

The following instructions are intended to assist users in installation and adjustment of the HydraLift gate operator's new rotary limit switches. HydraLift OPEN and CLOSE limit switches are factory set, but need testing and adjusting when operator is installed. Please read all assembly instructions before installing the kit or making adjustments.

REQUIRED TOOLS

- Fish Tape/Draw Tape/Draw Wire
- Wire stripper/cutter
- #3 Phillips Head screwdriver
- Ohmmeter with continuity tone
- Flashlight
- Cam Adjusting Tool (provided with Rotary Limit Switch)
- Small Hand Mirror (for seeing real-time adjustments)

PARTS

Verify that all parts are accounted for. See Table 1.

Table 1. Rotary Limit Switch				
Item No.	Part No.	Description	QTY.	Remarks
1	MX4180	Limit Switch, Rotary, Hub	1	
2	MX001795	Bushing, 1" x 1/2" NPT, ZN	1	
3	MX4422	Instructions, Rotary Limit Switch Installation and Adjustments	1	

WORK SAFELY!

Follow all shop safety rules when performing this installation.

PREPARATION

Make sure gate operator power is turned off and moving components are idle.

NOTICE

Open/close limit cams are beneath plate with guide holes, but visible in diagram (**Figure 2**) for clarity.

ACCESS THE CONTROL BOX

1. Use a Phillips-head screwdriver to remove HydraLift tower lower inspection panel and four securing screws. Set plate and four screws aside. See Figure 1.
2. Use a #2 Philips -head screwdriver to remove four screws holding cover to Geared Rotary Limit Switch control box. Set cover and screws aside. See Figure 1.
3. Mount a small hand mirror across from limit switch to see real-time adjustments.

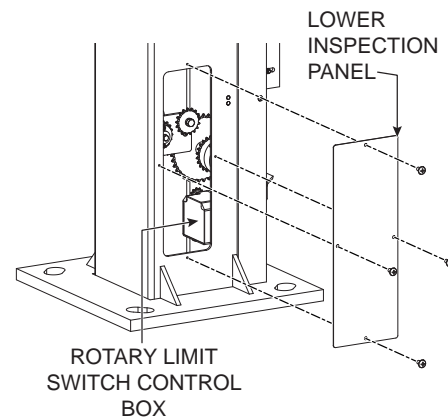


Figure 1. Control Box & Inspection Panel Access

NOTICE

To allow box cover to rotate without completely removing it, leave one bottom screw loose and in place.

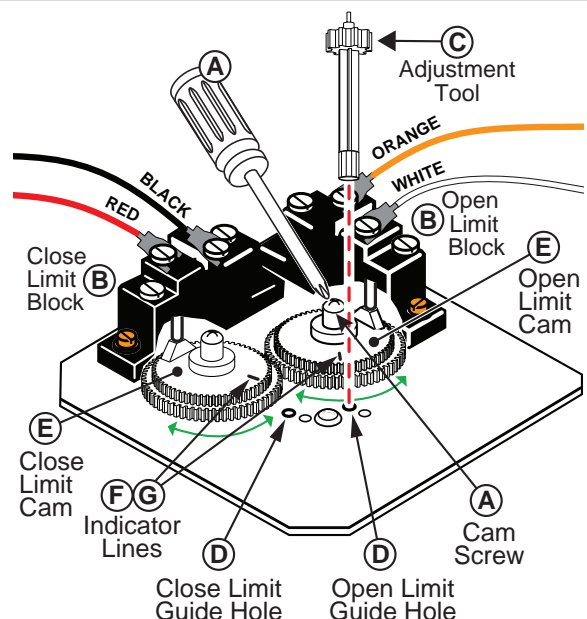


Figure 2. Rotary Switch Wiring Overview

HYDRALIFT LIMIT SWITCH ADJUSTMENTS: OPEN/CLOSE

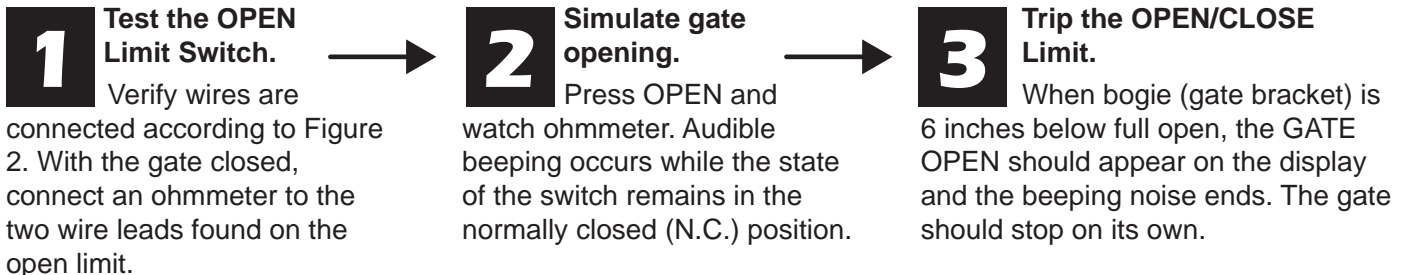
The following steps explain how to make adjustments to the limit switches. Refer to Figure 2.

NOTICE

Wiring colors shown in these instructions are provided as an example and may vary from your installation setup.

NOTICE

Limit switches are pre-wired for normally closed circuitry. When ohmmeter indicates an "open circuit," it means switch is tripped. Audible tones assist in setting limits. As long as you hear a beeping noise, circuit is closed, and limits are not tripped.



NOTE: If beeping is still audible, the open/close limit has not been tripped. Press STOP and re-adjust limits.

Audible Tone (beeping) - Readjust Limits

- Position gate bracket six inches below full open/close by using Open or Close buttons.
- Use a Phillips-head screwdriver to loosen CAM screw (A) on specific contact block being adjusted (B).
- Insert rotary limit switch adjustment tool (C) into guide hole (D). Engage adjustment tool teeth with cam wheel teeth.
- Rotate adjustment tool clockwise (CW) or counterclockwise (CCW) until cam (E) is set, and white indicator line (G) appears in notch area (F). The audible click and notch area indicate when contact block is actuated.

NOTICE

Cam (E) is centered on the switch when white indicator line (G) is in notch area (F) center.

- Make finer adjustments CW or CCW as necessary to correctly set limit switches.

NOTICE

Cam (E) will engage contact block (B) on ramped section rather than directly centered. Cycling of operator will determine if the limit position is sufficient.

- Use a Phillips-head screwdriver to re-tighten CAM screw (A).
- Press Open to move gate full open. Cycle gate Open/Close to validate that Open/Close limit switch trips with the bogie (gate bracket) six inches from full open/close.

NOTICE

Positioning the limit trip six inches from full open/close allows gate travel to slow down before hitting a physical stop.

- Cycle gate OPEN/CLOSE to test limits.

No Audible Tone - OPEN/CLOSE Limit is set

Bogie positioned correctly, six inches before full open/close. OPEN/CLOSE limit switch (N.C. circuit) is tripped.

Contact Information: Visit <https://support.hysecurity.com/hc/en-us> for installation manuals, replacement part instructions, part diagrams and more. Qualified HySecurity distributors are experienced and trained to assist in resolving installation problems. For the name of a qualified distributor near you, call HySecurity at 800-321-9947. *Before contacting your distributor or HySecurity Technical Support, obtain the serial number of your operator.