



## Dado Door Track Installation Guide

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## **Installation Overview:**

This document provides information for the Dado Door motorized track and system enclosure installation for single and dual panel automated sliding doors systems. This installation guide is updated as needed and the latest version can always be found at [www.dadodoor.com](http://www.dadodoor.com) under Downloads.

This document assumes that you have already become familiar with the Door Framing requirements. See the document Dado Framing Guide for more info.

It is a good idea for the installer to become familiar with the basic concepts in this document before getting started to avoid issues later.

## **Important Precautions:**

If you are installing a glass door, please use special care when handling the glass at all times during the install. Although it will be likely that your glass door will be tempered, glass should still be considered very fragile and handled as such. The edges of the glass are most vulnerable to chipping or breakage. When moving the glass into position, place some material on the floor such as 1/4" plywood to rest the door on until it is raised off the floor by the track. Several layers of cardboard would be a second choice if you do not have any thin plywood available. At no point should the corners of the glass come in contact with a hard floor surface, especially a concrete floor. When moving the door into position, putting all the weight of the door on one corner presents a risk of chipping or breaking the glass. Make every effort to move the glass into position while the weight of the glass is evenly distributed along its bottom edge.

## **Tools Required:**

The following tools are needed for a standard installation.

- Allen wrench for 1/4" Allen bolt
- Allen wrench for 5/16" Allen bolt
- 9/16" open ended wrench for threaded rod nuts
- 1" drill bit for drilling support header
- Electric Drill

## Part Descriptions:

The following is an overview of the hardware components that make up the motorized track. See Figure 4 on the following page to view a completely assembled mini-track.

- Motor Mount Assembly
- Pulley Block Assembly
- Home Switch and Mount
- Glass Clamps
- Belt
- Track Hanger
- Belt Tensioner
- Track Rollers

### Motor Mount Assembly:

The Motor Mount Assembly slides onto the Aluminum I-Beam track, typically located inside the pocket on the end where the door will move towards it's OPEN position. There is a 5/16" Allen bolt that goes through the Motor Mount to one of the Belt Tensioner parts. The Belt Tensioner piece attaches to the end of the track.

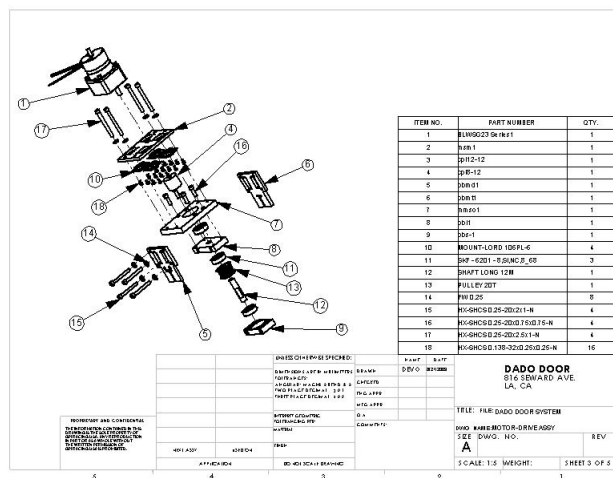


Figure 1



Figure 2

## Pulley Block Assembly:

The Pulley Block Assembly slides onto the Aluminum I-Beam track opposite the Motor Mount. There is a 5/16" Allen bolt that goes through the Pulley Block Assembly to one of the Belt Tensioner parts. The Belt Tensioner part attaches to the end of the track.

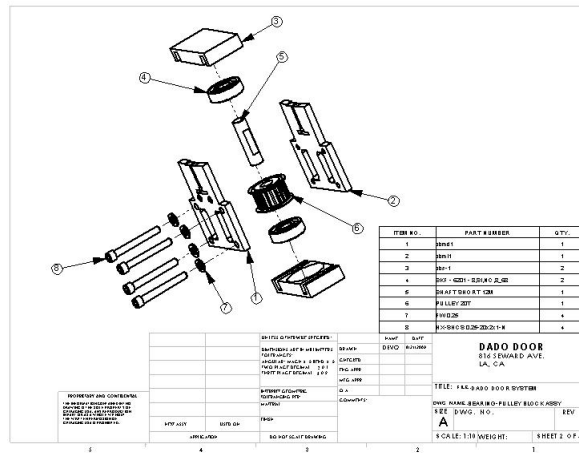


Figure 3

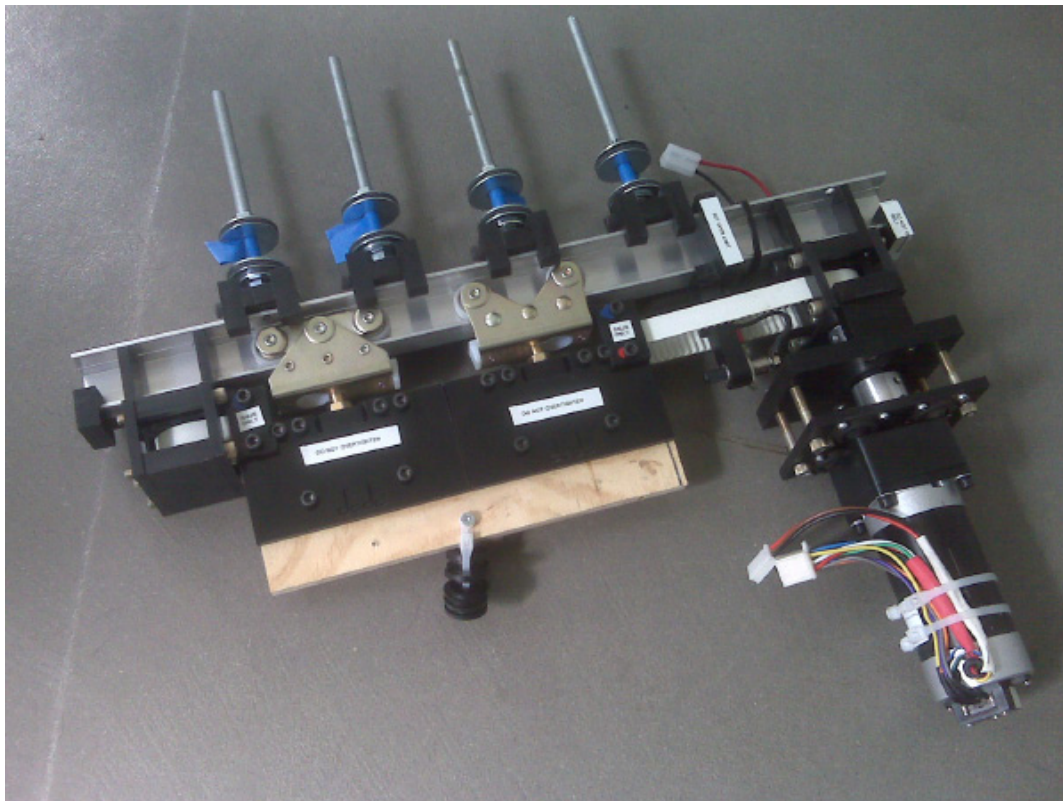


Figure 4 Mini Track Assembly For Illustration

## Home Switch and Switch Mount:

The Home Switch is the limit switch used on power up. Each time the system powers up, the door moves towards the Home Switch. As soon as the door touches the switch, it moves forward again until it has moved off of the switch. This position is called HOME, which is 'ZERO' position to the software. The Home switch is mounted onto the Home Switch Bracket, which is attached to the track with the Home Switch Track Mount. This Track Mount piece is located next to the Motor Mount. The position of the Home Switch should be set as desired to a position near the motor, and in the position that you want the door to move to in it's most extreme OPEN position. NOTE: The software has a method to allow for an internal 'HOME SWITCH OFFSET' to be entered, so that in the future if it is desired to have the door 'park' at some user defined distance away from the HOME switch, it is easy to do so in the Menu Options. See the Dado System Programming Manual for more details on the Offset Open Option.

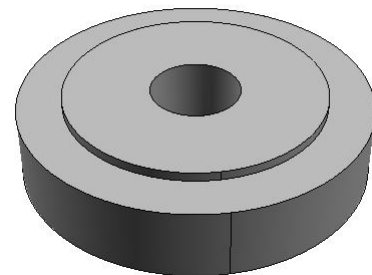
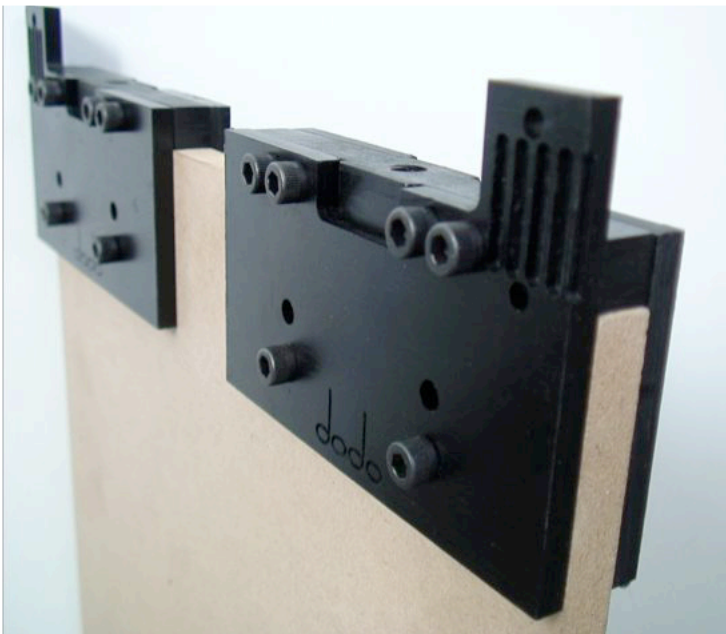


## Glass Clamps:

The standard Glass Clamp will accommodate a .375" to a .5" piece of glass. For larger doors, a custom width can be made, or the standard clamp can be used with shims on each side to widen the clamp. The clamp uses 1/4" Allen bolts, and the installer should take special care to not overtighten the bolts in the Delrin clamps to avoid stripping the threads. See Figure 4 for a photo of the Left and Right Clamps installed on a mini-track.

The clamps will require that the glass is pre-drilled with the Dado Standard Glass Drill Template. The holes in the glass will be 1" in diameter, and special 'Glass Inserts' are provided that get placed inside the holes prior to attaching the Glass Clamps.

There are two clamps, a LEFT and a RIGHT Clamp. The standard installation requires that the belt attachments will be on the side of the door when the motor is to your right. This means that the LEFT clamp will be to your left, the RIGHT clamp to your RIGHT, with the MOTOR to your extreme right at the end of the track inside the pocket. The door will open towards the motor.



1" Diameter Glass Insert

**Belt:**

A high torque 5mm Pitch Timing Belt is provided to connect the motor to the door. The belt may or may not be cut to precise length from the factory, and may be cut slightly larger so that the installer can cut it down to the proper size. If it is required that the installer cut the belt, a new set of metal sheers will be needed since the belt is steel belted.

For illustration purposes, a mini-track system is shown in the photo below that depicts both the left and right Glass Clamps butted together. Notice the Belt Lock Cover pieces that hold the belt in place with the two 1/4" Allen screws.

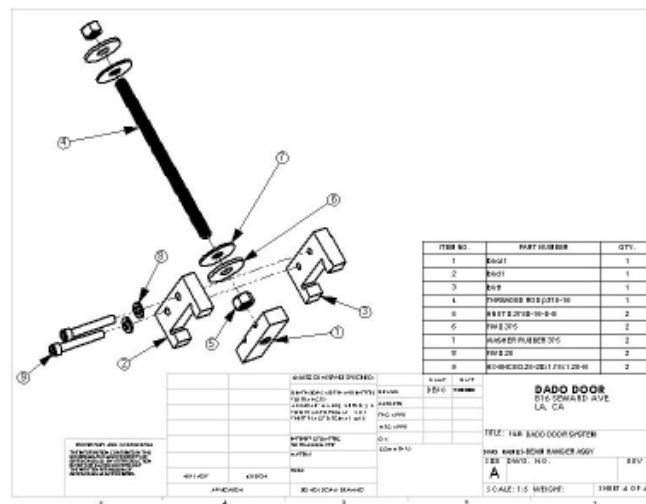
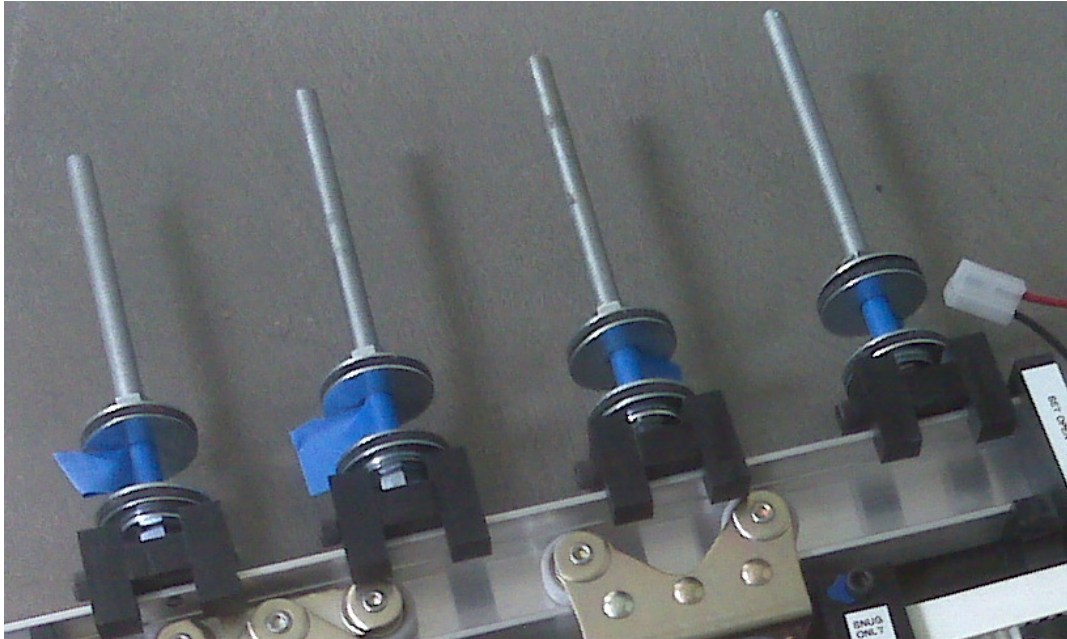


Mini Track For Display Purposes



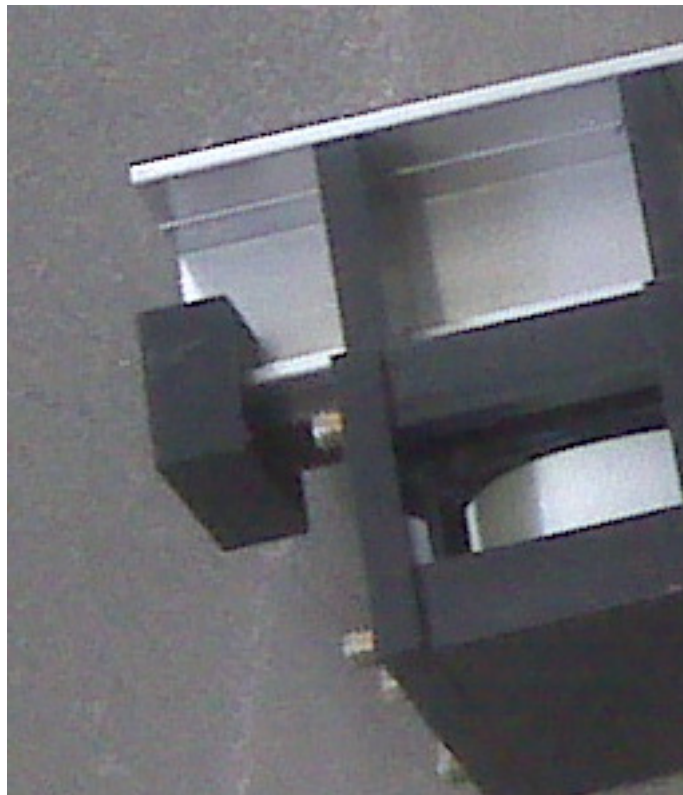
## Track Hangers:

The Track Hangers are made up of several parts. The rods are 3/8" threads, and contain two 'sandwiched' washer layers. Two steel washers surround a rubber washer, and each washer combination will mount on the top and bottom of the support header. Typically a 1" diameter hole will be drilled to allow the threaded rod freedom of movement inside the hole for adjustment. The idea is to not allow the threaded rod to make contact with the wood directly, and the purpose of the rubber part of the washer set is to dampen vibration and noise from being directly transferred from the motor and rollers to the framing and wall structure. This method of attachment reduces noise by having the vibrational energy pass through several materials.



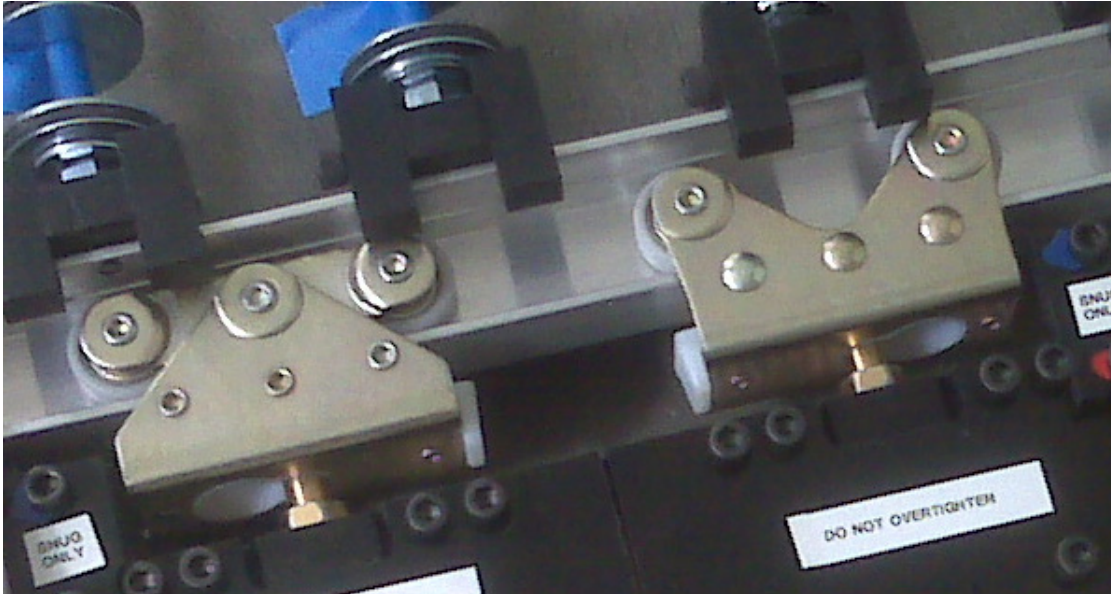
## **Belt Tensioners:**

At each end of the track there is a belt tensioner part that fits onto the track, and connects to the bearing block assembly via a 5/16" Allen bolt. Once the belt is installed, the belt can be tensioned from either end ( or both ) so that the belt has enough tension not to bounce around so as to contact the Glass Clamps when the system is moving. There is no way to give a precise formula for the belt tension, as all systems have different size belts and doors. But, the general rule is to make the belt tight enough to keep it from rubbing against the clamps as it moves past them, but not be so tight that it binds the pulleys with excessive friction. In a standard pocket door installation, one of the belt tensioner adjustment bolts is accessible from within the top of the jamb. It may be required to use an extension attached to the Allen wrench to access the bolt after the trim is added. Under normal use, the belt will not require regular maintenance.



## Track Rollers:

The rollers should be placed on the track prior to assembling the track components and hanging the track onto the support header. Notice that the white plastic Quick Release Tabs on the sides of the rollers must face each other as shown below. To hang the door onto the rollers, open the release tabs prior to position the door into place, position the track and rollers onto the release pins that are located on the Glass Clamps, and close the tabs securely.



## Door Guides:

For a glass door, Delrin door guides are provided that will mount onto the floor or inside the framing to hold the door securely in place. The door guides are adjustable and require two screws each to mount the guides into position. The top adjustment parts use 1/4" Allen bolts.



## Assemble track with all components:

The track is shipped in a tube with none of the components installed on it. The first step is to identify all the parts of the system according to the previous overview.

NOTE: The motor will typically be installed onto the track at the end which is inside the pocket, or towards the most OPEN position. The door will move towards the motor when opening, so that the HOME switch will be mounted next to the motor, often as close as possible to the motor without touching it.

Attach all of the Track Hanger parts by sliding them onto the track as shown in Figure 4. NOTE: The Track hangers will get tightened onto the Aluminum track once the door is set in the final position by turning the threaded rods so that they make contact with the Aluminium I-beam track. You can use pliers if needed to put torque on the threaded rods to hold the Track Hangers securely onto the track. Leave the hangers loose until after all parts are installed onto the track and the track is installed onto the header, as the track may need to be slid one way or the other during adjustment.

Next, attach the Home Switch Mount Bracket onto the track, with the plunger of the switch pointed inwards toward where the door will be installed later.

Attach the Motor Mount Assembly onto the track next to the Home Switch Mount, insure that the Tensioner is connected properly to the end of the track. From the other end of the track, slide on the rollers. In a standard setup there are only two rollers, the white Quick Release Tabs should be facing each other.

Attach the Pulley Block at the end opposite the Motor Mount, insure that the Tensioner is connected to the track end.

NOTE: In the event that you need to cut the track down to a shorter length, use a chop saw or some method to make the cut as straight as possible, then use a metal file to clean up the ends of the track so that the parts will slide on easily.

The assembled track should look like the image below.



Position the Home Switch Mount Bracket close to the motor, and secure the bracket onto the track with the 1/4" Allen bolt. This can be repositioned later if needed after the door is installed.

Now that the Track Hangers, Motor Mount, Pulley Block, and Home Switch Mount have been placed onto the track, move the two outermost Track Hangers towards the outside until they are located near the Home Switch Track Mount and Pulley Block respectively. Position all the of Track Hangers at an equal distance from each other. Leave the Track Hangers free to slide back and forth for now.

Make sure that the washers are placed onto the threaded rods correctly just as they have arrived in the kit. Remove the top washer set and nut from each threaded rod so that the track can be installed into the support header.

After the door is installed and the track is in position on the header, only then tighten the threaded rod so that it pushes into the Aluminum Track to lock each Track Hanger into place. If using pliers, take care not to damage the threads.

### **Drill holes for track mounting with threaded rods**

Either hold the track up to the support header and mark the locations to drill the mounting holes, or use a tape measure to get the distances from rod to rod and mark the support header drill locations. Try to have the drill marks all perfectly centered on the support header to insure that the holes are all in alignment.

Using a 1" diameter drill bit, drill the holes into the support header. Make sure the wood is free of burrs or splinters after drilling to insure that the washers will sit flush onto the wood surface.

Push the threaded rods up through the holes in the support header, and replace the top washer sets and 3/8 nuts. Leave the track hanging loose for now. Move the lower side nuts and washer sets down towards the track for maximum adjustment.



## Attach door clamps to door

Insert the Glass Inserts into the holes in the glass, one insert for each side of the hole. The LEFT clamp will typically be on the side of the door that is moving towards the CLOSED position. The RIGHT clamp will be on the side of the glass towards the motor. The motor will be on the side of the track where the door will OPEN. If the motor is on your right, then the belt locks will be on your side. If the clamps are on in reverse, the door will HOME the wrong direction.

Slide the glass clamps on to the glass, and position them so that the holes line up through the clamp and Glass Inserts. Put the 1/4" Allen bolts through the clamps and snug them without overtightening.

See Figure 5 for an illustration.

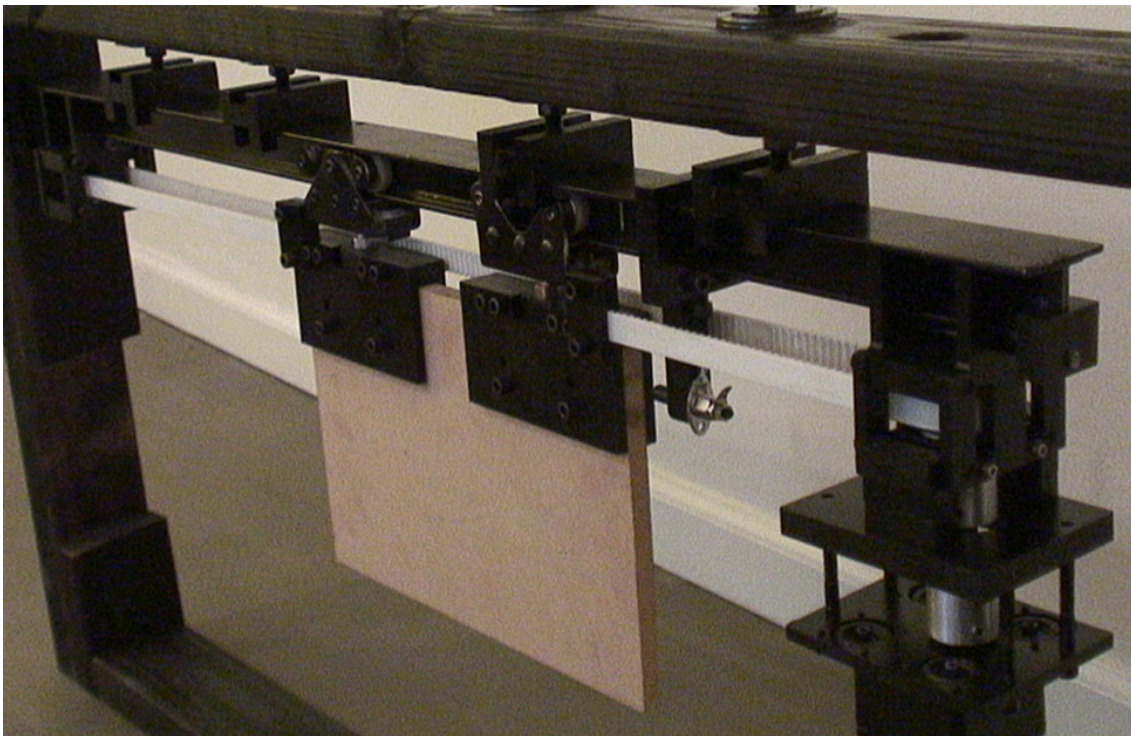


Figure 5

## Position door underneath track

Now that you have the clamps attached to the door, and the track is hanging loosely from the support header, you are ready to attach the door. It is very important that there is some soft material on the floor to place the glass while moving it into position. 1/4" plywood or several sheets of cardboard will work.

- \* Do not place a glass door directly onto a concrete floor.
- \* Do not tilt the glass up onto one of its corners, the sharp corner of the glass may not withstand the weight of the door and can break.

Determine which edge of the door will be the leading edge while closing. In some cases we suggest that the clear edge of the door (if using a laminated glass door and the clear edge option is present) be towards the CLOSING side.

Position the door underneath the track so that the rollers are close to the Quick Release pins on the glass clamps. With the track loosely hanging above, it may be necessary to push the track up and hold it above the glass top edge as the door is positioned underneath. Move the track and rollers into position so that the roller can be lowered onto the Quick Release pin on the clamp, insert the pin into the roller and slide into position, then move the white plastic locking tab over to secure the pin in place. Lock the other pin into the roller so that both rollers are secured onto the door clamps. The door should hold itself in place now that it is connected to the track and rollers. It may be necessary to get onto a ladder to adjust the nuts on top of the support header. Push the track up towards the support header and hand tighten all of the 3/8" nuts on top of the threaded rods with the washer sets installed already. You are now ready to raise the door off the ground. Using a 9/16" wrench, tighten the nuts on the top of the threaded rod in even small amounts across all the rods, the goal is to have similar tension on all of the nuts as the door starts to raise off the floor. After making equal turns on all of the nuts, soon the door will start to move freely as it lifts off the floor.

With the door able to swing freely at the bottom, it is time to put the door guides into position and adjust the vertical plane of the door. The door will tend to hang on its center of gravity, but it is not always the case where the perfect center of gravity produces the same line as the walls or jamb. The door guides will have to be used true the door flush to follow the vertical line of the wall.

As a reminder, while adjusting the door and track on the support header, try to keep the threaded rod from actually touching the wood beam, the goal is for the threaded rod to be at least 1/8" from the wood inside the hole to prevent vibration from transferring from the track to the beam.



## Install door guides:

The doors guides have two parts.

- 1 The base that mounts to the floor or other structure inside the pocket
2. The adjustable top portion that can be slid in and out to adjust against the door.

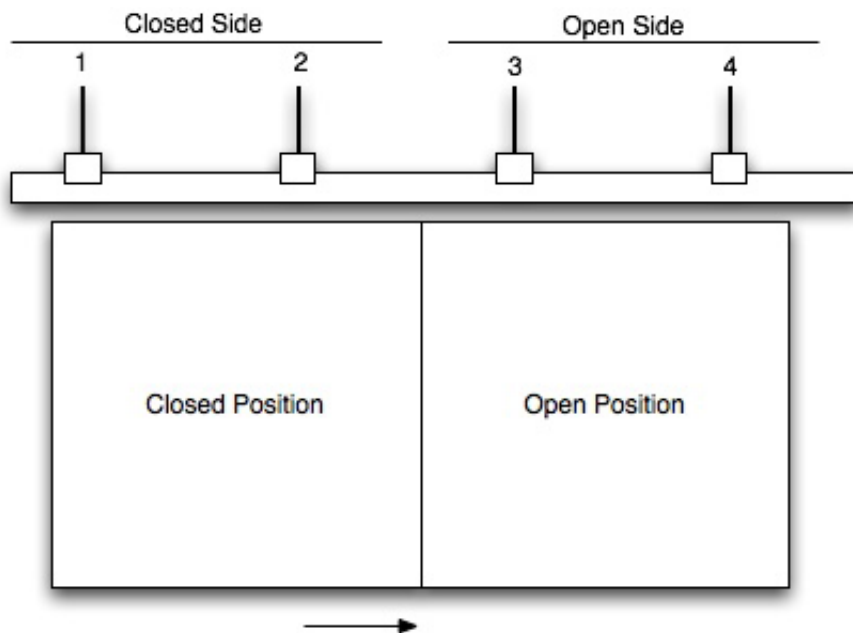
The goal is to find a compromise between holding the door so that it does not 'knock' if pushed against, while at the same time not having too much pressure against the glass so that it adds unnecessary friction and causes the door to bind.

Mount the door guides with two screws going through the base, then adjust the top sliding part until it is holding the door in place. Snug the 1/4" Allen bolts securely, but do not overtighten which can possibly damage the threads.

## Adjust door to correct position off floor and true to jambs:

With the door in the closed position, adjust the nuts 1 and 2 on the top of the support header to set the approximate height the door should sit off the finished floor.

Adjust the nuts 1 and 2 on the top of the support header to true the door to the jamb in the fully closed position, then move the door fully open and turn the nuts 3 and 4 to adjust the door in the open position. Insure that the height off the floor is similar in both open and closed states. Do not allow the track to sit at an angle so that the door wants to slide to one side.



## **Lock bottom nuts onto support header:**

With the top nuts adjusted so that the door is at the right height off the floor and is true in both open and closed positions, you can now lock the track into place by tightening the lower nuts on the threaded rods. If you prefer, you can use Locktite or other glue to insure the nuts do not loosen over time if it is a concern.

## **Attach belt:**

The belt attaches with the small Belt Lock Cover and two 1/4" Allen bolts. The two bolts are different lengths, so take care to replace the bolts into the same holes that they came from. The belt is attached after the door is connected to the track and lifted off the floor. The belt tensioners should have the 5/16" bolts almost completely through the hole, but not extending out of the hole in the tensioner. Remove the Belt Lock piece by removing the two 1/4" Allen bolts. Underneath the Belt Lock parts, there are grooves in the Glass Clamps for the belt to fit into. Take one end of the belt and put it into the slotted area, fill all slots with the belt. Replace the Belt Lock piece and snug tight, take care not to overtighten. Run the remaining belt through the Motor Mount Pulley, then back around the Pulley block. Pull the belt tight by hand and hold the belt next to the grooves in the other clamp. Mark the belt so that after cutting it, the belt will fill all the slots in the clamp mounting area. Pull the belt tight by hand, place the belt into the open slots and replace the Belt Lock. Insert the 1/4" Allen bolts in their original location, snug firmly so the belt is securely in place.

Using the Allen wrench, adjust the tension of the belt so that the belt does not rub against the clamps or other hardware. Do not overtighten the belt to a point where it binds the system and produces noise.

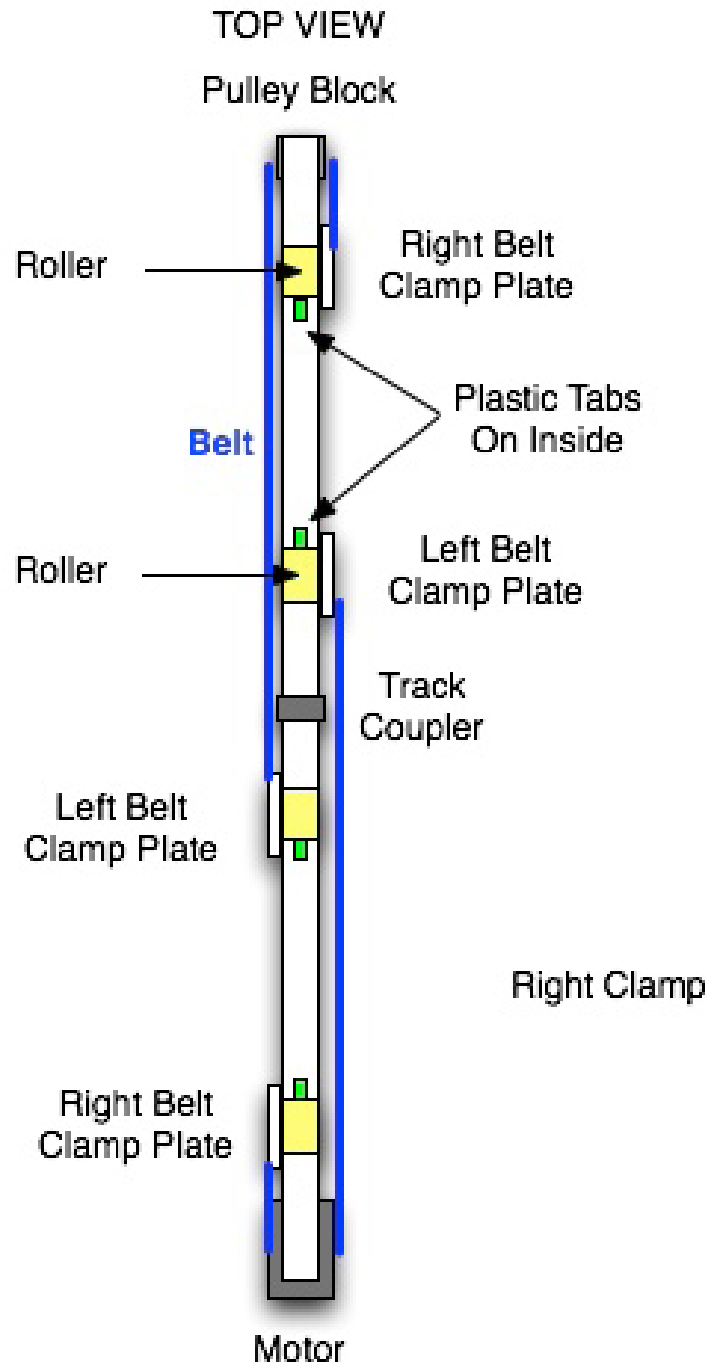
## **Adjust Home Switch:**

With the door able to move back and forth on the track, you may now check to see if the HOME switch is located at a position that is adequate for the fully open position stopping point. On power up, the door moves towards HOME, or fully OPEN, and hits the switch, telling the system where 'ZERO' is. If at some future time you would prefer the door to not go so far into the pocket to original HOME position, there is a software feature called Home Offset that will allow the door to park at a user defined distance away from the HOME switch after it initially powers up.

## Dual Door Belt Setup:

If setting up a dual door system, the glass clamps will get mounted on the door nearest the motor just as described above. However, for the door panel at the far end of the track from the motor, the door clamps will mount with the Belt Lock parts on the opposite side of the track. See the diagram below. The LEFT clamps will contain a plastic offset part to hold the belt away from the clamp by 1/4" to keep the belt from rubbing against other track hardware.

### Dado Track System Setup



## **Connect all cables and touch panels:**

A standard system will include two Touch Panels, or possibly an option Keypad panel.

Both panels will require CAT5E cable to connect the panels to the System Controller box. These cables should be kept as short as possible to prevent noise interference on the lines. It is best to keep the Touch Panel cables under 30' if possible, if longer runs are required, please consult Dado Door.

The motor has a breakout board attached to it that requires two cables to be run back to the System Controller. One of the cables is CAT5E and should be kept as short as possible to prevent noise interference. The other cable is the 24VDC cable, which is an 18 gauge 3 conductor cable. This cable will likely be prepared and cut to length per project at the factory since it has special connectors on each end.

Connect the wires from the HOME Switch to the breakout board located on the motor.

For motion sensors or other external input devices, documentation will be provided for those wiring configurations.

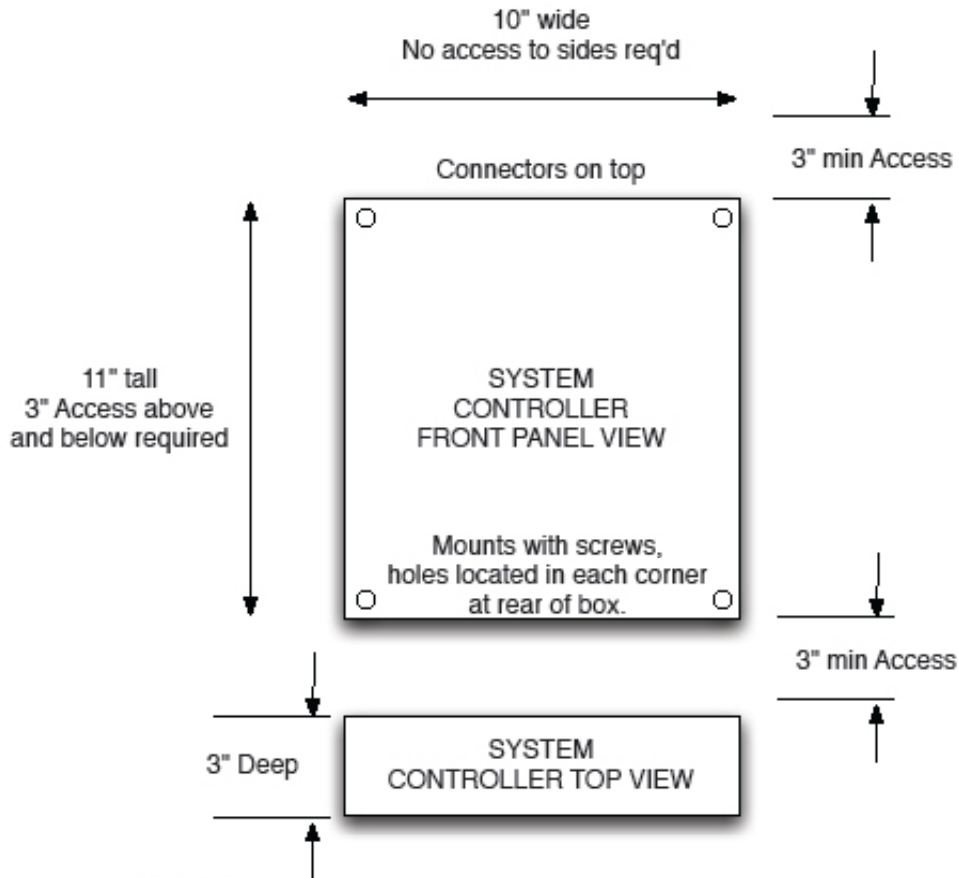
As a general practice, use wire ties to hold up the weight of the cables at all connection points, so as to not have the weight of the cable pulling on the connectors on the Touch Panels.

The System Controller is clearly marked as to which ports go to which cable. Use care to not connect the cables incorrectly, and it is advised to use some method to mark the cables at each end to keep track of which cable is from what source.

NOTE: See the Separate PDF guide Dado Touch Panel Installation for installing Touch Panels.

## Install the System Controller:

Install the enclosure against a surface with access above and below according the drawing. The enclosure has holes in the rear that are used to mount using screws.



**NOTE:**

It is recommended to have a standard light switch to control the power to the system in the event of emergency and door needs to be manually opened.

System uses less than 3 amps max, use 5amp breaker or greater on lines with no other heavy appliances that have motors.

System uses 110/220 selectable power, with standard household 110AC plug (3prong)

Keep system at room temperature, located as close to motor as possible.



## Checklist Before Testing System:

It is very important that the door can move freely from fully open to fully closed by hand before the first test run with the motor.

Inspect the track and rollers to insure they are clean and the rollers can move without any obstructions such as drywall dust, sanding dust, etc.

Insure that the door guides are able to maintain contact with the door while the door is both inside the pocket and outside the pocket, so that at no point can the door move past the guides and no longer is supported.

Insure that you have used wire ties on the wiring for the Home Switch to keep it out of the path of the belt.

Use wire ties at all connections to avoid the cables pulling on the connectors.

Check that all CAT5E cables are plugged in correctly, including the motor logic cable.

Check that the 18 gauge 3 conductor motor cable is connected.

Check that the cable from the HOME switch to the motor breakout board is connected.

Make sure the Power Switch on the System Controller is in the OFF position before plugging in the AC cable.

Note that if using Dado Standard Touch panels, they must be plugged into the System Controller correctly for the Locking scheme to work properly. The inside of the room is generally considered the 'B' panel. The outside panel is considered the 'A' panel. Be sure that the panels are connected to the System Controller as described.

## Test Run:

Proceed with the Test Run ONLY after verifying the Checklist above. Insure that there is nothing in the doorway and all persons in the area are aware that testing is taking place. The first test run is critical in that any wiring problems could cause the door to move in an unpredictable manner.

Have the AC power cable connected and the Power Switch OFF. Remove the top lid on the face of the System Controller. The top lid is the larger of the two lids and requires 8 screws to be removed. The lower panel contains 110 or 220VAC wiring, use caution.

It is important that either you have a line of sight to the door, or have someone that is able to stand at the door to communicate what takes place on initial power up. Do not power ON the system for the test run unless you or someone can see the door and you have easy access to power off the system in the event that something is not connected right and the door does not behave as it should.

Assuming that you are using one or more Touch Panels provided by Dado, the first test is to insure that the panels light up on power up, indicating that they are plugged in correctly. Power up the System Controller for one second only and turn immediately back off. During this time ON, look to see if the Touch Panels light up.

NOTE: If one or more of the panels do not light, inspect the wiring to find the problem. If you are making your own CAT5E cables, double check that the color sequence is correct in the cable at both ends. Also, make sure the cable has not been damaged.

If the Touch Panels light up, you are ready to proceed to the first test run.

With the power still off, position the door half way open. Turn on the power switch while watching the door. The door should make a few very small moves (approximately 1/4") as a diagnostic move to insure that everything is connected properly. After the initial test moves, it should very slowly start moving towards the HOME switch, which is the fully open position.

NOTE: \*\*\*If anything other than the moves as described above occurs, such as any erratic, abrupt, or fast motion, turn off the power at once. \*\*\*

The door should move towards the HOME switch and press it in, then the door should reverse and move back off of the switch and stop.

Your system will be programmed to close only partially until you adjust the SET CLOSE POSITION distance in the menu options. To test the Touch panels, momentarily put your finger on the center area of the top section of the Standard Touch panel and watch for door motion. The door should close part of the way and stop. If the door begins to move towards closed position, then stops and returns to the open position, then the Close Trip Level needs to be adjusted higher in the Menu option settings. See the following pages for more info.

## Basic Setup:

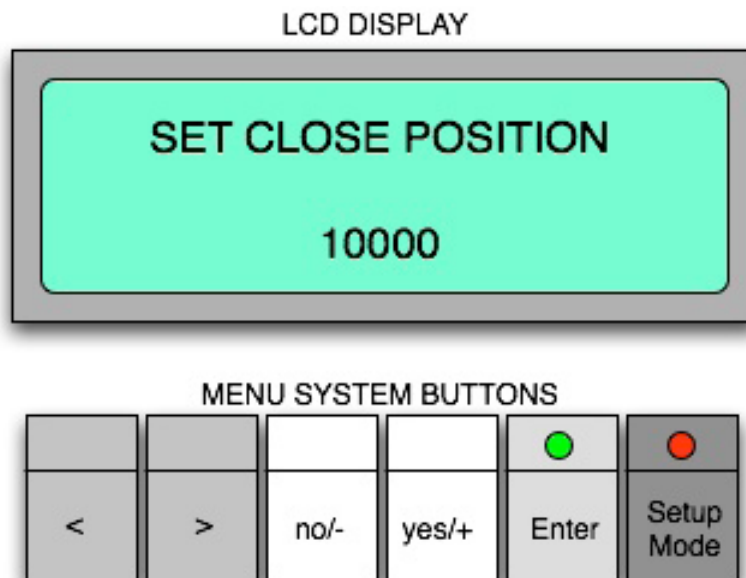
There are several settings that must be set in the system by the installer. Inside the top half of the system controller there is an LCD and 6 buttons as shown below.

There are two primary parameters to be concerned about during the initial setup:

SET CLOSE POSITION and CLOSING TRIP LEVEL.

SET CLOSE POSITION is the distance the door will travel from the HOME switch towards the fully closed position.

CLOSING TRIP LEVEL is the threshold value that determines at what threshold of pressure the door will RETRACT when closing. NOTE: The door may RETRACT due to it's own weight, friction and speed factors. See the Dado System Programming Manual for more details on setting up your system and for error message explanations.



Press **Setup Mode** to access the Menu Options.  
The Setup Mode red LED will be lit when you are in Setup.  
(The door system will not operate when in Setup Mode)

Scroll through menu options with < and > buttons.

Use **ENTER** to toggle through items in a multi-parameter menu.

Use " + " to increase a number, " - " to lower a number.

**DO NOT CHANGE ANY ADVANCED SETTINGS IN  
THE MENU WITHOUT CONSULTING DADO.**



## Basic Setup Cont'd

### Adjusting the SET CLOSE POSITION:

Enter the **SETUP** mode with the button on the far right, the red LED on the button will turn on and stay lit. The door will no longer operate with this LED lit.

Using the < or > buttons, scroll up or down the menu to find the option titled SET CLOSE POSITION. The value for this setting will likely be 10000 as a default. This number represents distance in a raw format that equates to approximately 600 = 1" of door travel. The default setting of 10000 should have moved the door approximately 16.5" during the test run. You need to raise this number in small amounts each time and test the distance that the door has moved until it is reaching the destination, which is the point you wish the door to stop in the fully closed position.

**CAUTION:** It is very important that you DO NOT EXCEED the end point so that the door collides with the wall (or other door panel if this is a dual door system). If your system is a dual glass door system, it is highly recommended to have rubber bumpers attached to the edge of the door during the initial setup and subsequent operation. These bumpers can be from 1/16" to 1/8" thick and are attached to one door panel at the very bottom and very top of the door to prevent "glass on glass" contact. Two pieces of tempered glass colliding at a fast enough speed will likely result in the panels shattering. Even though it would be possible to mount stops on the track to force the door to stop at a certain point, the lower portion of the door could still have enough inertia to collide with the opposite panel if the distance is programmed too far. In the setup phase with a dual glass door system, it is a good idea to use even a more robust door stop method for the first few test runs until you get the hang of the process. For example, place a folded up towel between the doors at the bottom to insure that they cannot bump into each other. Remove the towel after you understand how to close the gap in small increments and feel safe that there will not be a collision.

It is up to the installer to prevent the door from hitting the wall or other door partition during this setup phase. Assuming there is more than several inches of gap remaining to close, the first few moves should be to increase the SET CLOSE POSITION by an amount of around 1" or 600 in the display to test the process. Increment the value by 600, run the door with the touch panel and observe the result. Add another 600 to move the door another inch and test it. When the door is getting very close to the final destination, whether the stopping point be a wall or another panel, start using very small increments to work up to the final value. If accidentally you enter too much value and the door does hit the wall, immediately touch the Touch Panel again to reverse the door to avoid straining the motor. If for any reason the door contacts the wall and does not retract, either automatically or by touching the Touch Panel, turn off the power switch, move the door manually away from the wall, then reboot. Prior to making any moves, enter SETUP MODE and adjust the distance back down a bit and continue the setup process.

## Basic Setup Cont'd

### **Adjusting the CLOSING TRIP LEVEL:**

If during the initial test run, the door retracts when you have attempted to move the door towards the CLOSED position, then the motor is sensing pressure higher than the CLOSING TRIP LEVEL threshold is currently set at. It is recommended that you turn off the power to the system, then move the door by hand from fully OPEN to fully CLOSED, checking to see if there are any obstructions or areas with greater friction. If the door moves smoothly by hand, then power the system ON, and after the HOMING process completes, enter SETUP MODE again and locate the menu option CLOSING TRIP LEVEL. Adjust this level higher by 25000 more for example, and retest the door. At some value the door should be able to move completely to the final closed destination without retracting.

The goal with the CLOSING TRIP LEVEL value is to find a number that is reliable as far as not retracting when there is no real obstruction, but not being set too high that a real obstruction will not retract the door as it should. This is a trial and error process that takes a few test runs to determine. Using the Touch Panel, move the door towards the closed position, and when the door is around midway out, use your hand to try to stop the door and cause it to retract. If too much pressure is required to stop the door, lower the CLOSING TRIP LEVEL.

It is common that the initial settings may not be settled until after the door has warmed up for a while or is being used quite frequently. Test the system after it has been on and running for some hours or days to insure that the threshold is set at a good average value to avoid false retractions.

### **Adjusting the OPENING TRIP LEVEL”**

If during the initial test run, the door sounds an alert and stops working when you have attempted to move the door towards the OPEN position, the same notes above for CLOSING TRIP LEVEL apply to the OPENING TRIP LEVEL. Make the adjustments accordingly until the correct threshold is at a good level.

### **Adjusting the HOMING TRIP LEVEL”**

If during the initial test run, the door sounds an alert and stops working upon the initial HOMING move, adjust the HOME TRIP LEVEL higher in the menu options.

In the event of an error as described above, there should appear warnings on the LCD display that can be further studied in the Dado System Programming Manual.

Keep in mind, that any changes to speeds will affect the thresholds that have already been set. If you raise the speed, it is likely that the TRIP level settings will have to raise as well.

## Final Notes:

There are advanced settings mentioned in the Dado System Programming Manual.

A word of caution should you calibrate the SET CLOSE POSITION, then attempt to alter the factory settings:

The menu option SET INTEGRAL MAX is the only setting that can cause the door to move beyond the final closing destination set by SET CLOSE POSITION. The reason being that the Integral MAX value is a setting that controls the maximum current output the motor driver can supply to the motor. As an example of a possible condition, the door may move only a 16" with the SET CLOSE POSITION at 10000, with SET INTEGRAL MAX set at 38000. But, if raising the INTEGRAL MAX value to 40000, the motor now has more power to work with and MAY move the door further than it would at a setting of 38000. This means that the door may likely come in contact with the wall or adjacent door panel and cause damage. Use care when changing the INTEGRAL MAX value to a higher setting.

Please consult with Dado Door before changing any of the advanced settings.

Although this may seem like a lot of material to memorize, in real world practice this process is quite simple. However, do not hesitate to contact Dado Door to help calibrate your system.

Disclaimer:

Dado Door makes no claim that this information is complete. It is a work in progress document and is updated as needed.