

Mounting of Unit

For a secure installation of the operator frame, use 1/4-20 machine screws for hollow metal and aluminum door frames, or #14-2 3/4" long wood screws for wood frames. Additional fastening into the building may be necessary to prevent the operator from moving during operation.

Adjust the arm length based on the frame and reveal as shown in the tables in *Figures 11 through 14*.

Preloading Door

Proper installation requires that the hydraulic closer apply a constant pressure to the door, keeping it in a closed position. This is accomplished by mounting the arm to the hydraulic closer in a "pre-loaded" position.

The swing arm is mounted to the door as shown in *Figures 11 through 14*. Use the diagram that matches the desired installation.

To "pre-load" the closer, attach the swing arm to the closer shaft and force it to rotate approximately 45° in the direction that would open the door. Inset a screwdriver between the socket and the chain to prevent return movement as shown in *Figure 9*. Remove the arm but keep the screwdriver in the sprocket.

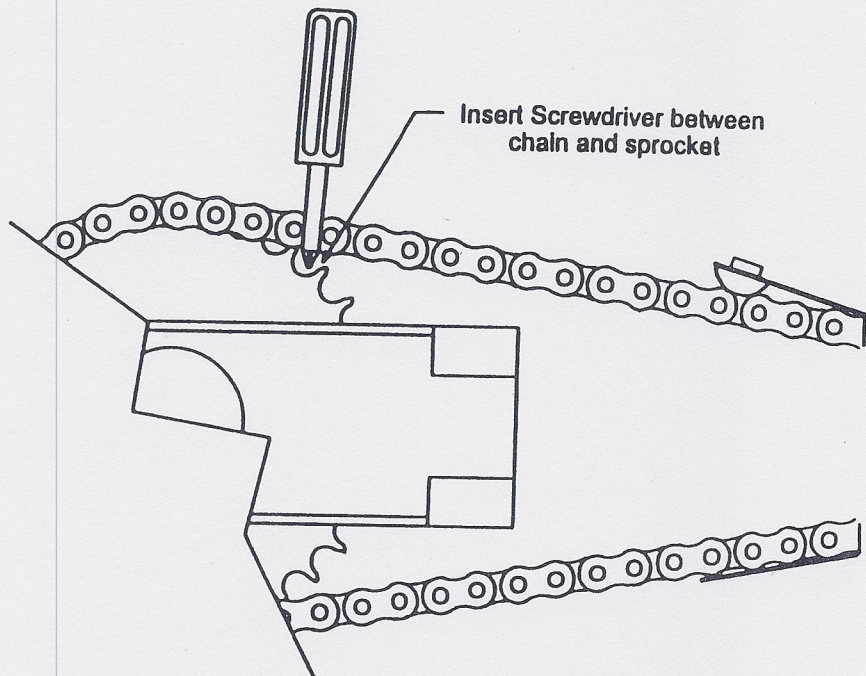


Figure 9 - Preloading the Door.

Installation of Swing Arm

Close the door (but do not remove the screwdriver).

With **outswing** units, place the shoe against the door and in line with the holes in the door drilled earlier, slide the arm onto the spindle. It may be necessary to open the door slightly so that the splines line up with the hole in the arm. Using the 5/32" Allen wrench, tighten the arm to the spindle.

With **inswing** units, set the roller into the track. With the track against the door and in line with the holes in the door drilled earlier, slide the arm onto the spindle. It may be necessary to open the door slightly so that the splines line up with the hole in the arm. Using the 5/32" Allen wrench, tighten the arm to the spindle.

Screwing Arm or Track to Door

Secure the track or shoe of the arm to the door in the holes drilled earlier. Use 1/4-20 sex bolts through the door (hollow doors) or #14 x 1-1/2" long wood screws (solid doors).

NOTE: If the configuration of your door requires the straight arm, it may be necessary to install the spacer between the door and track. If the door is not flush with the door frame, the spacer is required to offset the track slightly so that the back of the track is even with the frame. If the spacer is not installed, the arm will hit the bottom of the header before the door is completely closed and the door will remain slightly ajar.

Remove the screwdriver from the sprocket.

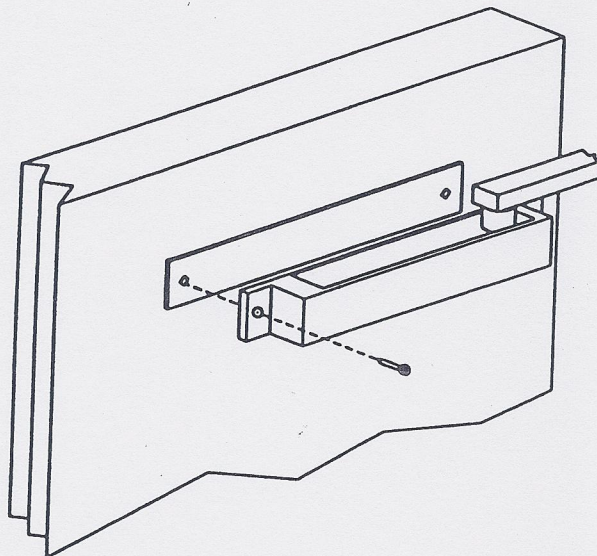


Figure 10 - Installing Track and Spacer to Door.

Installation of Door Stop - Outswing Doors Only

Open door to the desired position (up to a maximum of 120°). Prop the door open in this position. Locate door stop as shown. Using door stop as template, drill two 7/32" mounting holes into the header. Secure the door stop with two black screws.

Release the door.

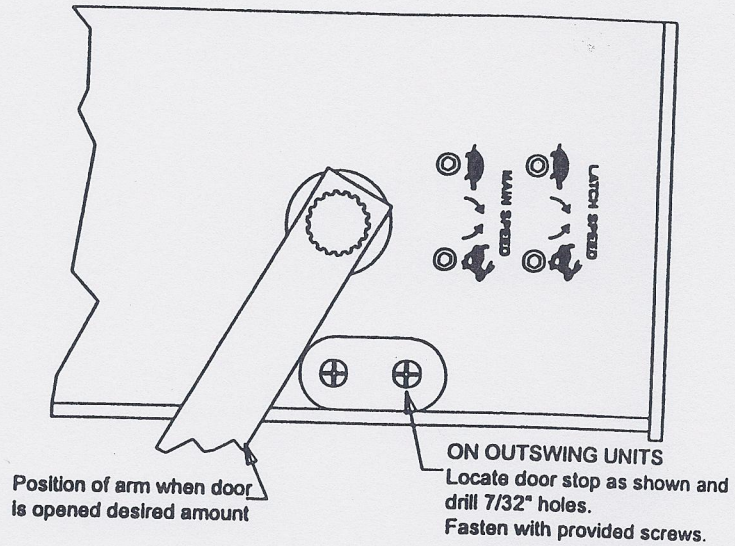


Figure 15 - Door Stop Location.

Hydraulic Closer

The door closer has an adjustment for "opening force" when the door is used in a manual mode that is preset at the factory. The setting is based on a 30-inch exterior door and a 38-inch interior door. Adjustments are made using an Allen wrench as shown in Figure 16. Turn the screw clockwise for larger doors and counterclockwise for smaller doors.

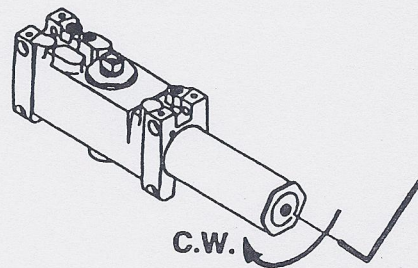


Figure 16 - Hydraulic Closer.

Door Closing Adjustment Procedure

The hydraulic closer must be operating properly before the Magnum control is adjusted.



WARNING: Improperly installed or adjusted closers may cause property damage or personal injury. Please follow these instructions carefully.

Do not allow the door to slam into the frame. A "normal" closing time from a 90° open position is five to seven seconds, evenly divided between main swing speed and latch swing speed. Use the furnished hex key to adjust speed.

- To slow MAIN SPEED of door, turn the main speed screw clockwise.
- To slow LATCH SPEED of door, turn the latch speed screw clockwise.

1. Remove one lead from the motor.
2. Adjust the main and latch speeds.
3. Reconnect motor lead.

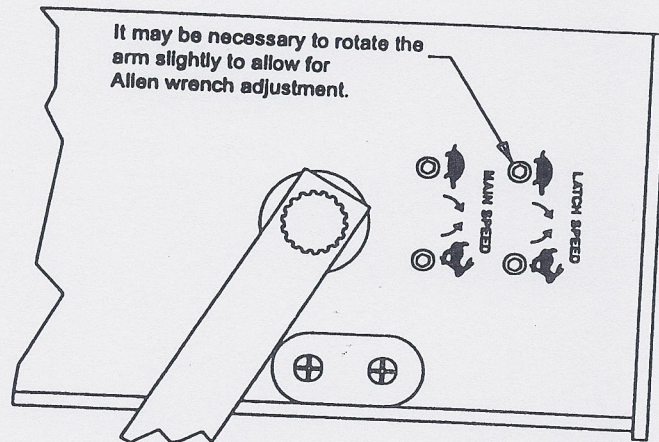


Figure 17 - Hydraulic Closer Adjustments.

Setting Backcheck and Door Closed Switches

The GT 710 has two magnetic switches that control the back check location and monitors the door closed position. The backcheck magnet must be installed before the unit is tested. It signals the motor to slow down so the door does not slam open.

The door closed magnet is optional. It is used to signal the control board that the door is closed. It is used in applications where a sensor is on the swing side of the door and wired into the safety with lockout circuit. The switches are closed by magnets installed by the installer onto the main sprocket gear.

The magnets are not inside the header!

Locate the 1/4-inch square and 1-inch long magnets in the parts bag. To position the magnets, use the appropriate configuration from *Figures 18 through 21*.

Start with the door in the closed position. Place a magnet under the door closed switch with the white side up. This magnet will deactivate the optional presence detector as the door begins to open.

Move the door to the 45° position. Place a magnet under the Backcheck switch with the white side up. The magnet is positioned to move under the switch when the door is opened to 45°. Use the appropriate configuration from *Figures 18 through 21*. This magnet will command the motor to reduce the door speed to the setting of the backcheck potentiometer. Improper placement of this magnet will cause the door to slam into the door stop.

After power is applied to the unit and the position of the magnets "fine tuned" to make the door functional, the magnets should be epoxied in place following the instructions on the epoxy packaging.

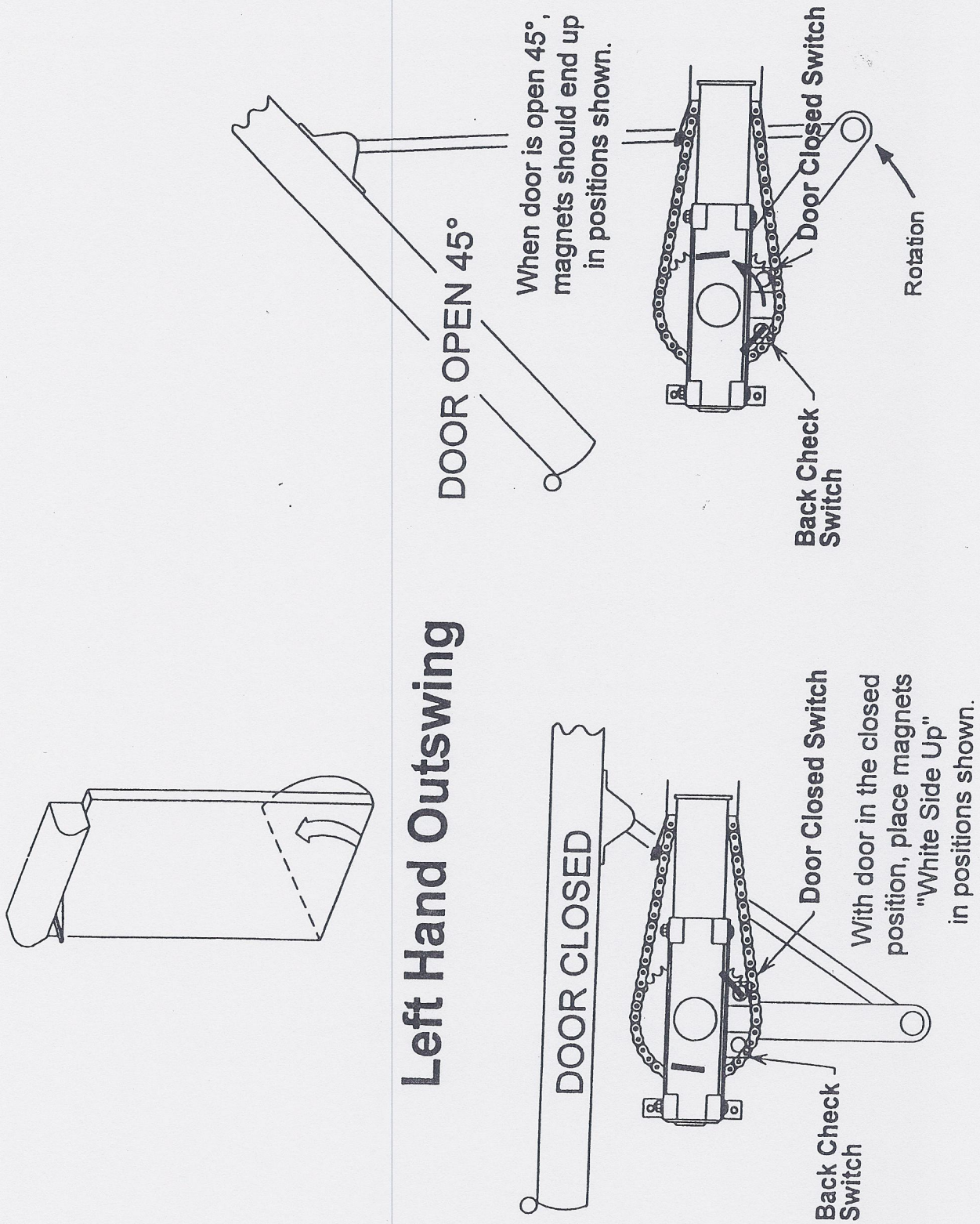
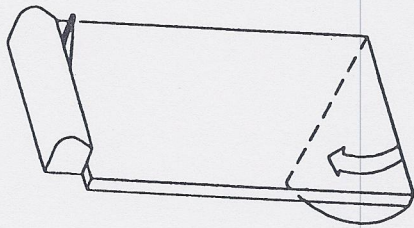


Figure 18 - Left Hand Outswing Door Shown.



Right Hand Outswing

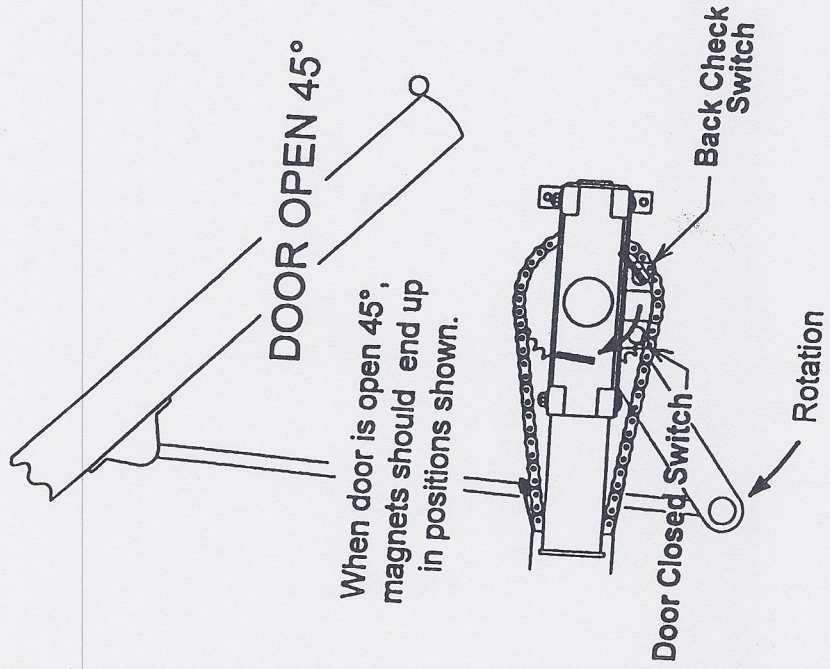
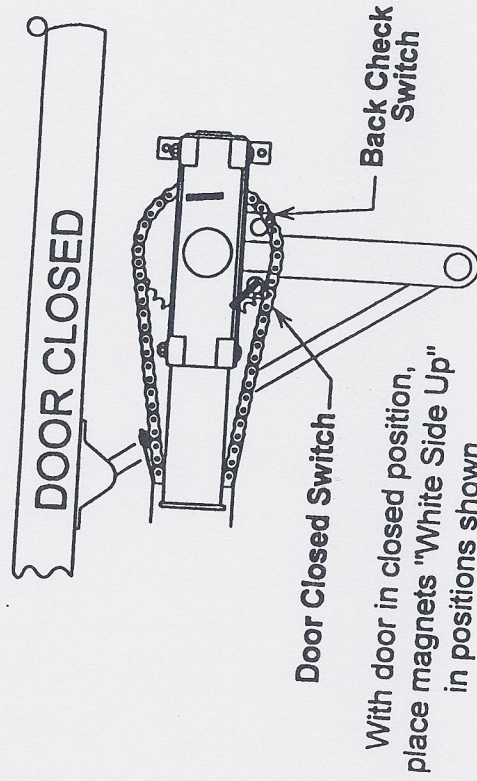


Figure 19 - Right Hand Outswing Door Shown.

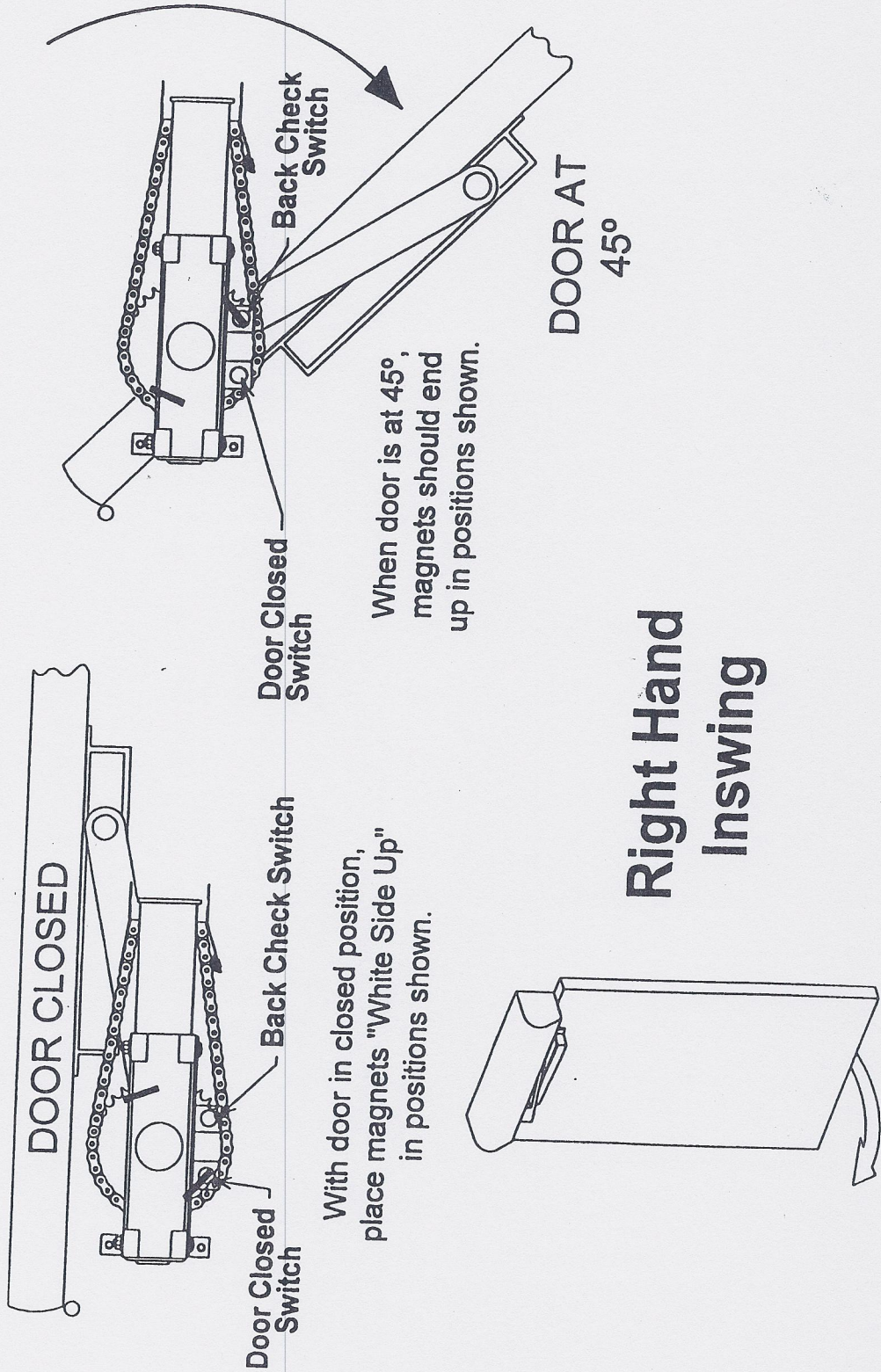


Figure 20 - Right Hand Inswing Door Shown.

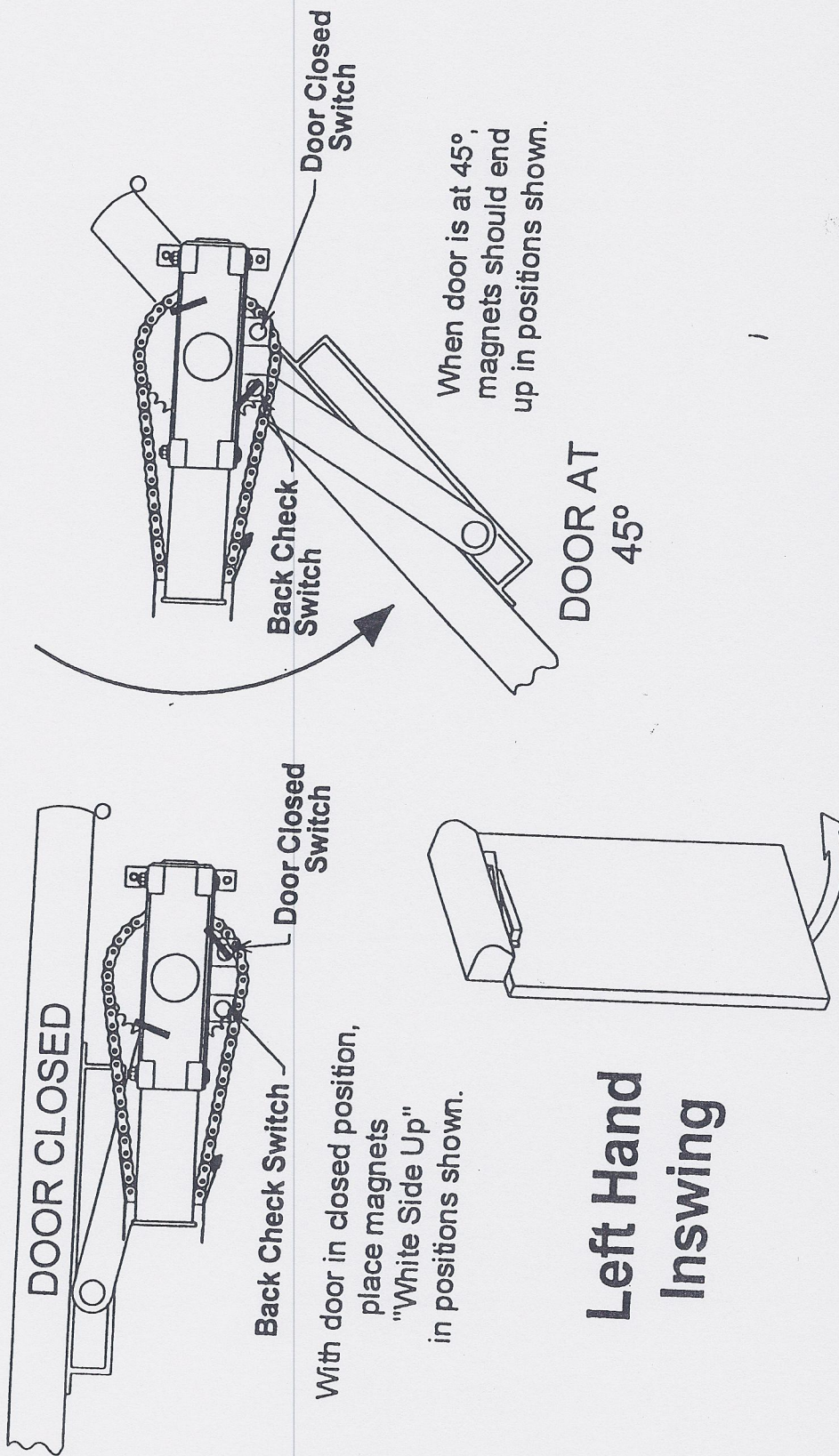


Figure 21 - Left Hand Door Inswing Shown.

- Pin 6 is common, so connecting this red wire to any of the other five will cause that feature to be activated. For example, connecting the red and blue wires will result in back check.

Warning: J2 and J5 are physically the same. Do not switch the 24 Vac output and the motor connectors.

J5 is the motor feed. It is a two-pin connector with a connector installed to the motor inputs.

- Pin 1 is motor negative. The wire to this pin is red.
- Pin 2 is motor positive. The wire to this pin is black.
- Matching the color wires into the motor makes the unit work for right-hand doors. Mismatching the wires makes the unit work for left-hand doors.

NOTE: If the unit is the wrong hand, it can NOT be corrected by reversing the wiring leads into the motor. The hydraulic closer is also handed and would need to be replaced.

Fuse 1 (F1) is a 3 amp, 250 volt fuse that protects the circuit board from voltage spikes and incorrect voltage being applied to the board.

Fuse 2 (F2) is a 0.5 amp, 250 volt fuse that protects auxiliary equipment that may be connected to J2. It also protects the auxiliary power circuit of the magnum board.

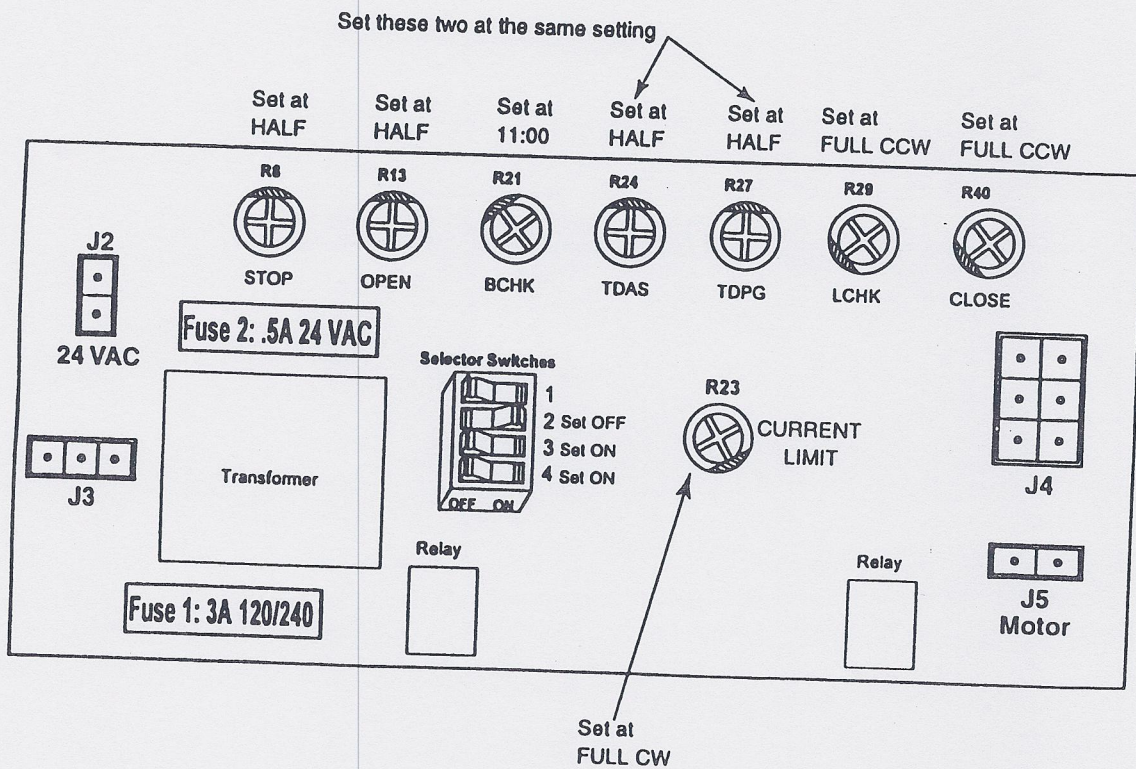


Figure 22 - Magnum Control Board.