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Electrical Assembly Instructions Motorized Curtain

Electrical Connections:

There are two independent and unique aspects of the wiring configuration for your Motorized Vinyl Curtain . These are the 115VAC 60Hz power wiring and the low-voltage control wiring. While the low-voltage side of the control system can be configured and properly wired by anyone who has a rudimentary understanding of electrical circuitry, the power wiring should be performed by an electrical professional and done in such a manner to conform to all local and national wiring codes and regulations.

115VAC Power Wiring:

Locate the Control Interface within a few feet of the motor end of the motorized roll. It is designed to fit in a standard “3-Gang” enclosure (not included). It should be noted that the face of the Control Interface is not waterproof and the unit should be mounted in a dry location.

115VAC Power with ground should be brought to the Control Interface enclosure in an approved manner. The maximum current draw of the Interface (operating one motor) should not exceed 3A. Conductors and branch circuit current limiting should be sized accordingly.

The four conductor (ground, neutral, forward, and reverse) motor wiring should also be brought to the Control Interface enclosure in an approved manner. If solid waterproof conduit is not used a vertical “service loop” should be employed that ensure that water will not follow the path of the wiring back into the motor housing.

The Control Interface power and motor connections are shown in the following diagram (Diagram 1):

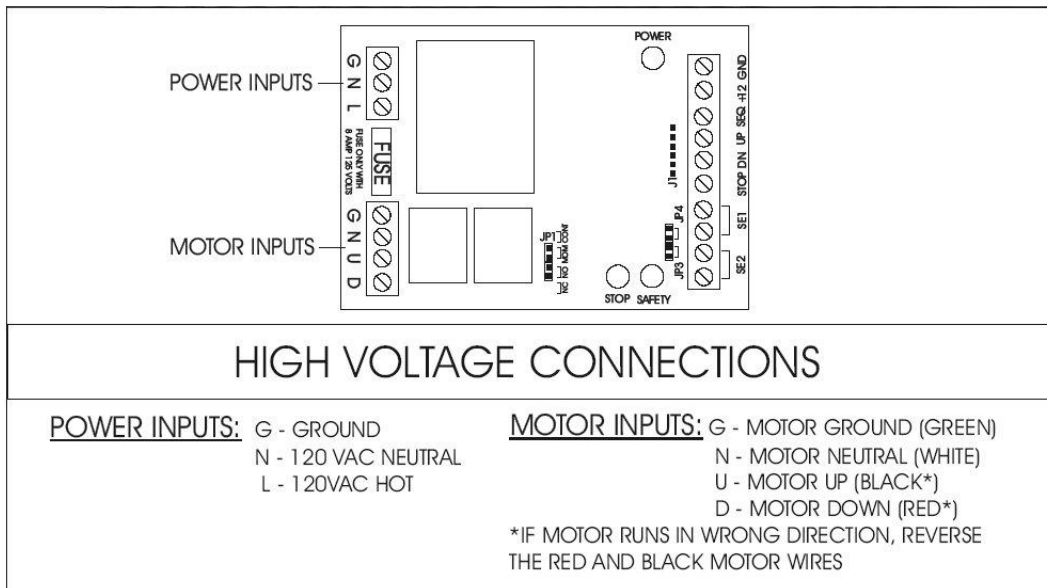


Diagram #1

(Control Interface Power and Motor Connections)

Per the above diagram, the incoming 115VAC power should be connected to the two lower terminal locations on the top block. The “HOT” (Black) lead should connect to the bottommost terminal and the “NEUTRAL” (White) lead should connect to the next one up.

The motor connections are made at the bottom terminal block. The standard convention is that the “DOWN” (Close) motor wire (Red) be connected to the bottom terminal. The “UP” (Open) motor wire (Black) is connected to the “second from bottom” terminal and the “MTR COM” (Neutral) motor wire (White) is connected to the “second from top” terminal. Do **NOT** connect the Black motor wire (UP) to the Black power connection (HOT). The GROUND (Green) motor and power wires should be connected to the “G” terminals.

Jumper Settings:

The Jumpers on the Control Interface must be set for proper operation. Locate the JP1 jumper block (just to the left of the yellow STOP LED). Remove or relocate the upper jumper (MOM-CONT). Leave the lower jumper (NC-NO) installed as shown in the following diagram (Diagram 2):



Diagram #2

(JP1 Jumpers)

Check the JP3 and JP4 jumper block (located just above the red SAFETY LED). Both jumpers should be installed.

Control Connections:

The Control Interface supports NEMA-1 and NEMA-4 (See Addendum) 3-button control stations with N/O “STOP” buttons. All control stations should be wired in PARALLEL and the wiring junctions can be made either at the switches (daisy-chain) or at the Control Interface (Home-Run). The low-voltage control connections should be made with the 4-conductor “Thermo Wire” that was included with your kit. Although the color codes are arbitrary, Goff’s has selected the following standard:

- | | | |
|----------|---|--------------|
| 1. Green | - | Common |
| 2. Red | - | Stop |
| 3. Blue | - | Open (UP) |
| 4. White | - | Close (DOWN) |

Single-station control installations are performed by simply running the control wiring between the operator station and the Control Interface, and attaching the appropriate wires to the terminals or wires as indicated in the following photos (Photo 1 and 2):

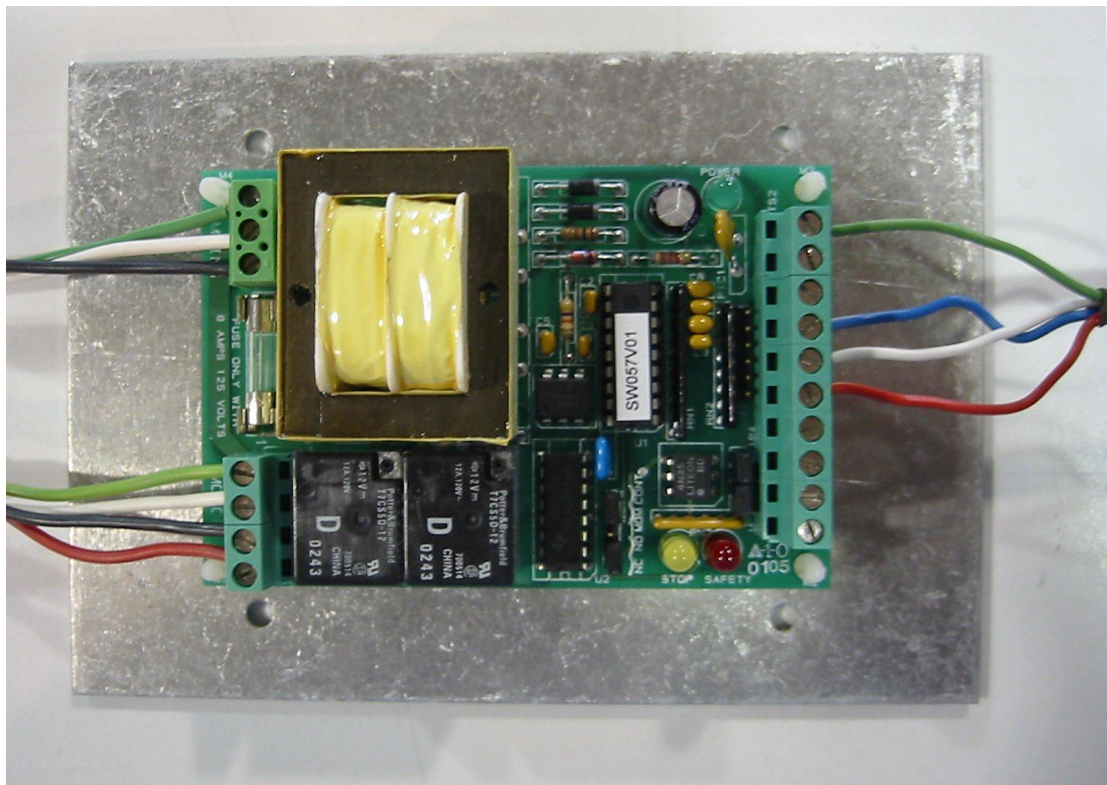


Photo #1
(Interface Control Connections)

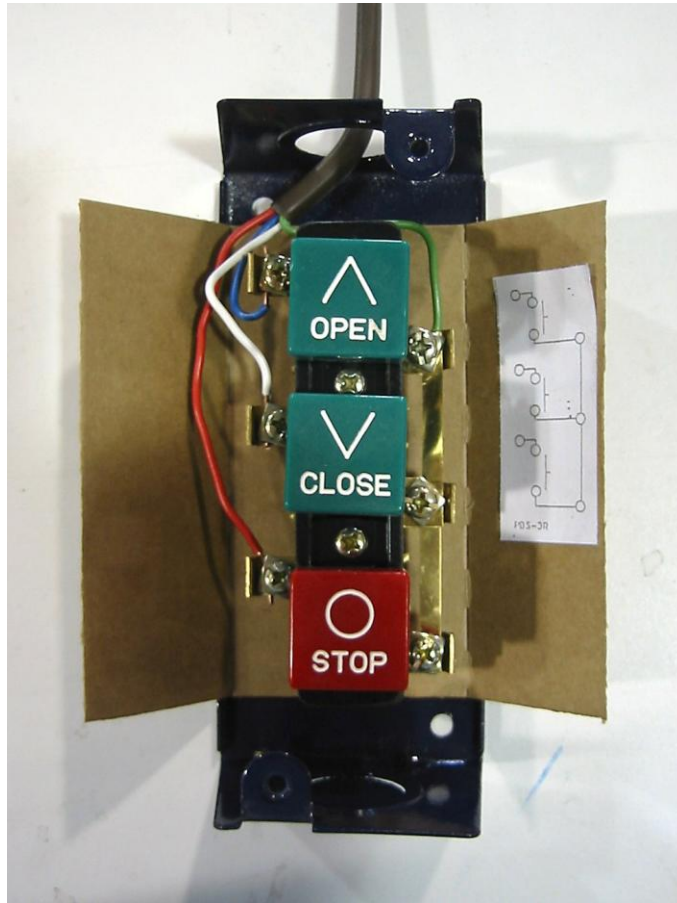


Photo #2
(NEMA 1 Connections)

Setup and Operation:

Setting End Stop Positions:

Note the location of the Open and Close position adjusters as shown in the following photo (Photo 3):

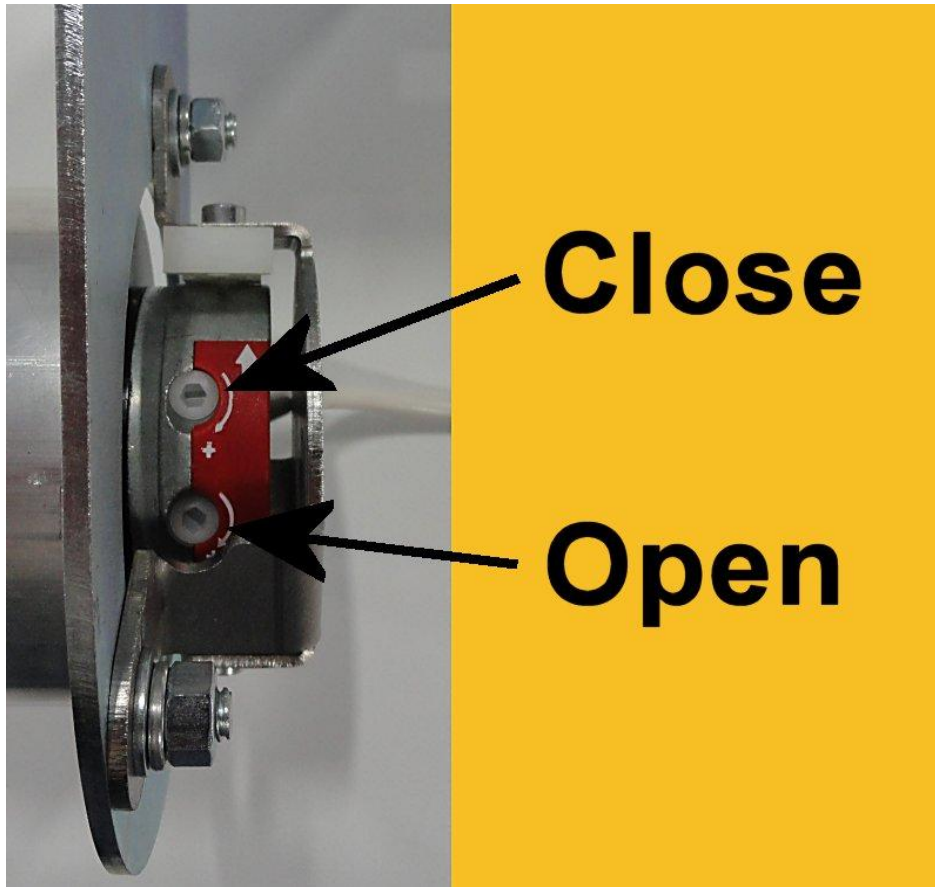


Photo #3
(Limit Switch Adjusters)

Setting the limits is a two-step operation and either end stop can be modified at any time without upsetting the other position. It is preferred to initially have the curtain “stop short” of the desired position and then incrementally work toward the final adjustment. To set the “Full Down” (Closed) position press the “Close” button on the operator station and monitor the position of the curtain.

The curtain should stop automatically before the bottom of the curtain comes in contact with the floor. If it doesn't, press the “Stop” button on the station as the weighted bottom edge of the curtain contacts the floor and begins to compress. Press the “Open” button. Monitor the position of the curtain and press the “Stop” button when the curtain is open by approximately 1' (one foot). Using the supplied adjusting tool, turn the “Close” adjuster counter-clockwise (CCW) about 20 turns. Press the “Close” button. The curtain should now stop automatically before the bottom of the curtain comes in contact with the floor (or it may not move at all). You are now ready to incrementally work toward the final position.

Press the “Stop” button in order to remove power from the motor.

Note: Never attempt to adjust an end stop position without FIRST pressing the “STOP” button on the operator station. Doing so may cause unwanted motion of the curtain and damage to the unit. The control interface does not remove power from the curtain after it reaches an end-stop position. Although the curtain may not be moving, power is still be applied to the unit.

Note the position of the curtain. Each full clockwise (CW) rotation of the adjuster will move the Closed stop position down by approximately 2”. Add the appropriate number of turns (CW) to the adjuster and press the “Close” button. Monitor the position of the curtain. It should automatically stop when the bottom edge of the curtain contacts the floor and begins to compress. If the curtain is not fully close, press the “Stop” button and add some more turns to the adjuster. If the curtain closes too far, use the “Open” and “Stop” buttons to open the curtain a few inches, remove some turns (CCW) from the adjuster, and repeat the adjustment procedure.

Once the Closed position has been established, press the “Open” button on the station in order to set the “full Up” position.

The curtain should stop automatically well before the bottom of the curtain reaches the motorized roll. If it doesn't, press the “Stop” button when the bottom of the curtain is within ~2” of the motorized roll. **DO NOT** allow the curtain to continue above this point. If it should happen to completely wrap around the motorized roll it will become necessary to reestablish the “Closed” position via the above procedure. Press the “Close” button. Monitor the position of the curtain and press the “Stop” button when the curtain is closed by approximately 1’ (one foot). Turn the “Open” adjuster counter-clockwise (CCW) about 20 turns. Press the “Open” button. The curtain should now stop automatically before the bottom of the curtain reaches the roll tube (or it may not move at all). You are now ready to incrementally work toward the final position.

Press the “Stop” button in order to remove power from the motor.

Note the position of the curtain. Each full clockwise (CW) rotation of the adjuster will move the Open stop position up by approximately 2”. Add the appropriate number of turns (CW) to the adjuster and press the “Open” button. Monitor the position of the curtain. It should automatically stop when the bottom of the curtain is close to the motorized roll tube. If the curtain is not fully open, press the “Stop” button and add some more turns to the adjuster. If the curtain opens too far, use the “Close” and “Stop” buttons to close the curtain a few inches, remove some turns (CCW) from the adjuster, and repeat the adjustment procedure.

The assembly, installation, and set-up of your Goff's Motorized Curtain is now complete and it is ready for typical operation. It is a virtually maintenance free unit and should give you years of reliable service.

We want to thank you again for your business and the opportunity to partner with your firm on this project. Please don't hesitate to contact us if you have any questions regarding these instructions or encounter any problems with the installation or performance of your curtain.

Addendum

Installing the RF Receiver:

The RF Transmitter/Receiver can be used in conjunction with NEMA-1, NEMA-4, PullCord, Single Button, and any other operator stations.

The wires from the RF Receiver are attached to the SEQ, +12, and GND terminals on the Control Interface. Locate the receiver in a suitable location where the wires will reach and secure it to the building or Interface enclosure. Carefully route the wires from the receiver to the terminals on the Interface. Cut off the spade terminals from the receiver wires and strip back approximately ¼” of the insulation..

Install both the white and black wires on the GND terminal. The yellow wire will be attached to SEQ and the red wire goes to +12. The orange wire is not used. Your wiring should resemble the following photo (Photo 4):

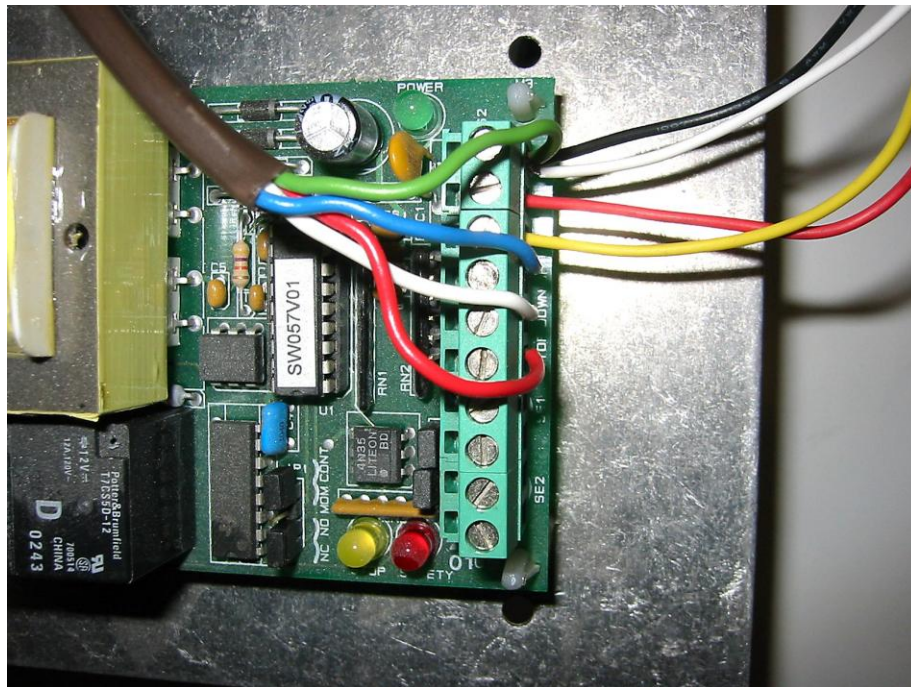


Photo #4
(RF Receiver Wiring)

Per the included instructions, set the DIP switch codes on the transmitter and receiver to the same value. Your RF system should now be ready to use.

Curtain hardware, the Interface, and building configurations can substantially reduce the range of your RF system. If your performance is substandard, try repositioning the green antennae wire until you get optimal performance. If good performance cannot be achieved, an external co-ax antennae can be added to your system. Please contact your local dealer or the Goff's factory.

Installing the PullCord Station:

The Control Interface supports N/O (Normally Open) Pullcord Switches, N/O Single Button Control Stations, and any other N/O dry contact. All N/O switches should be wired in PARALLEL and the wiring junctions can be made either at the switches (daisy-chain) or at the Control Interface (Home-Run). Switches should be connected using two-conductor wiring (supplied) and terminated at the Control Interface at the “SEQ” and “GND” terminals on the right side block as shown in the following diagram (Diagram 3):

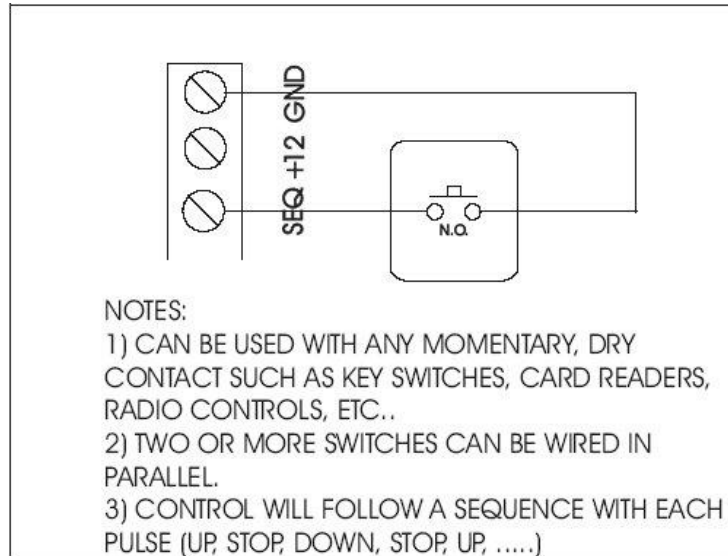


Diagram #3

(Pullcord Control Connections)

Switch Wiring:

Control wiring should be attached to the NEMA-4 Single Button Control Station at the lower two N/O terminals (#'s 13 & 14) as shown in the following photo (Photo 5):



Photo #5

(Single Button Station Wiring)

Control wiring should be attached to the Pullcord Switch Stations at the two N/O terminals as shown in the following photo (Photo 6):

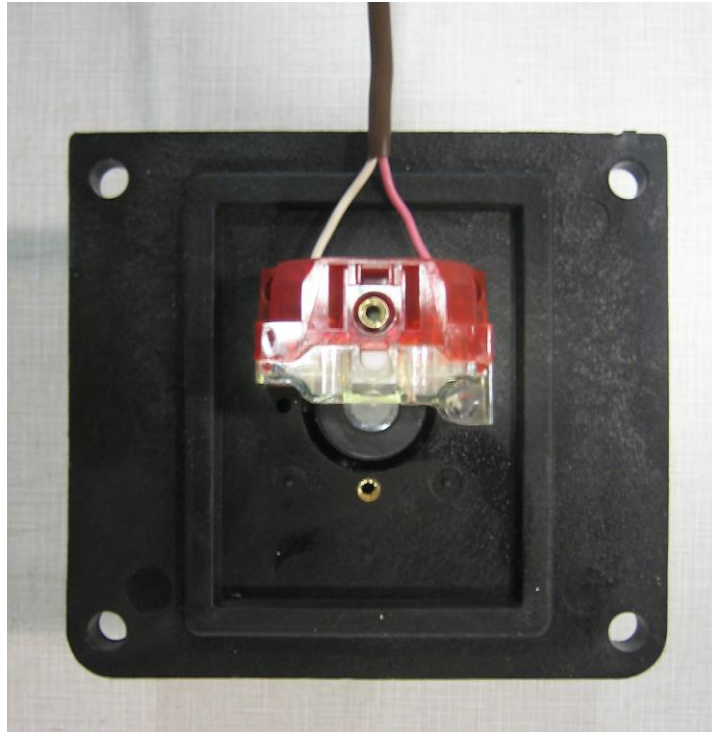


Photo #6
(Pullcord Switch Station Wiring)

NEMA-4 3-Button Station Wiring:

The Control Interface supports NEMA-1 and NEMA-4 3-button control stations with N/O “STOP” buttons. All control stations should be wired in PARALLEL and the wiring junctions can be made either at the switches (daisy-chain) or at the Control Interface (Home-Run). The low-voltage control connections should be made with the 4-conductor “Thermo Wire” that was included with your kit. Although the color codes are arbitrary, Goff’s has selected the following standard:

- | | | |
|----------|---|--------------|
| 1. Green | - | Common |
| 2. Red | - | Stop |
| 3. Blue | - | Open (UP) |
| 4. White | - | Close (DOWN) |

Remove the cover of the NEMA-4 station and note the location of the N/O and N/C terminals for each button. The N/O terminals are located closer to the base and are on the “right” side of the station. The N/C terminals are raised and are on the “left” side.

Use a short pieces of green wire from the 4-conductor “Thermo Wire” and jumper between one of the N/O terminals on the Open button and one of the N/O terminals on the Close button and then from the same N/O terminal on the Close button to one of the N/O terminals on the Stop button. Also connect the free end of the green wire in the 4-conductor bundle to one of these terminals.

Connect the rest of the wires as shown in the following photo (Photo 7):

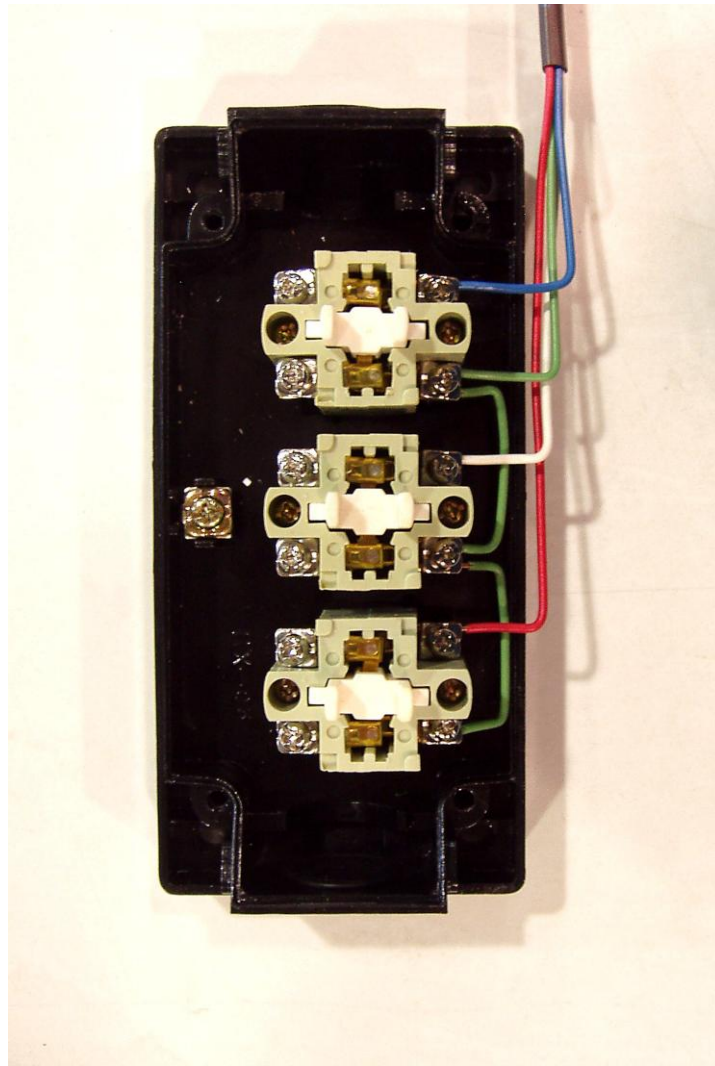


Photo #7
(NEMA-4 Station Wiring)

Route the cable through one of the station knockouts and carefully reinstall the cover. Make sure that the cover is installed properly and that the buttons work freely.

NEMA-4 Locking Station Wiring:

All control stations should be wired in PARALLEL and the wiring junctions can be made either at the switches (daisy-chain) or at the Control Interface (Home-Run). The low-voltage control connections should be made with the 4-conductor “Thermo Wire” that was included with your kit. Although the color codes are arbitrary, Goff’s has selected the following standard:

- | | | |
|----------|---|--------------|
| 1. Green | - | Common |
| 2. Red | - | Stop |
| 3. Blue | - | Open (UP) |
| 4. White | - | Close (DOWN) |

Remove the cover of the NEMA-4 station and note the location of the N/O and N/C terminals for each button. The N/O terminals are located closer to the base and are on the “right” side of the station. The N/C terminals are raised and are on the “left” side.

The Locking NEMA-4 can be configured a number of different ways depending on which button and feature you want to disable/enable with the key switch. Two typical and common configurations are shown below. Use short pieces of green wire from the 4-conductor “Thermo Wire” to create the necessary jumpers.

Lock-Out All Buttons:

Wire the NEMA-4 station as shown in the following photo (Photo 8) to have the locking key switch disable **ALL** of the buttons on the control station.

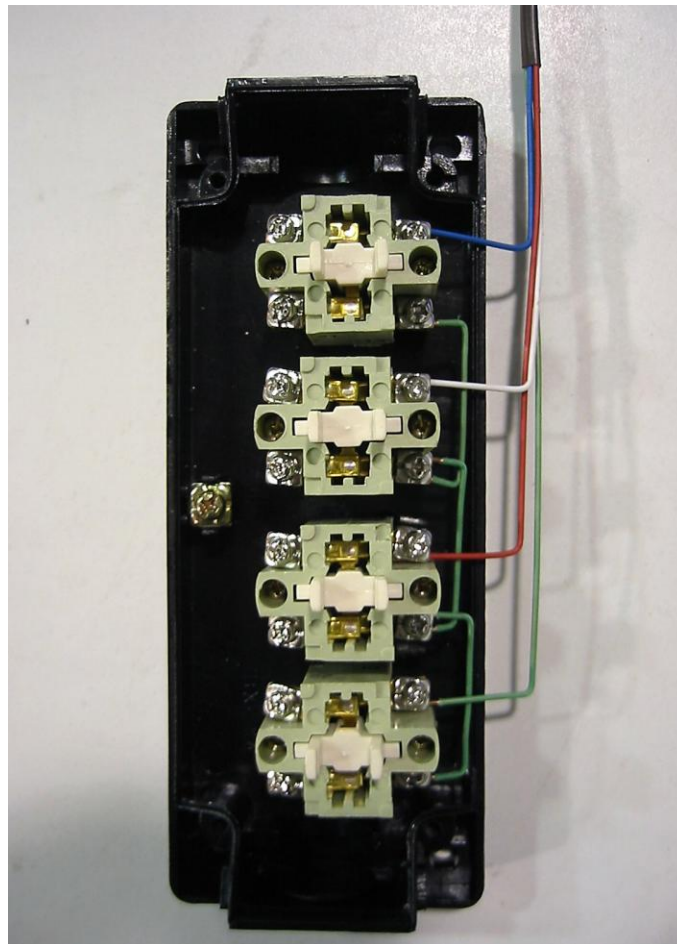


Photo #8
(All-Button Disable Wiring)

Lock-Out Direction Buttons:

Wire the NEMA-4 station as shown in the following photo (Photo 9) to have the locking key switch disable only the “Direction” (Open/Close) buttons. This allows the Stop button to still function from this control station.

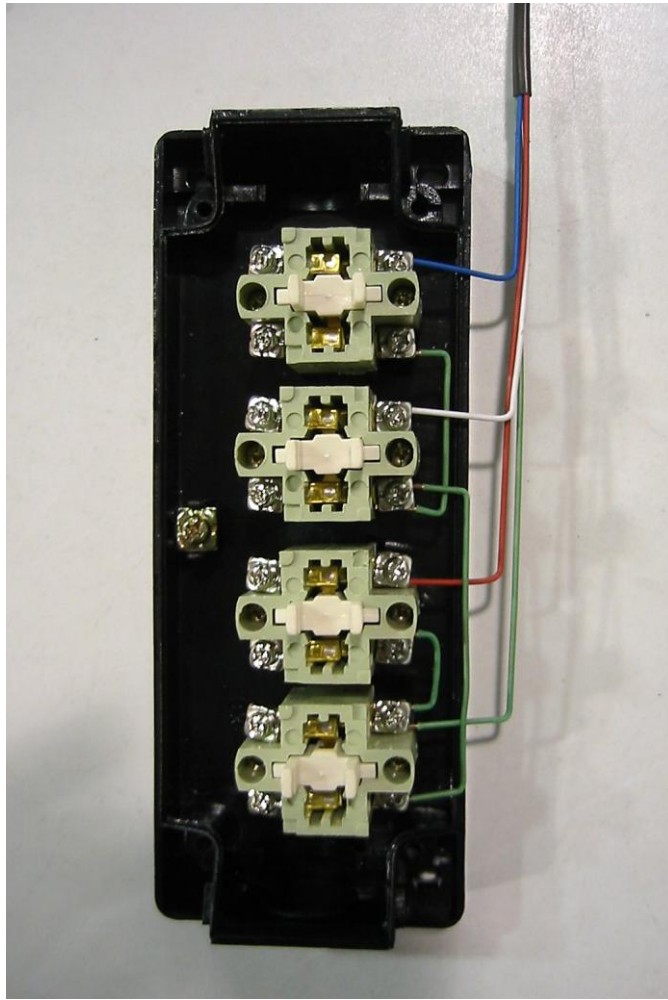


Photo #9
(Direction-Button Disable Wiring)