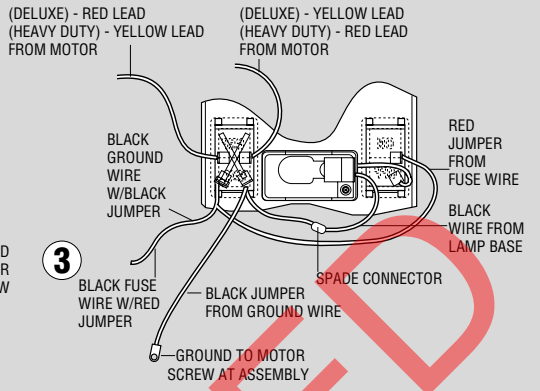


## POWER JACK WIRING ILLUSTRATIONS

### Lightweight & Standard

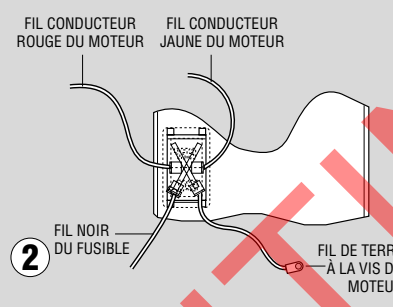


### Short, Deluxe & Heavy Duty

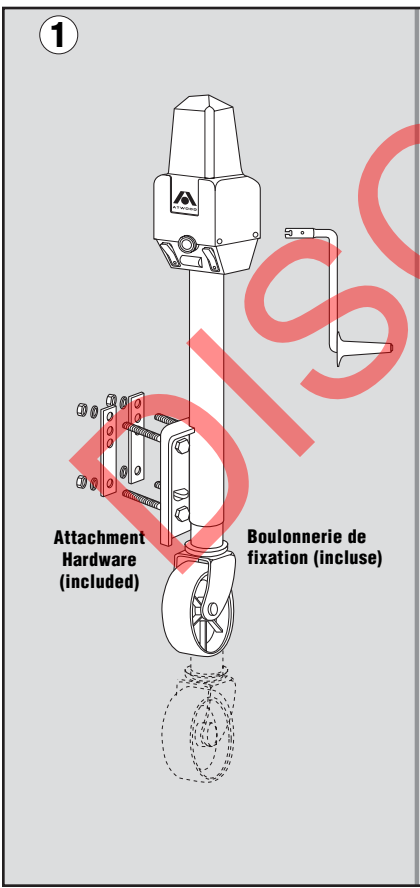
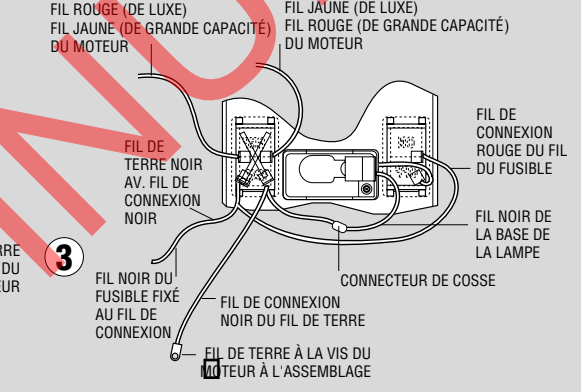


## CRIC ÉLECTRIQUE SCHÉMAS DE CABLAGE

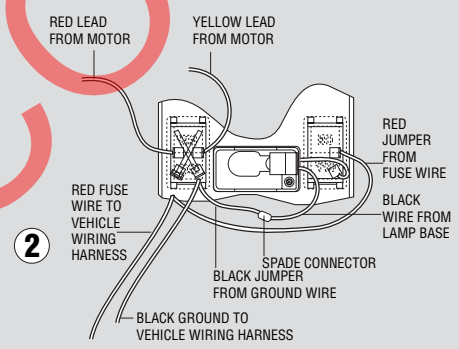
### Cric Électrique Standard



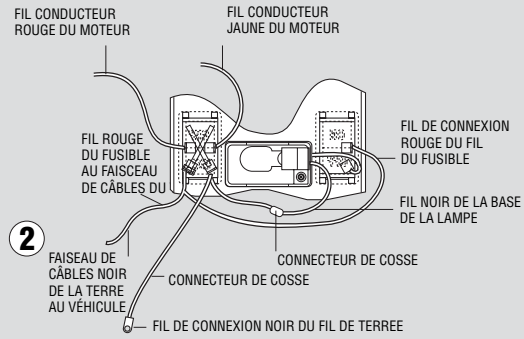
### Cric Électrique De Luxe et Haute Capacité



## MARINE POWER JACK WIRING ILLUSTRATIONS



## CRIC ÉLECTRIQUE MARIN SCHÉMA DE CÂBLAGE



ATWOOD POWER JACK LIMITED WARRANTY

**This document has been modified from the original Atwood 11/21/07 release. All former references to the Atwood warranty and contact information were removed.**

**For all concerns or questions, please contact  
Lippert Components, Inc.**

**Ph: (574) 537-8900 | Web: [lci1.com](http://lci1.com) | Email: [customerservice@lci1.com](mailto:customerservice@lci1.com)**