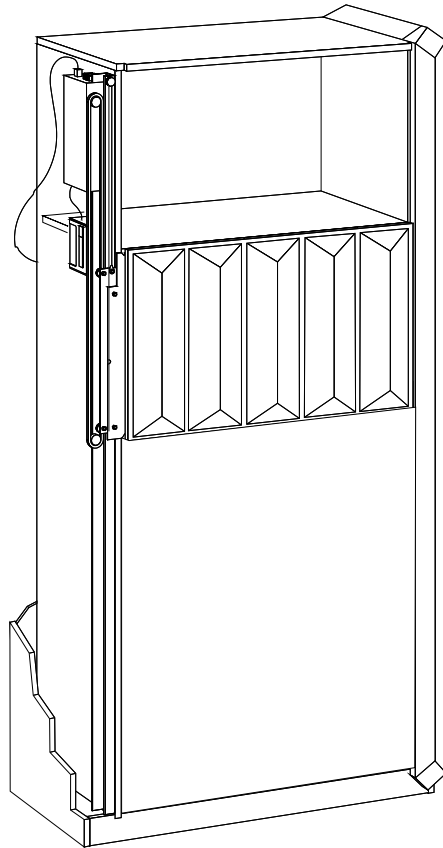

INSTALLATION INSTRUCTIONS



Automated Single Vertical Door System

This device complies with part 15 of the FCC rules. Operation is subject to the following 2 conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio or television communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit other than that to which the receiver is connected

Consult the dealer or an experienced radio/TV technician for help



CM6SV65 and 83

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IMPORTANT WARNINGS AND CAUTIONS!

The Alert messages **DANGER**, **WARNING**, **CAUTION**, **IMPORTANT**, and **NOTE** are used throughout these instructions and on the product to alert the reader and/or operator of the existence of dangerous situations, conditions and/or important operational and maintenance information.

"SAVE THESE INSTRUCTIONS"



WARNING: WARNING alerts you to the possibility of serious injury or death if you do not follow the instructions.



CAUTION: A CAUTION alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.



WARNING: FAILURE TO READ AND FOLLOW THE FOLLOWING INSTRUCTIONS CAN RESULT IN SERIOUS PERSONAL INJURY, DAMAGE TO EQUIPMENT OR VOIDING OF FACTORY WARRANTY. It is the installer's responsibility to make sure all components are properly assembled and installed using the instructions provided. Read all instructions before using this furnishing.



DANGER: TO REDUCE THE RISK OF ELECTRIC SHOCK:

- ALWAYS unplug this furnishing from the electrical outlet before cleaning.



WARNING: TO REDUCE THE RISK OF BURNS, FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS:

- Unplug from outlet before putting on or taking off parts.
- Close supervision is necessary when this furnishing is being used by, or near, children, invalids, or disabled persons.
- Use this furnishing only for its intended use as directed in these instructions. DO NOT use attachments not recommended by the manufacturer.
- NEVER operate this furnishing if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the furnishing to a service center for examination and repair.
- Keep the cord away from heated surfaces.
- NEVER operate the furnishing with the air openings blocked. Keep the air openings free of lint, and the like.
- NEVER drop or insert anything into any opening.
- DO NOT use outdoors.
- DO NOT operate where aerosol (spray) products are being used, or where oxygen is being administered.
- To disconnect, turn all controls to the off position, then remove plug from outlet.



WARNING: RISK OF ELECTRICAL SHOCK! Connect this device to a properly grounded outlet only.



CAUTION: ONE END OF POWER CORD MUST REMAIN ACCESSIBLE AT ALL TIMES! DO NOT block or impede access to plug at any time!



CAUTION: Changes or modifications to this unit not expressly approved by the manufacturer can void the units FCC compliance rating and make the unit illegal to operate.

System Features and Installation Requirements

Features

Remote Control Activated Lutron Light Dimmer Module

With this dimmer cabinet lighting can be switched on or off and dimmed using the left buttons on the hand held remote control transmitter.

Obstruction Sensor

The mechanism is equipped with an obstruction sensor. In the event that something would interfere the motion of the doors; the doors stop, reverse, run a few seconds, and then stop again.

Auxiliary Controls

There is an activator button located on the front of the motor box which will activate the doors.

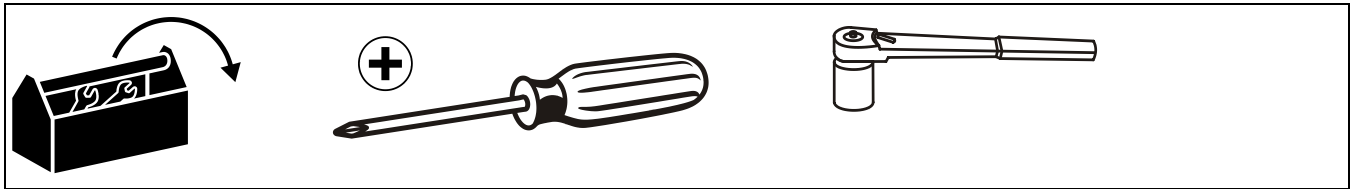
Status Light

The Status Light on the front of the Motor Box indicates the operating condition of the mechanism. In normal operating conditions, the status light will be solid green with the doors at rest and will blink a series of green twice, pause, green twice, pause ..., when the doors are in motion.

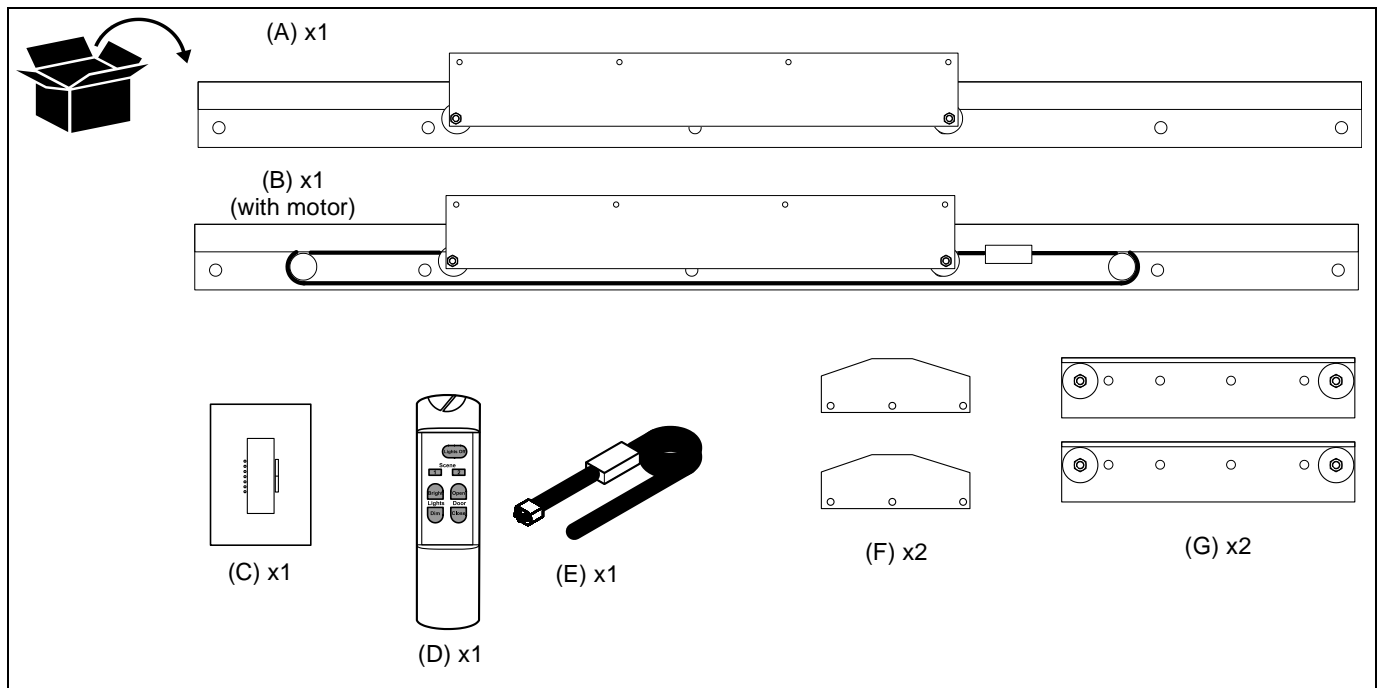
Installation Requirements

- 115VAC power at installation site
- Doors must be made of a non warping material.
- Maximum door width = 72"
- Maximum door weight = 50 lbs

TOOLS REQUIRED FOR INSTALLATION



PARTS



ASSEMBLY AND INSTALLATION

Installation



CAUTION: Tracks must be parallel. Small variations in cabinet width will affect performance.

The lift tracks are designed to be mounted to the sides of the cabinet through the prepunched holes in the base of the tracks.

IMPORTANT ! : Allow adequate clearance around all moving parts.

1. Using screws of dequate length attach the motor drive side track to left side of cabinet, keeping track even with front edge of cabinet.

NOTE: Top of track should be 1 1/2" below the location of the top edge of the door panel when the panel is in the open position.

2. Using screws of dequate length attach the right side track to right side of cabinet, keeping track even with front edge of cabinet.
3. Attach counterweight arms to the sides of the cabinet above tracks. Hold the end of the arm with the lower wheel tight to the top and with the notch tight against the back of the track.

NOTE: The counterweight arms should extend 1/4" past the front of the tracks.

IMPORTANT ! : Use screws of adequate length.

4. Attach counterweight cables to the wheel plates.

5. Remove thumbnut from stud on wheel plate.
6. Slide cable eye over threaded stud on wheel plate.
7. Secure cable to the plate with thumbnut.
8. Screw the door plates to back of moving door panel.

NOTE: The plates are mounted 1/4" down from the top of the panel with the notched corners to the top. Position the alignment notches on either end of the plates even with the edge of the panel.

IMPORTANT ! : Before attaching door panel, make sure wheel plates on left and right tracks are tight to track. If they are not tight, loosen the red shipping screws in the center of the plates, firmly push on outside of wheel plates, and retighten red shipping screw.

9. Remove hex nuts from the threaded studs on wheel plates.
10. Place adjustment slots in door plates over studs on wheel plates, center door panel side to side on opening, and secure with hex nuts.

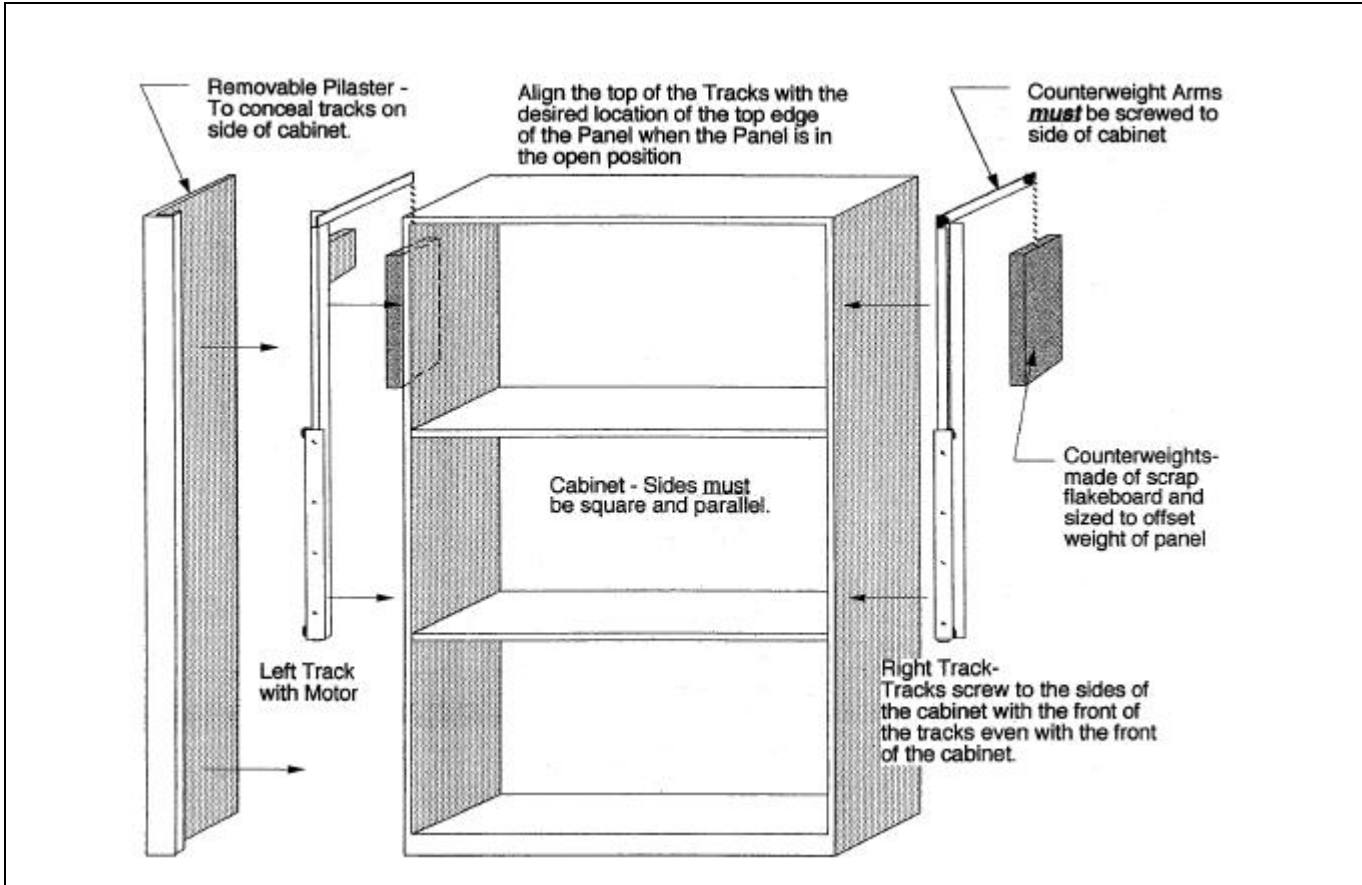


Figure 1

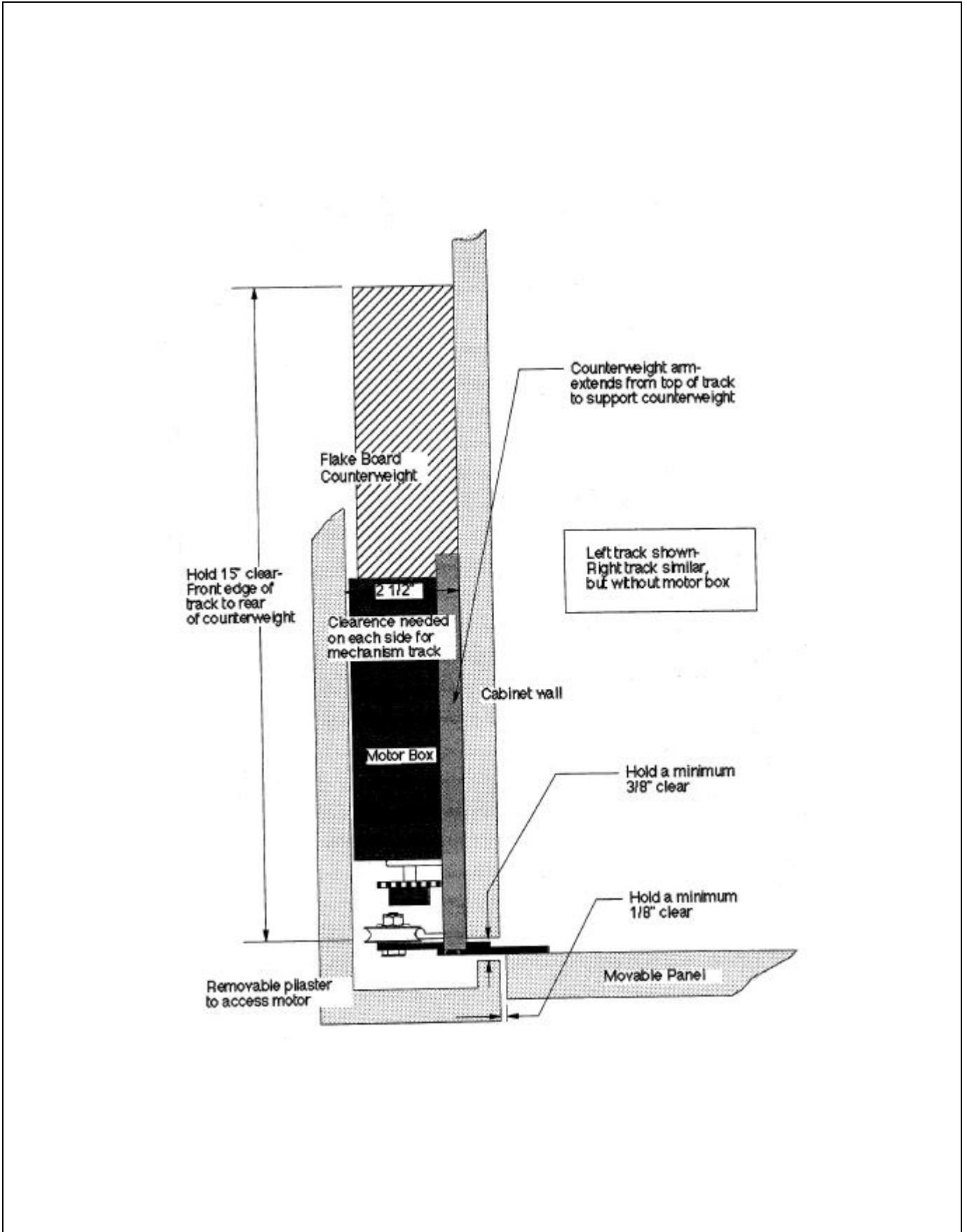


Figure 2

Constructing and Assembling The Counterweights

The counterweights are critical to the proper operation of the system. The following procedure identifies how to build counterweights that are of the proper size for the door being used. 2 counterweights are required, one for each side.

Calculate Size of Counterweights

1. Accurately weigh the door panel.
2. Add 4 1/2 pounds to the weight determined in step 1.
3. Divide total by 1.46. The result will be the length of each counterweight.

Example:

- a. Door panel weighs 40 pounds.
 - b. $40 + 4\ 1/2$ (for plates) = 44 1/2 pounds.
 - c. 44 1/2 divided by 1.46 = 30.48 or 30 1/2" for length of counterweight.
4. Cut 2 pieces of 12" wide x 3/4" thick flakeboard to the exact length identified in step 3.
 5. Cut 1 piece of 12" wide x 3/4" thick flakeboard to 1 1/2" shorter than the length identified in step 3.

IMPORTANT ! : The weight of the panel MUST equal the combined weight of the counterweights.

Attaching and Testing The Counterweights

1. Secure mounting plate to counterweight with screws of adequate length.
2. Remove thumbnut from stud on counterweight mounting plate.
3. Slide cable eye over stud on the counterweight plate and securing with thumbnut.
4. Remove red shipping screws from wheel plates.
5. Test movement of panel.
6. Repeat steps 1 through 5 for other counterweight.

NOTE: If counterweights are sized correctly, the panel should move up and down with equal effort and hold its position when stopped. If panel drifts up or down and will not hold its position, adjust weight of counterweights accordingly.

7. After testing is complete attach the panel to the drive chain by slipping the chain attach angle over the studs on the left plate and securing with the supplied nylon thumb nuts.

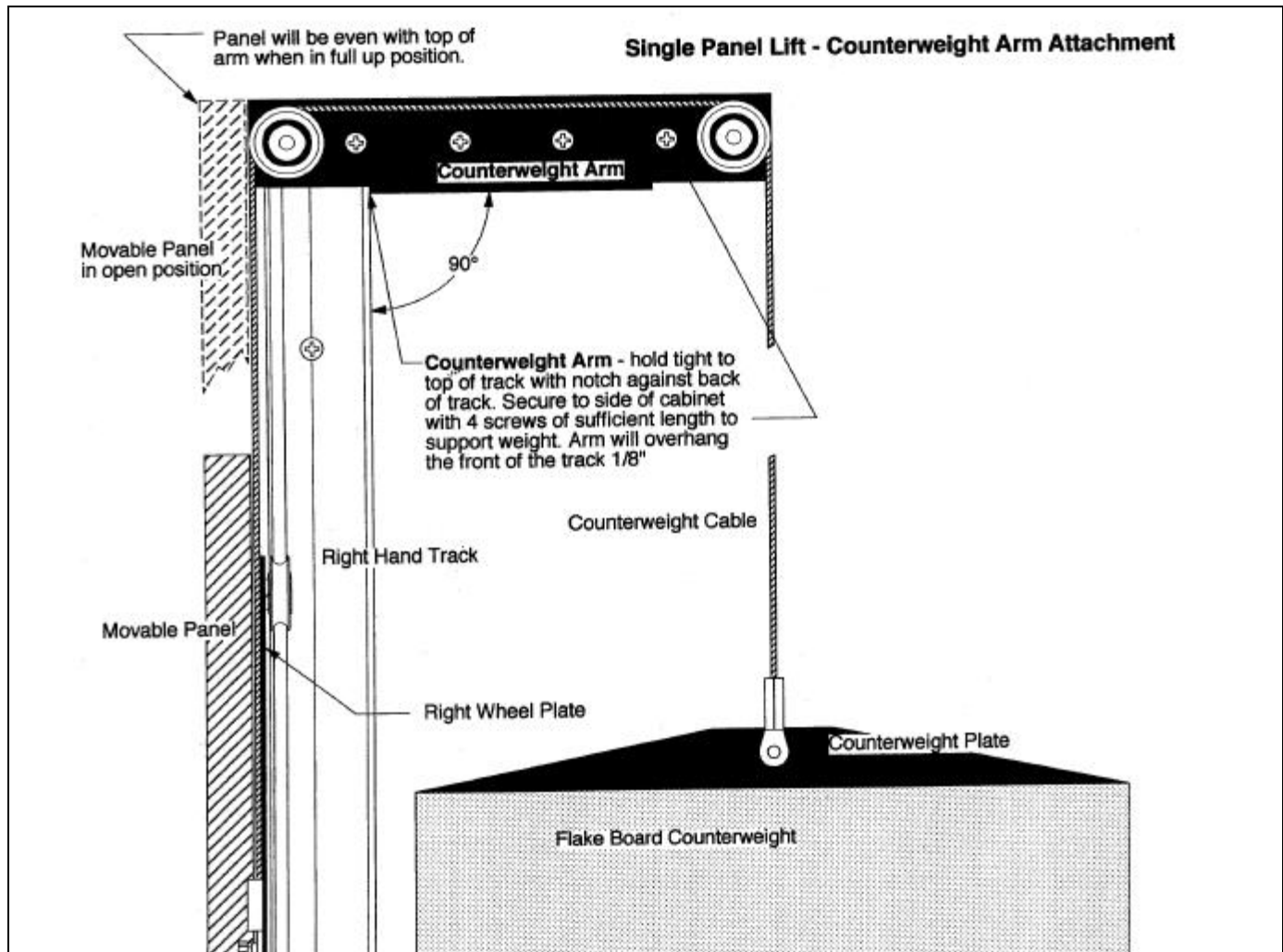


Figure 3

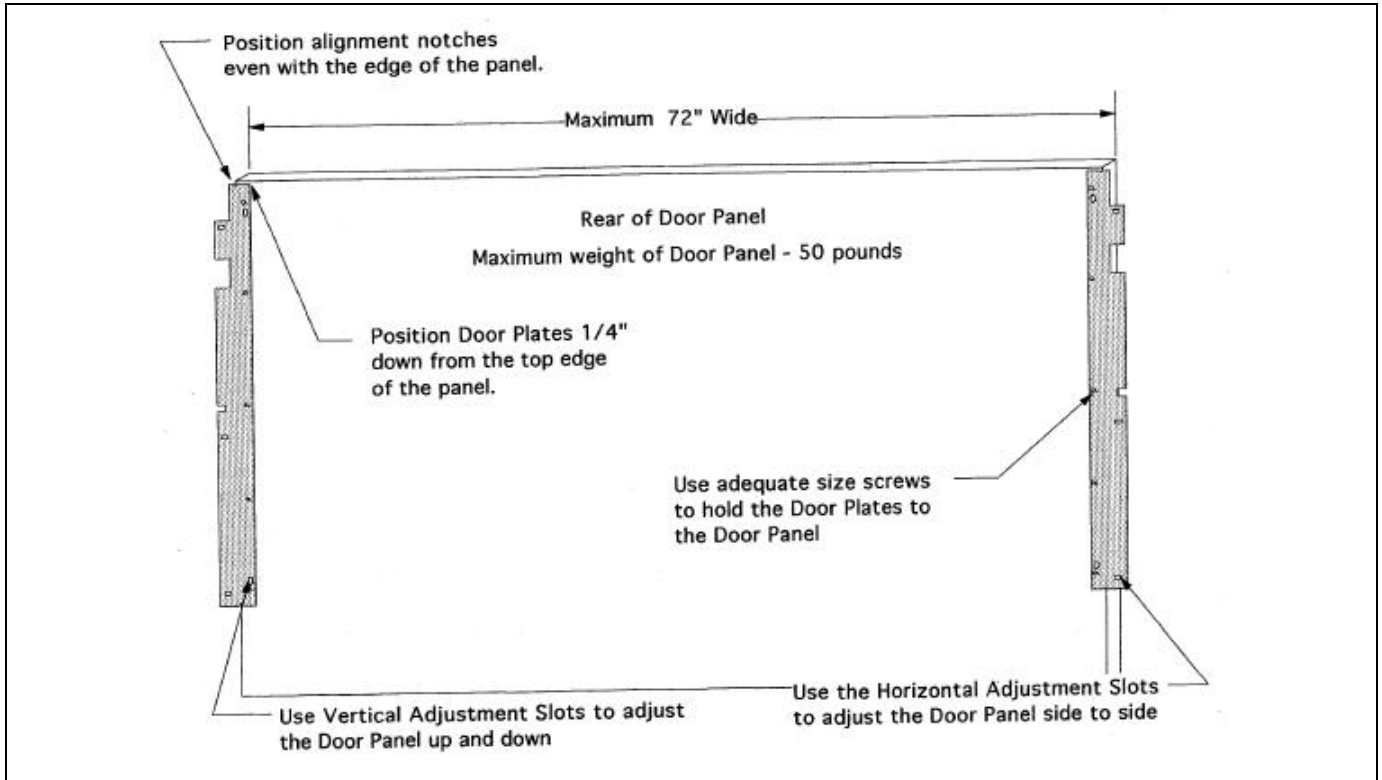


Figure 4

IR Sensor Placement

The placement of the IR sensor can be crucial to proper operation of the system. A flexible IR sensor is provided to make it easier to achieve reliable operation.

In most applications, the IR sensor may be installed on top of the cabinet. However, tall ceilings and/or dark colored ceilings can absorb the IR signal. If inconsistent operation is encountered there are two alternatives.

- One, the flexible IR sensor eye can be placed so that it gives the sensor "line of sight" to the signal from the remote controller. Often this merely involves placing the IR sensor so that it peeks up over the top of the cabinet. It doesn't have to be much, just enough to give "line of sight".
- Two, an IR sensor extension cord can be used to position the IR sensor in the cabinet near to the other remote controlled units. (For example, near to the VCR or DVD player)

Install Light Dimmer Module (Optional)

With the dimmer option installed cabinet lighting can be switched on or off or dimmed using the left buttons on the systems remote control.

To install the optional dimmer:

1. Plug 115VAC lighting into the back of the Light Dimmer Module.
2. Plug the other end of Dimmer Module cord into a 115VAC grounded receptacle on motor assembly.



CAUTION: The Dimmer is for 120 volt incandescent or Halogen lamps of at least 25 watts and should not to exceed 300 watts total.

The system also provides the option of creating and saving two different lighting "scenes". Please refer to the Remote Control instructions for information on how to configure "scenes".

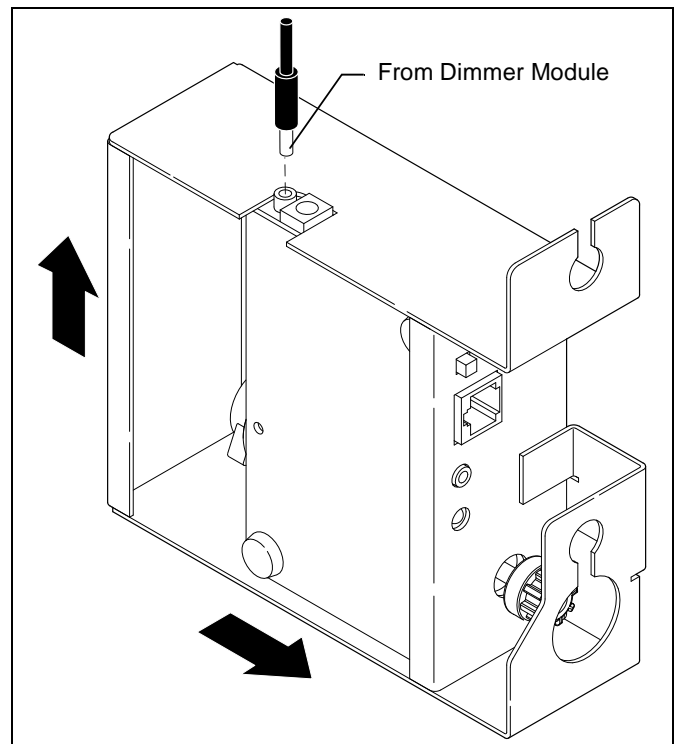


Figure 5

System Activation

1. Insert plug from the power supply into the jack on the top of the motor box.

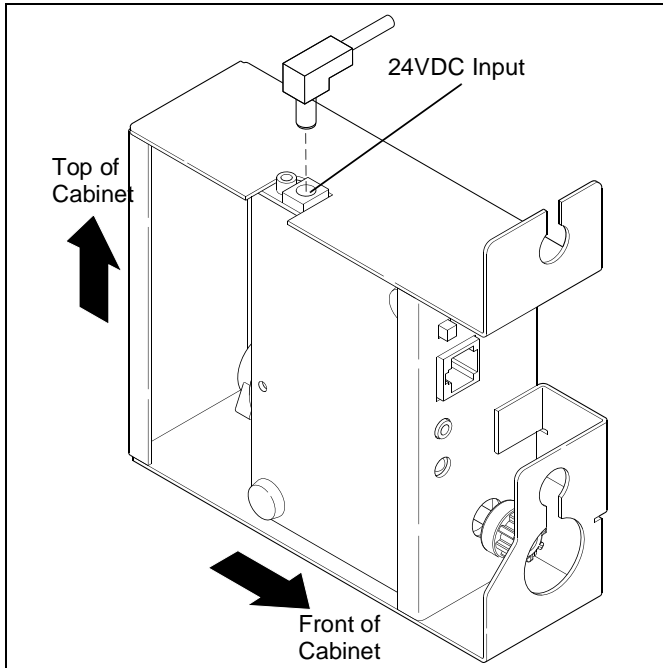


Figure 6

2. Plug Powercord into 115VAC outlet.
- IMPORTANT !** : A quality surge protection device is recommended.
3. Make sure nothing is obstructing movement of doors,
 4. Press and release the Activator Button on the front of the Motor Box or the "Close Door button on the Remote Control. (The doors should travel to the fully closed position)

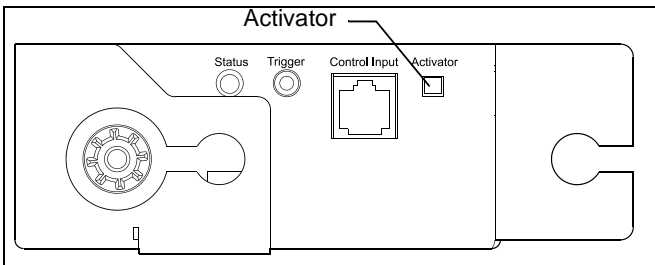


Figure 7

5. Press the "Open Door" button on the Remote Control.
- NOTE:** The mechanism has been preset to travel 34 inches. If a different travel distance is required see "Door Travel Adjustment below.

ADJUSTMENTS

Adjust Door Travel Distance

To adjust door travel distance:

1. Set the length of travel required using the adjustable stop on the bottom of the left hand track.
2. Press and hold the activator button on the front of the motor box for 13 seconds.

The Status Light on the front of the motor box will begin to blink alternately red and green. When this starts to happen release the Activator Button. When put into "Learn Mode" the system runs back and forth several times and measures its environment, such as open and closed locations etc. The system will then stop and remember these learned measurements.

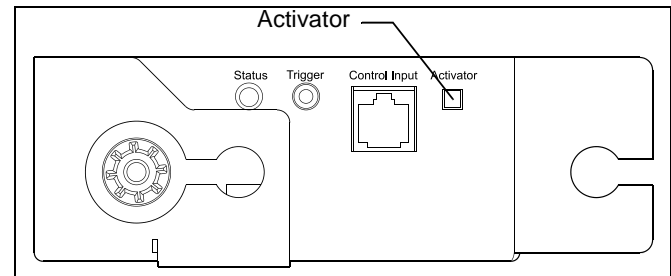


Figure 8

System Controls and Indicators

Learn Mode

The CM6SV system has no limit switches. The system uses an encoder on the motor to collect data and send it to the micro processor's memory. The software "learns" about its environment (speed, time duration, stop points, etc.) during the initial setup of the unit and retains that information until requested to "relearn" its environment.

The unit is shipped pre-set from the factory and will then continually adjust to its environment on each activation.

If for some reason you want to place the system into "Learn Mode" (such as to stop at other than its normal stop points), Press and hold the red activator button on the front of the motor box for approximately 13 seconds and then release it when the Status Light flashes quickly red, green, red, green, red, green.

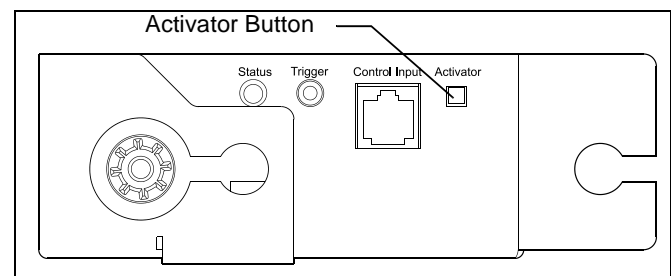


Figure 9

The controller will then be in "Learn Mode" (The door will move for 3 seconds, stop for 10 seconds, and when it starts moving again it will be in its "Learn Mode").

When put into "Learn Mode" the mechanism runs back and forth several times and measures its environment, such as open and closed locations etc., and then stops and remembers these learned measurements, so that next time the system runs it knows where to start and stop.

Status Light Codes

There is a light on the front of the mechanism motor box that will tell through its pattern of flashes and colors what the mechanism is doing.

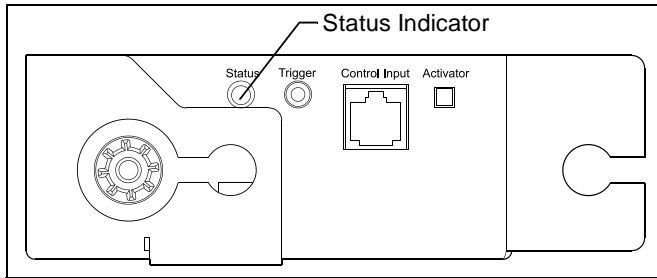


Figure 10

Normal Doors At Rest - The Status Light will be on steady green.

Normal Run Motion of Doors - The Status Light will flash in groups of 2 green followed by a pause. In normal run motion the doors on a Eubank mechanism have a variable speed. The doors will start slowly, accelerate to a fast speed, and then slow down before coming to a stop.

Doors Obstructed - The Status Light will flash in groups of 3 red followed by a pause. If the doors meet an obstruction they will sense the obstruction, stop momentarily, and move in the opposite direction for a few seconds. ---- Remove the obstruction and then activate the doors. They should return to normal run motion.

Doors Obstructed Both Ways - The Status Light will flash in groups of 4 red followed by a pause. Similar to Doors Obstructed but doors are prevented from moving in either direction. ---- Remove the obstruction and then activate the doors. They should return to normal run motion.

Travel Too Far - The Status Light will flash in groups of 5 red followed by a pause. The motor is running but the doors are not moving. ---- Has the motor box been uncoupled from the track, or is the motor box bent, causing it to become uncoupled from the track?

Power Loss - The Status Light will be on solid red. ---- There has been a power loss (due to an electrical storm, etc.). When next activated the doors will move at a slow speed to their full

closed position. If the doors are already closed they will not move. The Status Light will return to solid green and the doors are ready for normal activation.

Optional Control Input Connections

Control Input- 8 position RJ 45 modular phone jack

Discrete control for use with 3rd party control.

- Position 8- Open
- Position 7- Stop

IR Receiver "Eye" input for Eubank, Inc. supplied external IR receiver only.

- Position 6 - V out
- Position 5 - Vcc, 5v

Radio Power for external RF receiver only.

- Position 4 - 24 VDC

Sequence control for use with 3rd party control.

- Position 3 - Sequence- Open, Stop, Close, Stop
- Position 2 - Common

Discrete control for use with 3rd party control.

- Position 1 - Close

Control Input on Front of Motor Box

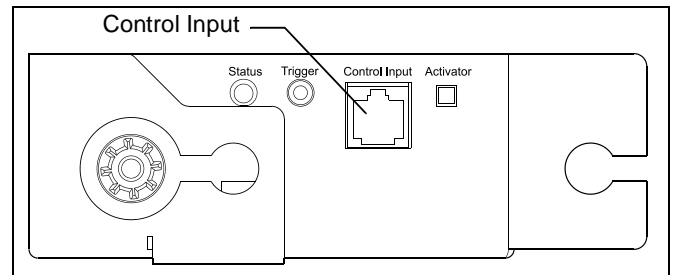


Figure 11

NOTE: Making a momentary dry contact closure between the common and the open, closed, stop, or sequence will activate the system in that mode.

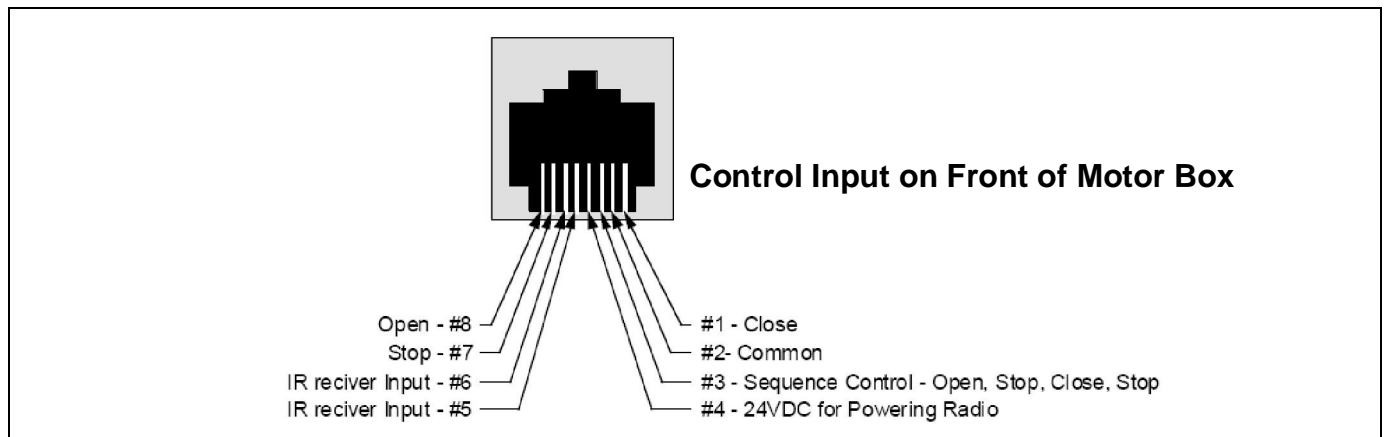


Figure 12



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USA/International	A 8401 Eagle Creek Parkway, Savage, MN 55378 P 800.582.6480 / 952.894.6280 F 877.894.6918 / 952.894.6918
Europe	A Fellenoord 130 5611 ZB EINDHOVEN, The Netherlands P +31 (0)40 2668620 F +31 (0)40 2668615
Asia Pacific	A Room 30I, Block D, Lily YinDu International Building LuoGang, BuJi Town, Shenzhen, CHINA. Post Code: 518112 深圳市布吉罗岗百合银都国际大厦D栋30I P +86-755-8996 9226 ; 8996 9236 ; 8996 9220 F +86-755-8996 9217