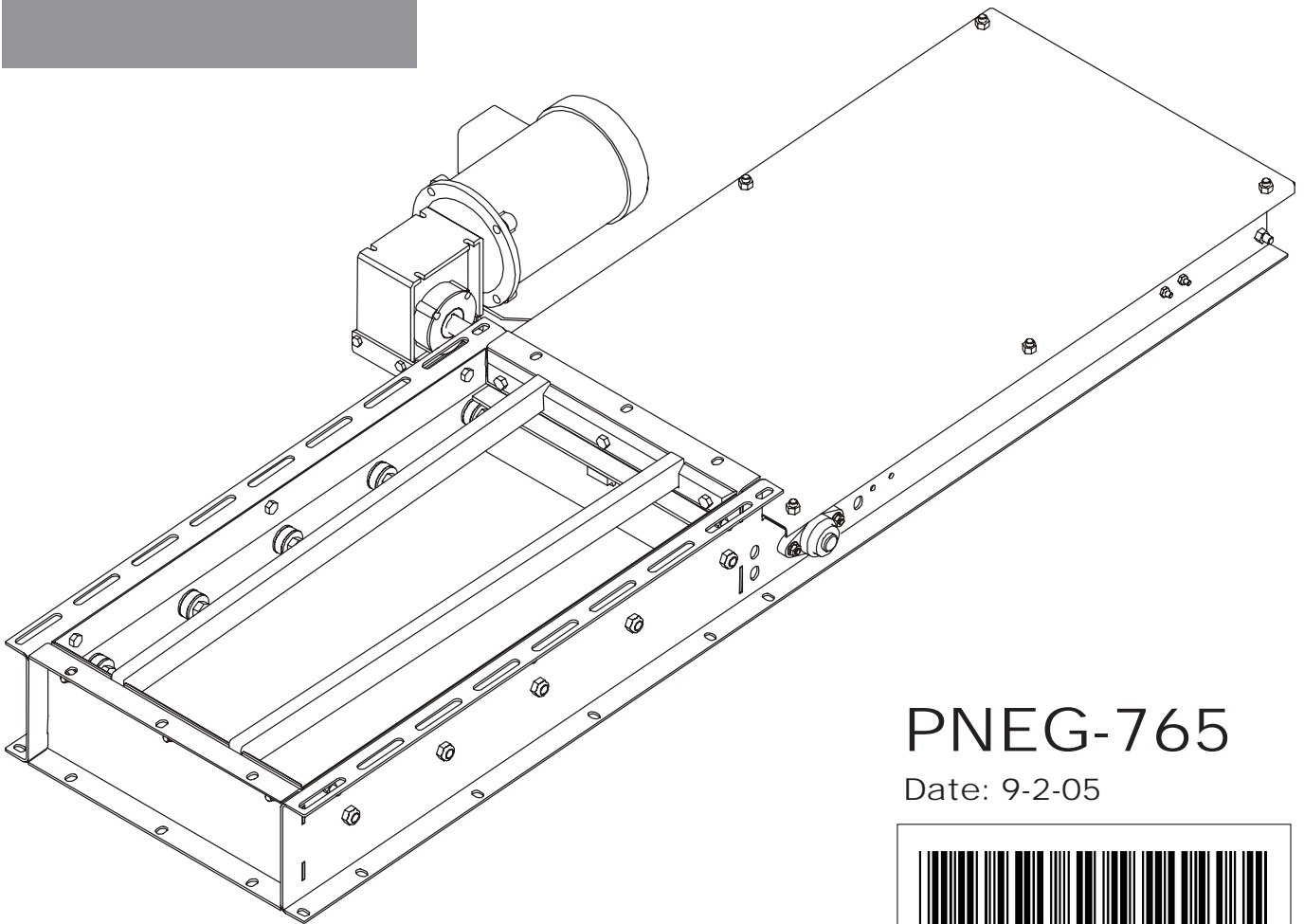


# In-line Intermediate Discharge Gates

## Installation Manual



**PNEG-765**

Date: 9-2-05



PNEG-765

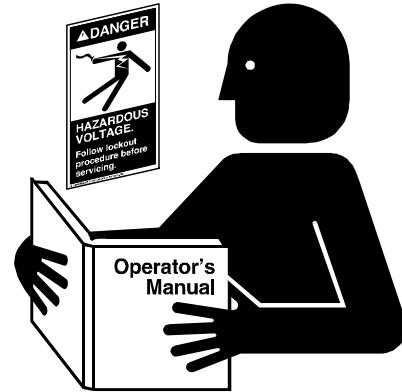
# SAFETY

## FOLLOW SAFETY INSTRUCTIONS

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.



## INSTALL & OPERATE ELECTRICAL EQUIPMENT PROPERLY

Electrical controls should be installed by a qualified electrician and must meet the standards set by the national electrical code and all local and state codes.

Disconnect and lock out all power sources before installing wires/cables or servicing equipment.

**Electric Shock Hazard**

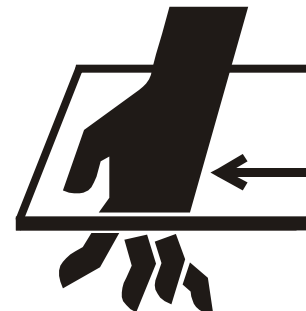


## STAY CLEAR OF MOVING PARTS

Keep arms and hands away from slide gate opening. Slide Gate can crush and dismember. Motor may start at any time.

Always stop and lock out power source before making adjustments, cleaning, or maintaining equipment.

**Crush Hazard**



## DECALS

Please remember, safety decals provide important safety information for people working near equipment that is in operation. If a safety sign cannot be easily read for any reason or has been painted over, replace it immediately. Additional Safety signs may be obtained from your dealer, distributor, or ordered from the factory free of charge.

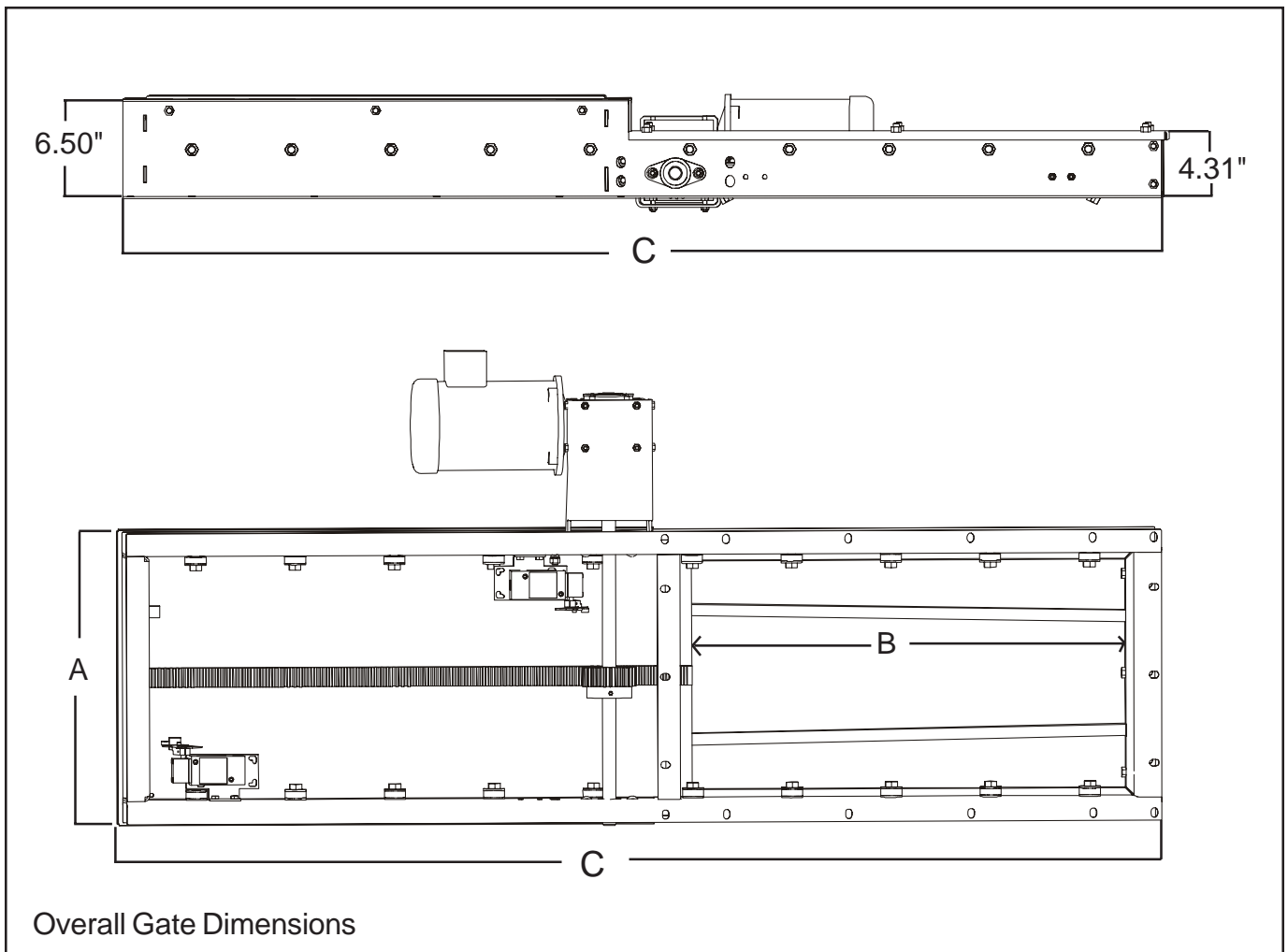
**CONTACT:** The GSI Group  
1004 E. Illinois St.  
Assumption, IL 62510  
217-226-4421



Decal #: DC-1248  
(Not to scale.)

# OVERALL GATE DIMENSIONS

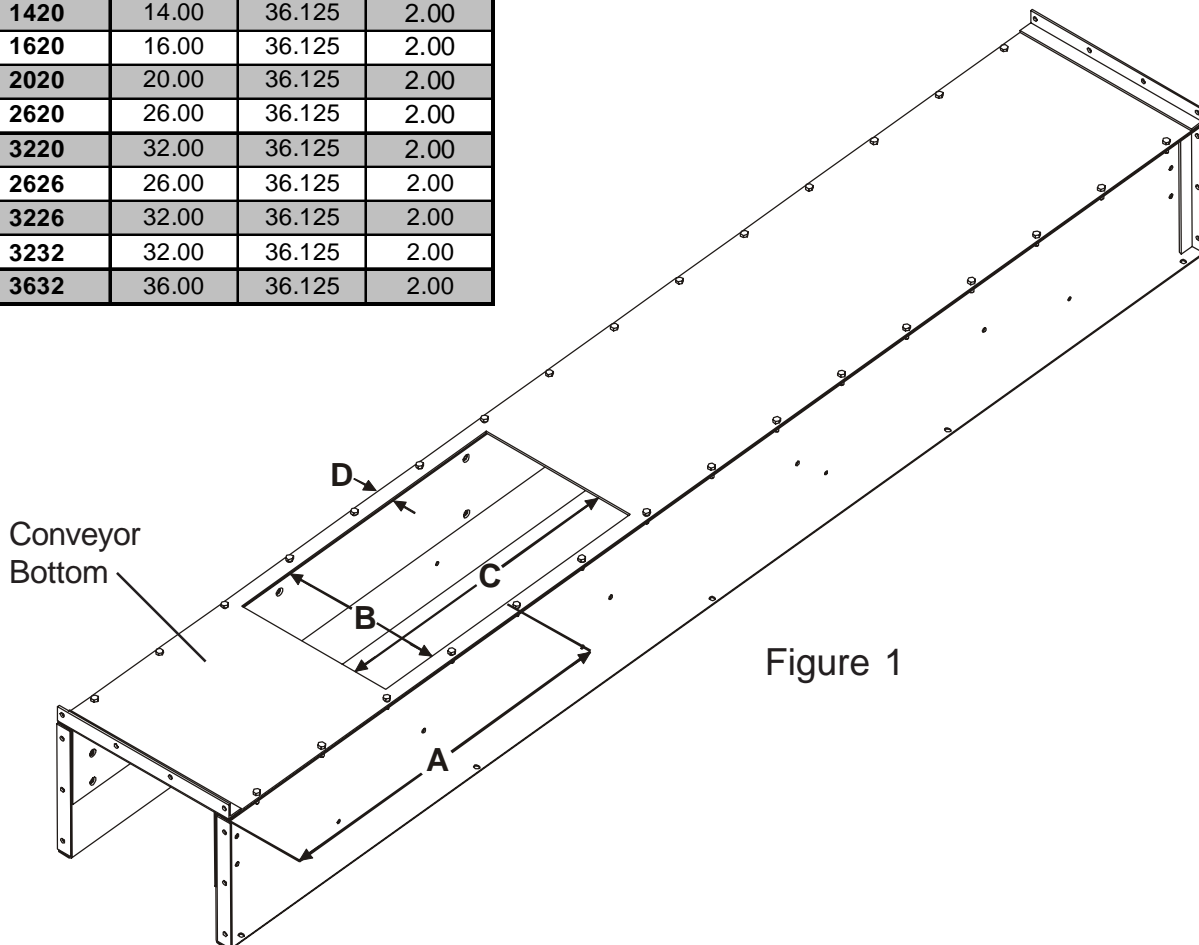
| Overall Gate Dimensions |       |       |        |
|-------------------------|-------|-------|--------|
| Conv. Size              | A     | B     | C      |
| 0912                    | 9.00  | 30.00 | 68.125 |
| 1212                    | 12.00 | 30.00 | 68.125 |
| 1612                    | 16.00 | 30.00 | 68.125 |
| 1214                    | 12.00 | 30.00 | 68.125 |
| 1614                    | 16.00 | 30.00 | 68.125 |
| 2114                    | 21.00 | 30.00 | 68.125 |
| 1420                    | 14.00 | 36.00 | 81.125 |
| 1620                    | 16.00 | 36.00 | 81.125 |
| 2020                    | 20.00 | 36.00 | 81.125 |
| 2620                    | 26.00 | 36.00 | 81.125 |
| 3220                    | 32.00 | 36.00 | 81.125 |



# Cut Out Discharge Hole in Trough Bottom

1. To find where to cut hole in trough bottom, start by locating the center of the purposed discharge. Dimension "A". (Refer to Figure 1.)
2. When locating discharges try to position opening so that gate flange hole pattern and conveyor hole pattern lineup. The gate has slotted holes to allow for adjustment to nearest 1".
3. If this cannot be achieved then holes must be drilled on site.
4. Find dimensions "B" and "C" corresponding to your conveyor size. Use "D" dimensions as a reference. (See Figure 1 and chart below.)
5. Mark the cut out from outside the conveyor on the trough bottom.
6. Cut opening into the bottom being careful not to damage other components of the Conveyor. Remove all burrs and rough edges from the opening.

| <b>Trough Hole Dimensions</b> |          |          |          |
|-------------------------------|----------|----------|----------|
| <b>Conv. Size</b>             | <b>B</b> | <b>C</b> | <b>D</b> |
| <b>0912</b>                   | 9.00     | 30.125   | 1.50     |
| <b>1212</b>                   | 12.00    | 30.125   | 1.50     |
| <b>1612</b>                   | 16.00    | 30.125   | 1.50     |
| <b>1214</b>                   | 12.00    | 30.125   | 1.50     |
| <b>1614</b>                   | 16.00    | 30.125   | 1.50     |
| <b>2114</b>                   | 21.00    | 30.125   | 1.50     |
| <b>1420</b>                   | 14.00    | 36.125   | 2.00     |
| <b>1620</b>                   | 16.00    | 36.125   | 2.00     |
| <b>2020</b>                   | 20.00    | 36.125   | 2.00     |
| <b>2620</b>                   | 26.00    | 36.125   | 2.00     |
| <b>3220</b>                   | 32.00    | 36.125   | 2.00     |
| <b>2626</b>                   | 26.00    | 36.125   | 2.00     |
| <b>3226</b>                   | 32.00    | 36.125   | 2.00     |
| <b>3232</b>                   | 32.00    | 36.125   | 2.00     |
| <b>3632</b>                   | 36.00    | 36.125   | 2.00     |



# Manual Gate Installation

## Manually Operated Gate

1. Install the specified wheel to the shaft by aligning the key and key way, then tighten the set screw. This gate can be operated by a chain, cable, or hand wheel.
2. Manual gates up to 16" wide are fitted with a single rack. Manual gates larger than 16" wide have a double rack.
3. The slide gate plate rides on 1-3/8" double shielded radial bearings for smooth operation.

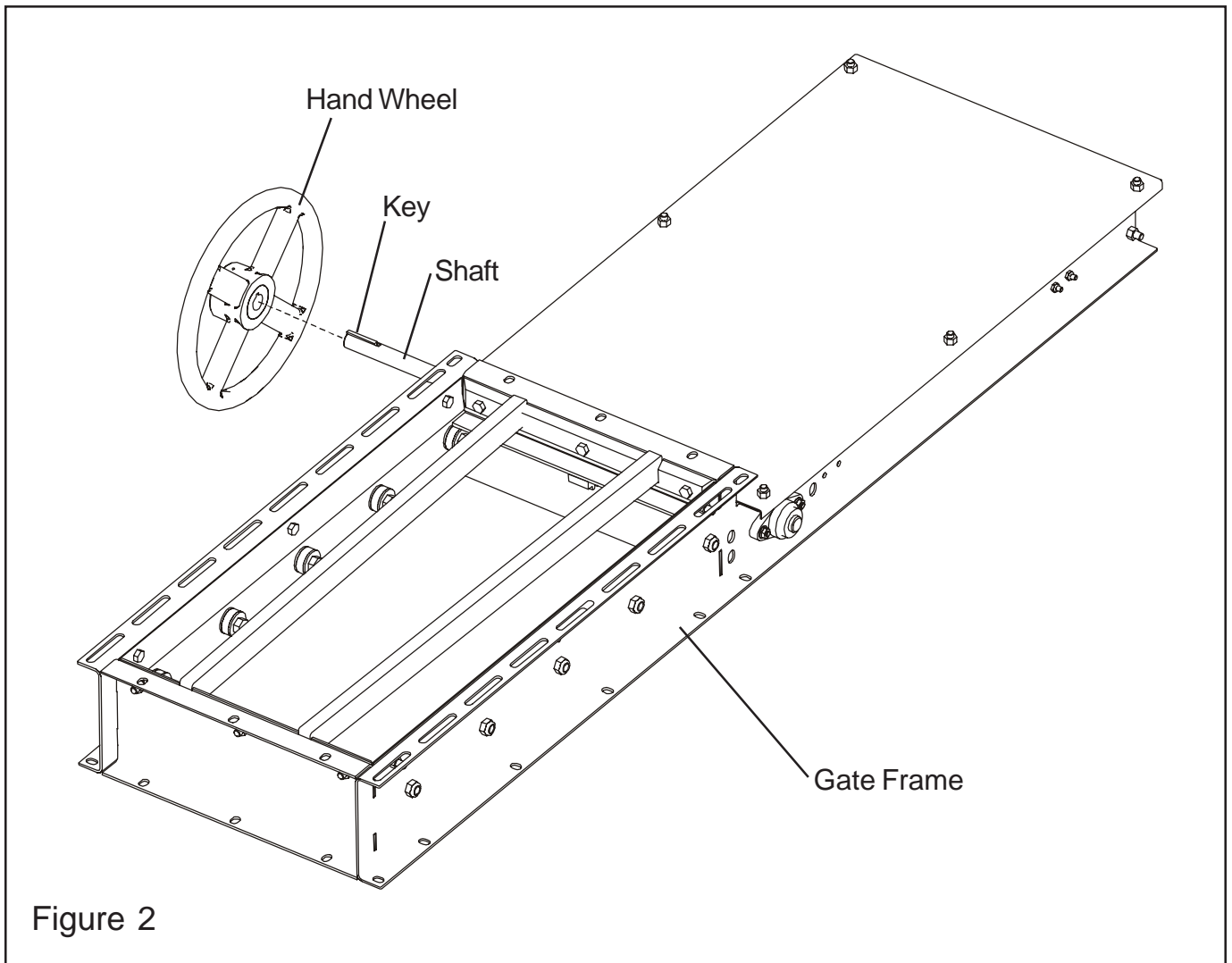
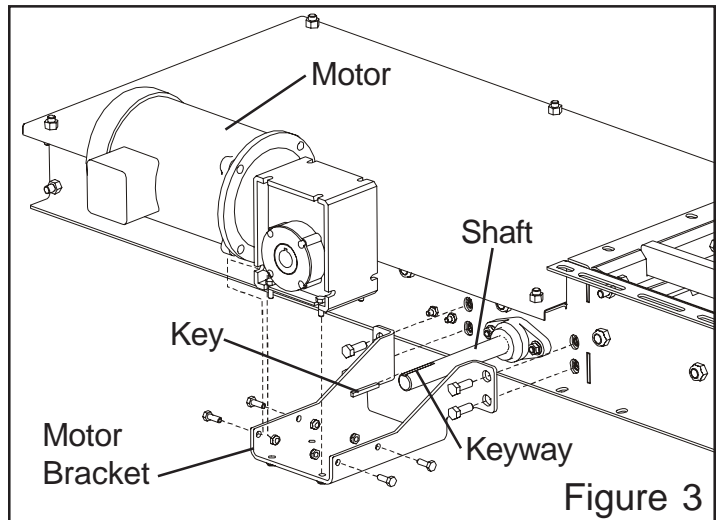


Figure 2

# Motor Driven Gate Installation

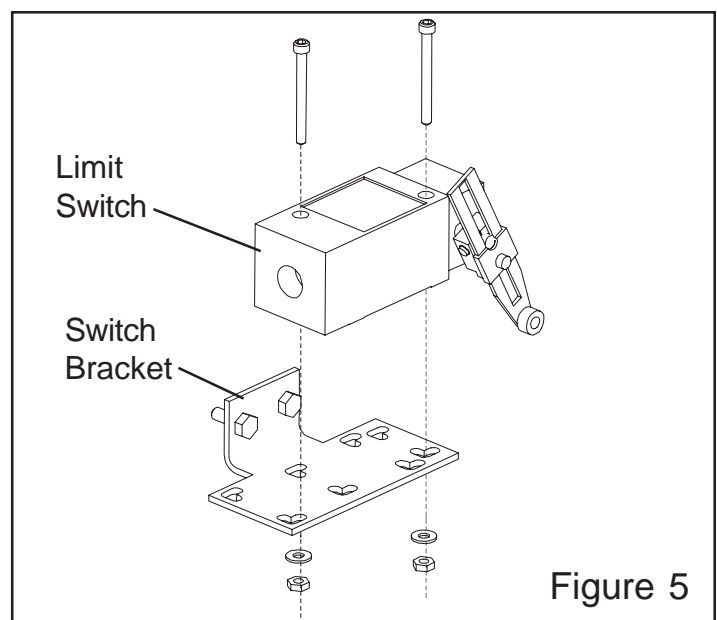
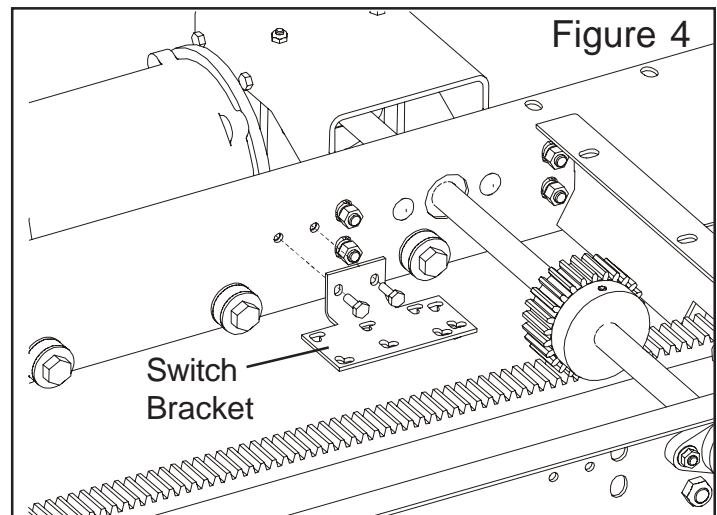
## Install Motor Bracket

1. Install the motor bracket to the gate. Then attach the motor to the bracket as shown in Figure 3, using the provided hardware.



## Install Limit Switch

1. Using limit switches that are available in Nema 4 or explosion proof standards, achieves accurate positioning of these gates. Limit Switches are located on both sides of the frame to detect when the gate is totally open or closed.
2. Attach the switch brackets to the inside of the gate as shown using hardware provided. (See Figure 4.) Attach limit switch to the bracket as shown. (See Figure 5.)
3. After switches are securely fastened. Adjust lever arms so they come in contact with tripper blocks on underneath side of slide plate.
4. Disconnect the power at the electrical panel, run the proper gauge electrical wire to the motors and limit switches. (See Wiring Diagram on page 9.) **Be sure that the limit switches are adjusted properly before operating the gate!** Turn the power back on and CAUTIOUSLY operate the gate, opening and closing the gate slide, making the necessary adjustments to the limit switch arms to assure complete opening and closing of the gate.
5. Motor driven gates are available in both TEFC and explosion proof configurations.



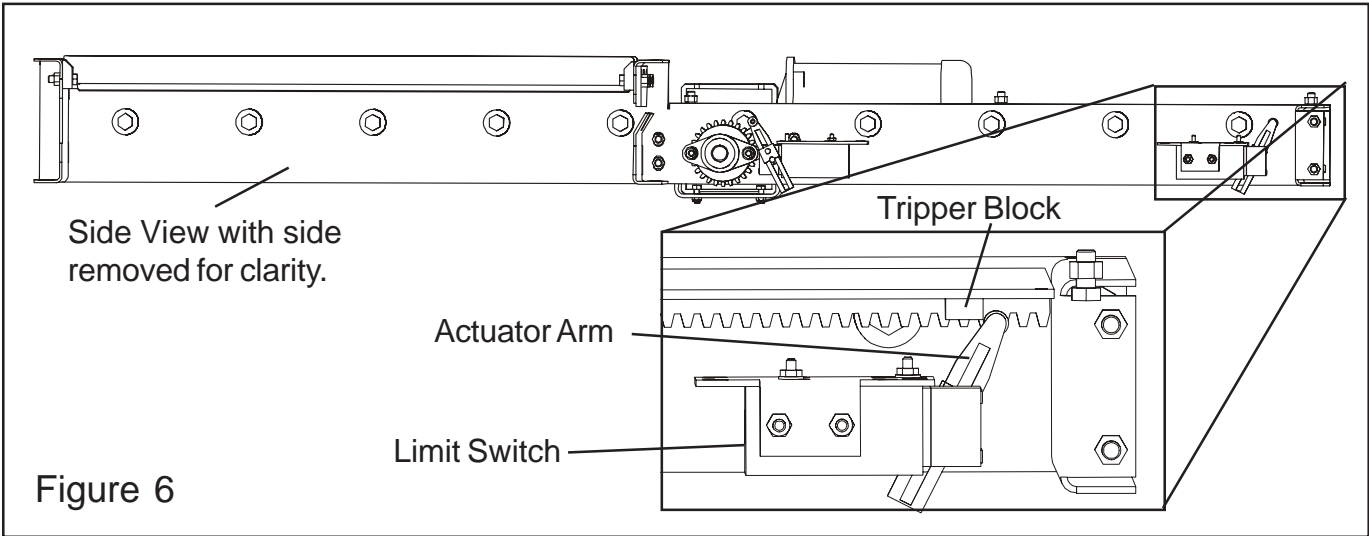


Figure 6

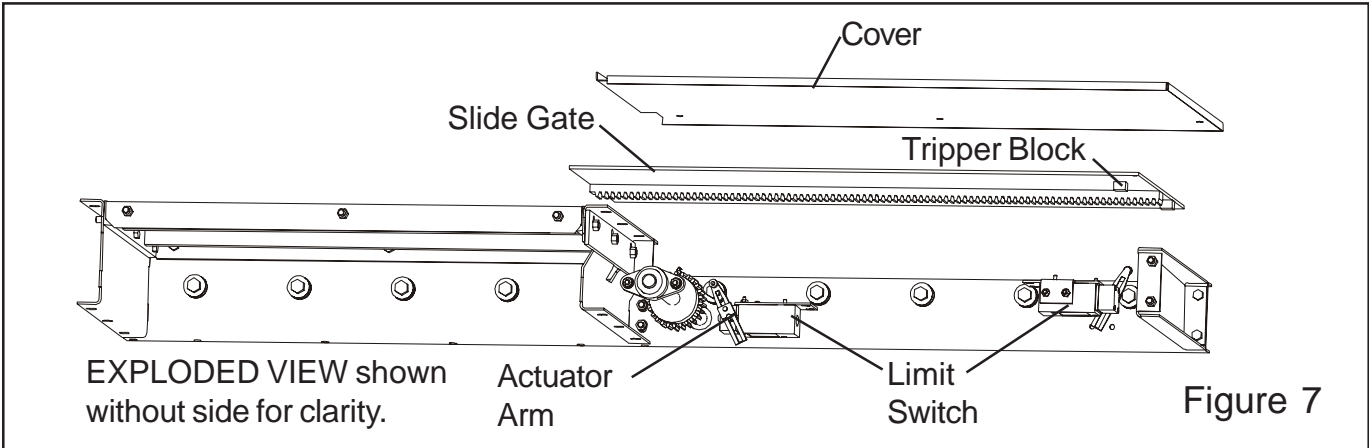


Figure 7

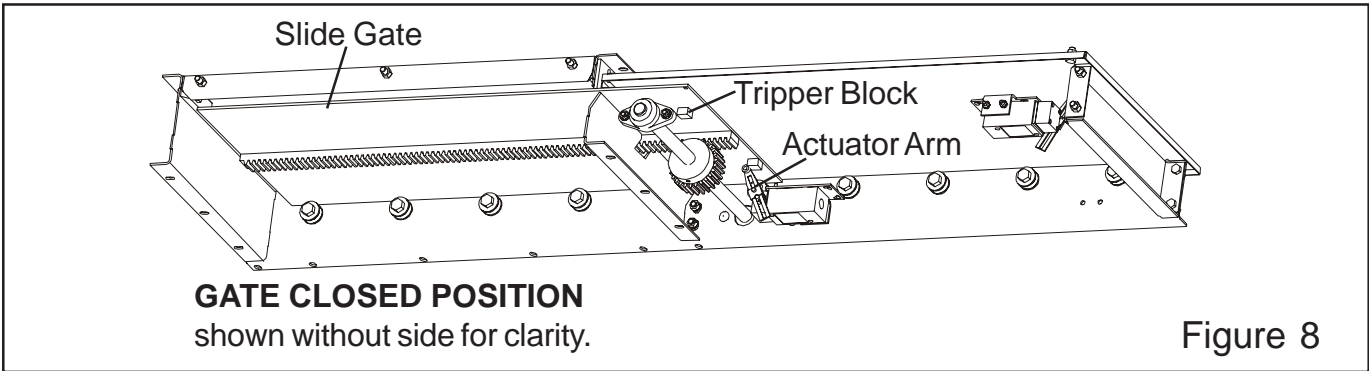


Figure 8

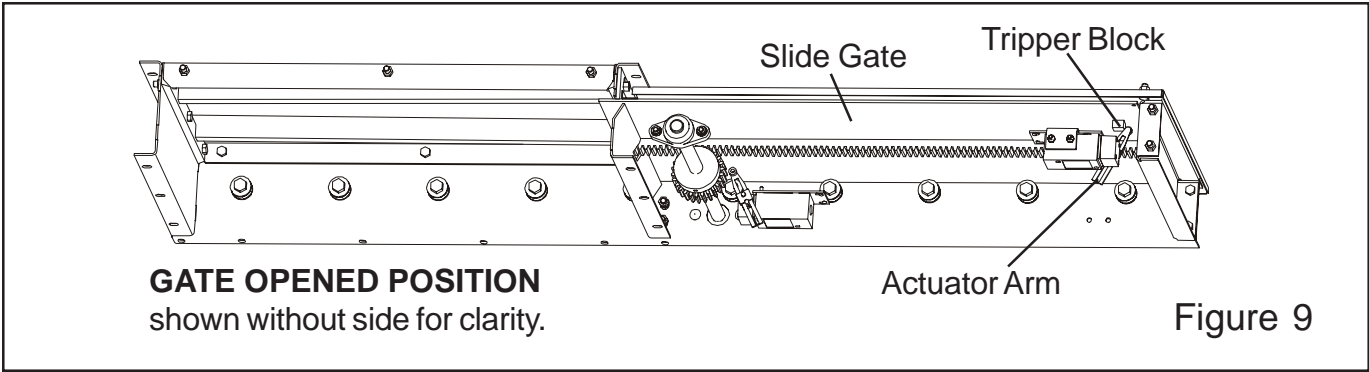


Figure 9

# Install Gate Frame to Trough

1. Assemble the gate frame to the bottom of the trough section using the existing hardware in the trough bottom.
2. Adjust the carry over bars flush to the bottom of your conveyor. (**Note:** Failure to adjust carry over bars properly will cause severe damage to chain and/or gate.)
3. It is preferred that the gate is oriented so it closes towards the head section.

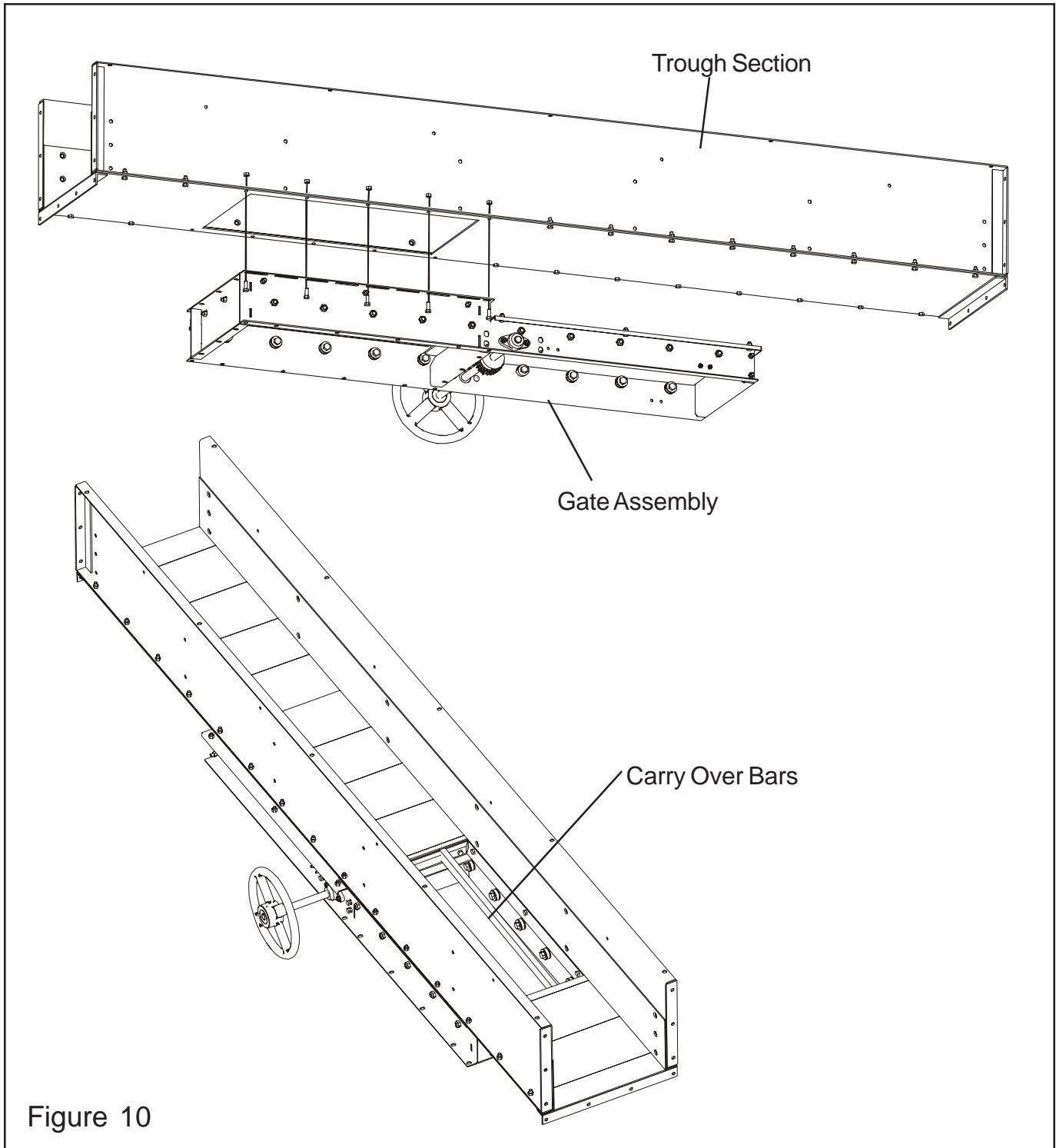
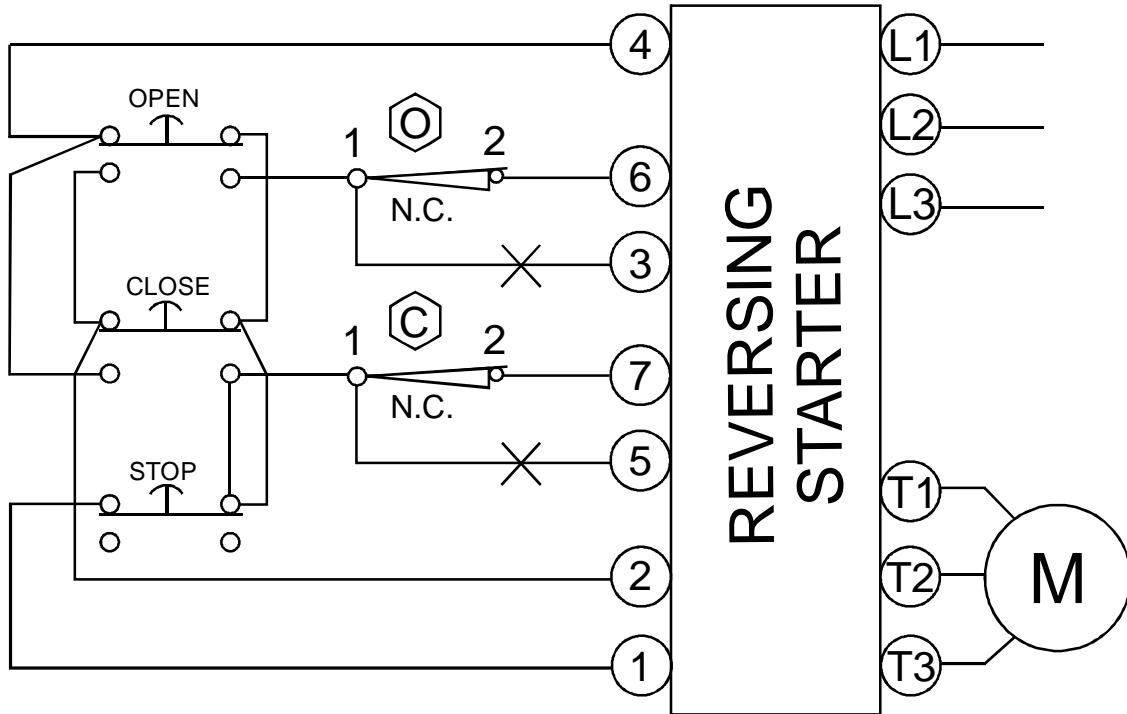


Figure 10



# Typical Wiring Diagram



Remove internal jumpers 3 to 6, 5 to 7.



Open position switch.



Closed position switch.



Break for momentary operation.

---

THE GSI GROUP

---



The GSI Group  
1004 E. Illinois St.  
Assumption, IL 62510  
217-226-4421

Copyright © 2005 by The GSI Group  
Printed in the USA