



BRUTE ELECTRIC TRAILER JACK (HB3000, HB4500 & HB4500R) WITH SMART STOP

Assembly, Installation, Operation, and Maintenance Instructions

PART NUMBER	87247, 87248, 87641 & 88141
INSTALL TIME	30 MINUTES

DEALER / INSTALLER	Provide a copy of these instructions to the end user of this product. These instructions provide important operating and safety information for proper usage of this product. Demonstrate the proper use of the product with the end user. Have the end user demonstrate that they understand the proper use of the product.
END USER	Read and follow all instructions included in this manual. Ask your Dealer / Installer for assistance if you do not understand the proper use of the product. Never remove any decals from the product. Failure to follow these instructions can result in injury or death.

TOOLS & COMPONENTS REQUIRED

A-FRAME COUPLER WITH LOWER SUPPORT PLATE (SEE FIGURE 6)
THREE (3) GRADE 5, 1" LONG, 3/8"-16 UNC BOLTS (INCLUDED)
THREE (3) 3/8" FLAT WASHERS (INCLUDED)
THREE (3) 3/8" STAR WASHERS (INCLUDED)
9/16" WRENCH
TORQUE WRENCH
WIRE CUTTERS
WIRE STRIPPERS
CRIMPERS OR SOLDERING IRON

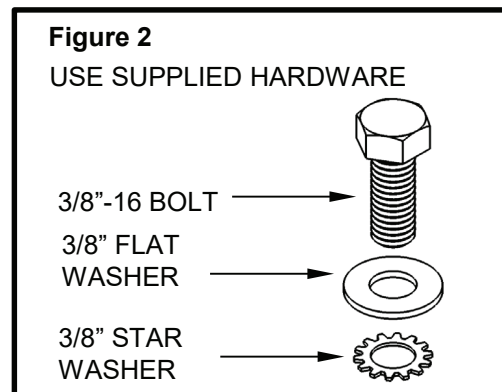
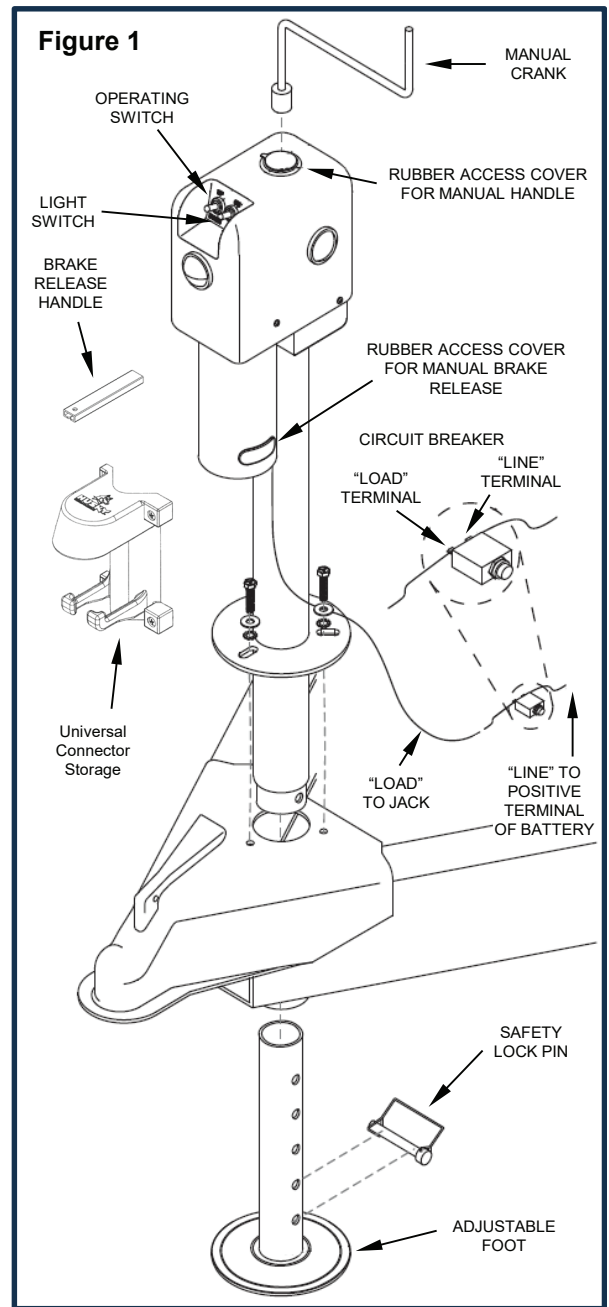
SPECIFICATIONS

MODELS APPLICABLE	HB3000; HB4500; HB4500R
MAXIMUM LIFT CAPACITY	3,000 LB / 4,500 LB (CONTINUOUS USE)
RETRACTED HEIGHT	31-3/8"
VERTICAL TRAVEL	18"
POWER REQUIREMENTS	12 VOLT DC
OUTER TUBE DIAMETER	2-1/4"
POWER CORD LENGTH	6 FT OF #10 GAUGE WIRE
FOOT PAD DIAMETER	5-1/2"
LED WORK LIGHTS	ON 3 SIDES FOR EASY NIGHTTIME HOOKUPS
SHIPPING WEIGHT	HB3000 – 27-1/2 LB; HB4500 & HB4500R – 29 LB

INSTALLATION

1. Park the trailer on a level surface and chock the wheels.
2. Support the trailer tongue by the frame with jack stands.
3. If replacing an old jack, remove the old jack from the coupler.
4. Insert the Husky® Brute into the jack hole and align the bolt holes so the motor housing is facing forward as shown in **(Figure 1)**.
5. Secure the jack with three (3) Grade 5, 3/8"-16 UNC bolts and washers supplied with the jack. Place the star washers between the flat washers and the mounting plate as shown in **(Figure 2)**. The star washers are intended to penetrate through the paint on the mounting plate to ensure direct metal to metal contact. Bolts should be tightened to 15-20 lb-ft.
6. If a lower support plate is not already present, install one in the bottom of the trailer frame. Do not operate the jack without a lower support plate. Shown in **(Figure 6)**.
7. Install the manual reset circuit breaker by either crimping or soldering the wire from the jack to the terminal marked "Load" on the breaker. Connect the "Line" terminal of the breaker to the positive terminal of the battery. The breaker should be located as close to the battery as possible and stored inside the battery box. Since the jack is internally grounded, a ground wire is not necessary. If mounting the jack to an aluminum frame trailer, install a ground wire from a jack mounting bolt to the negative terminal of the trailer battery.

WARNING: When using an extension wire, DO NOT use a wire smaller than #10 gauge.



OPERATION

1. Park your trailer on a level surface and chock all trailer wheels.

Tip: For nighttime hookups, flip the light switch ON to illuminate your work area.

2. Before operating the jack, attach the foot with the 3/8" safety lock pin provided.

3. Extend the jack by pushing the operating switch **UP**. (With the HB4500R, you can press the **UP** button on the remote control – see page 4 for remote control instructions.)

4. Retract the jack by pushing the operating switch **DOWN**. (With the HB4500R, you can press the **DOWN** button on the remote control – see page 4 for remote control instructions.)

Note: The jack will stop automatically at the end of the extension or retraction stroke (Smart Stop). If you attempt to extend or retract the jack and it does not respond, it may be at the end of the stroke. If the jack fails to respond, try operating it in the opposite direction. If it will not operate in either direction, then see the troubleshooting guide.

5. Before driving, remove the foot or position it in the highest position and completely retract the jack.

MANUAL OPERATION (FOR BACK-UP & EMERGENCY USE)

1. Disconnect the jack from the power source. (Failure to disconnect the power could result in serious injury.)

2. Remove the rubber access covers on the top of the jack and on the side of the motor cover. See **(Figure 1)**.

3. Insert the manual crank handle into the access hole on the top of the jack, engaging the drive screw. See **(Figure 1)**.

4. While holding the crank firmly in place, install the brake release handle on the brake lever and pull forward, releasing the brake. See **(Figure 1)**.

5. Rotate the manual crank handle counter-clockwise to extend the jack, and clockwise to retract it. See **(Figure 1)**.

6. When the jack is at the desired height, first re-engage the brake then remove the crank and brake release handle. Replace the rubber covers. See **(Figure 1)**.

WARNING: Do not stack blocks under the jack's foot to increase the height. Stacked blocks may become unstable and fall.

Under heavy use, the internal circuit breaker may open, causing the motor to switch off. In this case, release the operating switch, and wait 15 seconds for the breaker to reset before resuming operation.

WARNING: Always install the crank handle and hold it firmly in place before releasing the brake on a loaded jack. Due to the Husky® Brute's low-friction ball screw, if the crank is not held firmly in place, the jack may runaway and the crank may spin dangerously when the brake is released.

REMOTE CONTROL (ONLY INCLUDED WITH THE HB4500R)

Before using remote control, you must press the **ON** button, the LEDs will flash momentarily to confirm the remote is **ON**.

Press the **UP** button to extend the jack (raise the trailer).

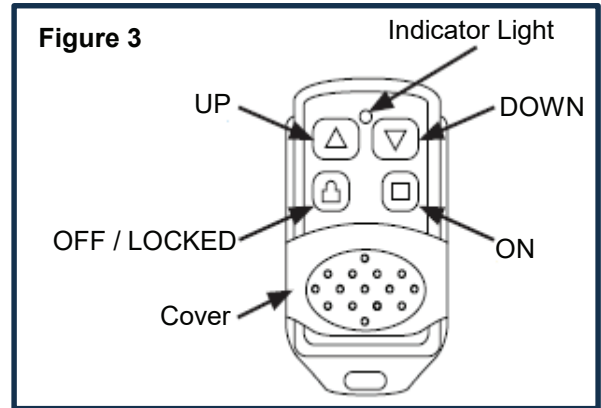
Press the **DOWN** button to retract the jack (lower the trailer).

See **(Figure 3)**.

Disconnect the jack from the battery if the unit is not in use, to avoid discharging the battery. If it is the only draw on the battery, the remote receiver can drain a fully-charged battery within 3 months.

If your battery becomes weak, the jack will extend more slowly, and the low voltage protection feature will eventually cause it to stop operating. It will be necessary to recharge the battery; then operate the jack in the opposite direction, at least momentarily, before you can continue to extend the jack.

WARNING: Always press the OFF button and slide the cover up when not in use to prevent accidental remote operation. LEDs will flash momentarily to confirm the remote has been turned OFF.



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

REPLACEMENT PARTS

REF.	DESCRIPTION	PART #
A	MANUAL CRANK (A1) (INCLUDES BRAKE RELEASE HANDLE; A2)	87639
B	ACCESS COVERS FOR CRANK (B1) AND RUBBER SEAL FOR BRAKE (B2)	87456
C	SWITCH BOOT (2 PACK)	87454
	SWITCH (EACH)	87452
D	LED WORK LIGHTS W/ RUBBER SEALS (3 PACK; D1, D2, D3)	87455
E	ADJUSTABLE LEG WITH FOOT PAD (FITS THE HB4500 & HB3000)	87461
F	3/8" SAFETY LOCK PIN	32335
G	30 AMP MANUAL RESET CIRCUIT BREAKER	87526
H	UNIVERSAL CONNECTOR STORAGE KIT	81497

MAINTENANCE

Due to the design of the Husky® Brute's low-friction ball screw, the inner assembly of the jack does not require regular lubrication. But to keep your jack in good, functional condition, fully extend the jack and clean the inner jack tube once per year. After cleaning, coat the tube with a light grease or silicone spray lubricant.

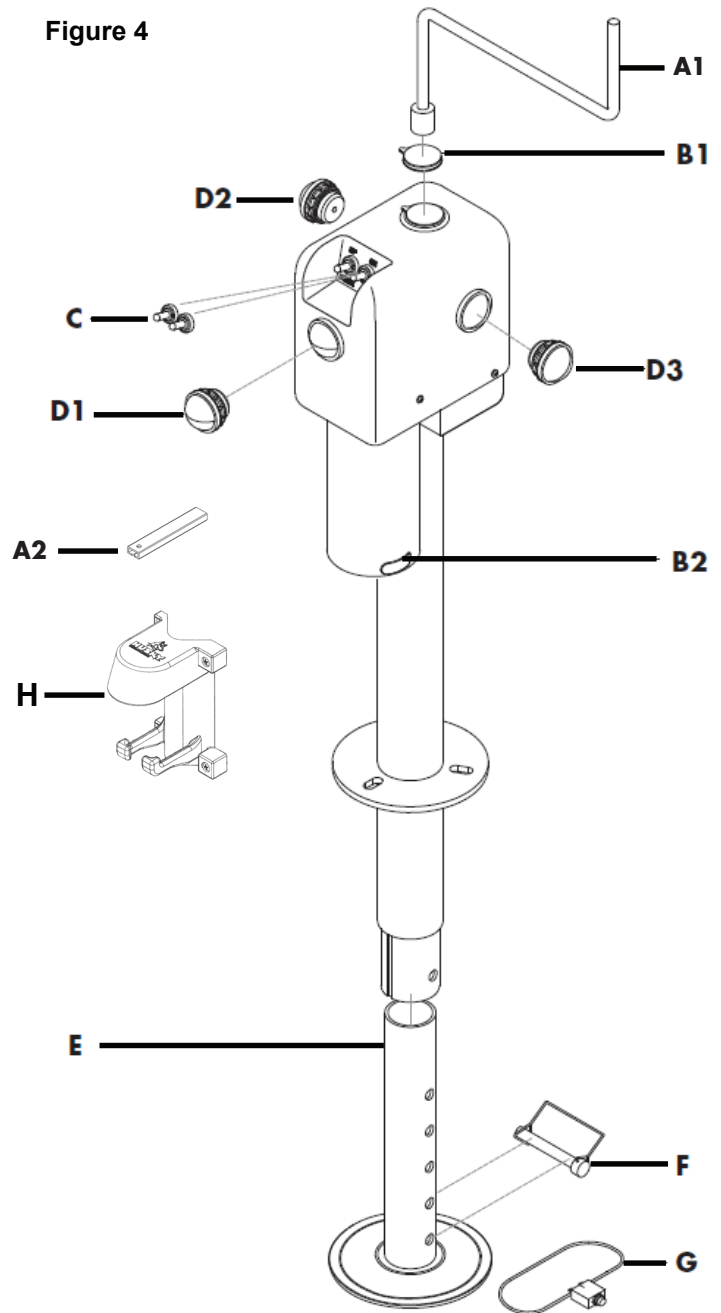
TROUBLESHOOTING

CAUSE	SOLUTION
Open Internal Circuit Breaker	Wait 15 seconds for breaker to close.
Open Manual Reset Circuit Breaker	Reset the breaker by pressing the button on the breaker.
Poor Ground	Check the connection between the negative terminal on the battery and the vehicle, since the jack is grounded to the vehicle chassis through the star washers on the coupler. Ensure the mounting hardware (bolts, washers, and star washers) are in good condition.
No or Low Voltage	Check battery & electrical connections. Power supplied must be at least 10 Volt 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.

PROBLEM: Crank handle will not turn during manual operation

CAUSE	SOLUTION
Engaged Brake	Disengage the brake by installing the brake release handle on the brake lever and pulling forward.

Figure 4



ALTERNATIVE 7-WAY PLUG WIRING

To wire the Husky® Brute jack through a 7-way plug instead of wiring to the trailer battery.

1. Take the black wire from the jack and wire into the black terminal of the 7-way plug.
2. Run a ground wire from the white terminal of the 7-way plug to one of the mounting bolts used to secure the jack to the trailer with a ring terminal.

WARNING: The jack will only work while the 7-way plug is still connected to the 7-way plug on the vehicle.

Figure 5

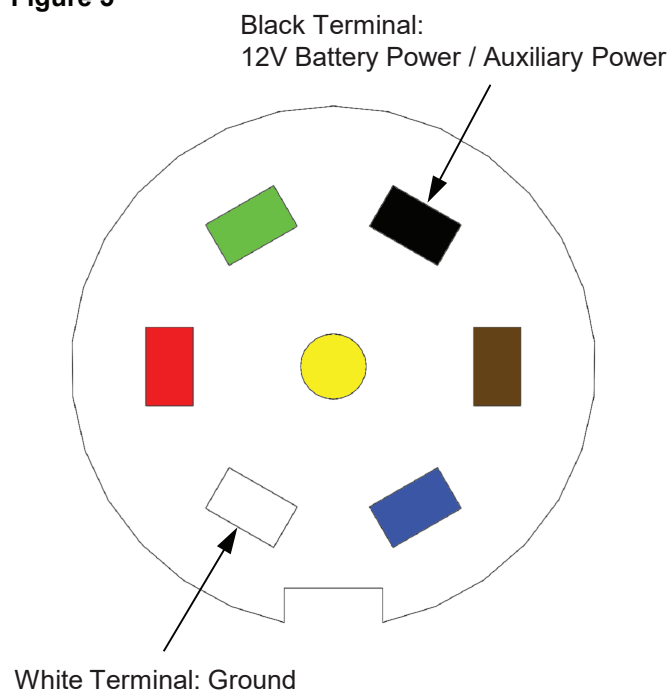
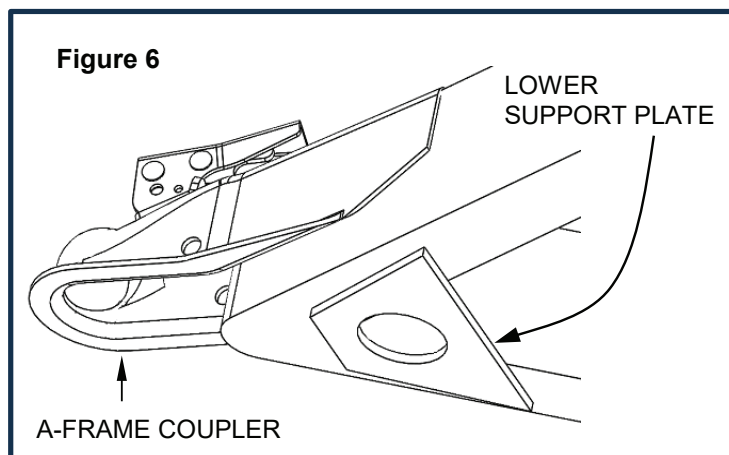


Figure 6



WARRANTY

TECH & WARRANTY SUPPORT:

PHONE: 877-544-4449

EMAIL: warranty@lkqspg.com

FAX: 855-485-1195

WARRANTY TERMS

1 Year Warranty:

Husky Towing Products and Keystone Automotive Operations Inc. make no guarantees or warranties for products not manufactured by Keystone Automotive Operations Inc. Such products are covered solely under any applicable warranty of the manufacturer. It is always recommended that the operating instructions and warranty instructions provided by the manufacturer are followed.

Keystone Automotive Operations Inc. warrants its products to be free from manufacturing and material defects to the original purchaser for the length of warranty stated above from the date of retail purchase. If any products are found to have a manufacturing or material defect, the product will be replaced or repaired at the option of Husky Towing Products and Keystone Automotive Operations Inc. with proof of purchase by the original purchaser. The original purchaser shall pay all transportation and shipping costs associated with the return of the defective product and the defective product shall become the property of Keystone Automotive Operations Inc.

The Warranty applies to Keystone Automotive Operations Inc. products used for individual and recreational purposes. Commercial usage of the Keystone Automotive Operations Inc. products limits the warranty to 90-days from date of purchase.

The Warranty applies only to Keystone Automotive Operations Inc. products which are found to be defective in manufacturing or material. This warranty does not apply to normal wear and tear of the finish placed on Keystone Automotive Operations Inc. products.

Husky Towing Products and Keystone Automotive Operations Inc. are not responsible for any labor costs incurred for removal or replacement of the defective product.

Husky Towing Products and Keystone Automotive Operations Inc. are not responsible for repair or replacement of any product under the limited warranty where the product was improperly installed, misapplied, altered, abused, neglected, overloaded, misused or damaged as a result of an accident, including any use of the product not in accordance with all product operating and safety instructions.

Without limiting the generality of the foregoing, Husky Towing Products and Keystone Automotive Operations Inc. shall under no circumstances be liable for any incidental or consequential loss or damage whatsoever arising out of, or in any way relating to any such breach of warranty or claimed defect in, or non-performance of the products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights that vary from state to state.