

# DeckHand Electric Anchor

## This DeckHand Repair Manual is divided into 2 parts.

<b>Part I.</b> pertains to all models other than a DeckHand 40	<b>pages 1 through 2</b>
<b>Part II.</b> pertains to DeckHand 40 models only	<b>pages 3 through 4</b>

### **Part I. All models other than the DeckHand 40**

**Part I - Case I.** DeckHand does not lower or raise anchor.

**Part I - Case II.** DeckHand does not lower anchor but will lift anchor.

**Part I - Case III.** DeckHand does not have enough power to lift anchor (you need to help by pulling up and “feeding” rope into winch as it lifts).

**Part I - Case IV.** DeckHand lowers anchor then immediately lifts anchor (or vice versa).

**Part I - Case V.** DeckHand lifts anchor when you push “DOWN” on the switch and lowers when you push “UP”.

**Part I - Case VI.** Deckhand will lift anchor, but not deploy the anchor.

**Part I - Case VII.** DeckHand lowers anchor, but does not automatically feed out line when anchor hits bottom

### **Part II. DeckHand 40 models**

**Part II - Case I.** DeckHand 40 does not lower or raise anchor.

**Part II - Case II.** DeckHand 40 does not have enough power to lift anchor (you need to help by pulling up and “feeding” rope into winch as it lifts)

**Part II - Case III.** DeckHand 40 lowers anchor then immediately lifts anchor (or vice versa)

**Part II - Case IV.** Deckhand 40 will lift anchor, but not deploy the anchor.

# DeckHand Electric Anchor

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<b>Part I.</b>	pertains to all models other than a DeckHand 40	pages 1 through 2
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## **Part I. All models other than the DeckHand 40**

### **Part I - Case I. DeckHand does not lower or raise anchor.**

- Step 1.** Check to ensure proper voltage. Verify Circuit Breaker is not tripped, inspect battery connections and any connections in battery leadwire for corrosion and security.
- Step 2.** Check to see if lift motor works by applying 12 volts directly to lift motor leads (bypass all the existing wires and switches).
- A.** If motor runs fine, go to **Step 3**.
  - B.** If motor does not run, replace lift motor (P/N 2887800). Test unit for proper operation.
  - C.** If motor can be heard running, but the rope spool does not spin, remove the gear motor from the side of the base. Remove the housing cover gasket so that you can inspect the drive gear (P/N 350-154).
    - C-1.** If the drive gear is cracked, broken, or the teeth are stripped, replace drive gear (grease new gear liberally with wheel bearing grease). Reassemble unit and test for proper operation.  
**NOTE:** If new gear seems very tight, you may need to ream out the center hole of the gear with a 21/64" drill bit.
    - C-2.** If drive gear looks good, remove gear to inspect the armature/worm shaft. If worm shaft is broken, replace entire gear motor. Reassemble and test unit for proper operation.
- Step 3.** Check for continuity through the circuit breaker which is located in the positive (+) lead wire between the battery and the UP / DOWN switch. The circuit breaker is defective if no continuity is noted. Replace circuit breaker and test unit for proper operation.
- Step 4.** Disassemble the UP / DOWN switch housing and inspect all connections at the switch terminals for security.
- A.** After going through all the above steps, the UP / DOWN switch must be defective. Replace switch and test unit for proper operation.

### **Part I - Case II. DeckHand does not lower anchor but will lift anchor.**

- Step 1.** Remove cover and visually inspect the momentary switch. The spool bearing should move far enough to allow the button on the momentary switch to actuate when the rope is pulled by the weight of the anchor. If the spool bearing does not move far enough to actuate the switch then identify the physical obstruction and reassemble properly to correct the issue. **NOTE:** The spool bearing (p/n 2370001) if installed incorrectly will prevent switch actuation. It should be installed with the shoulders top and bottom so it is taller than it is wide.
- Step 2.** Check the momentary switch for functionality. Test for continuity between the two tabs of the switch, continuity should be present when the rope is pulled and the button of the switch is extended. There should be no continuity when the spool is pushed back in its resting position. **NOTE:** If the switch does not audibly click when actuated it is properly not working correctly.
- Step 3.** Inspect the connections to the main switch, if all connections and wires are in good condition the UP/DOWN switch is defective. Replace UP/DOWN switch, and test unit for proper operation.

### **Part I - Case III. DeckHand does not have enough power to lift anchor (you need to help by pulling up and “feeding” rope into winch as it lifts).**

- Step 1.** Check to ensure proper voltage. Inspect battery connections and any butt splice connections in battery leadwire for corrosion and security.
- Step 2.** Check for proper voltage to motor while DeckHand is under load. Use of adequate gauge wire in boat or any leadwire extension is critical to avoid voltage drop / low voltage to the motor. Inadequate wiring or corroded plug / plug receptacle connections can result in considerable voltage loss and poor performance.
- Step 3.** Possible problem with the drive gear (P/N 350-154) in the gear motor. Remove the gear motor from the side of the base. Remove the housing cover gasket so that you can inspect the drive gear (P/N 350-154).
- A.** If the drive gear is cracked, broken, or stripped, replace drive gear (grease new gear liberally with wheel bearing grease). Reassemble unit and test for proper operation. **NOTE:** If new gear seems very tight, you may need to ream out the center hole of the gear with a 21/64” drill bit.

### **Part I - Case IV. DeckHand lowers anchor then immediately lifts anchor (or vice versa).**

- Step 1.** Possible knot in rope on spool. If the rope is caught by a knot or part of the rope is buried in the layered wrappings of the rope, the spool will be turning the proper direction, but the rope will reverse when it catches the knot.
- A.** Remove cover from DeckHand base.
- B.** “Feed out” rope from spool while watching for knots and/or the rope being buried underneath other layers.
- B-1.** Re-adjust rope on spool, as needed.

### **Part I - Case V. DeckHand lifts anchor when you push “DOWN” on the switch and lowers when you push “UP”.**

- Step 1.** Check to ensure proper polarity at the battery and at the UP/DOWN switch (polarity may be reversed).
- Step 2.** Possible knot in rope on spool. If the rope is caught by a knot or part of the rope is buried in the layered wrappings of the rope, the spool will be turning the proper direction, but the rope will reverse when it catches the knot.
- A.** Remove cover from DeckHand base.
- B.** “Feed out” rope from spool while watching for knots and/or the rope being buried underneath other layers.
- B-1.** Re-adjust rope on spool, as needed.

### **Part I - Case VI. Deckhand will lift anchor, but not deploy the anchor.**

**NOTE:** When the UP / DOWN switch is in the DOWN position, the anchor rope must have tension applied in order for the motor to run (play out rope), as the rope tension actuates the momentary switch P/N 2374010.

- Step 1.** Possible defective momentary switch (P/N 2374010)
- A.** Remove spool and test with finger by actuating button
- Step 2.** Spool bearing (P/N 2370000) may be installed incorrectly. The spool bearing must be free to move forward and back to actuate the momentary switch.
- A.** If the spool bearing cannot move back and forth, remove rope spool and rope guide from DeckHand base. Remove the spool bearing, rotate it 1/4 turn, and reassemble DeckHand. Test unit for proper operation.

### **Part I - Case VII. DeckHand lowers anchor, but does not automatically feed out line when anchor hits bottom**

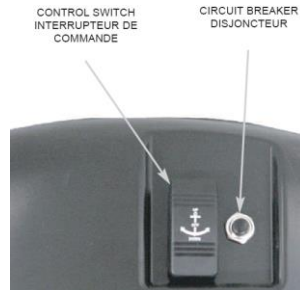
- Step 1.** Defective momentary switch. Replace switch, and test for proper operation.

## Part II. DeckHand 40 models

The DeckHand 40 differs from the smaller DeckHand models in that this model uses a polarity reversing control board. This board allows the possibility to add a second switch into the circuit. A corded remote switch is available as an optional accessory. *The DeckHand 40 requires a 20 pound minimum anchor weight to function properly.*

### **Part II - Case I. DeckHand 40 does not lower or raise anchor.**

- Step 1.** Check to ensure proper voltage. Inspect battery connections and any butt splice connections in battery leadwire for corrosion and security.
- Step 2.** Reset the manually resettable circuit breaker by pushing the small black button on the side next to the control switch. Retest for proper operation.



- Step 3.** Check to see if lift motor works by applying 12 volts directly to lift motor leads (bypass all the existing wires and switches).
- A. If motor does not run, replace lift motor. Test unit for proper operation.
  - B. If motor can be heard running, but the rope spool does not spin, inspect the drive pin to see if it is in place. (The drive pin is on the opposite side of the spool from the lift motor.)
- Step 4.** Disassemble the UP / DOWN switch housing and inspect all connections at the switch terminals for security.
- A. With the wires removed test continuity on the switch. The middle and top terminal should show continuity when the switch is in the DOWN position, the middle and top terminal should show continuity when Up is being pressed.
  - B. After completing all steps above without finding a cause it can be concluded that the control board is defective. Replace the control board, and test for proper operation.

### **Part II - Case II. DeckHand 40 does not have enough power to lift anchor (you need to help by pulling up and “feeding” rope into winch as it lifts)**

- Step 1.** Check for proper voltage to motor while DeckHand is under load. Use of adequate gauge wire in boat or any leadwire extension is critical to avoid voltage drop / low voltage to the motor. Inadequate wiring or corroded plug / plug receptacle connections can result in considerable voltage loss and poor performance.
- Step 2.** Check the drive pin. The drive pin goes through the metal insert of the spool and drive shaft of the motor it is on the side of the spool farthest from the motor. If the drive pin is broken replace it, a spare drive pin is secured in the cover of the DeckHand.
- Step 3.** Observe the motor shaft/spool as the unit attempts lifting the anchor. If the drive shaft does not turn as the motor run replace the motor assembly, if the plastic portion of the spool does not turn as its inner metal sleeve does replace the spool assembly.

## **Part II - Case III. DeckHand 40 lowers anchor then immediately lifts anchor (or vice versa)**

- Step 1.** If no corded remote switch accessory is in use continue to **Step 2.** If a remote switch is in use:
- A.** Verify that neither switch is in the DOWN position. If a switch is left in the DOWN position then the UP command from the other switch overrides that until that UP command ends, so it immediately starts running DOWN again.
  - B.** Unplug the remote switch accessory and test with the switch on the unit only. If issue goes away assume a short in the remote switch assembly and replace assembly.
- Step 2.** Possible knot in rope on spool. If the rope is caught by a knot or part of the rope is buried in the layered wrappings of the rope, the spool will be turning the proper direction, but the rope will reverse when it catches the knot.
- A.** Remove cover from DeckHand 40 base.
  - B.** “Feed out” rope from spool while watching for knots and/or the rope being buried underneath other layers.
    - B-1.** Re-adjust rope on spool, as needed.

## **Part II - Case IV. Deckhand 40 will lift anchor, but not deploy the anchor.**

**NOTE:** When the UP / DOWN switch is in the DOWN position, the anchor rope must have tension applied in order for the motor to run (play out rope), as the rope tension actuates the momentary switch P/N 2374010. The spool and motor pivot together to depress a button on this momentary switch. If the spool and motor are not allowed to pivot then the anchor will not be able to be deployed. **Note:** *minimum anchor weight of 20 pounds, less weight will not consistently actuate the momentary switch.*

- Step 1.** Remove cover and visually inspect momentary switch. The spool bearing should move far enough to allow the button on the momentary switch to actuate when the rope is pulled. If the spool bearing does not move far enough to actuate the switch identify the physical obstruction and reassemble correcting it.  
**Note:** The spool bearing (p/n 2370001) if installed incorrectly will prevent switch actuation. It should be installed with the shoulders top and bottom so it is taller than it is wide.
- Step 2.** Check the momentary switch for function. Test for continuity between the two tabs of the switch, continuity should be present when the rope is pulled and the button of the switch is extended, no continuity when the spool is pushed back in its resting position. **Note:** If the switch does not audibly click when actuated you can expect it is bad.
- Step 3.** Disassemble the UP / DOWN switch housing and inspect all connections at the switch terminals for security.
- A.** With the wires removed test continuity on the switch. The middle and top terminal should show continuity when the switch is in the DOWN position, the middle and top terminal should show continuity when Up is being pressed.
  - B.** After completing all steps above without finding a cause it can be concluded that the control board is defective. Replace the control board, and test for proper operation