

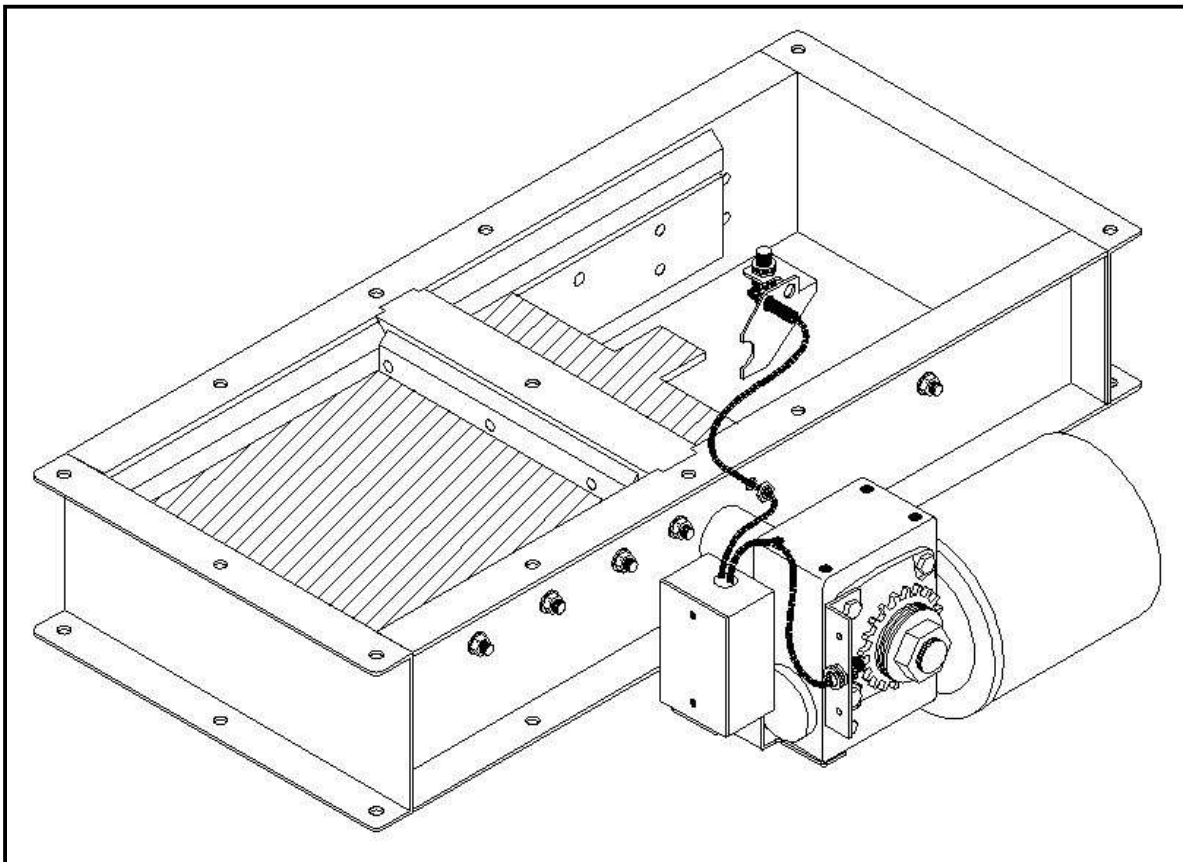
Installing VGC Sensors On An Electric R&P Gate

Other manuals available for the VGC are:

VGC Electrical Wiring and Setup Manual

Operating The VGC From A PLC.

Operating and Customizing The VGC

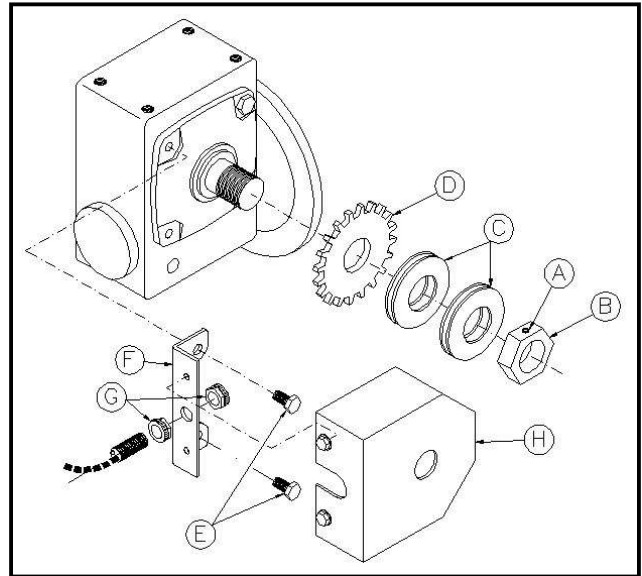
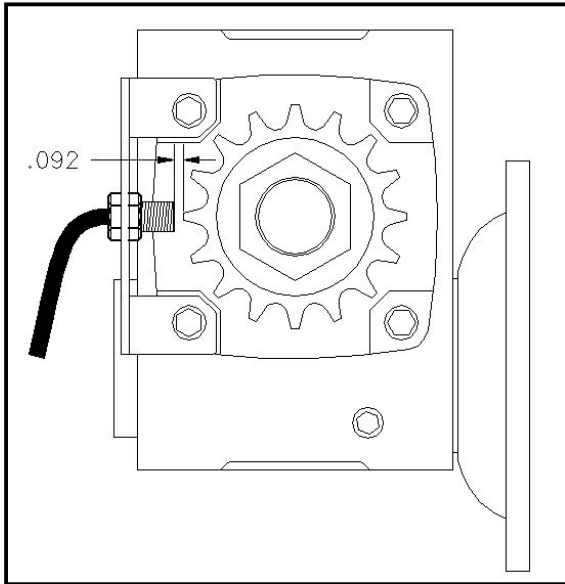


The close position sensor has been removed from its mounted position in this illustration for clarity.

These instructions assume you are retrofitting a standard Schlagel electric gate to use the VGC control. The change involves adding a sensor and target wheel to the reducer, a sensor inside the gate to detect when the gate is fully closed and a junction box to accept the sensor wires and provide a convenient connection to the VGC control wiring. The sensors and wiring to the control are intrinsically safe. Alternatively, the existing closed position limit switch may be used instead of the sensor inside the gate. The open position limit switch is not used.

The parts included with this kit are shown on the last page.

Installing The Target Wheel and Sensor

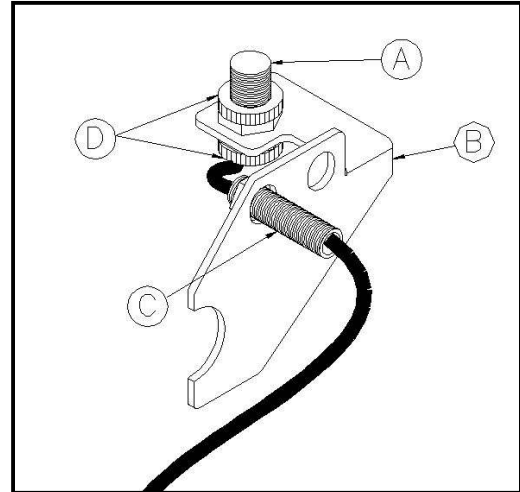


Refer to the above illustrations for assembling the target wheel and sensor on the gate reducer.

1. Loosen set screw [A] with a 3 mm allen wrench and remove clutch nut [B] using the 1 7/8" (46 mm) wrench supplied with this kit, then remove the 4 spring washers [C].
2. Slide the target wheel [D] on the reducer shaft and replace the spring washers and clutch nut in reverse order of removal.
3. Tighten the clutch nut to approximately 120 ft. lbs. then tighten the clutch nut set screw.
4. Remove the 2 reducer bearing plate mounting screws [E] using a 1/2" wrench.
5. Place the wheel sensor bracket [F] over the exposed bearing plate screw holes and re-install the mounting screws.
6. Adjust and tighten the plastic sensor mounting nuts [G] so that the included spacer gauge can easily slip between the sensor face and the tip of a target wheel tooth. This should leave the gap at about .092 in.
7. Leave the cover [H] off until the sensor operation has been verified with the VGC control. After the VGC control has been installed, mount the cover to the wheel sensor bracket using the 2 supplied 1/4" hex self-threading head screws.

This completes the target wheel and sensor mounting.

Installing The Gate Closed Position Sensor



If you are using an existing limit switch in place of the closed position sensor, skip these steps and see the appendix near the end of these instructions.

Note: The gate should be fully closed before starting this mounting procedure.

Refer to the above illustrations for assembling the closed position sensor to the gate.

Note: Left and right hand brackets are supplied. The closed position sensor is usually mounted on the same side as the gate drive. Select the appropriate bracket and discard the unused bracket.

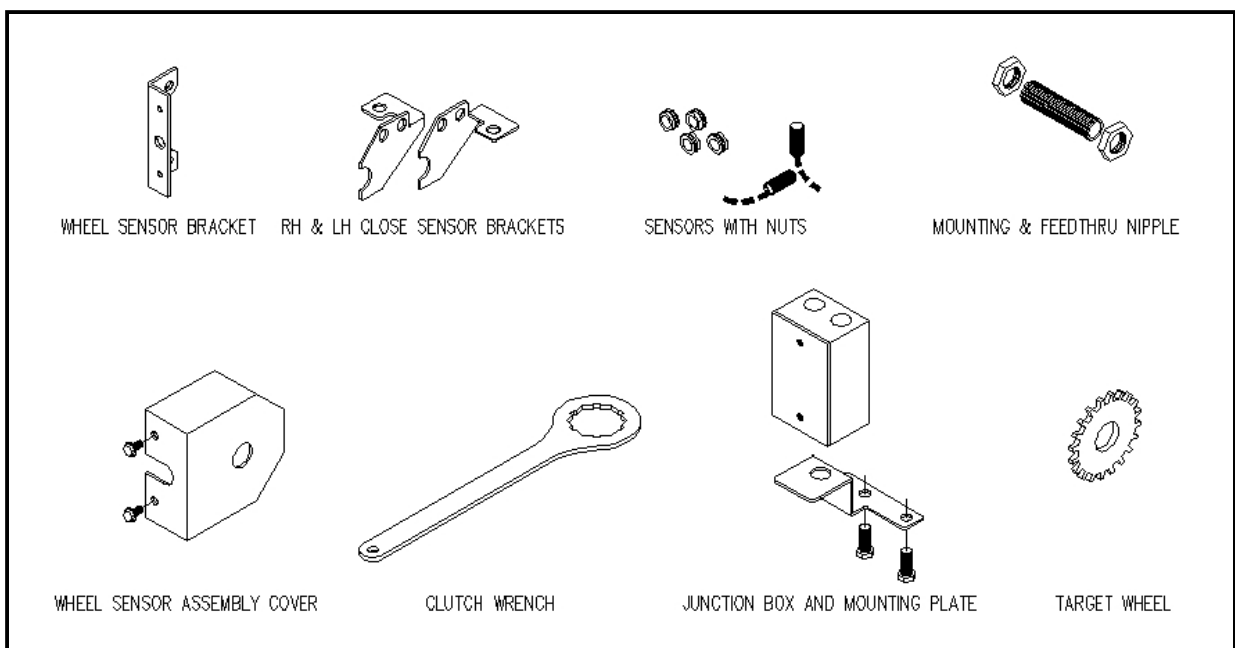
1. Mount the sensor [A] in the selected bracket [B]. Adjust the rear sensor nut flush with the back end of the sensor as shown.
2. Place the sensor/bracket assembly near the mounting position on the inside side of the gate and determine which existing bolt must be removed for mounting the bracket. Remove and discard this bolt.
3. Set the sensor/bracket over the pinion shaft and bolt it in place using the supplied 1/8" nipple [C] and hex nuts.
4. Thread the sensor wire through the nipple to the outside of the gate frame.
5. If necessary, adjust the distance from the sensor face to the bottom of the gate slide to obtain 1/8" clearance using the plastic sensor mounting nuts [D].

This completes the close position sensor installation.

Finishing Up

- ◇ Mount the junction box mounting plate to the bottom of the reducer using the 2 existing mounting bolts.
- ◇ Attach the junction box to the mounting plate with the bottom cord connector.
- ◇ Insert the top cord connector and dress the two sensor wires through the connector.
- ◇ Route the 2 wires as shown to keep the sensor wires in place.

Refer to the *VGC Electrical Wiring and Setup Manual* to complete the VGC installation.



Parts included with VGC retrofit kit.

-- Appendix --

Using A Closed Position Limit Switch

If you will be using a closed position limit switch in place of the closed position sensor, please read the following instructions.

- ◇ The closed position limit switch must be wired to the NO terminals and the 2 wires can then be treated like the sensor wires it is replacing. Of course you can ignore the polarity when wiring it to the barrier relay. When used this way, the limit switch wiring is intrinsically safe.
- ◇ The VGC does not use a fully open indicating switch. Therefore, if your gate has an existing limit switch for that purpose you may remove it.
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