



Elevation Innovation Inc

877-345-4387

530-295-4900

www.eilifts.com

Inteli-Lift

GEN II

DUMBWAITER

Installation Manual

“The Easiest Dumbwaiter system on the Market”

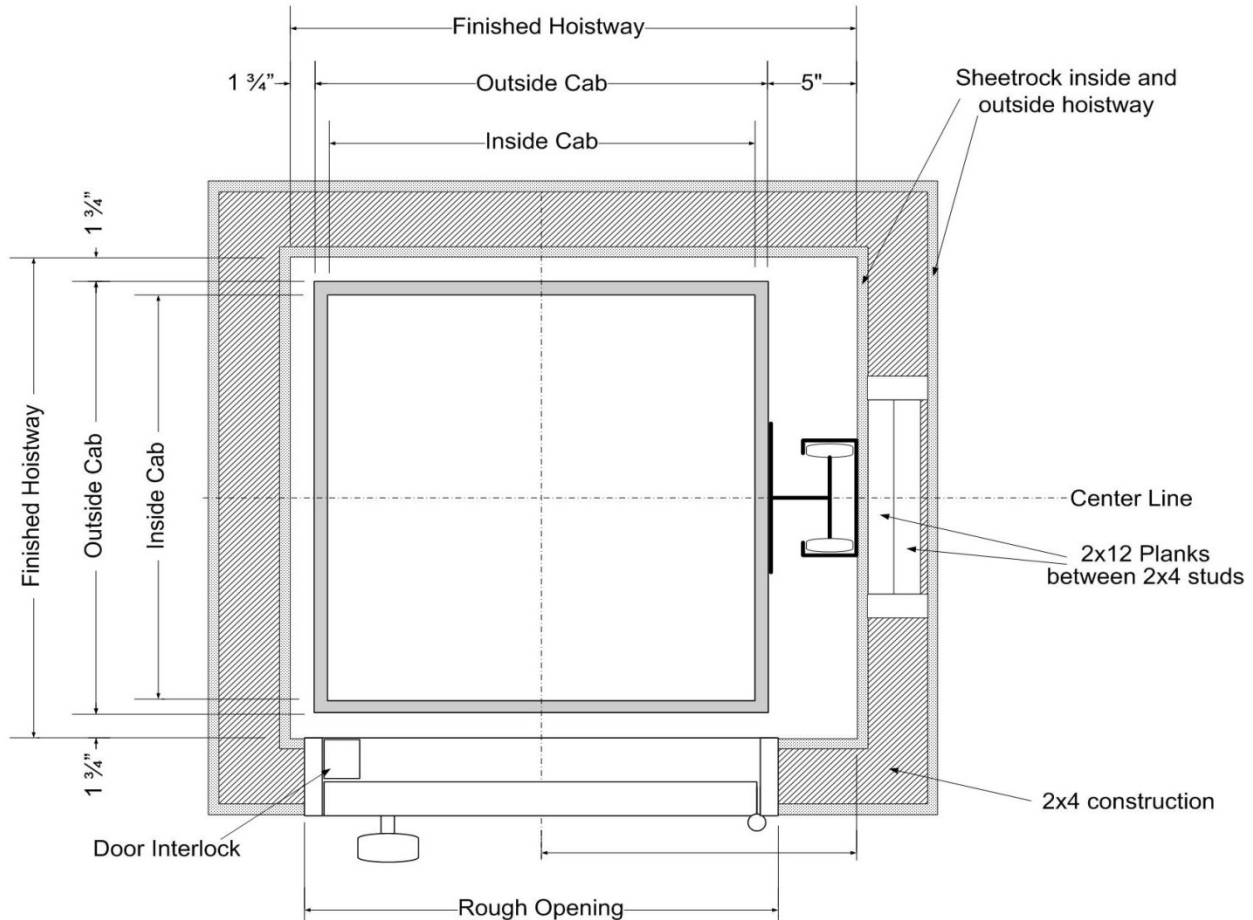
Fully UL Certified Dumbwaiter Systems

UL File # SA32120

Installation Manual

This manual will cover the installation procedure step-by-step. The installation of this dumbwaiter is easiest if the hoist-way is properly prepared. Pay close attention to hoist-way drawings and the following notes.

1. Build hoist-way to exact dimensions as instructed in the provided drawings. The dimensions indicated in drawings are **FINISHED DIMENSIONS**, **after sheetrock** has been installed
2. Insure that hoist-way walls are built plumb and square.
3. The reinforced rail wall must be built with 2 sets of 2x12 planks as shown in the drawings – the motor assembly, rail, cab, and load are all supported by this reinforced wall.
4. The entire inside of the hoist-way must have sheetrock installed prior to starting the installation
5. It is recommended to leave the front wall off the outside of hoist-way wall until installation is complete – this makes installation easier and is **REQUIRED** for commercial door installation after the DW is installed.
6. Installation of the motor assembly is much easier if one wall on bottom level is left unfinished – once the rail and motor assembly are mounted, DW is installed and doors positioned this wall can be finished.
7. A machine access door should be installed on the lower level for access to the motor assembly and the controller – **THIS DOOR MUST HAVE A LOCK AND REMAIN LOCKED AT ALL TIMES.**
8. For safety during installation, the installer should install a temporary floor across the hoist-way at each of the upper levels. This will prevent people from falling down the dumbwaiter shaft during installation.



Installation Manual

FOR YOUR SAFETY: INSTALL A TEMPORARY FLOOR ACROSS THE HOISTWAY AT EACH OF THE UPPER LEVELS. This will make installation of the rail easier, and prevent anyone from falling down the dumbwaiter shaft. Leave 6" of space from the reinforced wall for the rail to slide past the temporary floor.

Mark a center line down the load bearing wall. This can be done with a chalk line, or a straight edge.

Draw a mark 6" below the door opening along the center line. This will designate the bottom edge of the rail.



Start the 1st rail on the wall with the bottom edge at least 6" below the bottom floor door opening. The center line on the wall should be visible down the center of each hole in the rail.

Mark the location of the bottom and top holes in the rail and drill pilot holes using a 1/4" drill bit.

Insert roll pins in the slots at the top of the 1st piece of rail. Leave 1/4" of roll pins protruding from the top of the rail (see image on top of next page).



Mount the rail on the wall using lag bolts provided (1/2" x 3 1/2").

IMPORTANT: Do not use washers with the lag bolts.

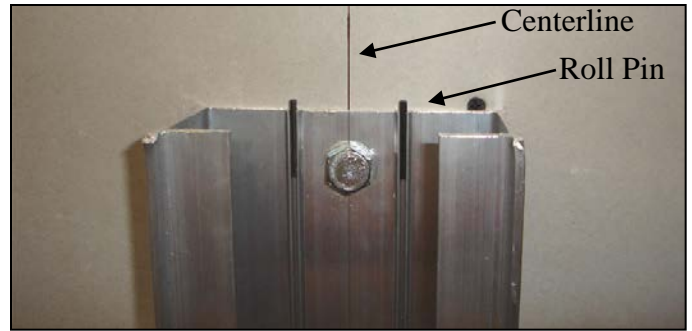
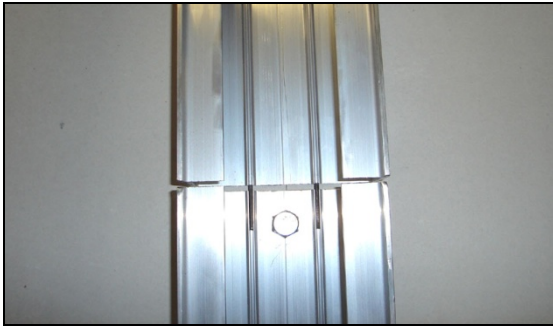
CAUTION: Do not over tighten the lag bolts as this will bend the rail in and cause problems with trolley movement in the downward direction.

Confirm that the center line is running down the center of the rail. Drill pilot holes and install lag bolts in remaining holes in the rail.

Installation Manual

1st rail should be mounted such that the centerline on the wall lines up with the centerline of the rail.

The roll pins should be protruding ¼” out of the rail.



Place the 2nd piece of rail in position above the 1st. The roll pins should slide in the slots on the 2nd rail.

Use a block of wood to tap down on the rail, insuring that there is no space between the rails.



Drill pilot holes and secure the 2nd rail in place using lag bolts provided.

CAUTION: Do not over tighten the lag bolts as this will bend the rail and cause problems.

Repeat this process with remaining rails, taking care to keep rails lined up with the centerline.



If included the stabilizer bracket must be installed before the trolley – See appendix A near the end of this manual.

Install the trolley from the bottom of the rail. Lifting on the quick-link will release the brake system, allowing the trolley to move freely

Lift the trolley to a height of 30” above the floor. The brake will engage when you release the quick-link, locking the trolley in that location.

Installation Manual

Gear Motor Installation

Floor Mount

For the quietest motor operation mount the unit on the floor using the centerline of the wall.

Wall Mount

Position the motor assembly against the wall below the rail. Place 2 small 2x4 blocks under the motor to lift it from the floor. These will be used as temporary spacers.

Overhead Motor – See Appendix C Last Page.



Mark the locations of mounting holes on the motor assembly. Drill $\frac{1}{4}$ " pilot holes and secure the motor assembly to the wall using the lag bolts provided.

Remove the 2x4 blocks from under the motor.

Line up the centerline on the wall with the centerline on the motor assembly.

Note: If mounting the motor assembly on the floor, hold the motor frame against the finished load bearing wall so the cable lines up with the top pulley's perfectly. There are plenty of mounting hole options on the motor frame.

Connecting to controller

6' leads coming off the motor are standard. Custom length wires available.

Top Sheave and Cable installation

Set the pulley assembly at the top of the rail. This will stay in place at the top of the rail while you mark for pilot holes.

Drill ¼" pilot holes and secure the pulley assembly in place with the lag bolts provided.

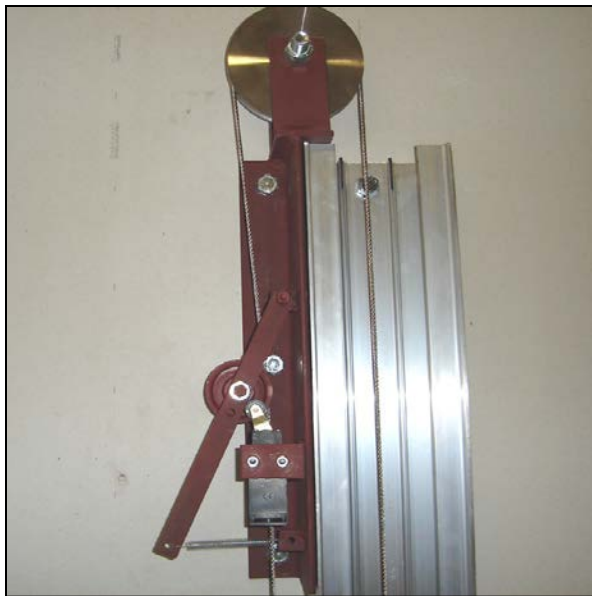
Attach the stainless steel cable to the winding drum.

2-Level Units: Insert the end of the cable with the stop attached into the slot at the end of the drum.

3-Level Units: Insert the cable end into the pre-machined hole in the drum and tighten the set screws.



2-Level Unit



**Top Pulley switch is manually resettable
pull the blue button to re-set.**



3-Level Unit

Wrap the cable 1 ½ times around the winding drum, staying in the machined grooves.

Feed the cable to the right of the small pulley and over the top of the large pulley.

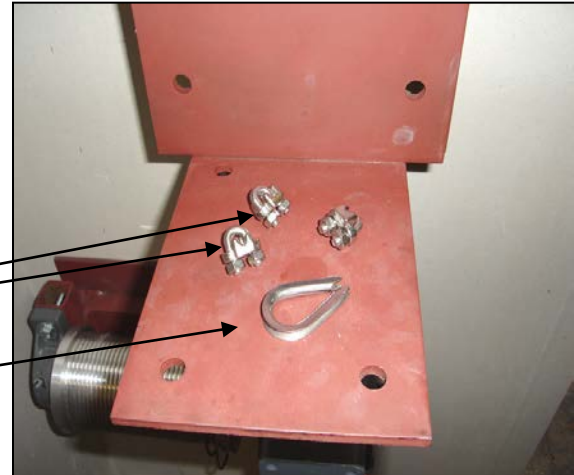
Feed the cable end down the center of the rail towards the trolley, taking all slack out of the cable.

The cable must be attached to the trolley quick link using provided materials...

The trolley should rest on the bottom trolley-stop with slack in the cable when fully tightened (see bottom pictures this page)

Cable Clamps

Cable Thimble



Attach the cable thimble to the trolley quick link. Slip three cable clamps onto the cable. Feed the cable end through the cable thimble and through the three cable clamps.

IMPORTANT: Arrange the cable clamps such that the curve of the 'U' is wrapping around the cut end of the cable.

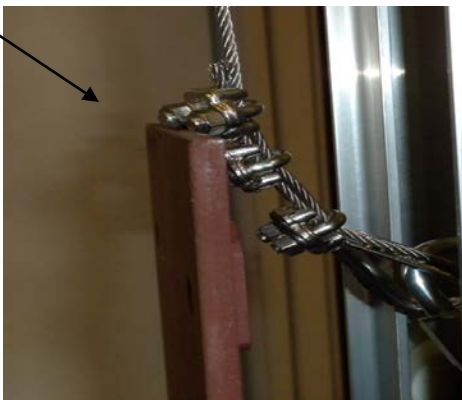
Excess cable can be cut or folded and zip-tied as shown.

IMPORTANT: Add weight to the trolley equivalent to the cab or mount the cab to adjust the slack cable switch on the sheave assembly.



Bottom Trolley stop 2-6" below level 1.

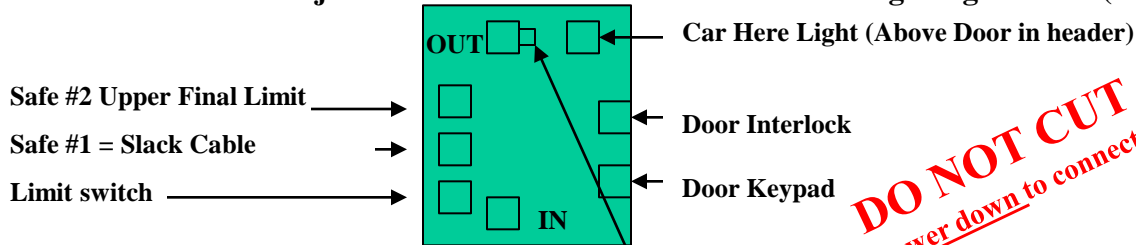
Trolley on bottom stop with cable slack



Quick Start Guide – Default Safety Connections

NEW INSTALLATION get a running platform – Power up / press S1,S2,S3,S2,S2 use S3 down and S4 up - see page 11
The “Safe Override” button on the master board must be to the right if safeties are open (not connected)

Mount the station board junction box 8-10” below door sill touching the guide rail (see next page)



DO NOT CUT CAT 5's
Power down to connect station boards

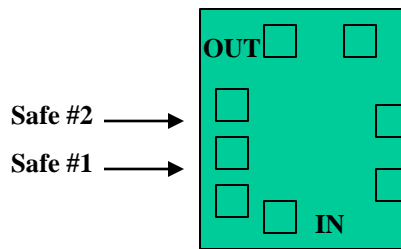
#2 - 6 station Board (Top Floor)

The final board away from the controller must have a jumper next to the empty OUT RJ connector (Factory)

Controller Below = Top Board

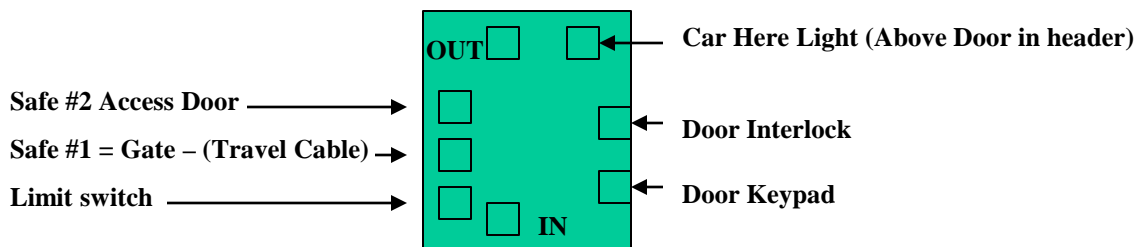
Controller above = Bottom Board

DO NOT CUT CAT 5's
Power down to connect station boards



DO NOT CUT CAT 5's
Power down to connect station boards

Middle Floors Safe#1 and #2 can be used for alternative safeties but are not programmed or needed



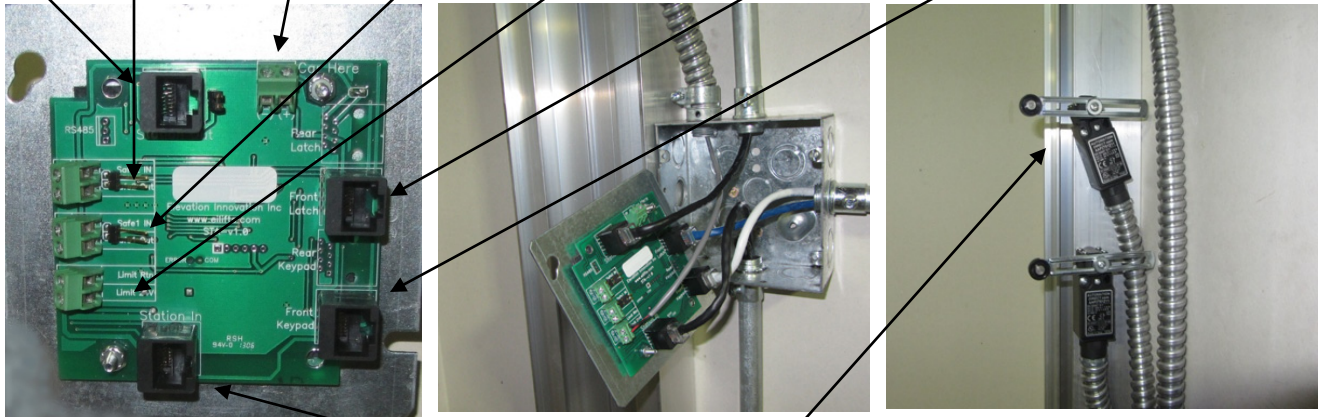
#1 station Board (Bottom Floor)

*******If using a lower final limit you will wire access and or gate in the controller – “safe 2” will be used for lower limit**

Car Light – Wired to main controller under “Traveling” CBLT+, CBLT-

Note: If using a car light, “Gate” can also be programmed to the main board

Out Safe 2 Car Here Safe 1 Limit Switch Interlock Keypad



Station Board Installation

IN

Upper Final Limit must be screwed in place 3-4" above the top limit switch minimum

Install each provided station board gang box approx. 8-10" below the correct door level against the rail on the right side of the rail (IMPORTANT) They are marked for the correct floor level. Install as shown with the key hole on the cover plate in the upper right position. Secure to the load bearing wall reinforcement. **Power down before connecting**

Pull the first data line (BLACK) from the controller **leaving about 6" of cat 5 cable hanging out. Store the remaining cable in the main controller.** Pull the next data line to level 2. **Pull all excess cable up and fold in half at the correct location and store excess cable back down the conduit only leaving about 6" of cat 5 cable hanging out as seen above.**

Door lock and keypad cable Leave only about 6" of both cables for connection to the station board. **Store all excess cable in the door wall or door cavity.** Door lock cable – BLUE Keypad cable – WHITE. All cables are wired the same. (interchangeable).

Limit switches are used to sense the location of the dumbwaiter cab and stop it at the appropriate level. They come with 18" of two wire attached and have two sided tape for temporary adjustment. Connect the two wire to the terminal strip marked limit on the lower left. (does not matter how the wires are connected it is a simple open or closed circuit). **Install conduit to switches only after the final location is located and the switch is SCREWED to the rail with one provided self taper.** The switch is held in place with the two sided tape and one self taper screw through the left hole and aligned with the screw groove on the rail. The **ROLLER WHEEL** should be 4-3/4" from the wall to the tip of the wheel.

Level one safeties on the station board. Safe 1 is by default "Car Gate" if the unit has a travel cable you will attach two wire to safe 1 and rout it to the travel cable junction box, then connect the travel cable to the car and the gate switch. Safe 2 is by default "Access Door" route two wire to the machine room door access switch and connect. These safeties can be moved to other locations See the "Set up menu" section.

Main Controller - Programmable

Mount the controller in a location that will be convenient for viewing the text display and complies with all codes. Usually there is a (not supplied) lockable disconnect next to the controller that will supply the power. 115V single phase or 230V single phase or 208 three phase controllers available. Must be specified. Standard is 115V single phase.

The main controller will connect to each station board via a cat 5 cable supplied (Black).

Power In / Out

Connect the incoming power to the fuse kit and grounding lug. Connect the power out to the color coded and labeled terminal strip.

Programming

The main board has four programming buttons S1, S2, S3 and S4 seen below in the center of the board around the LCD screen. See the next page for the “Set up menus” programming and functionality.

Pre-Programmed

All systems are pre-programmed at the factory for your field conditions. However changes can be made if needed. All safeties not being used will be jumped out at the factory. All safeties to be used will be left open.

Manual Mode Operation - CAUTION

If safeties like slack cable, car gate, access door, or final upper limit are not connected you must use the “Safe Ovrđ” button (slide right and LED light flashes) in order to move the drive system up or down See the next page for the “Set up menus” programming and functionality – Menu #1. You can use the S4 button for UP and the S3 button for DOWN. You can also use the up / down buttons on any connected keypad from any floor.

Manual Mode TIME OUT

Once placed into manual mode you can operate in this mode for 10.



USE EXTREME CAUTION “Safe Override”



Controller Set up Menus Page 1

Main Controller set up menu: **Press S1, then S2 to enter the menu selection.** The first screen allows you to reset a “Safe Hold” error (see page 14) or press S3 to scroll through the set up menu’s to reach the desired menu.

Safety Error: View the “Safe Hold” error on the screen in the master controller and inspect the dumbwaiter to solve the problem (see the error description page 14). Use “Manual Mode” if the car must be moved to solve the issue.

Safe Hold Error Reset: Once the safety is resolved you should use manual mode to position the car on a limit switch (level 1 is preferred but not needed). Then you must reset the safety. Scroll thru the menu items until “Reset Safety” appears (this is the first screen when entering the set up menus) then use S2, S2 and finally S2 to “Confirm” then S1 to exit set up mode. If your safety issue was resolved the unit will go into “Ready Run – Now at 1”. If it was not resolved the screen will still show the “Safe Hold Error”.

Menu #1 Manual Mode Operation: Allows you to move the dumbwaiter up and down from the main board S3 DOWN, S4 UP - or from any active keypad “arrow up” / “arrow down”. -- **USE EXTREME CAUTION IN MANUAL MODE** -- **NEW INSTALLATION – Power up / press S1,S2,S3,S2,S2,S2**

Manual Mode Operation: “SAFETY OVERRIDE”: To operate in manual mode with safeties open -- **USE EXTREME CAUTION** -- slide the “safe ovrd” switch to the right. (Next to the Cat 5 out plug) the light will flash. The controller needs to be put in “Manual Mode” to operate in this mode. Enter the set up mode: Press S1, then S2 then S3 to reach the correct menu screen. The “safe ovrd” switch must be in the left position to operate in automatic mode. **No automatic mode with the safe ovrd button on.** **Manual operation can also run off a call / send board if a station board is plugged in to controller – use as a temporary run button.**

Menu #2 Set Address: (Set at the factory) used to set floor levels. To set, press S2 and on each key pad select the proper level (up down arrows) and press the call / send button to set press S2 to save changes then S1 to exit set up mode.

Menu #3 Number of Stops: Factory set. Programmable - Programs master board for correct number of stops

Menu #4 Controller Location: Top Floor or Bottom Floor

Menu #5 Open door Lock: (EMI Interlock only): Press S2 then S3 or S4 to select the door level to open, then S2 to unlock. Door will remain open until this screen is exited then S1 to exit set up mode.. GAL and CJ Anderson locks require emergency release key.

Menu #6 Drive Deceleration Time: Factory set at 0.8 seconds. (Do not adjust)

Controller Set up Menus Page 2

Menu #7 Early Brake Set: Factory set at 300 ms. (Do not adjust) applies to stopping on the middle floors.

Menu #8 Dumbwaiter / Elevator: Factory set to “Dumbwaiter” (Do not adjust) selects between dumbwaiter controls and elevator controls.

Menu #9 Exercise Time: -- **USE EXTREME CAUTION** -- For automatically running the machine for an endurance test. Factory set to 30= 30 seconds (Adjustable) between trips when used with Menu #8 Exercise Cycles.

Menu #10 Exercise Cycles: -- **USE EXTREME CAUTION** -- Setting this to any number of trips other than 0 by selecting S2 and changing using S3 or S4 to make changes and saving changes with S2 and **(exiting with S1 will IMMEDIATELY start the machine into exercise mode traveling between level 1 and level 2 with 30 seconds between trips Unless time is changed).** The screen will count down the desired number of runs. -- **USE EXTREME CAUTION** -- This is good for fully loaded endurance test. Or just call / send the unit with the key pad manually. Use any controller button to stop the unit S1,S2,S3,S4

Menu #11 Maintenance Days: Set the number of days for service. Press S4 to view days remaining.

Menu #12 Shut Down Count: Count is in days if set the machine will shut down and require a password to be reset. May help collect final payment from your customer. “Call for password”.

Menu #13 Access Location: Access door switch (Default Bottom station board “Safe #2”) Programmable to bottom station board safe #1 or safe #2, (OVERHEAD MOTOR) top station board #1 or master board then S1 to exit set up mode.

Menu #14 Gate Location: Car gate switch (Default 250 lb, 125 lb units - bottom station board #1) 500 lb default location - master board, along with slack cable and car light also on master. (For the traveling cable).

Menu #15 Lower Final Limit Switch: (Default master) only used on 500 lb units. This is programmable to Bottom safe #1 or safe #2.

Menu #16 Upper final limit switch: (Default top station board #2) Programmable to top station board safe #1 or safe #2 or master, (shown as safe #1 on the “traveling” section on the master board).

Menu #17 Slack Cable: Slack cable switch (Manually Reset) (Default 250 lb, 125 lb units - top station board #1) 500 lb default location - master board as the slack cable is on the travel cable. Programmable to top station board safe #1 or safe #2, bottom station board safe #1 or safe #2 or master board.

Controller Set up Menus Page 3

Menu #18 Switch Selection: (Default “LIMIT”) Programmable for Limit switch, tape reader or encoder.

Menu #19 Homing Floor: Programmable - 1-6. (Default is “Disabled”) S2 change, S3 or S4 make change, S2 save S1 exit and initiate -- **USE EXTREME CAUTION** -- when exiting the set up menu the machine will automatically go into “Homing” and automatically proceed to the desired floor, in the desired time after all safeties are met like closing hoist-way door.

Menu #20 Automatic Cancel Timer: (Default 15 seconds) If a floor was selected and the call/send was not depressed it is cancelled in desired time. (Not recommended to change).

Menu #21 Non Interrupt Timer: (Default 10 seconds) When the car arrives at a floor it will remain there un-interrupted for the desired time, 10 - 30 seconds before acting on another call.

Menu #22 Key Light Timer: (Default “Always On”) Keypad LED light shut off timer. This is programmable from 0-120 seconds. S2 change, S3 or S4 make change, S2 save S1 exit and initiate

Menu #23 Solenoid Timer: Factory set and recommended to use default setting (Default is 10 seconds) EMI Interlock only! Solenoid remains energized for opening door when it arrives. This is programmable from 1- 360 seconds. (Not recommended to change) Machine will not act on another call until time is up. Push call / send button to open door.

Menu #24 Car Here Timer: – Time the keypad flashes.

Menu #25 Chime Timer: Default .5 seconds. If set to 0 there will be no chime on arrival.

Menu #26 Back Light Timer: LCD Screen back light.

125 lb and 250 lb units default safety connection locations:

“Bottom Station Board” safe #1= Car gate switch (travel cable) safe #2 Access door (machine room door)

“Top Station Board” safe #1= Slack cable switch - safe #2 Upper final limit switch

Access door, car gate, slack cable and final limits are programmable to top station board safe #1 or safe #2, bottom station board safe #1 or safe #2 or master board.

Safety Error Description



Ready Run – Unit is automatic mode and all safeties are met. (Run Counter is at the right – “63”)

Ready Run – Now at 0 (this is the first screen you will see) Means the unit is not on a switch - use manual mode to position the car on limit switch 1 and return to automatic mode.

Hoist-way door, Access Door and Car Gate Errors are reset when the open door or car gate is closed.

Safe Hold Errors: Upper and lower final limit, slack cable, VFD drive and missed limit switch errors must be reset manually by a technician. First you must locate and solve the error (Safe Override switch will need to be used if manual mode is required to move the car to resolve the safety).

Safe Hold Error Reset: Once the safety is resolved you should use manual mode to position the car on a limit switch (level 1 is preferred but not needed). Then you must reset the safety. Scroll thru the menu items until “Reset Safety” appears (this is the first screen when entering the set up menus) then use S2, S2 and finally S2 to “Confirm”. If your safety issue was resolved the unit will go into “Ready Run – Now at 1”. If it was not resolved the screen will still show the “Safe hole Error”.

TECH SUPPORT – USA – 877-345-4387 Direct world wide – 530-295-4900

ALL SAFETY SWITCHES – Slack cable, final upper and machine room door are N/C normally closed.

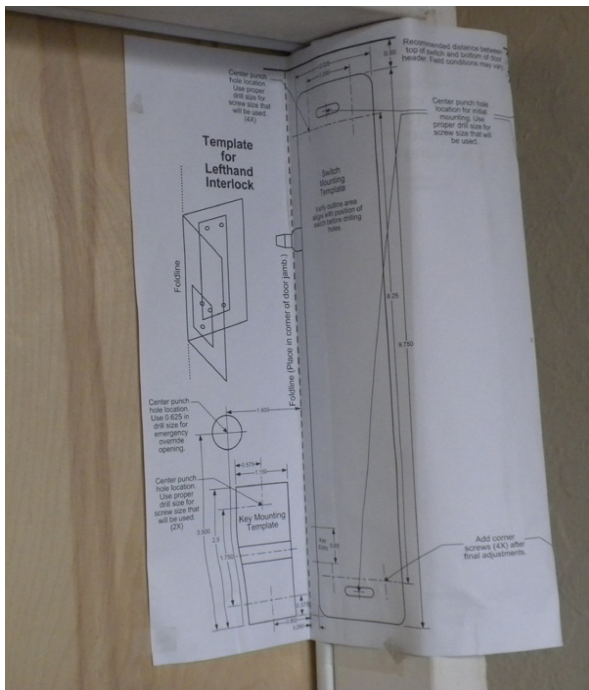
LIMIT SWITCHES FOR LANDINGS ARE – N/O Normally open

Installation Manual

Residential or Commercial EMI Interlocks

Install the doors at each level. **DOORS MUST HAVE A LATCH TO KEEP THEM SHUT – INTERLOCKS ARE NOT A LATCH.**

The interlocks are mounted in the upper corner of the door jam, on the side opposite the hinges. The interlock ‘keeper’ is mounted on the inside of the door such that it latches with the interlock when the door is closed.



Drill pilot holes for each of the mounting points. Use caution when drilling pilot holes for the keeper as you do not want to drill completely through the door. Fasten mounting screws hand tight using a screwdriver. Do not use a drill to fasten these screws as you will risk over tightening.

Mount the interlock such that the keeper locks in place when the door is shut.

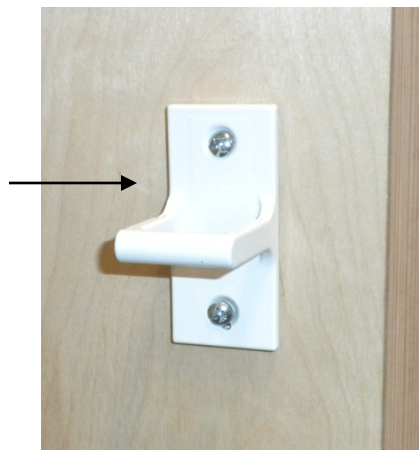
Connecting the door interlocks

Use the supplied Cat 5 cable (blue) connect to the station board.



To mount the interlocks, use the paper template provided to mark mounting holes. Fold the template along the dotted line. Position the template in the upper corner of the door, opposite the hinges and use a center punch to push through the paper, marking the hole positions.

Keeper



Installation Manual

Call / Send Stations

Commercial

Most Commercial doors have pre-installed call / send stations.

Residential & Commercial floor loading 36" x 48" swing doors.

Plastic remodel gang box's are supplied. (If changed you must use plastic gang box's)

Customer needs to supply the standard cover plate as shown to match home décor. The keypad board is attached to the gang box and the cover plate is attached to the keypad board.

Keypad Connection

Use the supplied Cat 5 cable (white) to connect the keypad to the station board.



Ready for Automatic Operation

The dumbwaiter is now ready for Automatic Operation. Close the doors at every level. View the controller display to determine if all safeties are in place. If the display shows "Ready Run Now at 1" then the safeties are set and you can start operating the dumbwaiter. If there are any errors, then you must troubleshoot and resolve any open safety errors.

Normal Operation

- All keypads showing current location
- Controller display reads "Ready Run"
- Press the call button or up down arrows to select a floor then the call / send button to initiate
- Dumbwaiter cab moves to level 'x' and stops
- Keypad alternates between direction of travel and the last floor it has passed
- Keypad light for level 'x' blinks while interlock is unlocked
- Door interlock stayed unlocked for 10 seconds
- Once door is closed again, the cab can be called to another level
- If cab is already at level 'x', pressing the level 'x' call / send button unlocks the interlock (EMI only)
- Calls to other floors are recognized when dumbwaiter is moving and will travel to that floor after the door is locked. Calls to other floors are recognized when door is unlocked and will travel to that floor after door is locked

Troubleshooting Notes

The display on controller is blank...

- Check power source to controller.
- Check fuses inside controller (if fuse 24V holder is lit, then replace fuse)

Need to enter Manual Mode for troubleshooting or repair...

- **Menu #1 Manual Mode Operation:** Allows you to move the dumbwaiter up and down from the main board S3 DOWN, S4 UP - or from any active keypad “arrow up” / “arrow down”. -- **USE EXTREME CAUTION IN MANUAL MODE** --

Manual Mode Operation “SAFETY OVERRIDE”: To operate in manual mode with safeties open -- **USE EXTREME CAUTION** -- slide the “safe ovrd” switch to the right. (Next to the Cat 5 out plug) the light will flash. The controller needs to be put in “Manual Mode” to operate in this mode. Enter the set up mode: Press S1, then S2 then S3 to reach the correct menu screen. The “safe ovrd” switch must be in the left position to operate in automatic mode. **No automatic mode with the safe ovrd button on.**

Need to unlock a door for troubleshooting...

- **Menu #3 Open door Lock:** (EMI Interlock only): Press S2 then S3 or S4 to select the door level to open, then S2 to unlock. Door will remain open until this screen is exited then S1 to exit set up mode.. GAL and CJ Anderson locks require emergency release key.

Door Open indication...

- Controller text display will indicate the level that has the error
- Verify the cat 5 plug is plugged in to the station board and back of the keypad
- Verify that the keeper on the door is sliding into the interlock
- Verify door has a positive door latch (the interlock is not a door latch)
- Access Door Error – verify the door switch is functioning properly and wires are connected, if the access door safety is not used then it must be jumped out on the station and main board

Slack Cable indication...

- Place the controller in **Menu #3 Open Door Lock:** and unlock the doors to allow hoist-way access
- Inspect the cab and cable to determine if the cab is stuck on an obstacle
- Remove any obstacles and insure cable is tight (lift on the cable to release the trolley brake)
- **Use Menu #1 Manual Mode Operation**– To move after inspection
- Inspect Slack Cable limit Switch to confirm it is not triggered, adjust as needed

Upper Limit indication...

- To lower the cab off the upper final limit switch **Use Menu #1 Manual Mode Operation**
- Inspect the limit switches mounted on rail to determine how cab could have hit Upper Limit
DO NOT MOVE DUMBWAITER WHEN INSPECTING THE INSIDE OF HOISTWAY
- Make adjustments to insure all limit switches will be triggered appropriately –
wall to tip of roller = 4-3/4”

APPENDIX A

Installation of Stabilizer / Safety Stop Brackets

Bottom Stabilizer Roller: Attach if provided the opposite guide rail roller bracket with the provided hardware. Let the cab hang naturally when tightening the bolts. Run the unit in manual mode to ensure proper alignment.

This will provide a very stable cab for loading and unloading.

The opposite guide rail is a 2" x 1" x 1/8" aluminum angle with mounting hardware.

Rail on the Left 3 stops or more: requires that the cat 5's for door lock and keypad are run through conduit around the hoist-way and right through the opposite guide rail angle. Drill a 3/4" hole for the 1/2" conduit (a step drill bit may be the best option) as close to wall as possible.

Top Stabilizer Roller

Larger cabs may require a Stabilizer Bracket. If this is provided with your dumbwaiter kit, this must be installed prior to installing the trolley to insure proper operation.

Secure with supplied hardware. (Do not push the cab towards the rail, let it hang naturally).

The measurement from the axel to the edge of the cab should be 3-3/4" – 4" centered on the cab.

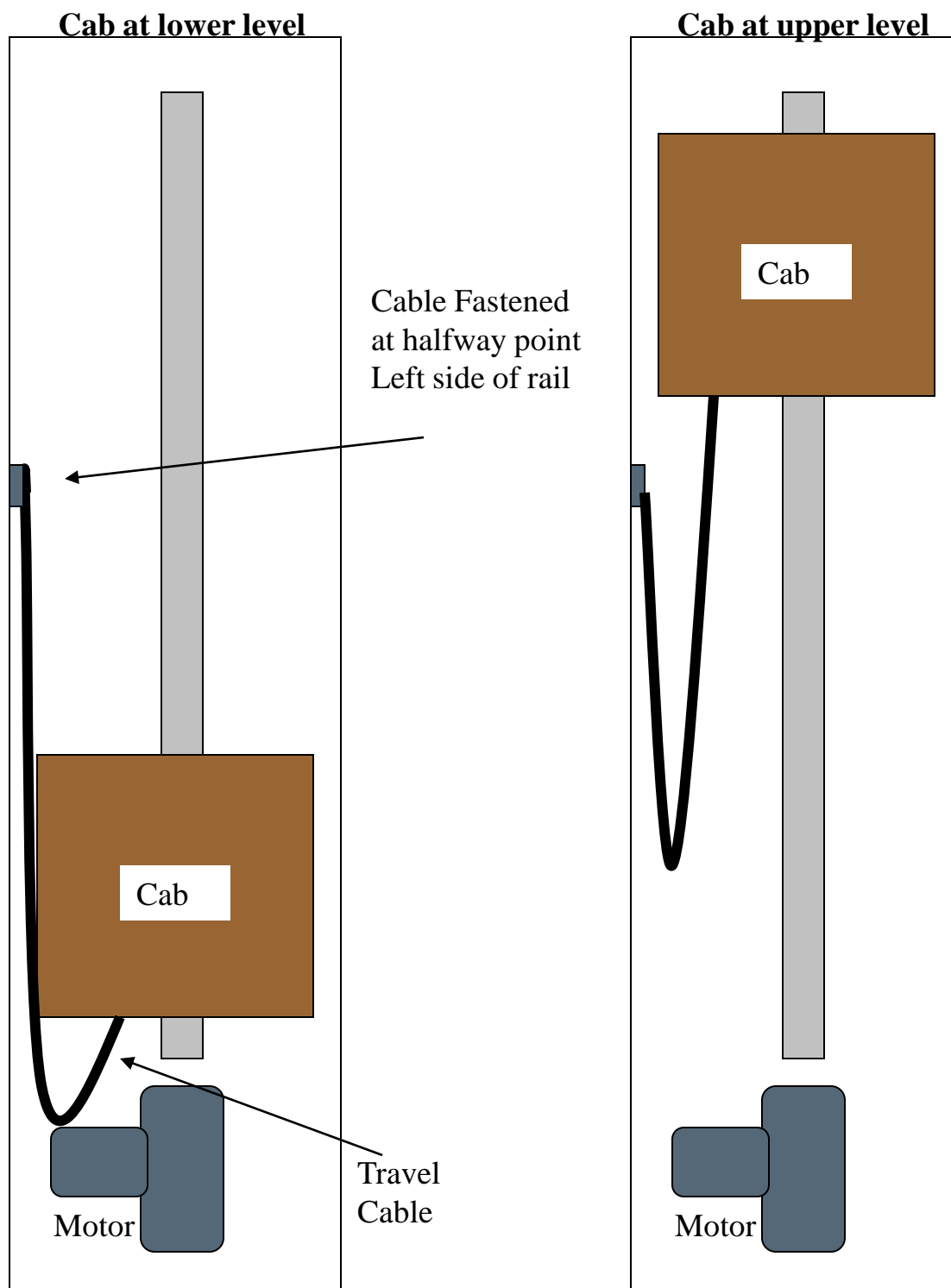
Emergency physical car stop Top and Bottom
Run the unit in manual mode up to the final upper limit switch. Attach the 2" x 3" x 1/4" angle iron stop 1" above the car as an emergency physical safety stop. If the car hits this stop the VFD drive will go into OL. Reset the drive or cycle the power, be sure the top final limit is working. **IF STOP IS CLOSER THAN 12" TO TOP OF RAIL REMOVE THE SLING CABLE EXTENSION**



Installation Manual

APPENDIX B

Installation of Gate Switch and Travel Cable



Installation Manual

APPENDIX B-1

Installation of Gate Switch and Travel Cable

Factory Installed Gate Switch

Many dumbwaiters require a gate switch. This switch signals the controller when the gate is closed. The controller will not allow the cab to move unless the gate is closed.

The magnetic switch will be active when the gate is closed as the gate will have the magnet and switch installed at the factory.

Travel Cable

Tie the cable to the underside of the cab with the provide strain relief for connection to the switch, this could be a cable strain relief or pre-installed gang box on the car.

The cable will connect to a travel cable junction box and a two or four wire will be routed to the bottom station board “Safe #1” default location – this location an be changed.

Cab Light - four wire will be used when the unit has a light and the car light and car gate will be connected to the **main controller board**.

The cab light turns on when the car gate is opened.



APPENDIX B

Installation of Gate Switch and Travel Cable

VERY IMPORTANT: The travel cable must be hung inside the hoist-way with an anchor point at the halfway point of the dumbwaiter travel, ON THE LEFT SIDE OF THE RAIL IN THE CORNER OF THE HOIST-WAY. The cable should be hung such that it avoids contact with anything. Connect it to the cab as far away from the main guide rail wall as possible so the cable has the widest possible bend in it. When the cab is on the bottom floor the cable should droop below the cab but not touch the floor.



The two wires must be connected to the travel cable and routed through conduit to the level 1 station board “Safe #1” safety, or the main controller board with four wires if a light is used. If this is the case there will be a terminal strip in the main controller

VERY IMPORTANT: When the dumbwaiter cab is at the lowest level, the travel cable should have slack. It should hang above the motor assembly to avoid catching on anything during movement.

APPENDIX C

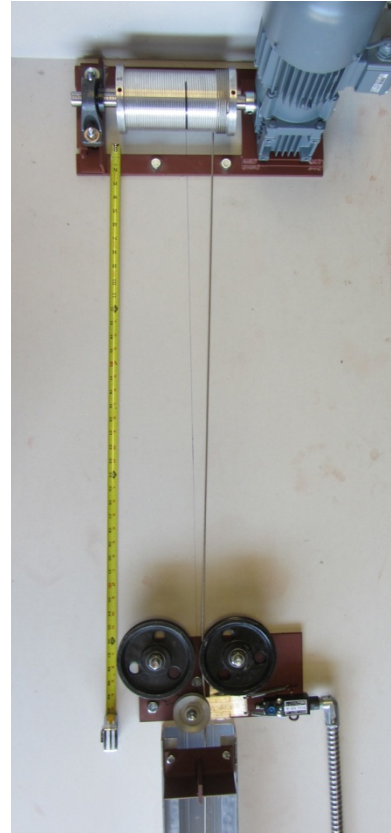
Overhead motor and sheave

Mount motor as close to the top of the shaft as possible using the centerline on the winding drum to align with shaft / guide rail centerline. Motor is horizontal.

Double pulley for 250Lb units

Mount the sheave assembly the maximum distance down from the winding drum (minimum 36" from the winding drum to the sheave wheels) using the centerline on the sheave assembly to align with the shaft centerline. 5" pulleys closest to the motor as shown.

Motor direction have been factory set for proper direction of travel.



18' of travel or less overhead sheave

Residential – no top roller bracket

Mount the unit above the track 1-2" and the right edge of the assembly is 4" left of the track center line.

