Limit Switch Installation: Flat Plate Gearboxes

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

IMPORTANT: Install the limit switch in a location that will trip when the desired amount of cable has been spooled.

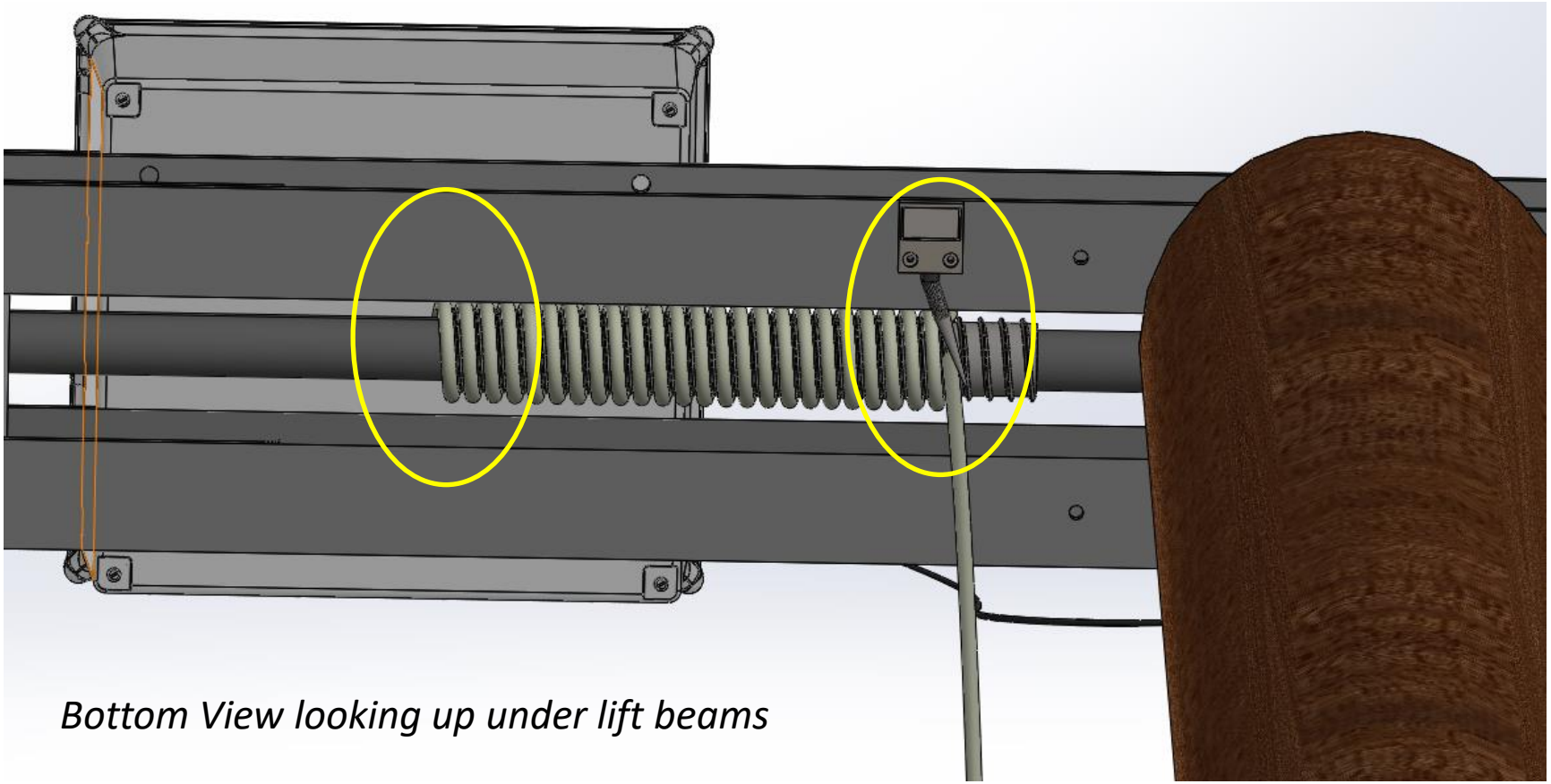
NOTE: Every boat lift configuration is different and it is the responsibility of the user to determine the best installation method and placement.

UPDATE: DO NOT install the limit switch where it will be tripped by the boat lift carriage. Continual non-stop movement of the carriage via wind will eventually wear out the limit switch. For longevity we recommend installing the limit switch where the cable is spooled.

IMPORTANT: NEVER rely on the limit switch. The limit switch is a last resort safety device. Operator should always pay close attention when operating the boat lift.

Limit Switch Installation: I-Beam Lifts

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS



Bottom View looking up under lift beams

IMPORTANT: Install the limit switch in a location that will trip when the desired amount of cable has been spooled. Depending on the lift construction style (Walk over beams) or (Walk under beams) you may want to use the limit switch as an UP LIMIT or a DN LIMIT.

NOTE: Every boat lift configuration is different. User is responsible to determine the best installation and placement.

IMPORTANT: NEVER rely on the limit switch. The limit switch is a last resort safety device. Operator should always pay close attention when operating the boat lift.

Limit Switch Installation: I-Beam Lifts

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

Spring Limit Switch

WALK UNDER BEAMS STYLE LIFT

On this style lift the user walks UNDER the I-Beams to enter/exit the boat. The carriage of the boat is not lifted anywhere near the height of the I-Beams. For this reason many users may prefer to use the limit switch for the DN direction to stop the cable from slacking when the carriage is at the lowest point or worse, unraveling and winding UP in the wrong direction. With purchase of additional limit switches you may use one for both UP & DN limits.

WALK OVER BEAMS STYLE LIFT

On this style lift the user walks OVER the I-Beams to enter/exit the boat. The carriage of the boat is often lifted very near under the I-Beams. For this reason many users may prefer to use the limit switch for the UP direction to stop the carriage from hitting the I-Beams. With purchase of additional limit switches you may use one for both UP & DN limits.

OPTIONAL: Rotary Limit Switches – Provided by Boat Lift Mfg.

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

Rotary limit switches provide the benefit of providing both an UP + DN limit. The Lake Lifter system can utilize rotary limit switches however, there are a few important factors to consider.

1. You will need (TWO) rotary limit switches (one for each side/motor).

1. You will need to purchase the rotary limit switches from the boat lift mfg. there are several different styles & mounting brackets that will fit your specific boat lift or boat lift brand.

1. Please ensure your boat lift supplier/mfg knows that you will need (TWO) rotary limit switches and that one will be installed on each side.

2. The rotary limit switches will need re-wired, replacing the standard AC-3strand wire with our DC-4strand wire. – see instructions.

Example Various Rotary Limit switches

Example Style: Rotary Limit Switches – Provided by Boat Lift Mfg.

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

KALS

E-Drive Golden gearbox **(KCLS)**

E-Drive AMS gearbox **(KELS)**

Flat-Plate Gearbox **(KFLS)**

Tools: Phillips Screwdriver, Small Regular Screwdriver, for KRLS units you might need a drill and 1/4 metal drill bit.

You may need to drill a hole in the drive pipe and attach the bolt that came with the limit switch, make sure bolt clears beams.

Note: bolt past the bearing.

KRLS
fits most open end pipes

Drive Pipe Model **(KRLS)**

OPTIONAL: Rotary Limit Switches – Provided by Boat Lift Mfg.

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

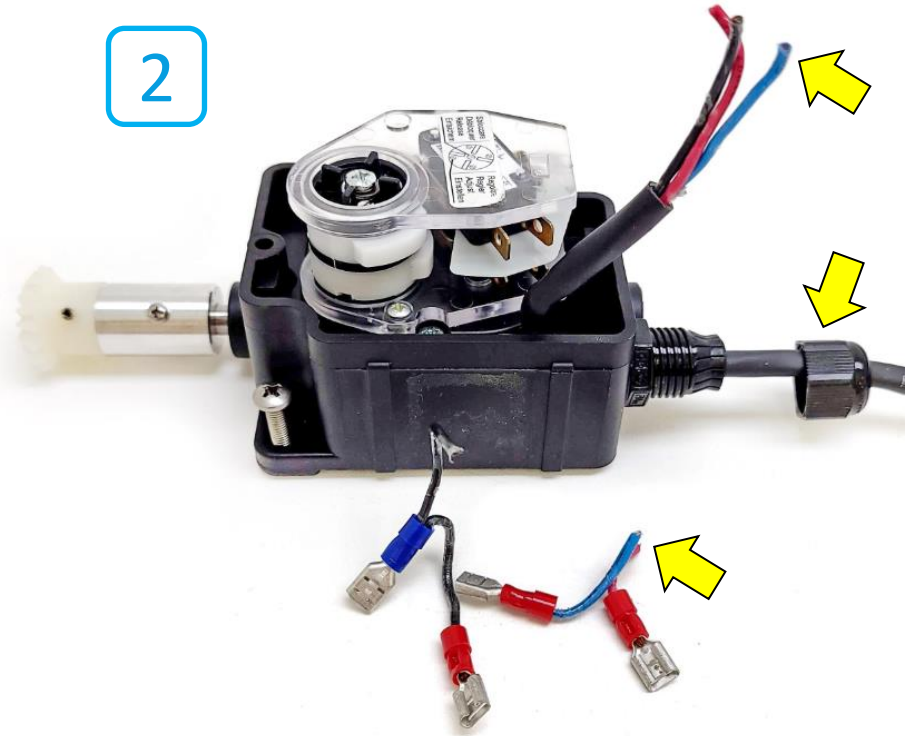
Rotary limit switches provide the benefit of having both an UP + DN limit. To make the rotary limit switch work with the DC-powered Lake Lifter system you will remove the 3-strand wire and replace it with the provided 4-strand wire. This will allow both micro switches to work independently. (2-wires for the UP switch) & (2-wires for the DN switch).

IMPORTANT: For DUAL motorboat lifts you will need (Two) rotary limit switches:

1

Open the rotary limit switch

2

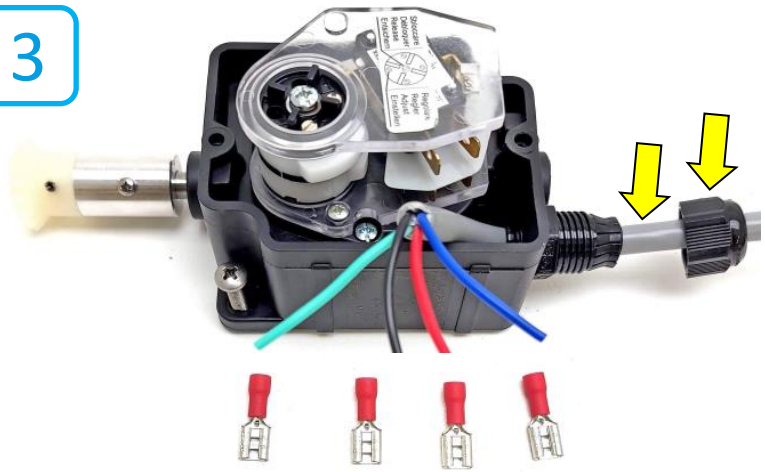


Remove the spade connectors from the micro switches. Cut the spade connectors off. Loosen the cable gland nut and pull the old wire out

OPTIONAL: Rotary Limit Switches – Provided by Boat Lift Mfg.

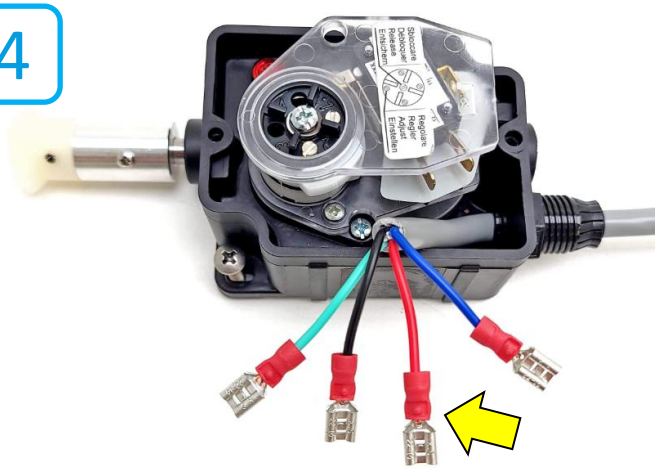
LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

3



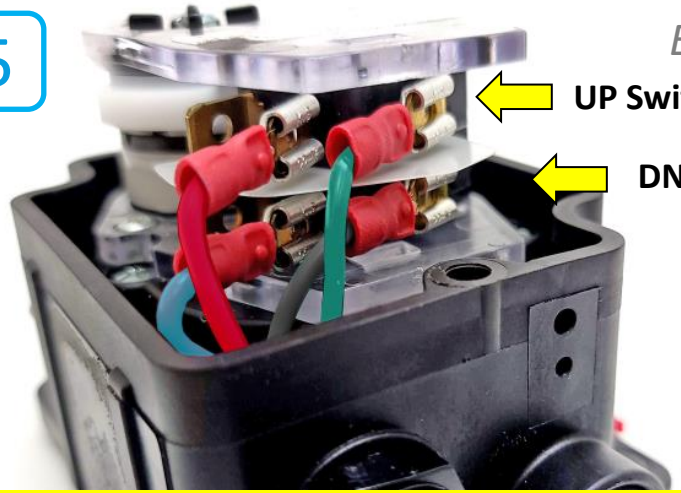
Feed the NEW 4-strand wire into the rotary switch

4



Strip the wires and attach the new spade terminals

5



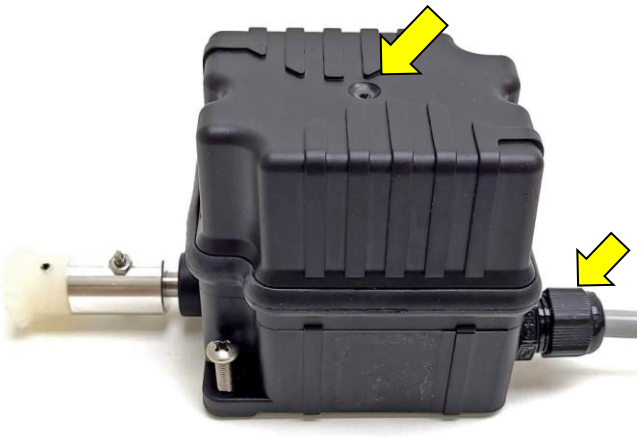
Example

UP Switch (Red + Green)

DN Switch (Blue + Black)

NOTE: Take photo so you remember which wire colors go to the UP & DN switches!

6

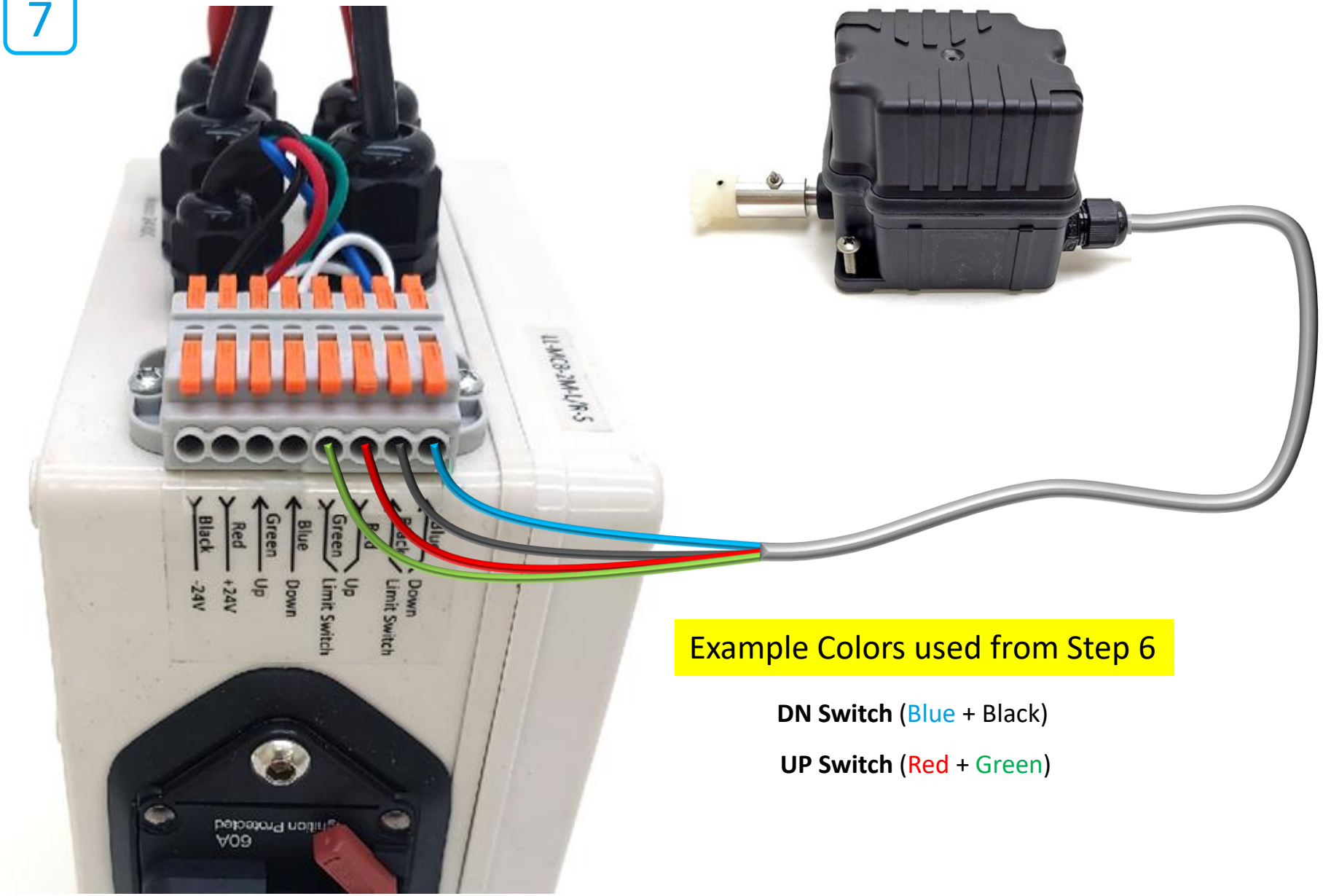


Reassemble the limit switch and tighten the cable gland

OPTIONAL: Rotary Limit Switches – Provided by Boat Lift Mfg.

LAKE LIFTER
DC POWERED BOAT LIFT MOTORS

7



Example Colors used from Step 6

DN Switch (Blue + Black)

UP Switch (Red + Green)