DC WINCH WITH ADVANCED SWITCH CONTROL

P/N 511-52001-04 ASSEMBLY INSTRUCTIONS



TOOLS REQUIRED:

- (2) 3/4" sockets or wrenches for 1/2" nuts and bolts
- (2) 9/16" sockets or wrenches for 3/8"nuts and bolts
- (1) Torque Wrench
- (1) Hammer
- (1) Center Punch
- (1) Cordless Drill
- (1) 17/32 Drill Bit
- (1) Tape Measure

Manufactured By: Floe International, Inc. 48473 State Hwy. 65 McGregor, MN 55760

INSTRUCTION P/N: 611-52002-04 ISSUE DATE: 10/20/15 REV: 7/7/21

SHEET 1 OF 8

PARTS LIST - BOX ONE:

- (1) One DC Winch Fastener Kit, 001-04111-00 One – Eye Nut, 001-03422-00 Two – 3/8-16 x 3" Bolts, 001-70115-00 Three – 1/2-13 x 1-3/4" Bolts, 001-70210-00 One – Tube, Vibra-Tite, 006-04102-00 Three – 1/2" Flat washers, 001-71027-00 Four – 1/2-13 Aluminum Nylock Nuts, 001-76072-00 Two – 3/8-16 Aluminum Nuts, 001-76349-00 One – 1/2-13 Aluminum Nut, 001-76350-00 Three – 1/2-13 x 2-1/4" Bolt, 001-70212-00 Four – 1/2" x 1-1/2" Nylon Flat Washers, 007-05355-00
- (2) One Battery Box w/Volt Meter, Cover & Strap, 111-00461-00
- (3) One DC Winch Cable Bracket, 002-04155-00
- (4) One Diagnostic Check List, 007-05305-00 STORE IN BATTERY BOX FOR FUTURE REFERENCE
- (5) One Chain, 3/8 Grade 70-2 Links, 001-45026-00
- (6) Two Pulley Assemblies, 111-10103-00
- (7) 15' Double Sided Velcro, 014-02310-00
- (8) One V-Brace Battery Tray, 111-00012-00
- (9) One DC Winch Tool Kit, 111-00106-00 One – Tool Kit Pouch, 007-03980-00 One – 3/8" Drive Socket Adapter, 007-03981-00 One – DC Winch Test Plug, 007-05302-00
- (10) One DC Winch Limit Switch Magnet Assembly, 111-00310-00
- (11) One DC Winch Limit Switch Assembly, 111-00372-00
- (12) One Wired Remote with Key Switch, 111-70010-00
- (13) One DC Winch Advanced System Control, 311-52030-01 One – 50 AMP Auto-Reset Circuit Breaker Assembly, 111-70016-00
- (14) DC Winch Assembly Instructions, 611-52002-02

PARTS LIST BOX TWO:

One – DC Winch with 17' of 5/16" cable and one steel emergency crank handle, 511-52002-04

Refer to Page 3 for visual reference of parts.



STEP 1:

Remove vinyl cap from winch post. Slide winch assembly over winch post (Fig. 1A). Clean winch mount with alcohol pad and adhere dual lock to back side of the winch mount 3-3/4'' down from the top of the winch mount and centered. Attach the Advanced Switch Control box to the winch by sliding the bolt head and washer into the nut track of the winch post (Fig.1B). And firmly pressing the dual lock pads together (Fig. 1C). Connect the two wires with spade connectors from electronic control box to the wires exiting the winch (Fig. 1D). Push the connectors into the winch box and install the grommet on the control box wires into the hole on the winch box.



Fig. 1A Winch Assembly & Winch Post



Fig. 1B Slide the monting tab into the nut track on the winch post



Remove the inner $1/2'' \ge 1-1/4''$ bolt from the outer 2-1/2'' cradle clamp and slide the clamp out far enough to insert a $1/2'' \ge 2-1/4''$ bolt up through the inside of the clamp making sure that the flats of the bolt head nest in the nut track area of the clamp. Insert a $1/2'' \ge 1-3/4''$ bolt in the winch cable bracket and place it over the 2-1/4'' bolt and insert the $1/2 \ge 1-3/4''$ bolt into the remaining hole (Fig. 2A), place 1/2'' washer and nut over the bolt

and torque both fasteners to 50 ft/lbs (See Fig. 2B). Place several drops of Vibra-Tite onto the threads of the protruding 2 1/4" bolt and thread on the eye nut until it is bottomed on the jam nut and then back it off just enough so that the nut is positioned at 12:00 o'clock and 6:00 o'clock (See Fig. 2C). See note below.



IMPORTANT NOTE: Vibra-Tite takes 24 hours to fully cure. Do not operate the winch until the appropriate amount of time has elapsed while maintaining the 12:00 o'clock and 6:00 o'clock eye nut position.



Add several drops of Vibra-Tite to threads.

1/2″ x 1-3/4″





Fig. 1C Attach the electronic control box



Fig. 1D Connect wires from control to winch

STEP 3A:

A 17/32" hole must be drilled in the upper v-brace clamp 3/4" up from the bottom and 1" in from the outer edge. With a tape measure, mark the location for the hole as shown. (Fig. 3A) Use a center punch and a hammer to create a divot to help guide the tip of drill bit. Make sure that the drill remains perpendicular to the clamp during drilling. Note: Lifts shipped after 2/1/13



Fig. 3A Measuring V-brace Clamp



STEP 3B:

Attach the chain to the outside of the clamp on the lifting post with a $1/2 \times 1-3/4''$ bolt, heavy flat washer, and nylock nut as shown (Fig. 3B). Torque to 80 ft/lbs.



Fig. 3B Chain Attachment

STEP 4:

will have this hold pre-drilled.

Attach the pulley assembly to the eye nut by threading the cable over the pulley and attach to the eye nut using a 1/2 x 2-1/4" bolt, (2) 1/4" thick nylon spacers, and a 1/2" nylock nut. (Fig. 4A) Torque to 20 ft/lbs. Repeat the process on the upper pulley, but instead of fastening to the eye nut, attach to the chain using a 1/2 x 2-1/4" bolt, (2) 1/4" thick nylon spacers, and 1/2" nylock nut. (Fig. 4B) Torque to 20 ft/lbs. Make sure that both pulleys rotate freely. Attach the loop end of the lifting cable bracket using a 1/2 x 1-3/4" bolt, a heavy flat washer, and a nylock nut. (Fig. 4C) Be careful not to over tighten and crush the wire rope thimble. Cable must be routed as shown in Fig. 4D. The cable comes down from the winch, goes through the lower pulley from the outside, up and through the pulley from the inner side, and back down by the lower pulley.

Fig. 4A Assembly of Pulley Block







Do not operate lift until Winch installation is complete. It is very important that the cable does not rub together at any point. Cables rubbing will cause premature cable wear and reduce the life of the lifting cable. Periodically inspect the lifting cable and all other components for wear. If wear or damage is present, contact your local Floe Dealer.



STEP 5:

Place V-brace battery tray so that it is positioned 5" from the lifting post as shown (Fig. 5A) and fasten with (two each) 3/8-16 x 3" bolts and aluminum nuts. The bolt heads should be to the inside of the lift. Torque to 25 ft/lbs.



Fig. 5A Attach V-brace Battery Tray

STEP 7:

Plug 4 connector wired remote into the corresponding lead of the Advanced Switch Control box. NOTE: The wired remote lead is identified by the blue wire tie next to the base of the plug on the ASC as shown. (Fig. 7)



Fig. 7 Wired Remote Connection

STEP 6:

Attach red 8ga power cord with automatic overload circuit breaker to positive side of battery and the remaining wire to the negative as shown. (Fig. 6A) At the same time attach the Battery Condition Volt Meter leads (red to positive and black to negative). Example (Fig.6B). Place the diagnostic Check List in the battery box for future reference.



STEP 8:

Plug 2 lead connector of limit switch assembly into the corresponding lead of the ASC as shown. (Fig. 8)



Fig. 8 Limit Switch Connection



Fig. 9 Limit Switch Placement

STEP 9:

Route wires of the remote and limit switch to the inside of the winch post. Then remove tape masking from the limit switch assembly. On the inward-facing side of the winch corner post, measure six inches from the bottom of the upper clamp, and then free the area of any debris by wiping it clean with an alcohol wipe. Adhere the limit switch assembly horizontally as shown in (Fig. 9) For proper adhesion, the temperature should be no lower than 50 degrees. At 70 degrees, allow the tape to cure for at least 24 hours. Secure any loose wires with a portion of the double sided Velcro included.

\Lambda WARNING

The safety limit switch assembly must remain intact and working properly or damage may occur.

STEP 10:

Remove tape masking from the magnet holder. Clean the area of any debris by wiping it clean with an alcohol wipe. Place the magnet holder on top of the side cradle beam (flush with the outside edge) in line with the corner post and limit switch. (Fig. 10)

Fig. 10

This magnet holder must remain intact and must be checked periodically. There should be no more than 1/2" gap between the inner edge of the side cradle beam and the corner post when the lift bed is shifted away from the corner post. If there is more than 1/2" gap, adjust the side cradle beam toward the corner post (see lift assembly instructions).

STEP 11:

First time operating winch, press the "up" button while noticing when the magnet holder reaches the limit switch assembly (Fig. 11). The power to the winch should disconnect even though you are still pushing the "up" button. This is a safety feature to aid the operator, in case he has exceeded the upper travel limits of the lift bed.





IMPORTANT - If the winch continues to run while the magnet holder and limit switch tube pass by each other, then either the limit switch is not connected properly, is defective, or it is not adjusted correctly. For proper adjustment, see step 10.

WARNING

The opperator should always watch the lift bed and stop before exceeding the stop limit and the "Stop Here" decals. Failure to do so can result in serious bodily injury.

STEP 12:

Apply waterproof grease to winch cable to prevent premature wear.

STEP 13:

SECURING AND PLACING WIRED REMOTE: <u>FLOE recommends that you place the winch on the side of the lift away from the dock.</u> If the lift is equipped with a canopy system, the cord on the remote should be attached with Velcro one-wrap to the canopy upright tube and the canopy hoop so that it extends across the frame. This allows you to locate the wired remote in a convenient position. Run the wired remote cord up from the winch in the winch post channel (Fig. 13A), up and across the closest canopy frame hoop to its midpoint, and then along the center rail to a position where the wired remote hangs within easy reach from your dock or boat. (Fig. 13B)



Fig. 13A Winch Post Channel (showing wired remote cord running from winch through channel and up to canopy frame).

If your lift is not equipped with a canopy, you can still have the winch on the opposite side from the dock by adding the wireless remote option.

