

# Ultra Legs® Twin-Tube Installation Guide

Ultra Legs® are a hydraulic leg lift that attaches to your pontoon, giving you the freedom and range to take your lift anywhere you can take your pontoon. The Twin-Tube model operates with two sets of legs, each set is strengthened by a reinforced crossbar

3006.4607

and holds a sturdy footpad. The Tri-Toon model comes complete with four separate legs. When not in operation, the legs nestle within inches of the deck of your pontoon, invisible to the unknowing eye, yet when operating, Ultra Legs® gives your boat up to six feet of lift, keeping it safe, secure and out of the water in nearly any shallow water situation. Rocks, muck, wind and current are no match for your new lift. Welcome to Ultra Legs®.

#### ATTENTION:

As an improvement for 2021 we are introducing a new power switch to each Ultra Legs system. This will include a switch installed to the hydraulic pump and will allow for shutting off the controllers when not in use. If a customer requests, there will be a Dash Switch kit 3006.4725 offered separately for use with installing a power switch on the dash of the boat. This will help eliminate any instances where a remote could run on its own by eliminating power from the remote completely. We are hoping this offers a more user friendly experience for everyone and we are looking forward to making more improvements in the future.



#### **CAUTION:**

Installation of Ultra Legs® should be done only by a trained and authorized professional, needs a minimum of two people, and requires access to the underside of the pontoon receiving the Ultra Legs®. Under no circumstances should installation be attempted in water as severe injury, drowning or death may occur. Install only in a well-lit area on a hard, flat surface. Ultra Legs® require at minimum six feet above and in front of your pontoon to check product operation during installation. Always wear appropriate protective equipment. Do not begin installation until these requirements have been met.

## **Equipment Checklist:**

Included in your Ultra Legs® package should be the following:

- Ultra Legs® Power Unit (1): 1.5 HP, 12VDC, bi-rotational electric motor for raising and retracting lifting leg cylinders.
- Ultra Legs® Leg Component (2): Leg Components with 3500 psi and solid steel Hydraulic Cylinder construction.
- Ultra Legs® Oil
  - o 1 Gallon Bottle (2): Used for initial installation and air bleed.
- Ultra Legs® Installation Kit (1): Includes all wiring, four hoses (Brown, Purple, Orange and White), wireless remote control and hardware needed for installation.
- Bluetooth Remote Kit
- 3" Cable Boot

#### **Recommended Tools:**

- Drill with 1/8" and 5/16" bits and 3" hole saw bit
- 1/2" Ratchet with extension and sockets
- Open end wrenches 1/2", 7/16", 9/16", 15 mm and 17 mm
- Impact wrench
- C-clamps or large vise-grips (4)
- Tape measure
- Ultra Legs® Floor Jack or platformed floor jack
- 1/4" socket or hex driver
- Wire & Cable Cutter
- Hex Lug & Terminal Crimper

## **Battery Requirements:**

- Use a fully charged Starting battery with a minimum 850 cold cranking amps, such as a Group 27 battery.
- Use a 12 Volt system only.
  - o If multiple batteries are used, connect the batteries in parallel to maintain the 12 Volt output. Do not connect a pair of 12 Volt batteries in series (24 Volt).

# **Ultra Legs® Floor Jack:**

Ultra Legs® offers a floor jack specifically designed to make installation of Ultra Legs® easier. Contact Ultra Legs® for more information.

#### INSTALLATION

## Set-Up:

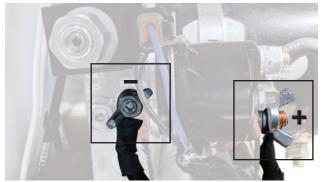
 Place pontoon securely onto blocks on a flat, clean and dry surface with adequate clearance above and in front of boat. Area should be free of obstructions. A minimum of two people should be used in the installation of Ultra Legs®. The pontoon should be lifted at least 6" off the floor.

#### **Power Unit:**

1. Locate the corner-seat compartment on the deck of pontoon; this is generally the best location for the Power Unit. Should the corner seat compartment be too small or unavailable, other under-seat compartments may work as well, though adjustments to cable placements may be needed.

Note: Power Unit must not be placed in the same compartment as the pontoon battery.

- 2. Set the Power Unit into the chosen compartment in a position not contacting the walls of the compartment to ensure proper fit. Mark this position.
- 3. Find a spot near the Power Unit large enough for a 3" hole for the hydraulic hoses. Mark this location. Remove the Power Unit from the compartment.
- 4. Drill a 1/8" pilot hole through the compartment floor and pontoon deck being careful not to hit any wiring or rigging or puncture a pontoon. Once the pilot hole has been established as free from obstructions and safe, drill a 3" hole over the original pilot hole through the compartment floor and pontoon deck. This is where all the hoses and cables will be fed through.
- 5. Feed the provided hydraulic hoses through the compartment hole leaving enough length inside the compartment to allow hookup to the Power Unit. If the pump is mounted at the rear half of boat run the Brown and Purple hoses to toward the front of the pontoon and the Orange and White hoses to the rear, feeding them through the support braces.
- 6. Feed the battery cables through the same hole and route them toward the battery compartment. For adjacent battery compartments, battery cables may be run through a hole in the wall as opposed to underneath the boat. If the pump is mount in front. Run hoses on the same side of the pontoon as the power unit.
- 7. In the Power Unit compartment, place and fasten the Remote Receiver vertically to a wall, avoiding close proximity to any speakers to avoid frequency interference.
- 8. Replace the Power Unit back into its original marked position and fasten it to the floor with the provided bolts.
- 9. Connect and secure the hose ends remaining in the compartment to the appropriate hose fittings on the Power Unit according to their color-coded bands.
- Cut battery wires to length, making the shortest direct connection possible. Crimp new ends on using supplied terminals.
- 11. Connect the battery wire ends remaining in the compartment to the appropriate terminals on the Power Unit as shown. Snug all bolts. Do not connect the wires to the battery.



- 12. Find the WeatherPack connectors on both the Power Unit and the Remote Receiver and connect them to each other.
  - In some instances a customer may request a system power switch be installed on the dash of the boat instead of using the provided switch located on the pump. In this case use a 3006.4725 Dash switch kit to install a switch on the customers dash of their boat. Use the proper size drill bit or hole saw to install the switch in a clean presentable spot on the dash that has been designated by either the dealer or customer. Use the provided 25 feet of power wire with loom and feed it from the pump compartment, under the deck of the boat, to under the console area where it will be connected to the provided switch output after the switch has been properly set in place. Always try to use the best and shortest route possible. If the helm wiring harness can be located this would be a great thing to zip tie to and follow up to the dash. Connect the end of the wire in the pump compartment to the bullet connector in the pump harness closest to the harness plug. Find a power wire to tie into under the dash and connect your switch input to this to provide power. This new switch will allow the system to be powered off when not in use. Use zip ties to keep the wire ran neatly and remember to label the switch on the dash with a provided sticker so it is easily identifiable.
- 13. Secure all hoses and wires both in the compartment and underneath the boat neatly using zip-ties. Power Unit installation is now complete.

## **Rear Ultra Leg Component:**

- 1. Ensure clearance between the pontoon tubes prior to installation.
- 2. Select a Leg Component. Locate and snug all hose connections found already installed on the Leg Component. Ensure connections to "T" fittings will be on the correct side, same side as hoses are routed
- 3. Place the Leg Component on the Ultra Legs® Jack or platformed floor jack. Keeping the open end of the Leg toward the stern of the pontoon, carefully wheel the jack underneath the pontoon from the bow.
- 4. Position the open end of the Leg Component directly underneath the rear-most full-width crossbar before the transom. If 4" of clearance to the transom cannot be achieved in this position, move the Leg Component forward one crossbar. Make sure the back of the leg module is no more than 6" from the rear most crossmember the module will be secured to.
- 5. Attach the hydraulic hoses from the Power Unit for the rear Leg Component. Snug, do not over tighten. Orange extend, white retract. See diagram on page 6.
- 6. Lift the jack so that the Leg Component almost touches the crossbars and center the Leg Component. Ensure no hoses or wires pinch between the Leg Component and the crossbars.
- 7. Using at least four vise-grips or sturdy clamps (two on each side), lock the Leg Component into place by clamping it to the pontoon crossbars. Once secured, remove the jack.
- 8. From the bottom, drill 5/16" holes through the Leg Component flanges and centers, of crossbars. Each Leg Component needs 14 total holes to bolt through, with four on the outside of each flange and three on the inside of each flange. All holes should be as evenly spaced as possible and run the length of each flange.
- 9. Fasten the Leg Component in place with the provided 5/16" bolts and lock nuts. Firmly tighten every bolt. Once all bolts are tight, remove the clamps.

## Front Ultra Leg Component:

- 1. Select the remaining Leg Component. Locate and snug all hose connections found already installed on the Leg Component.
- 2. Place the Leg Component on the Ultra Legs® Jack or platformed floor jack. Keeping the open end of the Leg toward the stern of the pontoon, carefully wheel the jack underneath the pontoon from the bow.
- 3. Position the footpad end of the Leg just forward of the front-most full-length crossbar. If any portion of the Leg Component is protruding beyond the front of the pontoon, move the Leg Component backward one crossbar until it is fully underneath the deck.
- 4. Attach the hydraulic hoses from the Power Unit for the front Leg Component. Snug, do not over tighten. Brown extend, Purple retract. See diagram on page 6.
- 5. Lift the jack so that the Leg Component almost touches the crossbars and center the Leg Component. Ensure no hoses or wires pinch between the Leg Component and the crossbars.
- 6. Using at least four vise-grips or sturdy clamps (two on each side), lock the Leg Component into place by clamping it to the pontoon crossbars. Once secured, remove the jack.
- 7. From the bottom, drill 5/16" holes through the Leg Component flanges and crossbars. Each Leg Component needs 14 total holes to bolt through, with four on the outside of each flange and three on the inside of each flange. All holes should be as evenly spaced as possible and run the length of each flange.
- 8. Fasten the Leg Component in place with the provided 5/16" bolts and lock nuts. Firmly tighten every bolt. Once all bolts are tight, remove the clamps.
- 9. Release each footpad and ensure clearance between the pontoon tubes.

#### FILLING HYDRAULIC SYSTEM

Never run Ultra Legs® without oil in the oil tank. Filling the hydraulic system takes time and must be done slowly to ensure all air is removed from the system. Air remaining in the system may prevent smooth operation. Ultra Legs® require approximately seven quarts of oil. While filling the hydraulic system, you will be raising and lowering the pontoon, so make sure adequate space is had before initiating fill. Use only Ultra Legs® provided oil.

- 1. Connect black battery wire to the Negative ( ) battery terminal and the red battery wire to the Positive ( + ) battery terminal. Ensure all hoses have been tightened.
- 2. Slowly pour oil into the oil tank until it is 1/2" from the top.
- 3. Press the ALL button on the remote control. Do not let the oil level drop below half full. As the level drops, add more oil to maintain a safe oil level. Continue this until the alarm sounds to signal that the legs have been fully retracted.
- 4. Fill oil level to within 1" of top of the tank.
- 5. Press the FRONT button on the remote control. Do not let the oil level drop below half full. As the level drops, add more oil to maintain a safe oil level. Continue this until the front of the pontoon begins to lift off the blocks.
- 6. Check for leaks in all front hoses and fittings.
- 7. Press the REAR button on the remote control. Do not let the oil level drop below half full. As the level drops, add more oil to maintain a safe oil level. Continue this until the rear of the pontoon begins to lift off the blocks.
- 8. Check for leaks in all rear hoses and fittings.

- 9. Ensure blocks are still in place, then press the ALL button on the remote control. Continue this until the alarm sounds to signal that the legs have been fully retracted.
- 10. Press the ALL button on the remote control. Do not let the oil level drop below half full. As the level drops, add more oil to maintain a safe oil level at slightly above half full. Continue this until the pontoon reaches its full height. You may have to toggle the front or rear up individually from time to time to levelly raise the pontoon.
- 11. At this point, the oil level in the tank should be approximately half full as oil will return to the tank as the boat lowers. Only add more oil if the oil level drops below half full, and only fill back to half full.
- 12. Ensure the blocks are still in place, then press the ALL button on the remote control. Continue this until the alarm sounds to signal that the legs have been fully retracted.
- 13. Cycle the pontoon all the way up and down twice more, going slowly or pausing periodically to allow any trapped air to release from the system. Fill oil tank as necessary.
- 14. The Ultra Legs® hydraulic system is now full.

#### **Final Steps:**

- 1. Lift pontoon into the full upright position.
- 2. Walking underneath, find and secure any loose wiring and hoses with zip-ties.
- 3. Step out from underneath boat and lower it onto the blocks until the alarm sounds.
- 4. Fill oil tank to within 1" of top, then secure the oil tank cap in place.
- 5. Place the bottle with remaining Ultra Legs oil into the compartment with the Ultra Legs motor for customer use during the on-water air bleed.

## **Program Remote:**

Ultra Leg remote receivers allow for the programming of up to three (3) remote control units. To program a new remote control or to reset the original remote control if the remote receiver no longer recognizes it, follow the following instructions.

- 1. Locate the remote receiver in the compartment next to the hydraulic pump.
- 2. Disconnect the harness from between the pump and receiver.
- 3. Reconnect the harness between the pump and receiver. The receiver will now be in "Pairing Mode" for 10 seconds.
- 4. Press and hold ON button on the remote for three (3) seconds during the pairing window.
- 5. The remote should now function properly.

## Remote Troubleshooting:

- 1. Each remote is equipped with a 10-minute standby timer. After 10 minutes of no commands being sent, the remote will go into standby mode. To resume operation, press the ON button to wake the remote and resume control. Toggle switches will remain operational on the receiver box even if the remote is in standby mode.
- 2. The receiver can hold up to three (3) remote pairings. Pairing a new remote after all three pairings are filled will cycle and remove the oldest stored remote to add the newest pairing.
- 3. If the pairing process is not able to be completed per the instructions, ensure the pump is connected to a fully charged battery and that any battery switches are in the "on" position.



