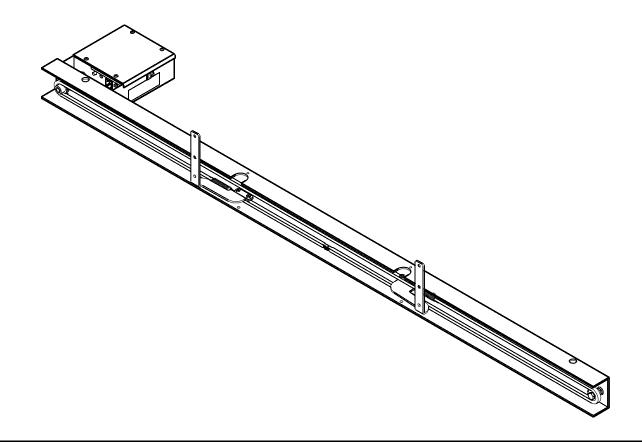
# INSTALLATION INSTRUCTIONS



# Automated Sliding Bookcase 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 and experienced radio/TV technician for help



**MSP-CM6HABSB52** 

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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**

#### **Obstruction Sensor**

The mechanism is equipped with an obstruction sensor. In the event that something would interfere with the motion of the cases; the cases 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 cases.

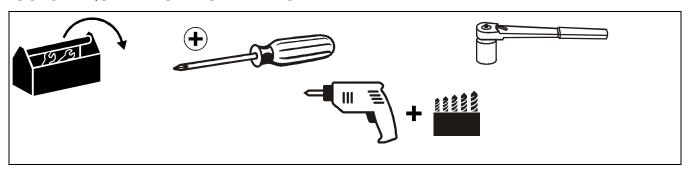
#### Status Light

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 cases at rest and will blink a series of green twice, pause, green twice, pause ..., when the cases are in motion.

## **Installation Requirements**

- 115VAC power at installation site
- Cabinet should be sturdy, square, and level.
- The cases should not exceed 200 lbs each when loaded.
- Maintain good clearance around moving parts. The cases should not be allowed to rub on anything as they move.
- All wires must be secured away from moving parts of the mechanism.

## TOOLS REQUIRED FOR INSTALLATION



### ASSEMBLY AND INSTALLATION

#### Installation

- 1. Carefully unpack the carton and check for all parts.
- Remove the red screws that secure the Chain Brackets to the track for shipping.
- Align the center line on the track with the center of the opening, securing the mechanism to the cabinet with four screws of sufficient size.

**NOTE:** Also reference Figure 8 for connection information.

 Connect the wire extending from the Control Input on the front of the motor box to the Control Assembly coupling. Make sure it is fully inserted and clicks into place.

#### **RF Receiver Installation**

Install RF receiver following the instructions provided with the receiver.

#### SYSTEM ACTIVATION

 Insert the plug from the Power Supply into the jack on the side of the motor box. (See Figure 1)

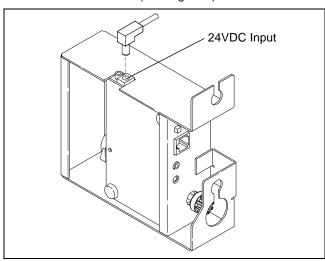


Figure 1



**CAUTION:** Do NOT plug the power supply into a receptacle at this time!

- Use measurements supplied in Figure 6 to create a template.
- Using the template, drill four 1/4" holes in the rear of the moving cases and install the Knife Thread Inserts into the holes.
- After installing moving cases into the cabinet, secure the Chain Attach Brackets to the cases using the supplied machine screws into the threaded inserts.

#### **Activating Mechanism**

Connect the power supply to 120VAC power.



**CAUTION:** A quality surge protection device is recommended.

- Make sure nothing is obstructing movement of cases.
- Press and release the Activator Button on the front of the Motor Box or the "Close Door" button on the Remote Control. (The cases should travel to the fully closed position)

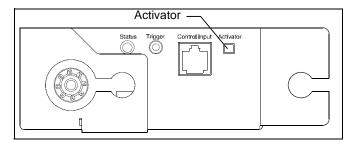


Figure 2

4. Press the "Open Door" button on the Remote Control.

#### **ADJUSTMENTS**

## **Adjust Case Travel Distance**

To adjust case travel distance:

- 1. Set the length of travel required using the adjustable stop on the bottom of the left hand track.
- 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.

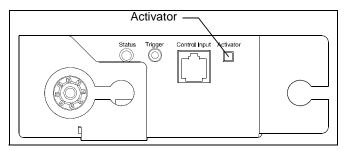


Figure 3

#### **Additional Features**

#### **Obstruction Sensor**

The mechanism is equipped with an obstruction sensor. In the event that something would obstruct with the movement of the cases, the cases stop, reverse, run a few seconds, and then stop again.

## **System Controls and Indicators**

### Learn Mode

The MSP-CM6HABSB52 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 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.

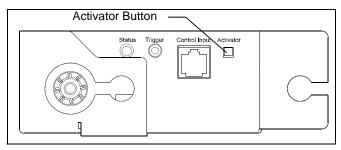


Figure 4

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

When put into "Learn Mode" the mechanism runs back and forth several times and measures it's 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.

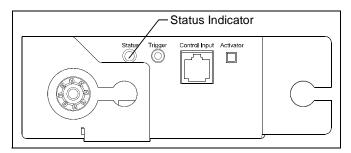


Figure 5

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

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

Cases Obstructed - The Status Light will flash in groups of 3 red followed by a pause. If the cases 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 cases. They should return to normal run motion.

Cases Obstructed Both Ways - The Status Light will flash in groups of 4 red followed by a pause. Similar to Cases Obstructed but cases are prevented from moving in either

direction. ---- Remove the obstruction and then activate the cases. 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 cases 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 cases will move at a slow speed to their full closed position. If the cases are already closed they will not move. The Status Light will return to solid green and the cases 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**

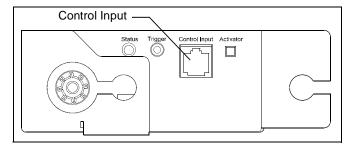


Figure 6

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

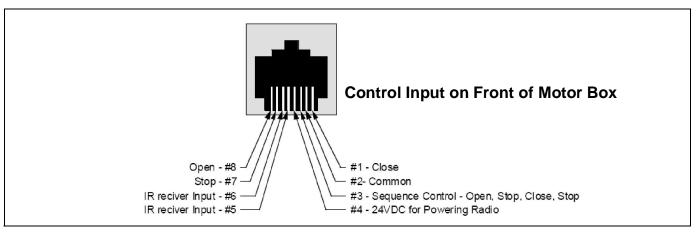


Figure 7

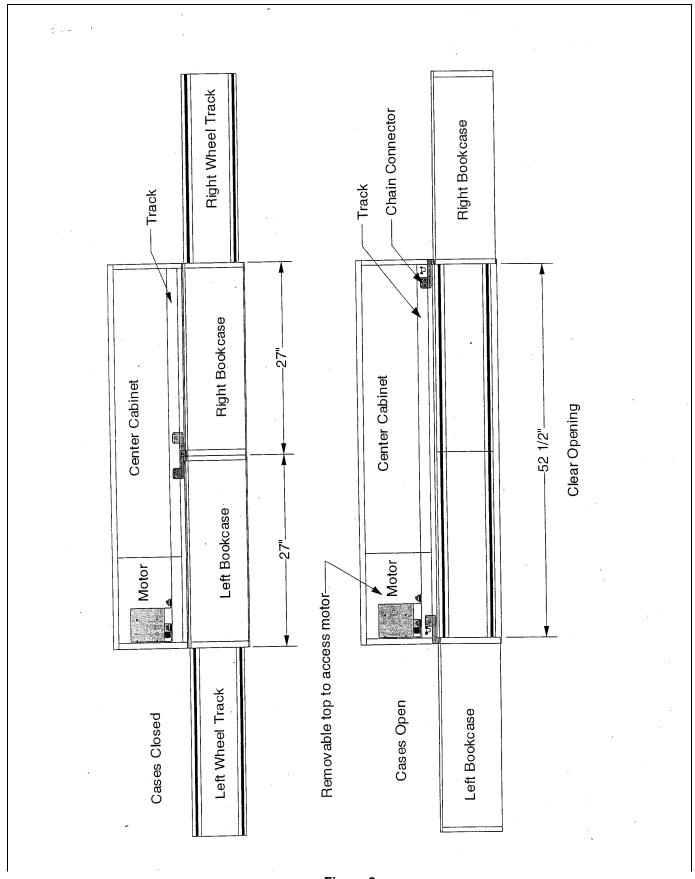


Figure 8

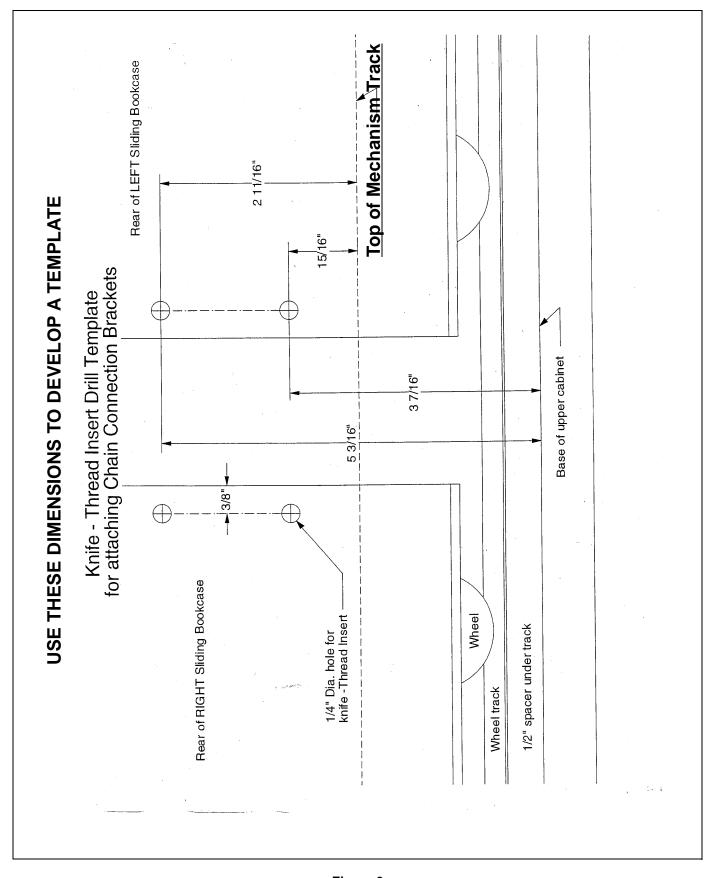


Figure 9



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