

<http://www.turnstiles.us>
THG-52SG
Slide Gates

**Installation and
Operating Instructions**

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The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating instructions.

IMPORTANT SAFEGUARDS

“READ CAREFULLY”

1. Always disconnect power supply prior to servicing the slide gate.
2. **Servicing - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.**
3. Heed Warnings - All warnings on the unit and in the operating instructions should be adhered to.
4. Read, Follow, and Retain all safety and operating instructions.
5. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part.

SAFETY PRECAUTIONS

“READ CAREFULLY”

1. All access devices used must provide a momentary dry contact output or programmed output of **1 second duration**. If the cycle is **less** or **longer** than 1 second it may cause faulty operation.
2. It is the responsibility of the owner to provide training on the proper use of the slide gate to all intended users.
3. Any modification and/or unauthorized attachment to the slide gate electrical control circuit will void all warranty and liability of the manufacturer.
4. The installer must perform a complete functional test of the slide gate.

GENERAL INFORMATION

Check to ensure that voltage to be used is the same as that required for operation.



Important: When servicing an electrical device, always disconnect the power supply.

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

SITE PREPARATION

1. Before installing the slide gate any location problems must first be corrected. The slide gate must be installed on a level surface and adequately supported to assure trouble-free operation.

If the site where the slide gate is to be mounted is without any foundation, it will be necessary to pour a concrete pad.

Refer to specific foundation drawing before pouring concrete. Be sure that pad is level and depth is below frost line, or as required by local conditions to ensure the slide gate's stability. **Do not pre-set anchors!**



Important: Be sure to pour the concrete pad based on the correct foundation drawing.



Important: Right hand / left hand refers to the direction the gate slides when standing on the secured side.

2. Consistency of the concrete should be that of sidewalk grade to ensure long term survivability in your climatic conditions.**

**Allow concrete sufficient time to set-up before attempting to mount the slide gate.

3. If the slide gate is to be mounted on an existing concrete surface, check to ensure the concrete is of sufficient depth and area to support the slide gate and meets the noted preparations and parameters.

Note: The use of shims for leveling the slide gate on unlevelled surfaces is acceptable. Shims must provide stable support to the vertical members of the slide gate.

RECEIVING THE SLIDE GATE

CHECK FOR DAMAGE

1. The slide gate has been shipped fully assembled. Carefully examine the complete structure prior to signing the carrier's receipt.

Pay close attention to the following details:

- a. Check for dents or scratches on the control cover of the gate operator mechanism.
 - b. Check for loose or broken components.
 - c. Dirt and film can be removed with a soft cloth and warm water.
2. If there is any visible damage or the possibility of concealed damages, make sure to note this condition on the carrier receipt.
 3. If the damage appears as though it could be easily fixed by replacing a single part or simple touch-up it is OK to sign for as damaged.
 4. Contact the Customer Service Representative at the factory for instructions on how to proceed.

INSTALLATION DOs AND DON'Ts

- DO..... Read all instructions thoroughly before proceeding with the installation.
- DO..... Pay special attention to all referenced drawings when installing the slide gate.
- DO..... Refer to the serial number when you contact the factory.
- DON'T... Service the slide gate without turning off the power.
- DON'T... Discard these instructions after installation.

Caution

Improper installation WILL VOID all warranties on this product.

If you should have any questions or need more information, please contact our Technical Applications Department:

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Figure: 1

INSTALLATION

1. While still on shipping pallet, position the slide gate on or as close as possible to allocated pad. Do not remove boards.



Important: Pay attention to the INSIDE and OUTSIDE stickers on the pallet. Position the pallet so the OUTSIDE sticker faces the unsecured side of the pad.

2. Remove the 2" x 4" vertical framing and the 1" x 6" boards used for crating.
3. Remove the bolts that secure the slide gate to the pallets.
4. Raise the slide gate just enough to clear the shipping pallet.
5. Once the slide gate is clear of the pallet, pull the pallet away and gently lower the gate assembly onto the concrete foundation.
6. Carefully position the slide gate to its installed location.

Note: Move the gate assembly a little at a time. Do not get any section too far out of position while repositioning to avoid undo stress between pre-assembled components.

7. Plumb and level the entire assembly.
8. Using the clearance hole in the angle foot as a guide, use a 3/8 in masonry drill bit and drill the required holes to a depth of a approximately 3-1/2 in.
9. Clear debris from hole.
10. Place nut and washer on the anchor and place the anchor into the drilled hole.
11. Repeat the above procedure for the remaining anchors.
12. After the slide gate is secured to the foundation, make sure to steady it by securing its sides to fence posts, walls, etc. **Failure to do so may result in faulty operation.** This can be accomplished by bolting or clamping the slide gate to the supporting structure as shown in **Figure 1**.

Note: Each installation may have different requirements for securing the sides. Because of this, the factory does not provide hardware. The installer must decide the best method of securement and then select the appropriate mounting hardware.

13. Ensure all anchor and attachment bolts are tight. The overall stability must be sound and rigid.



ACCESS COVER PANEL

It will be necessary to remove the access cover prior to wiring the slide gate and when servicing the unit.

In order to remove the access cover, follow the instructions below:

Loosen and remove the screw located in the center of the access cover.

1. Loosen the two (2) screws on the sides of the retaining caps located at each end of the operator mechanism.
2. Loosen the two (2) screws located in the bottom of the retaining caps.
3. Carefully dis-engage the bottom edge of the cover from the clips located in the retaining caps.
4. Once dis-engaged from the caps remove the cover panel completely and store in a safe location.

REPLACING THE ACCESS COVER

1. Align both ends of the access cover with the retaining caps at each end of the mechanism.

Carefully insert the ends of the cover into the retaining cap, making sure the **bottom** edge of the cover is captured by the two (2) clips on the bottom of each cap.

2. After both ends of the cover are evenly aligned in the retaining brackets, tighten the screws in both the bottom and sides of the caps to secure the gate.
3. Replace the center cover screw and tighten.

Note: Prior to tightening the bottom screws on the retaining cap check the clips which engage the bottom edge of the cover. If necessary crimp the clips to ensure a **snug** fit when the lower screws are tightened.

ELECTRICAL CONDUIT

All external wiring must be brought into the control mechanism located at the top of the slide gate.

Run conduit containing the necessary power and control wiring up either side of the gate or along the top rail of the fence line as shown in **Figure 2**. If the installation is indoors it is acceptable to bring the conduit down from the ceiling into the top of the cover.

Knockouts have been provided for both the primary and control wiring. The knockouts are located in the top of the slide gate operator housing and are sized for 1/2 conduit fittings.

Caution

Do not allow any metal shavings to drop on or around the controller as well as any control and power wiring connections!

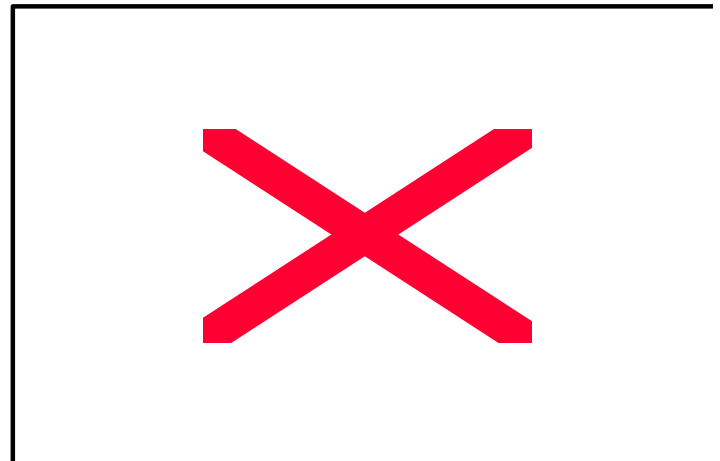


Figure 2: Running Conduit to the Slide Gate.

WIRING THE SLIDE GATE

As previously stated, all external wiring must be brought to the top of the slide gate mechanism. Make sure all conduits containing the power and control wiring are securely fastened to the operator cover and sealed against moisture.

The slide gate has been prewired at the factory.

Review the enclosed wiring diagram to familiarize yourself with the operator prior to making any field connections.

PRIMARY CONNECTIONS

The primary voltage must be a minimum of 115 volts, 1ph, 50/60Hz.



Important: The electrical power supply must be ample and not taken from an overloaded circuit or faulty operation and equipment failure may result.

Make sure the primary power supply is the correct voltage, phase and cycle as *specified* for the installation.

Primary wire size for the terminal blocks must not exceed #10 AWG wire. Copper, aluminum or copper-clad aluminum conductors may be used for primary power.

The terminals for the primary power are located on terminal board #1 (T.B. 1) as shown on the wiring diagram. Connect the external hot leg to terminal #1 and the external neutral leg to terminal #2.

All connections to the screw type terminals should be made using *ring* tongue or *forked* tongue terminals.



Important: The slide gate must be grounded. Failure to ground the power supply will compromise safety and lead to faulty operation.

CONTROL CONNECTIONS

As previously stated, all control devices must provide a **one (1) second contact closure**.

The terminals for the control wiring are located on terminal board #2 (T.B. 2) as shown on the wiring diagram. Connect the **common** wire of the normally open contact to terminal #1 and the **normally open** wire of the contact to terminal #2.

Note: If more than one device is used to open the slide gate, repeat the above procedure for each device.

PRIOR TO APPLYING POWER

Check to ensure all wire connections to both the power and control terminals are secure.

Make sure the slide gate is grounded and the grounding screw is tightened.

ADJUSTMENTS

As previously stated, the slide gate operator has been completely pre-wired and tested at the factory. Should minor adjustments be required refer to the information instructions below.

LIMIT SWITCHES

To adjust limit switches, loosen the screw located in the corner of the switch plate and slide the switch to the desired position.

Open Limit Switch

Cuts off motor in **open** position.

Close Limit Switch

Cuts off motor in **close** position.

Close Check Limit Switch

Works in conjunction with the **close check** speed switch. This limit switch should be placed approximately 5 in to 6 in from the full closed position. When actuated (tripped) this switch will alter the closing speed until the fully closed position is reached.

TIME DELAY

Controls the amount of time the gate will remain open. Adjustable from 0 – 20 seconds. Rotate **clockwise** to increase time.

Note: Timing cycle begins as gate opens.

REVERSING SENSITIVITY

Sets the amount of closing force the gate will exert before it will re-open. It has been pre-set at the factory. To increase sensitivity, rotate clockwise.

Note: If set too sensitive, gate will begin to close then re-open

SPEED SWITCHES

These switches control the opening, closing and close **check** speeds of the operator. All of the switches have been factory set at medium or minimum speed.

The medium speed has been selected to compensate for the small amount of travel (3 foot). It is not recommended to increase the open or close speeds.

Toggle Switch

Turns motor on/off only.

Circuit Breaker

The circuit breaker protects the motor and operator should over load occur. When tripped the white ring will be exposed. Press to reset.

MANUAL OPERATION

If manual opening of the slide gate is required, it will be necessary to disconnect the 115 volt power supply. Upon loss of power the magnetic gate lock will de-energize and allow the slide gate to be manually opened.



Important: Do not attempt to manually open the gate when the lock is energized.

TROUBLE SHOOTING

No Operation

1. Control not connected to 120 VAC.
2. Circuit breaker turned OFF (white ring indicates OFF); push to turn on.
3. Operator wiring harness or motor not plugged into the control.

Motor Turns On, But Will Not Move Gate.

1. Too much physical bind on the gate. The force required to move the gate must be 12 pounds, or less. Turn the operator off at the circuit breaker and manually slide the gate open and close. Check to ensure gate travels easily.

Opens And Will Not Close

1. Actuating switch wires are shorted. Unplug the actuating switch lace from the control. If the gate closes, check the wire between the control and pushbuttons for a short.
2. The close cutoff or close check switch is not functioning properly. Depress and release the switch arms and listen for clicking of switch. Check that the wire terminal housings are properly connected to the switches.
3. Time Delay Set too long. Decrease the Time Delay Adjustment.

Closes And Will Not Open

1. Actuating switch not connected properly. Unplug the Actuating Switch Lace from the control. With the end of a screwdriver short across pins 1 and 2 of the 4 pin connector on the circuit board. If the gate opens check the wire to the pushbutton for breaks, and check the connections at the pushbuttons.
2. The open cutoff switch not functioning properly. Depress and release the switch arm and listen for clicking. Check that the wire terminal housing is properly connected to the switch.

Starts To Close Then Re-Opens

Note: The operator has a reversing circuit that will cause the gate to open if it is restrained during the closing cycle. This reversing circuit is not effective for the first 1.5 seconds, before it releases the gate to close, after the reverser has been activated. The Reverser Sensitivity adjustment should be at the minimum setting (fully clockwise) until all other alignment and speed adjustments have been made.

1. Too much physical bind on gate.
1. Motor is defective.

Slams Open Or Shut

1. Operator switches not being actuated. Turn the operator off and manually open and close the gate. Check that the switch actuator on the side of the bearing block trips the switches and keeps them tripped as long as it is beside the switch.
2. Adjust the location of the switches. The location of the operator switches can be easily changed by loosening the screw in the corner of the switch plate and sliding the switch to the desired position. If the gate slams open or shut, change the location of the appropriate cutoff switch so the motor cuts off before slamming the door.
3. Adjust speed. Decrease the appropriate speed control to prevent slamming.

Will Not Open Or Close Completely

1. Adjust the location of the switches. The location of the operator switches can be easily changed by loosening the screw in the corner of the switch plate and sliding the switch to the desired position.

WRAP-UP

Remove any tools or equipment from the top of the control mechanism.


Replace access panels, making sure to tighten all cover screws.

Make sure the slide gate foundation and passageway is clean and clear of all debris.

Check to ensure the slide gate structure is sound and rigid. Tighten any loose attachment bolts.

If dirty clean the slide gate using a soft cloth and water.


SERVICE / MAINTENANCE

 **Important: Only technicians who have sufficient knowledge of electrical and mechanical systems should perform service or maintenance on the slide gate.**

As with any electrical or mechanical device, a scheduled maintenance program should be implemented to assure long, trouble free operation.

Operator


Semi-annually the drive rod and drive rod bushings should be cleaned and lubricated with regular motor oil. The bearing block has two (2) internal felt oilers that will pick up oil to the drive rod. The track and trolleys should be inspected for wear and replaced if necessary.

 **Important: Prior to performing any maintenance on the operator, always disconnect the power supply.**

Magnetic Lock

As required clean the surface of both the electromagnet and armature by applying a **light** coating of silicon lubricant and wipe with a clean dry cloth.

If you have any questions or need additional information please contact our Technical Applications Department.

 **Important: When contacting the factory for replacement parts or warranty issues, make sure to reference the turnstile serial number.**

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