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VRC Optional Interlocked Manual Sliding Door

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VRC Optional Interlocked Sliding Door

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Overview

The VRC Optional Interlocked Sliding Door assembly is designed for use in situations where the local code, or the equipment owner, requires that the carrier cannot be operated when it is exposed to personnel.

With the Interlocked Door assembly installed, when the Sliding Door is open, a move of the carrier cannot be initiated. If a move is in process and the Sliding Door is opened, the move will be stopped.

The Door's position is sensed by a Magnetic Contact Switch which sends a signal to the control box when the Door is opened. The control box will then ignore a move request or stop a move that is already in motion.

If the Slide Door is open, the upper unit's Send Button LED will have a fast flash.

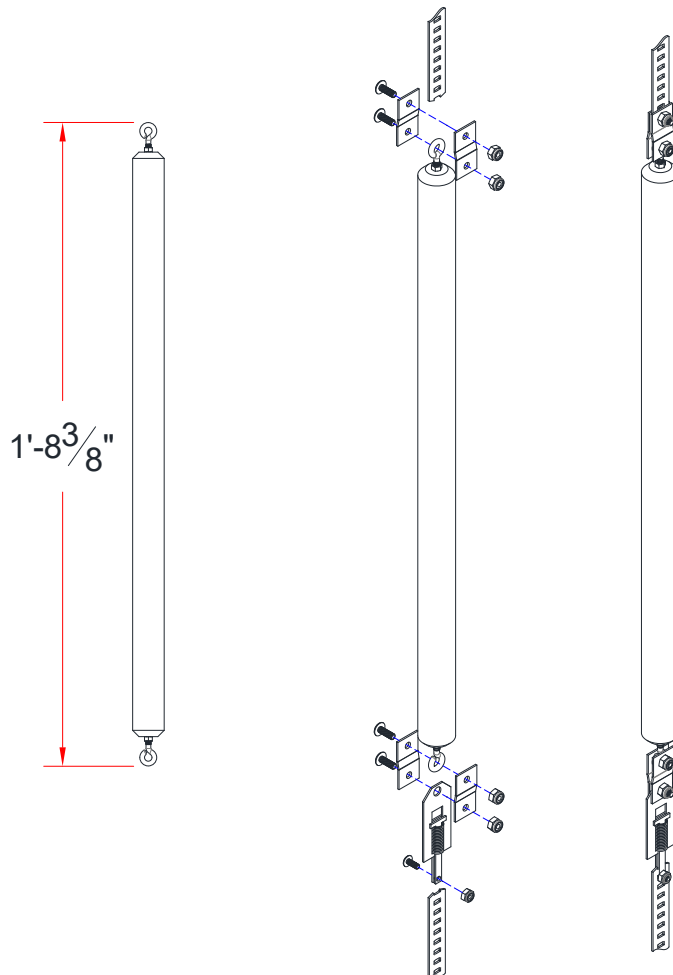
Installation Note: The photos in this document are of a site where the Interlocked Door Assembly for the lower level had to be mounted to the wall surface as the opening for the lower level was not large enough for the Assembly to be mounted directly to the VRC unit. The Assembly was then trimmed back to the VRC panel.

Accessing the Internal Parts

To gain access to the internal parts for repair or inspection, remove the trim cover by removing the (2) screws securing the top flange and the (2) screws that secure the bottom flange of the trim. Pull the trim towards you to remove.

Assembly of the Counterweight and Tape

With the trim removed you can see that there is a slotted track and perforated tape to each side of the window assembly. The tape will extend beyond the slotted track, wrap around a toothed sprocket, and then end at a counterweight assembly. This tape will attach to the top of the counterweight assembly using two plates and two #8 screws with locking nuts. One screw goes through the last hole in the tape, and the other through the Eyebolt in the end of the counterweight. The tape attaches to the bottom of the spring assembly with a #6 screw and locking nut, and then through the two plates with screws and locking nuts to the bottom Eyebolt. The Eyebolts at the top and bottom of the counterweight are used to adjust the tension of the Tape and spring assembly.



Removing the Glass Door Assembly

1. With the Door in the down/closed position, remove the #6 nut & screw that connects the tapes to the bottom of the counterweight spring assemblies. (After the tape is free, put the nut and screw back into the tabs of the spring assembly to keep it from disassembling.)
2. Loosen the screws that attach the tape tracks to the frame by inserting a screwdriver through the holes in the tape.
3. Loosen the tape/counterweight assemblies from the upper sprockets, slide the door to the top of the tracks, and then bend the tracks out towards the front of the frame enough that the door can be slid out of the top of the tracks.
4. To remove the Door from the tapes, remove the two screws that fasten each tape to the side of the Door frame.

Reinstalling the Glass Door assembly

1. Align the tapes to the sides of the Door so that there are 98 open holes below the bottom of the Door, and then fasten each tape to the Door with two 6-32 x 1/4 slotted screws.
2. Insert the track mounting screws into the mounting holes of the track. Do not thread into the frame's mounting holes.
3. Bend the tracks out from the frame far enough that the Tape and Door can be slid into the tape track and then rout the tape around the sprockets at the bottom of the frame.
4. Once the door is slid to the bottom of the frame, bend the track back into position and wrap the tapes around the sprockets at the top of the frame.
5. Insert a screwdriver through the holes in the tape and secure the track to the frame with the mounting screws that you had placed in the track mounting holes earlier.

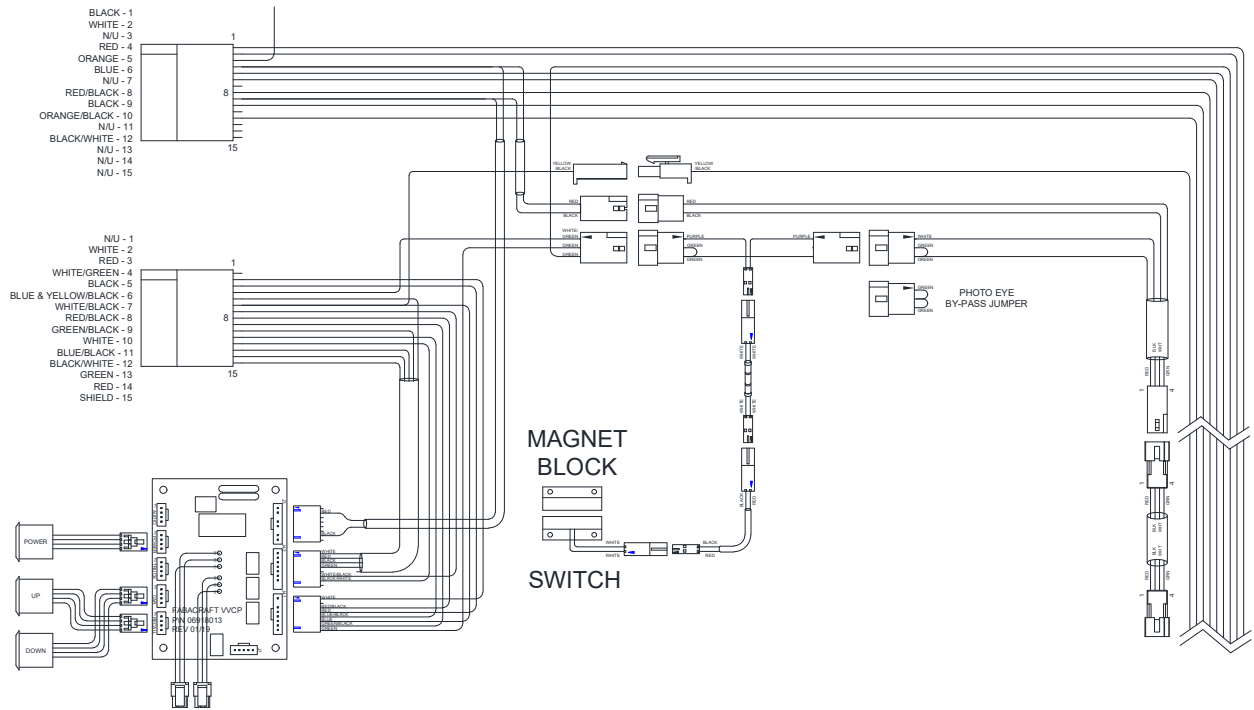
Door Closed Switch & Circuitry

Inside of the frame at the bottom of the door opening there is a magnetic switch that is triggered by a magnet that is fastened to the bottom of the glass frame, on the opposite side of the frame from the door handle. The switch and the magnet screw holes can be seen the photo below.

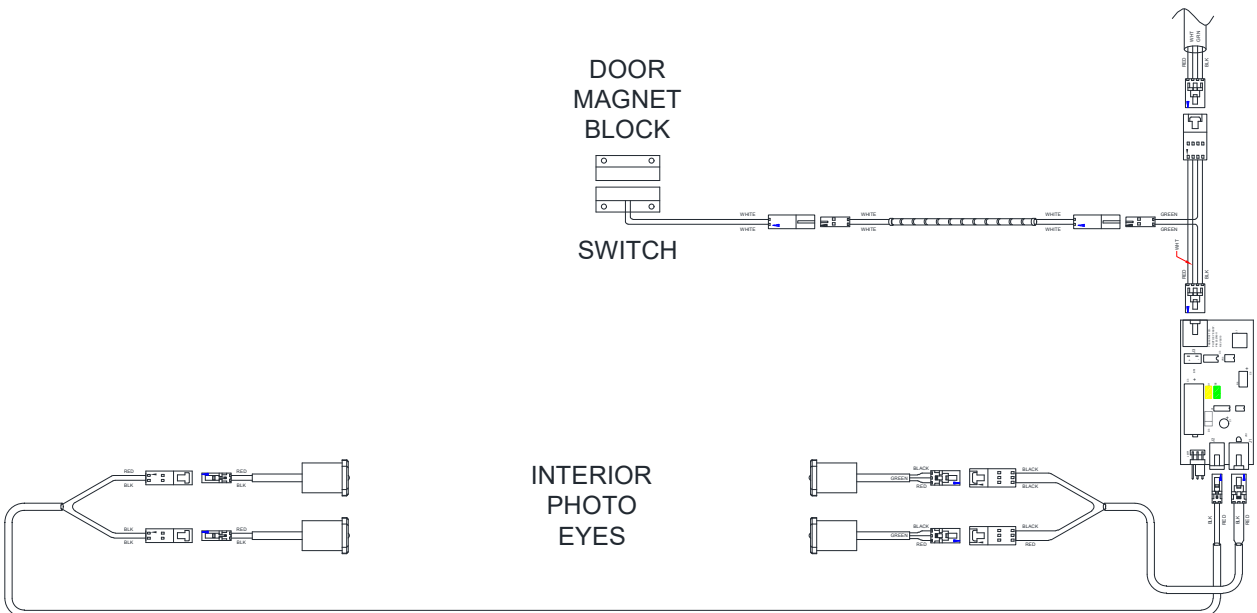


Depending on where the door is being used, the switch wires will be connected to either a two-wire cable, or an armored cable, to carry the signal back to either the control box directly or to a photo eye controller board before it is sent to the control box.

Upper Level Door Wiring



Lower Level Door Wiring



Revisions:

ECN Date

