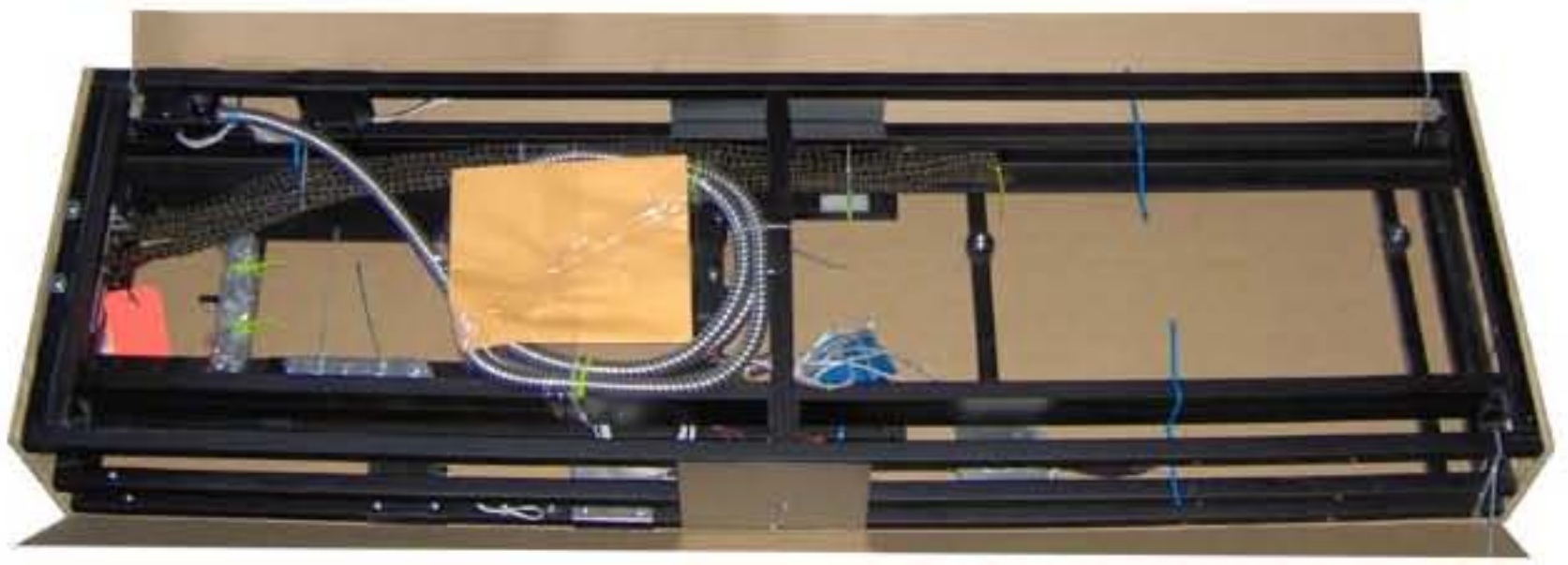
POWERLIFT DUMBWAITERS CORPORATION

SINCE 1972

www.dumbwaiters.com

2444 Georgia Slide Rd., PO BOX 4390, Georgetown, CA
800-409-5438 ~ 530-333-1953 ~ Fax 530-333-1055



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Congratulations on your Powerlift Dumbwaiter purchase! We are a family owned company, in business for over 40 years, with a strong commitment to excellence and our customers. If you have concerns or questions, please don't hesitate to call our toll-free number listed above. We offer free technical support through all phases of your project, and have dedicated staff members who will be happy to help in any way they can.

This Installation Manual covers information for many of our units, and some of the pages may not apply to your build. Each page that is specific to a certain model will indicate which one it applies to at the top of the page. If the page does not note a specific model, the information on that page applies to all installations. Again, if you have questions, please call. Our technical division can clarify anything of which you are uncertain.

IMPORTANT FACTS YOU SHOULD KNOW

1. Anyone planning to use this dumbwaiter should read the Owner's Manual prior to operation. **If you do not have an Owner's Manual, you can download a copy from our website, http://www.dumbwaiters.com or call 1-800-409-LIFT (5438) and we will send you a new one.**
2. **DO NOT** allow children to use the dumbwaiter without adult supervision!

3. The dumbwaiter is furnished with door safety switches which prevent the dumbwaiter from operating if any door is not closed. They will also stop the dumbwaiter if any door is opened while the dumbwaiter is in operation. **NEVER OPERATE DUMBWAITER** if door safety switches are not working properly. If your door safety switches are not working properly, **DO NOT OPERATE THE DUMBWAITER.** Immediately unplug the dumbwaiter and call Powerlift Dumbwaiters, Inc at 1-800-409-5438 to request replacement door safety switches, free of charge for the life of the dumbwaiter.

4. **Never use the dumbwaiter if it is not operating properly.** Call your service personnel or installing dealer immediately.

5. **Never use the dumbwaiter when smoke and / or fire is present.**

6. **DO NOT REMOVE, BY-PASS, OR ALTER** any switches, controls and / or restraining devices. These are mandated by national and local safety codes. Any tampering could result in serious injury or death, and will void your warranty!

7. **NEVER EXTEND YOUR HANDS, ARMS, LEGS, FEET, HEAD OR BODY into open hoistway!** To do so could cause serious injury or death! Never extend foreign objects of any kind into open hoistway. To do so could cause damage to your dumbwaiter, or possibly serious injury to you.

8. **NO RIDING IN DUMBWAITER CAR!** Your car is not intended to transport live people and / or animals, and to utilize it in such a manner may cause serious injury or death!

9. Your dumbwaiter is rated for a certain capacity. (See car capacity plate – Model # equates to capacity. ie P-100 capacity is 100 lbs.) **Never overload your dumbwaiter car!**

10. This dumbwaiter is not designed for continuous operation. Too many "starts" and "stops" could overheat the motor and trip the fuse.

11. For residential grade extension cords, never exceed 50'. If longer distances are needed, a commercial grade extension cord must be used for proper operation of your dumbwaiter. The dumbwaiter is designed to operate properly with 20 amps, and excessive distance (or too many appliances operating from the same power source) diminishes available amperage to the dumbwaiter unit. If your dumbwaiter seems to not be operating at its optimal performance, stop using the unit until a proper power source can be applied.

12. To prevent unauthorized use, keyed on/off switches can be obtained from your dealer.

13. Observe, read and obey the warning labels, tags and symbols, as they are provided by the manufacturer for your safety and protection.

14. **DO NOT ATTEMPT TO REPAIR this dumbwaiter yourself.** Immediately cease use and call Powerlift Dumbwaiters, Inc. to determine whether you need to contact your service personnel or installing dealer.

Vertical Backing for 16”W Rails

Find centerline on the mounting wall. Make a mark for centerline. Measure and mark 6 ½” either side of centerline.

At this point, you’ll have two lines 13” apart and 6 ½” off centerline. Next, center the 6” side of a 2x6 on each of these lines and run the 2x6’s vertically through the length of the shaft.

Vertical Backing for 20”W Rails

Find centerline on the mounting wall. Make a mark for centerline. Measure and mark 8 ½” either side of centerline.

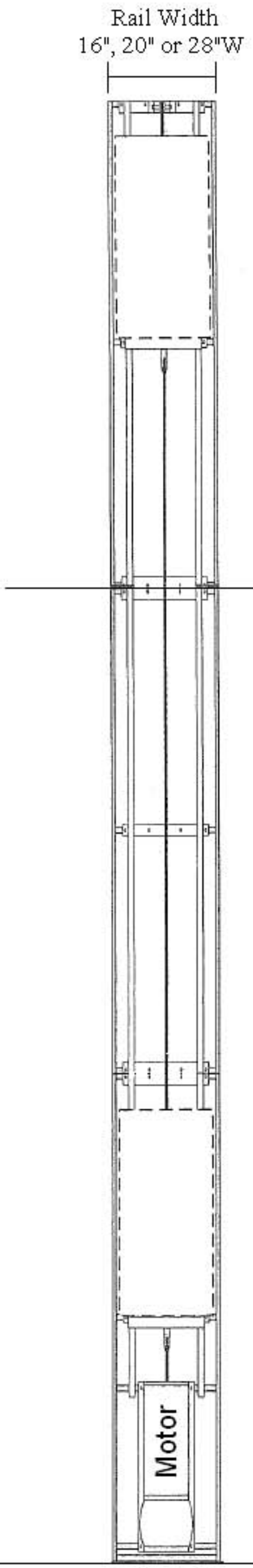
At this point, you’ll have two lines 17” apart and 8 ½” off centerline. Next, center the 6” side of a 2x6 on each of these lines and run the 2x6’s vertically through the length of the shaft.

Vertical Backing for 28”W Rails

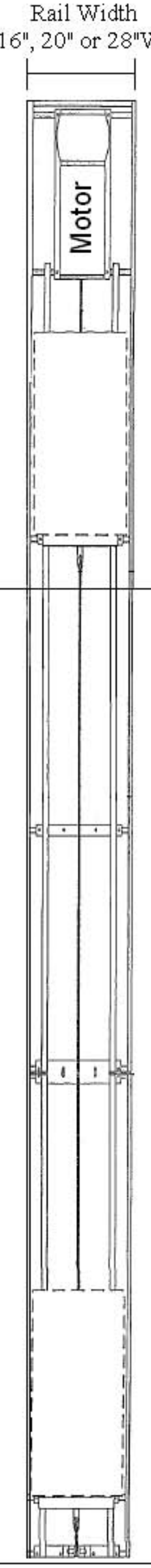
Find centerline on the mounting wall. Make a mark for centerline. Measure and mark 12 ½” either side of centerline.

At this point, you’ll have two lines 25” apart and 12 ½” off centerline. Next, center the 6” side of a 2x6 on each of these lines and run the 2x6’s vertically through the length of the shaft.

Motor on bottom configuration



Motor on top configuration



PART 1 - STACKING DUMBWAITER INTO PLACE - MOTOR ON BOTTOM

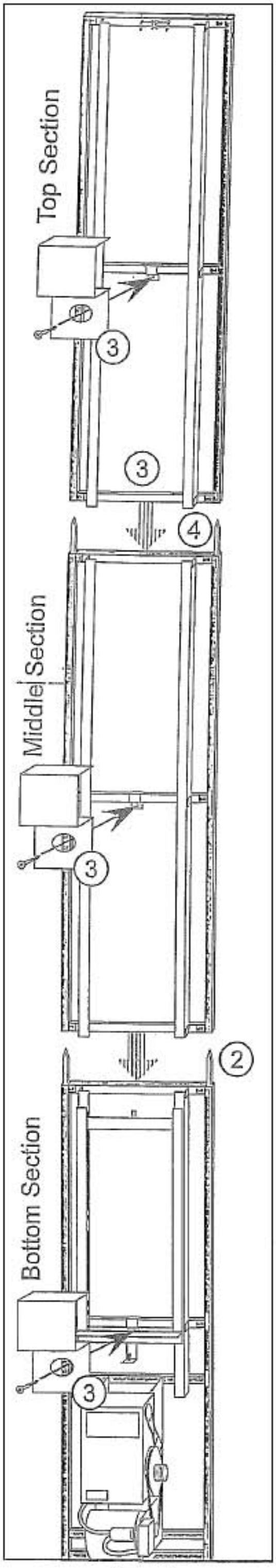


Fig. 1

(1) Before stacking the dumbwaiter into place, be sure that you have backing on or in the sheet rocked wall to which the rails will be mounted. (See Fig. 2)

(2) Drop (2) two metal stacking pins into the outside corners of bottom section, and set the bottom section into place. (See Fig. 1)

(3) Use furnished screws and anchor clips to temporarily hold sections into place (See Fig. 1)

(4) Drop (2) two metal stacking pins into the outside corners of the next section, and place next section into place using the metal stacking pins to align both sections into position. Use temporary anchor clips and furnished screw to temporarily hold sections in place (See Fig. 1)

(5) Fasten dumbwaiter sections together with furnished bolts and nuts. (See Fig. 2)
NOTE: Before bolting the sections together be sure that the tracks are in line and that there is a smooth transition between the two sections.

(6) Repeat steps 4 thru 5 for additional sections.
NOTE: After setting the top section into place make sure that the top section is level, and also check that the whole dumbwaiter is plumb.

(7) Once all sections are in place, fasten dumbwaiter to backing using furnished screws. (See Fig. 2)

NOTE: Use caution when lagging the dumbwaiter to the wall, be sure that the tracks are in-line and that there is a smooth transition between the sections.

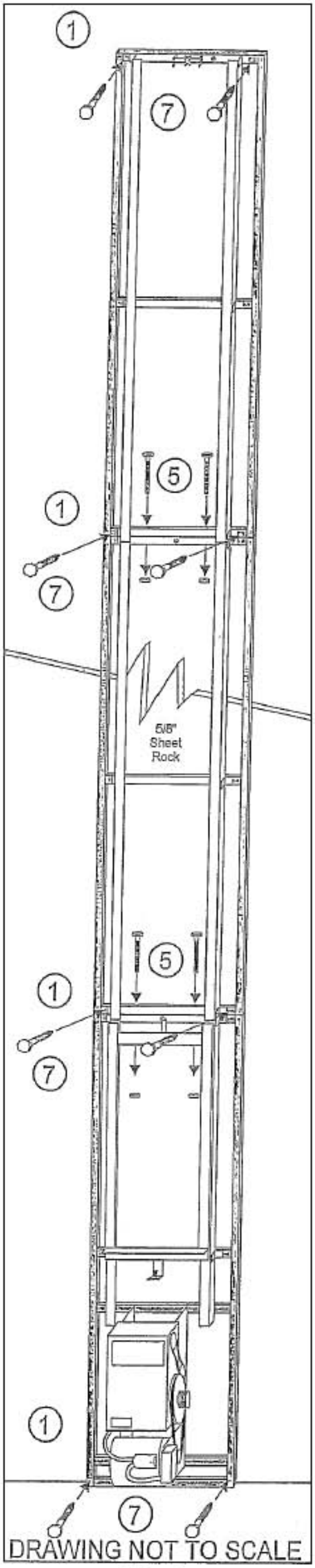


Fig. 2

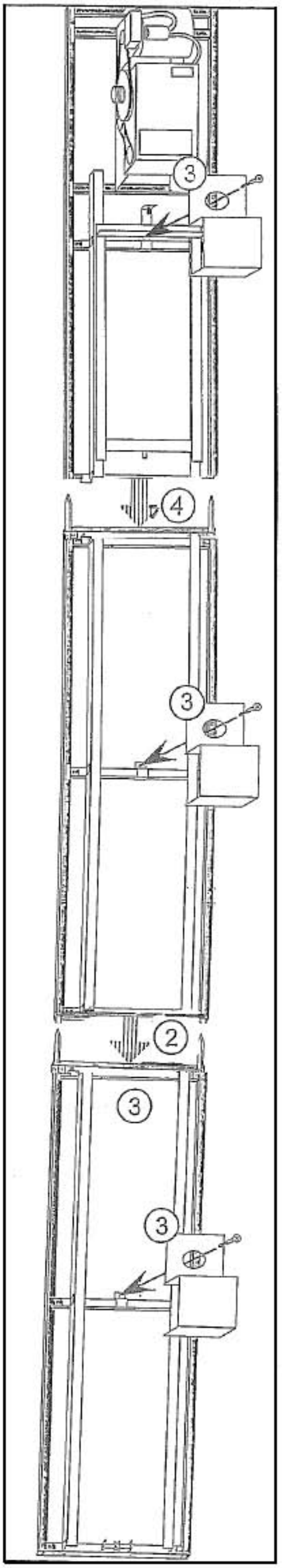


Fig. 1

PART 1 - STACKING DUMBWAITER INTO PLACE -- MOTOR ON TOP

(1) Before stacking the dumbwaiter into place, be sure that you have backing on or in the sheet rocked wall to which the rails will be mounted. (See Fig. 2)

(2) Drop (2) two metal stacking pins into the outside corners of bottom section, and set the bottom section into place. (See Fig. 1)

(3) Use furnished screws and anchor clips to temporarily hold sections into place (See Fig. 1)

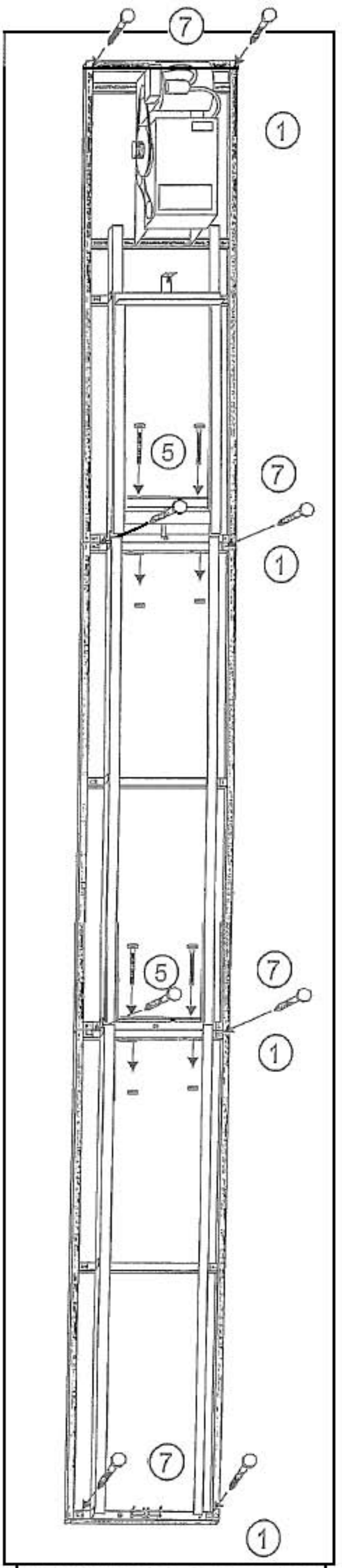
(4) Drop (2) two metal stacking pins into the outside corners of the next section, and place next section into place using the metal stacking pins to align both **sections** into position. Use temporary anchor clips and furnished screws to temporarily hold **sections** in place (See Fig. 1)

(5) Fasten dumbwaiter **sections** together with furnished bolts and nuts. (See Fig. 2) **NOTE: Before bolting the sections together be sure that the tracks are in line and that there is a smooth transition between the two sections.**

(6) Repeat steps 4 thru 5 for additional sections. **NOTE: After setting the top section into place make sure that the top section is level, and also check that the whole dumbwaiter is plumb.**

(7) Once all sections are in place, fasten dumbwaiter to backing using furnished screws. (See Fig. 2)

NOTE: Use caution when lagging the dumbwaiter to the wall. Be sure that the tracks are in-line and that there is a smooth transition between the sections.



DRAWING NOT TO SCALE

Fig. 2

PART 2 - INSTALLATION OF CHAIN & TROLLEY MOTOR ON BOTTOM

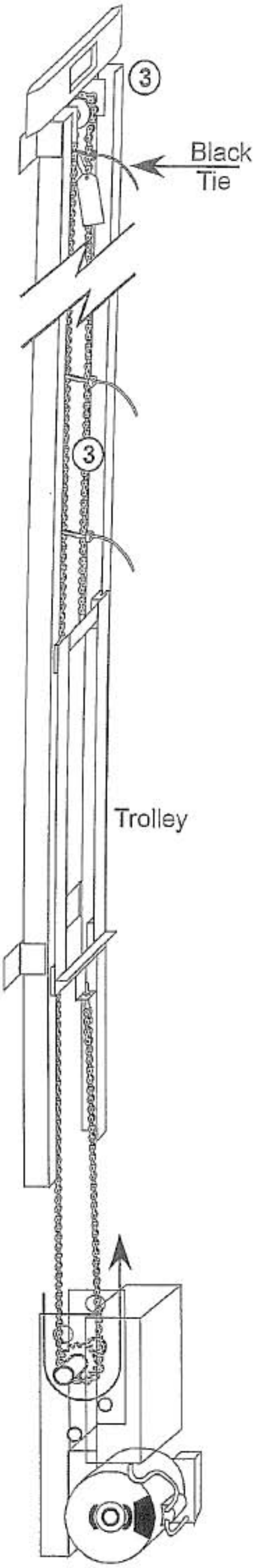


Fig. 3

	WARNING! DISCONNECT DUMBWAITER FROM AC POWER OUTLET BEFORE INSTALLING CHAIN. FAILURE TO DO SO COULD CAUSE LOSS OF LIFE OR LIMB AND/OR DAMAGE TO THE DUMBWAIER!	

① To install chain (fastened at top of unit) cut white ties holding the chain to the side of the track. (See Fig.4)

② Now cut white ties holding the chain to the top sprocket. Start with the white tie closest to you, then cut each tie after that. **NOTE: Leave black tie fastened until chain is installed.** As you cut each tie, lower chain being careful not to tangle. (See Fig. 4)

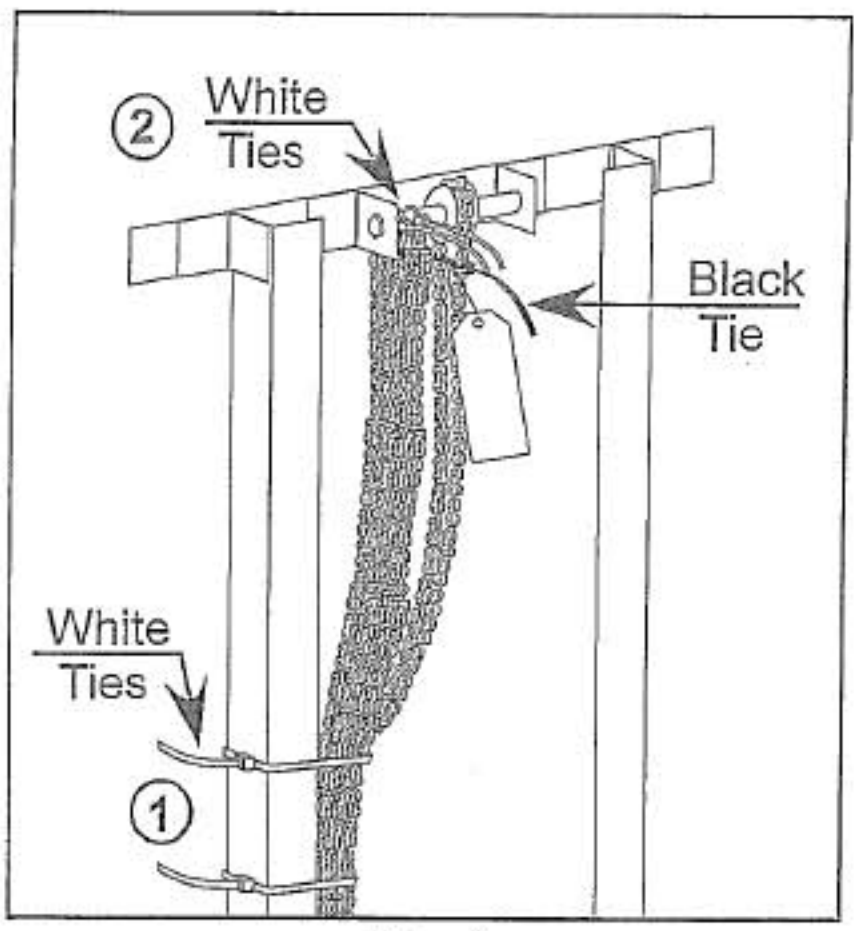
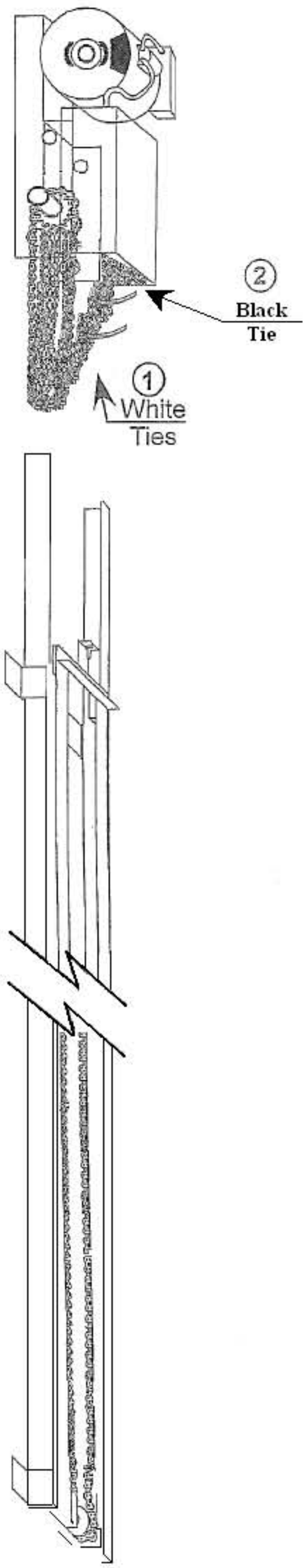


Fig. 4

③ **Once you have cut all the ties (NOTE: Don't cut the black tie until chain is installed) and lowered the chain, cut the small white ties holding the chain together. NOTE: Make sure the top idler gear mounting bracket is level. If it is not, tap it with a hammer until it is.** (See Fig. 3)

PART 2 - INSTALLATION OF CHAIN & TROLLEY MOTOR ON TOP

WARNING! DISCONNECT DUMBWAITER FROM AC POWER OUTLET BEFORE INSTALLING CHAIN. FAILURE TO DO SO COULD CAUSE LOSS OF LIFE OR LIMB AND/OR DAMAGE TO THE DUMBWAITER



① To install chain, cut white ties holding the chain to the bottom of the motor. NOTE: Leave black tie fastened until chain is installed. (See Fig. 4)

② As you cut each tie, lower chain, being careful not to tangle. Ties are marked, "Cut First", "Cut Second", etc.

③ LAST, cut the black tie to completely lower and finish installing chain.

PART 2 - INSTALLATION OF CHAIN & TROLLEY

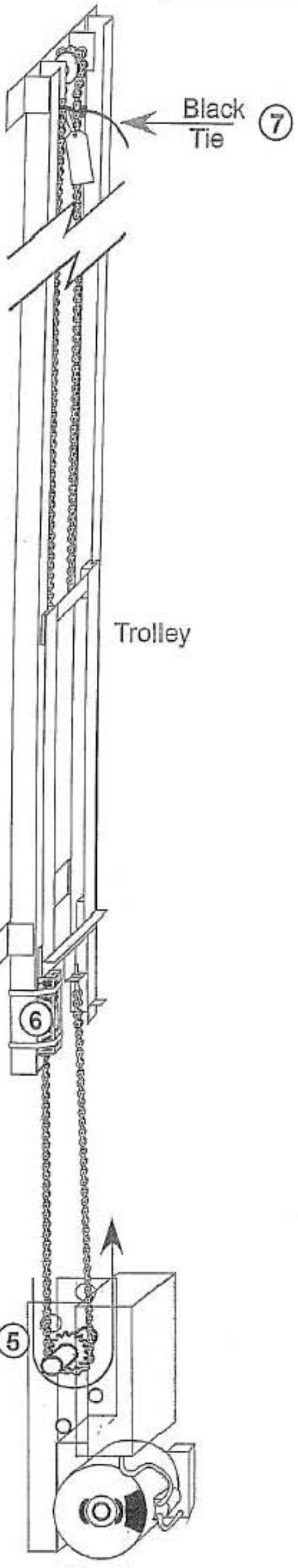


Fig. 7

④ Fasten chain to top of trolley with furnished master-link. **NOTE:** Master-Link is located on top of trolley. (See Fig. 5)

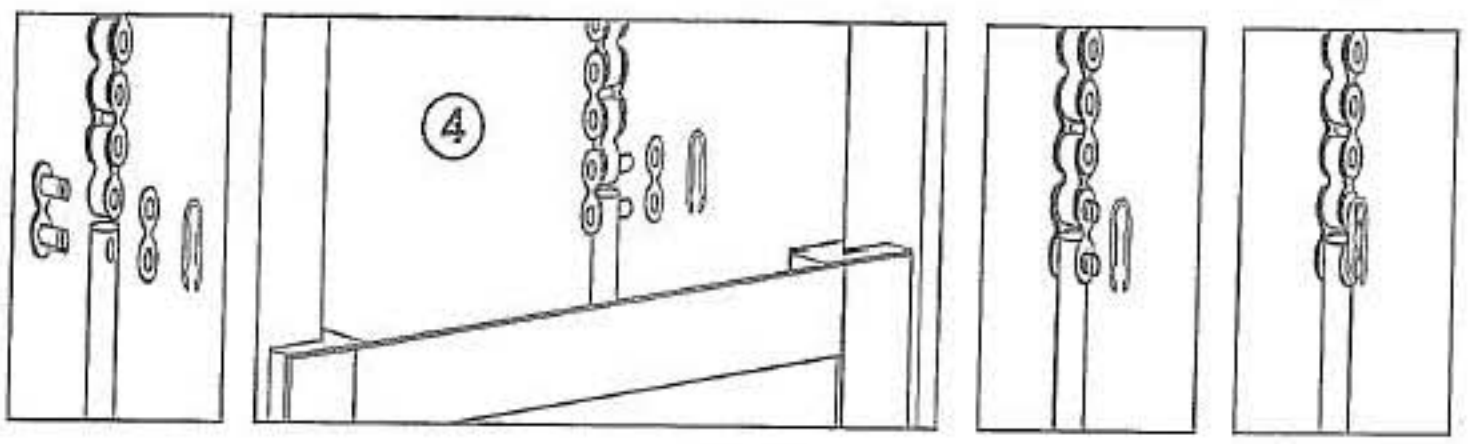
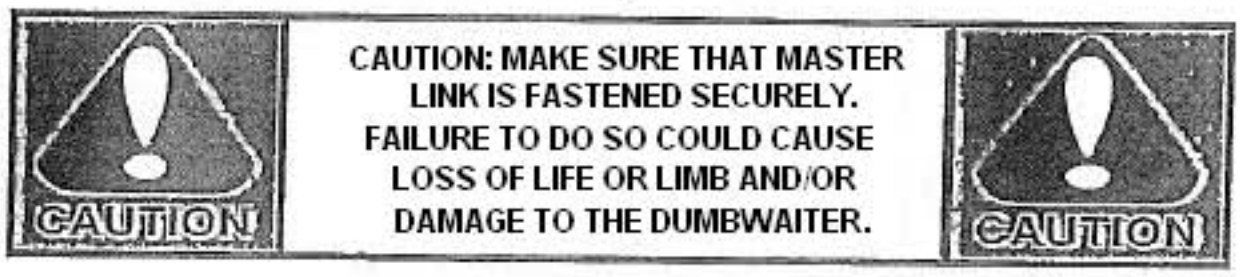


Fig. 5



⑤ The other end of chain with threaded adjusting bolt attached, goes behind the trolly around drive gear through hole in bottom of trolly. **NOTE:** Adjustment nut is located at bottom of trolley. (See Fig. 6 and Fig. 7)

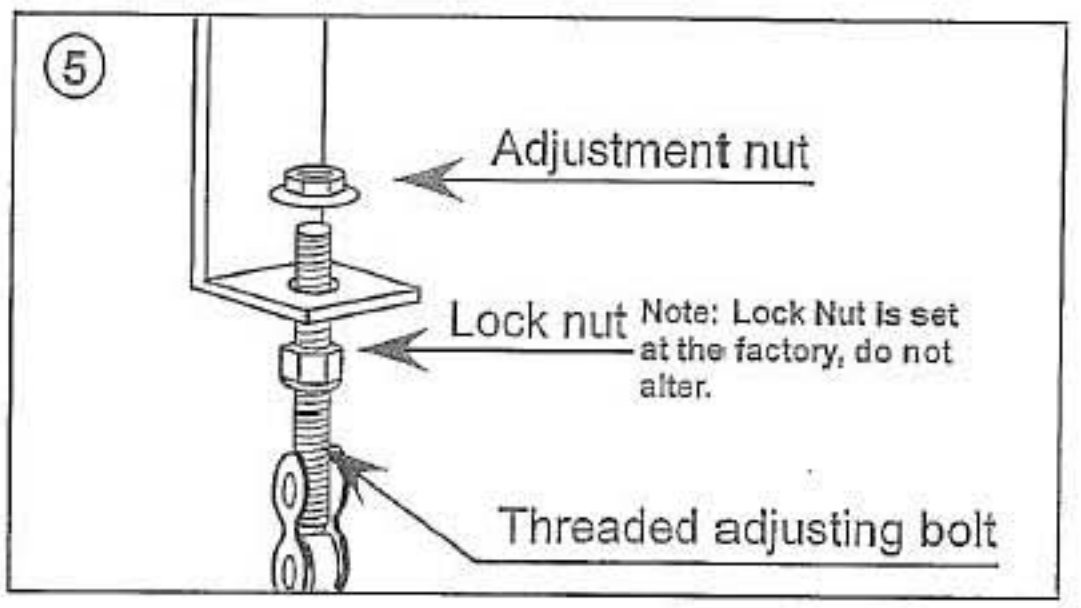
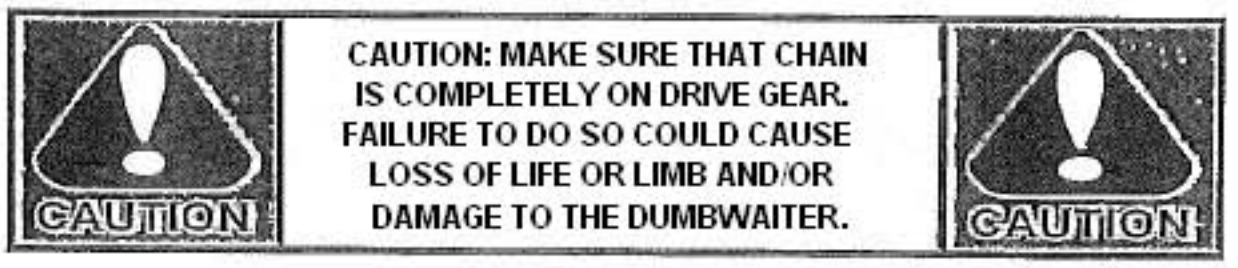


Fig. 6



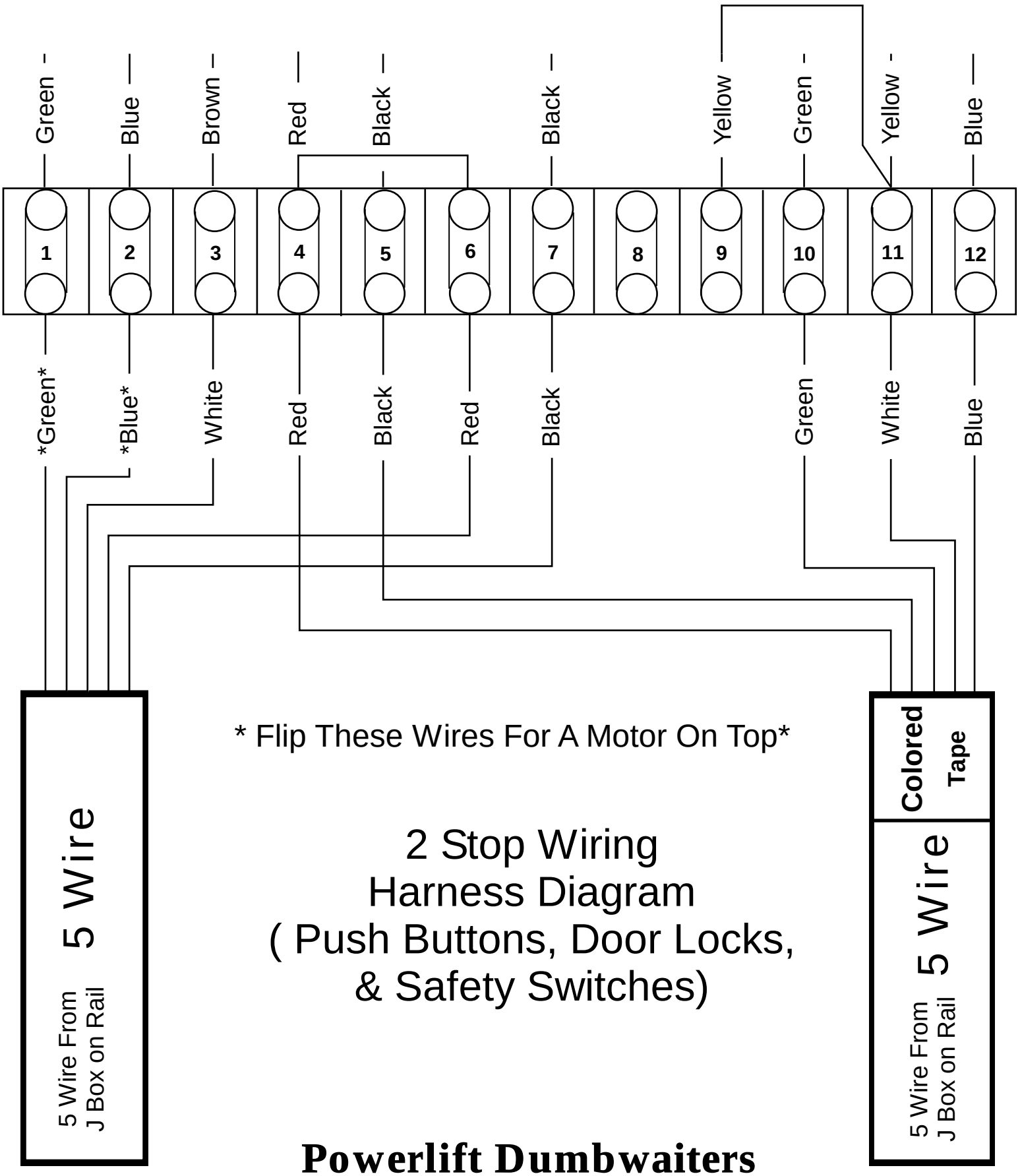
⑥ Cut ties and remove trolley stop holding trolly in place, and discard. (See Fig. 7)

⑦ At this time you may remove the black tie at top of machine. (See Fig. 7)

⑧ Tighten adjustment nut until tight against lock nut. **Note: Do not adjust lock nut; it has been set at the factory.** (See Fig. 6)

⑨ Check all tracks were they meet in shaft , if necessary bend to align and match. Use cresent wrench, claws of a hammer, or grinder.

Flip graphic for motor on top



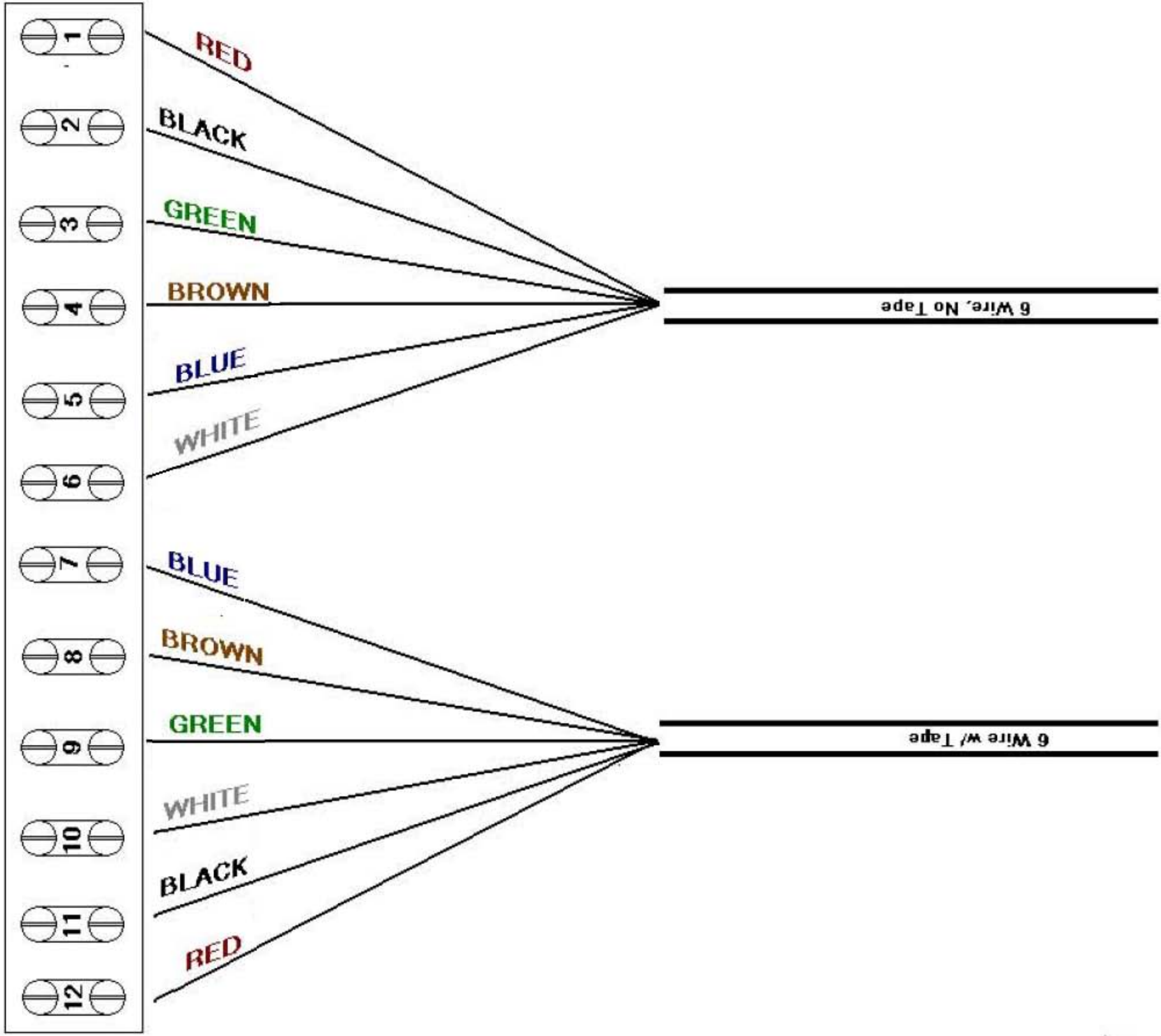
* Flip These Wires For A Motor On Top*

2 Stop Wiring Harness Diagram (Push Buttons, Door Locks, & Safety Switches)

Powerlift Dumbwaiters

1-800-409-5438

3 Stop Wiring Schematic



MJ-500 ONLY

Wiring for the junction box at each floor - push buttons, door locks, etc.

Inside Honeywell RDI Interlock

* = Wire Nuts

To Car-Here lights, if ordered

GREEN

WHITE

RED

BLACK

A

B

C

D

RED & BLACK IN 4-WIRE IS THE SAFETY CIRCUIT.

MUST BE RUN IN SERIES

To kill switch, if ordered

Green & White are 24v DC when car is at that floor. They will power interlocks and car-here light. Run in parallel.

4 Wire

GREEN

WHITE

RED

BLACK

RED

BLACK

2 x 4 Gang Box @ Each Floor

6 Wire

BLUE

BLACK

BROWN

GREEN

WHITE

*Red wire not used

BLUE — Top or 4th Floor

BLACK — 3rd Floor

BROWN — 2nd Floor

GREEN — Bottom or 1st Floor

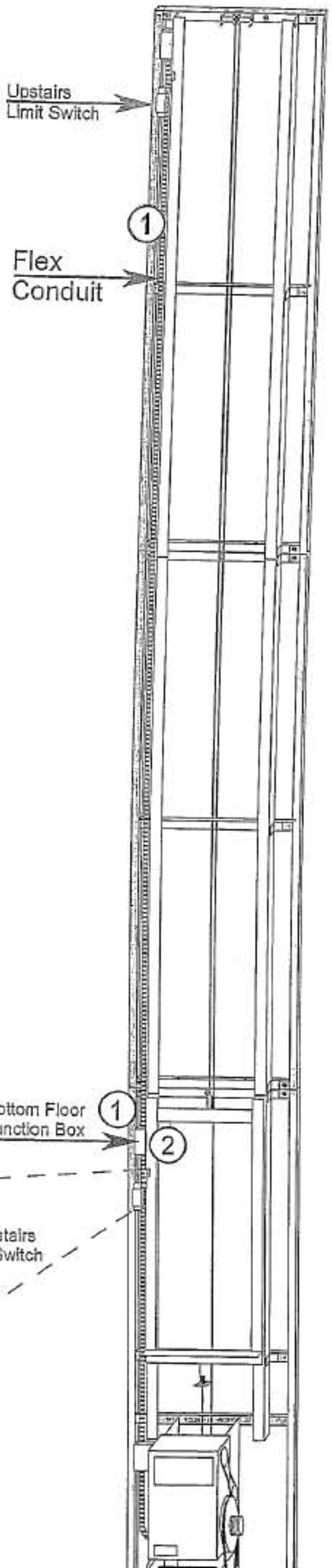
WHITE — Common

*Black & Brown used only on 3- or 4-stops

To Push Button
Run in Parallel
Match Color

PART 3 - WIRING THE DUMBWAITER

MAKE SURE DUMBWAITER IS UNPLUGGED



① Lower flex conduit from top floor and connect into bottom floor junction box. (See Fig. 8 and Fig. 9)

CHECK FEMALE PLUGS FOR METAL SHAVINGS

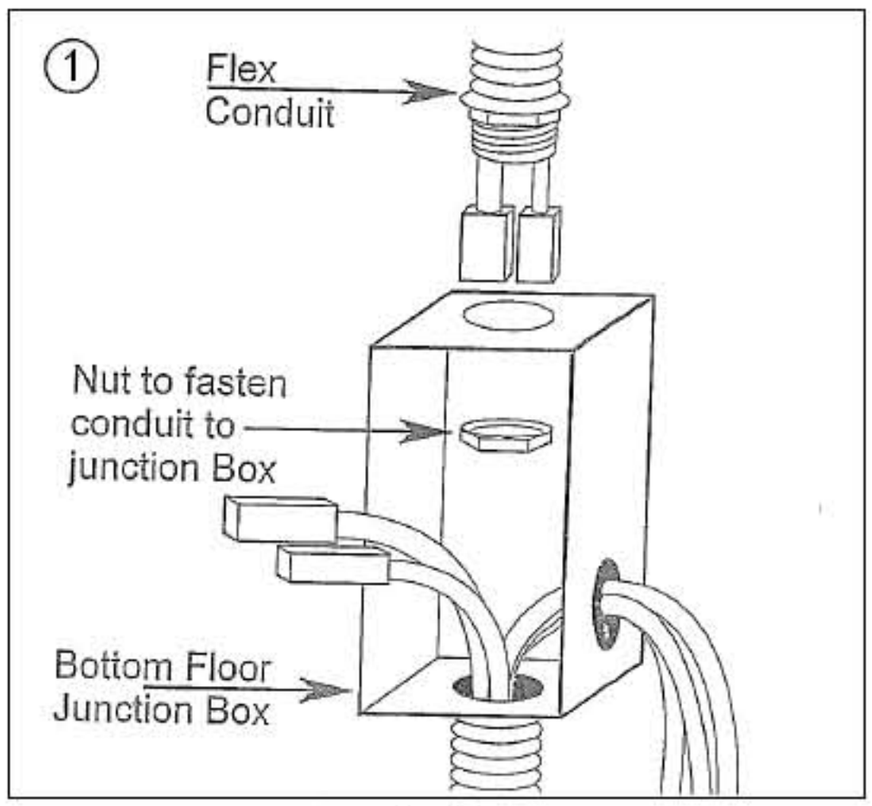


Fig. 9

② One set of wires has the female part of the plug, the other set has the male. Match up each plug and seat them together firmly. (See Fig. 8 & 10)

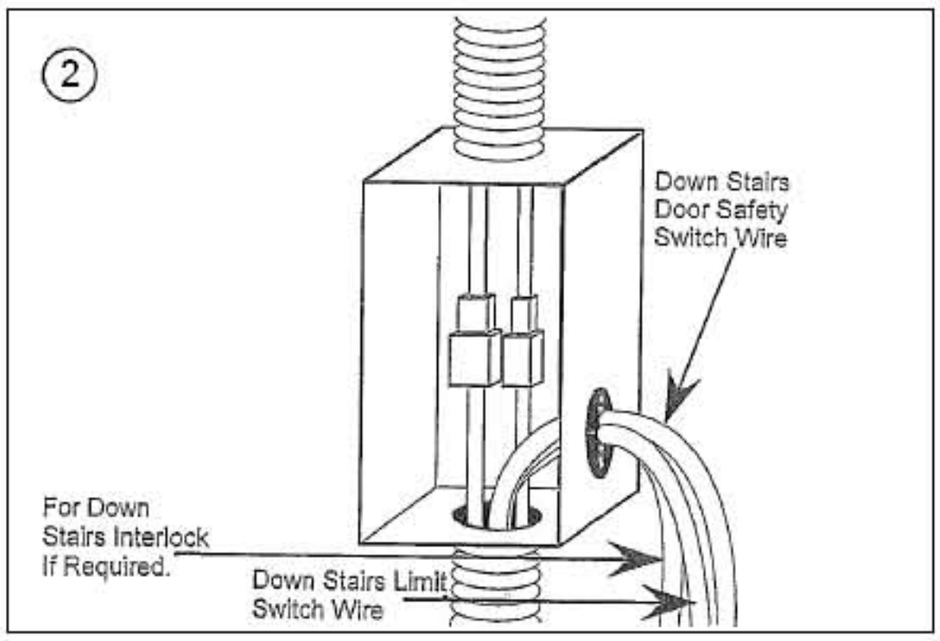


Fig. 10

PART 4 - ROUGH FRAMING & WIRING OF THE DUMBWAIER

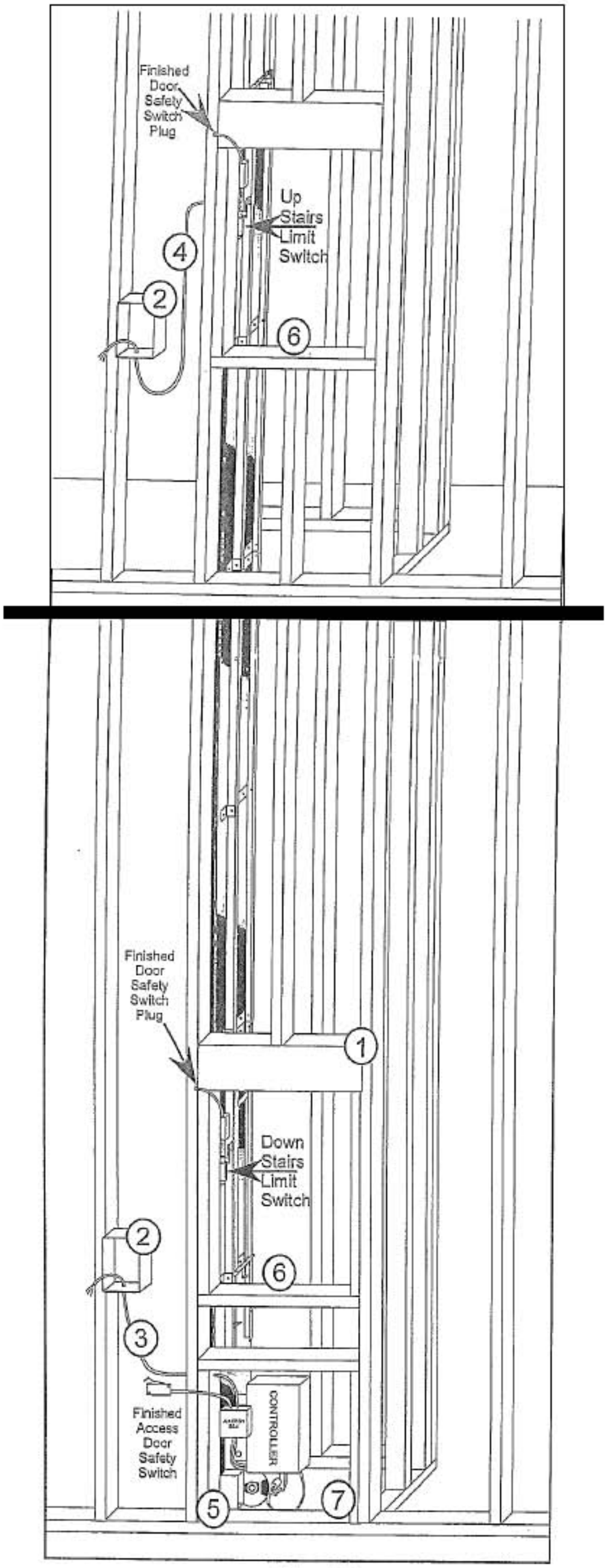


Fig. 13

WARNING!! DISCONNECT DUMBWAITER FROM AC POWER OUTLET BEFORE WORKING ON OR AROUND DUMBWAITER. FAILURE TO DO SO COULD CAUSE LOSS OF LIFE OR LIMB AND/OR DAMAGE TO YOUR DUMBWAITER

(1) Surround dumbwaiter with standard construction. (See Fig. 13)

NOTE: Please consult your local building codes regarding dumbwiaters and shafts when framing around the dumbwaiter.

MAKE SURE DUMBWAITER IS UNPLUGGED

(2) Place push button boxes per owner's or contractor's instruction, making sure you have enough wire to reach chosen location (See Fig 13). **CARE SHOULD BE TAKEN to keep push buttons OUT OF REACH OF CHILDREN, and in a location so as not to be UNINTENTIONALLY ACTIVATED.**

(3) Rough-in wire from front of dumbwaiter to bottom floor push button box. (See Fig. 13)

(4) Rough-in wire from top floor junction box to top floor push button box. (See Fig 13)

(5) Power supply: as stipulated by model purchased. (ie 110, 220, 3 phase, etc.) (See Fig. 13)

IMPORTANT INFORMATION

(6) One of the finished jambs should be large enough so that the dumbwaiter car can be installed and removed for service of trolley, chain and adjustment of dumbwaiter car. Example: our standard dumbwaiter car is 20" wide X 20" deep X 30" high. Finish jamb should have a 1" clearance so finish jamb would be 21" wide X 31" high. (See Fig. 13)

IMPORTANT INFORMATION

(7) Removable access door or panel for servicing motor, brake, clutch and car adjustment. (See Fig. 13)

PART 5 - FINISH WIRING OF THE DUMBWAITER

WARNING! WARNING! DISCONNECT DUMBWAITER FROM AC POWER OUTLET BEFORE WIRING DUMBWAITER. FAILURE TO DO SO COULD CAUSE LOSS OF LIFE OR LIMB AND/OR DAMAGE TO THE DUMBWAITER WARNING

(1) To wire in push buttons, color code each wire together with furnished wire nuts, and screw plate into the wall.

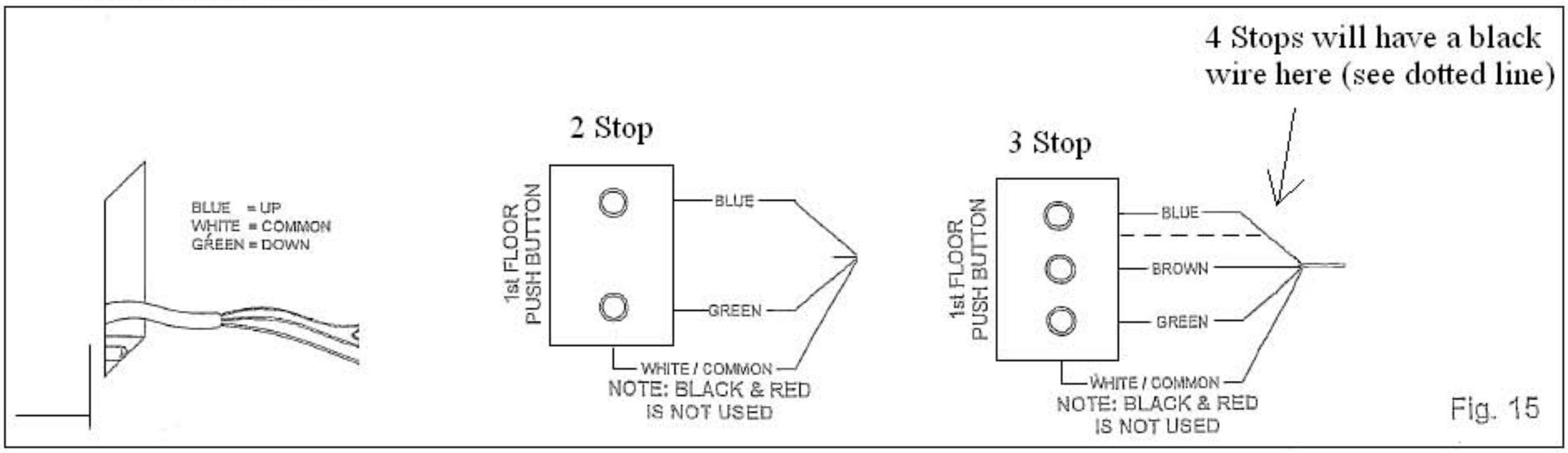
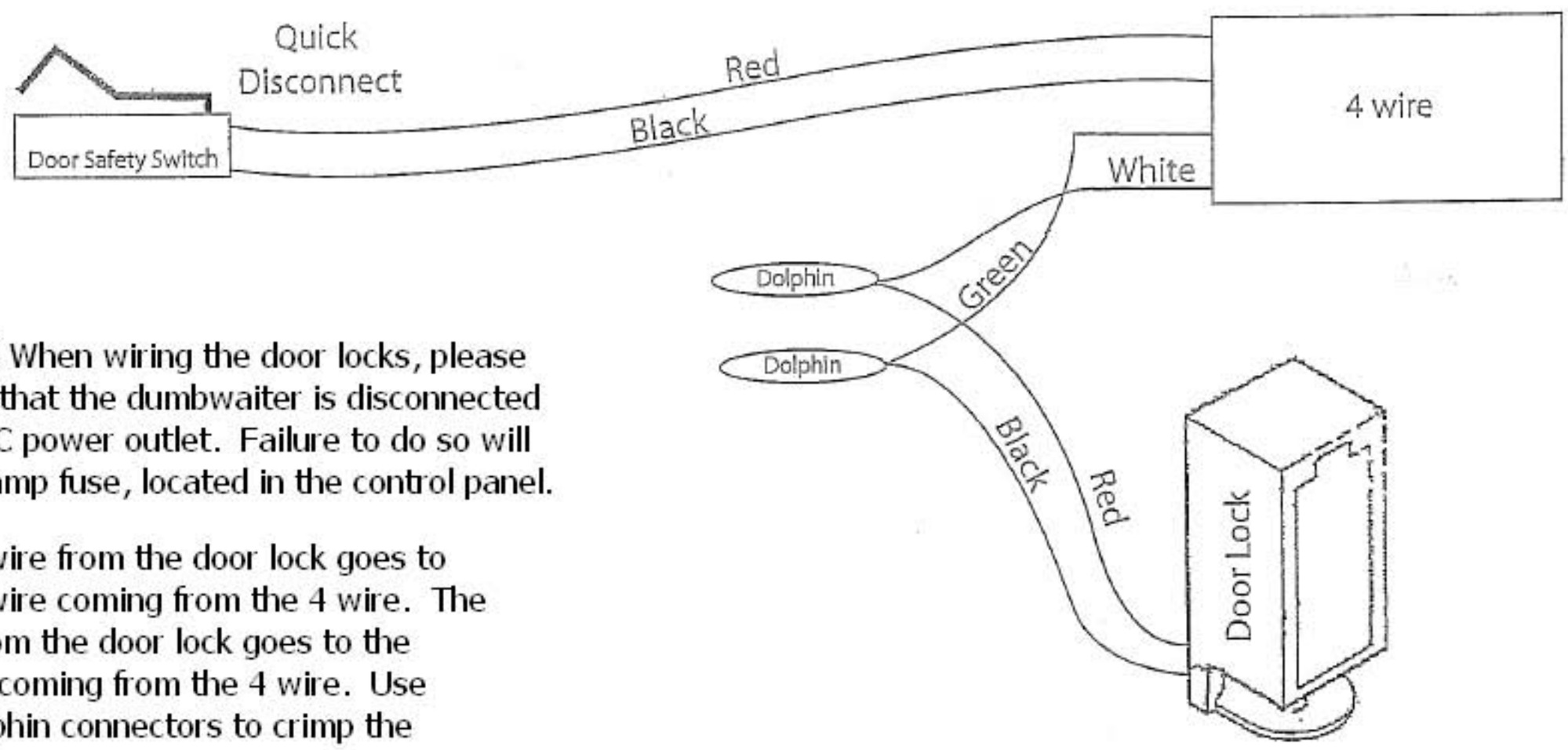


Fig. 15

Wire Diagram for Door Lock

Powerlift -100 and -200 use this type of lock. Powerlift -300 and -500, use RDI Interlock
(see back pages for diagram and special instructions)



WARNING! When wiring the door locks, please make sure that the dumbwaiter is disconnected from the AC power outlet. Failure to do so will pop the 2 amp fuse, located in the control panel.

The black wire from the door lock goes to the green wire coming from the 4 wire. The red wire from the door lock goes to the white wire coming from the 4 wire. Use suplied dolphin connectors to crimp the wires together.

The black and red wires coming from the 4 wire go to "Normally Open" (NO) and "Common" (C) on the door safety switch. Use supplied quick disconnects.

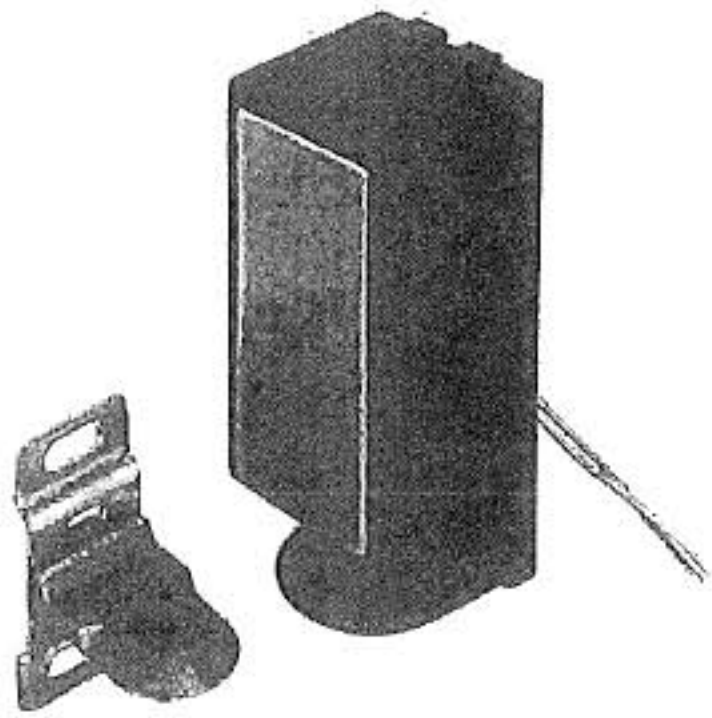
RCI Cabinet Lock

Specifications

Voltage / Current Consumption:	12VDC / 187mA 24VDC / 88mA
Duty cycle rating:	Continuous Duty
Heat generated:	2.2 Watt (max.)
Temperature range:	40° F - 120° F
Tensile load limit:	90kg. (200lb.)
Mounting:	Via. 2 screws
Connections:	Via. 2 wires, 12" long
Minimum door width:	240mm (9.5")
Locking function	Field changeable • Fail safe • Fail secure

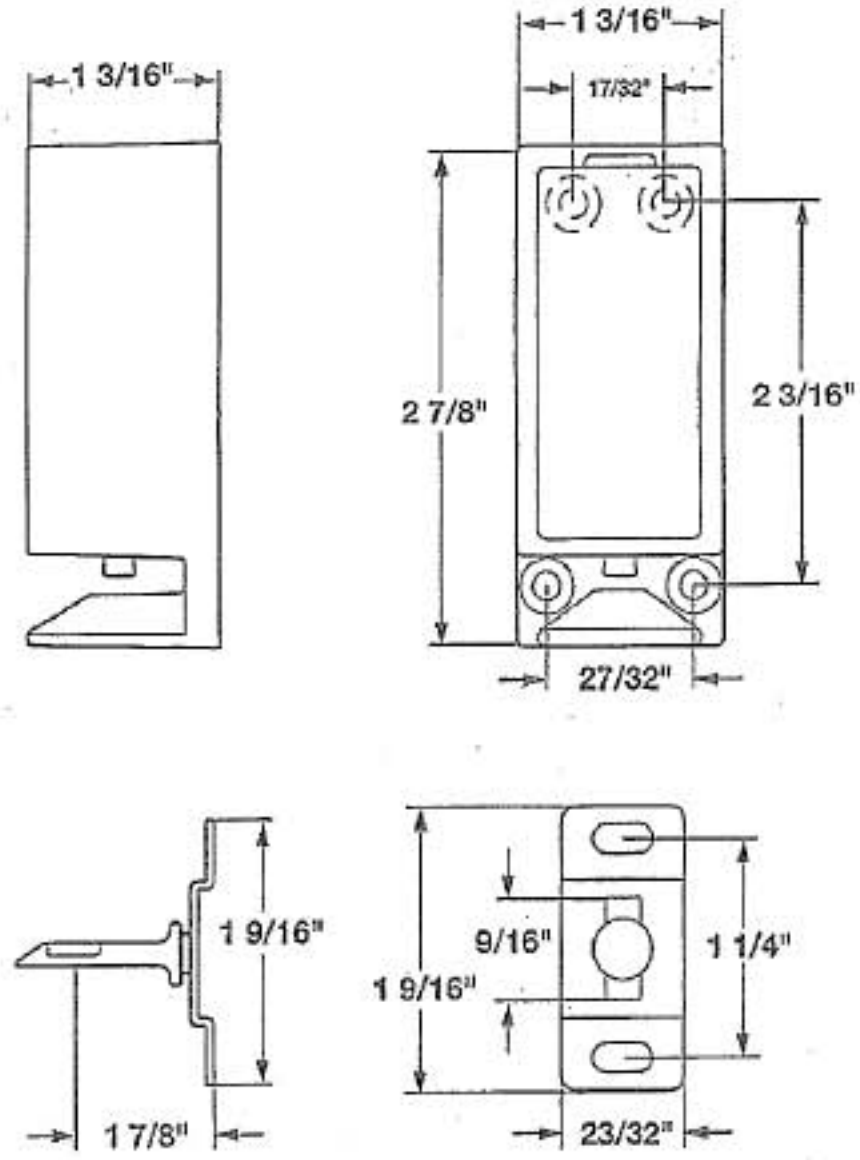
Supplied with:

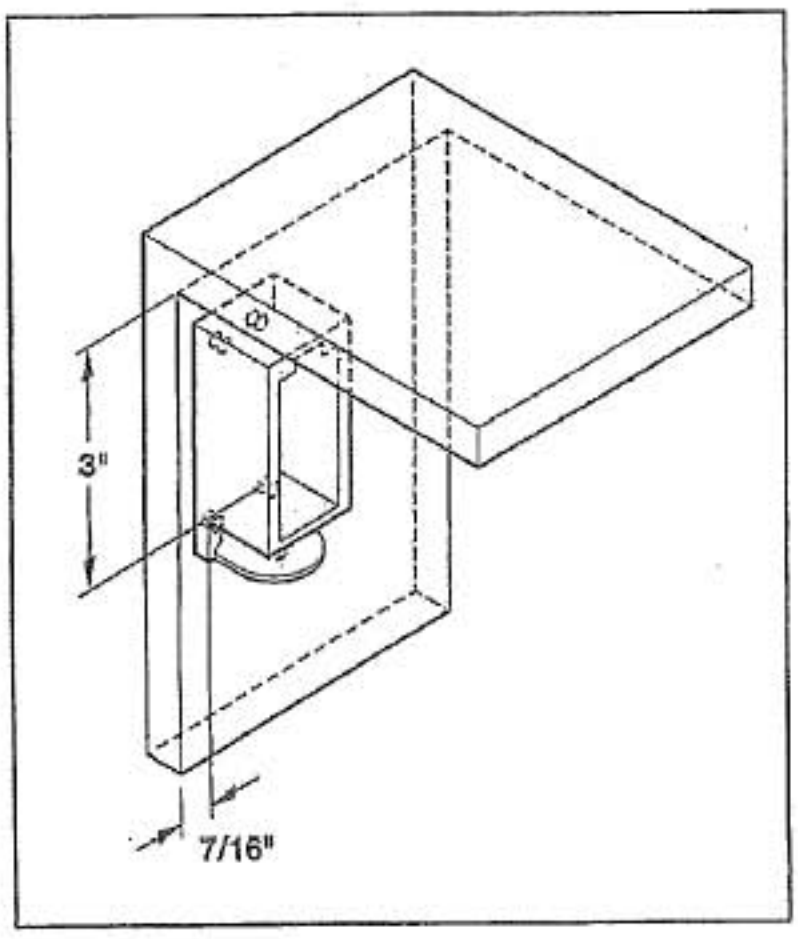
- Lock Body
- Lock Bolt
- Mounting Hardware
- Mounting Instructions
- Male Amp connection

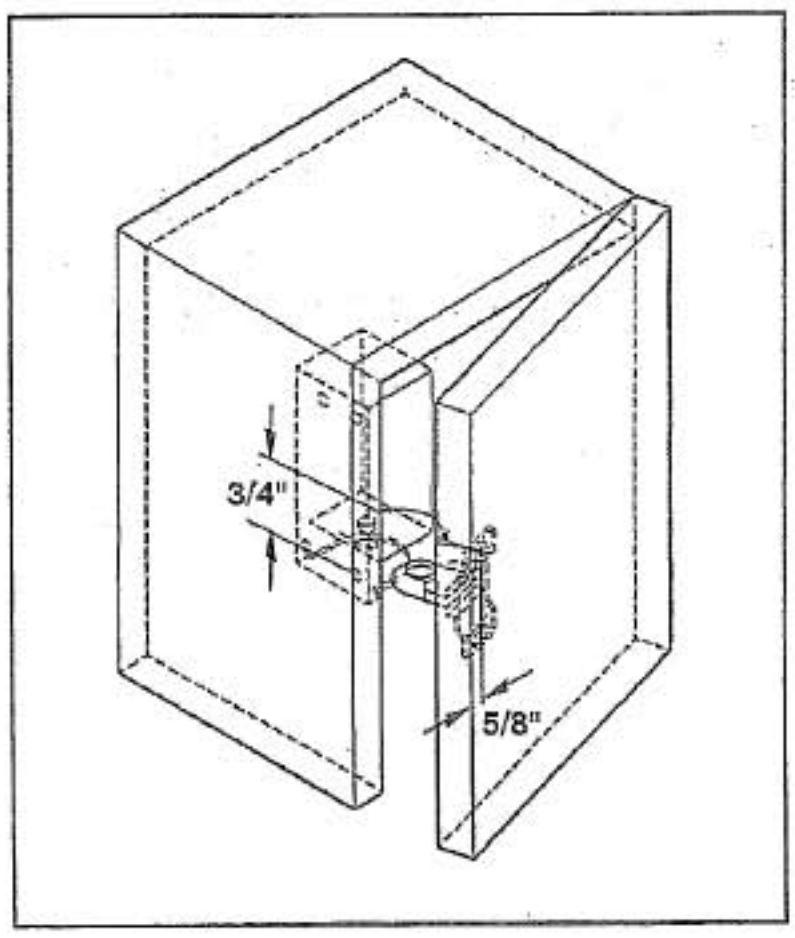


Finish: Lock body: steel, black
Cover plate: steel, matt finish
Lock bolt: steel, galvanized

Packing: 1 pc.







PART 6 - FINISH WIRING OF THE DUMBWAITER

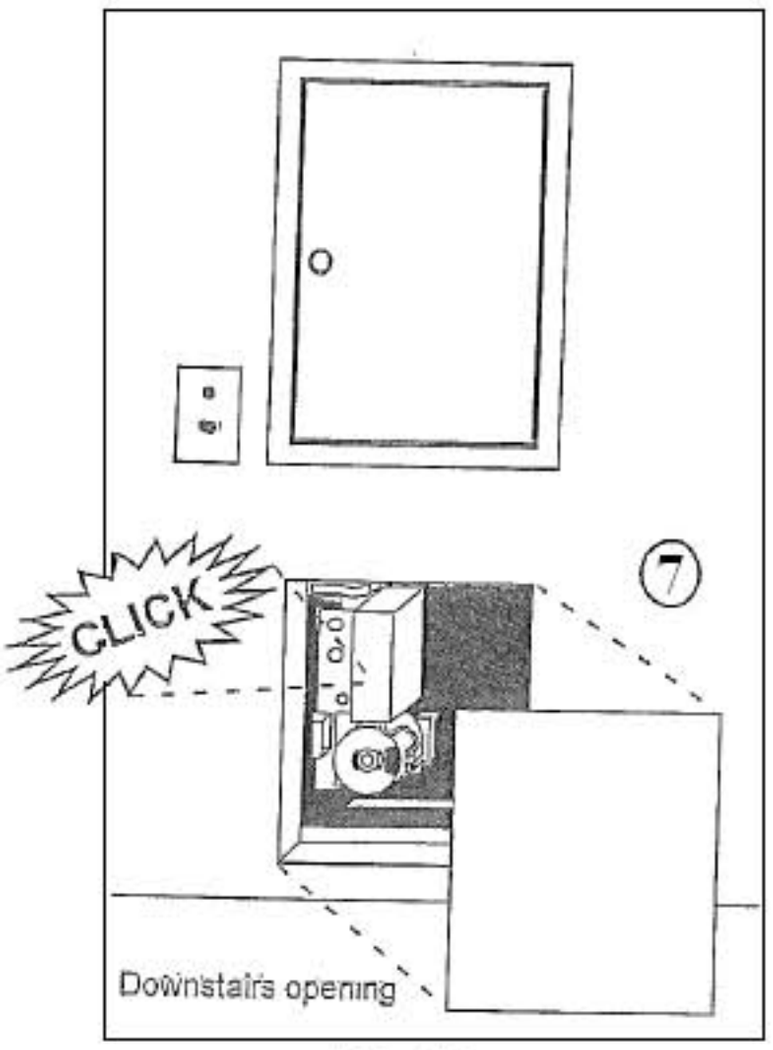


Fig. 22

WARNING

DUMBWAITER CAR CAN CAUSE INJURY OR DEATH

DO NOT INSTALL DUMBWAITER CAR UNTIL ALL ADJUSTMENTS ARE COMPLETE, AND PUSH BUTTONS & DOOR SWITCHES ARE INSTALLED & WORKING PROPERLY

DANGER

⑦ To test the dumbwaiter, all doors must be closed. Once all doors are closed, open door and listen for a clicking noise coming from the dumbwaiter controller. The clicking noise tells you that the door safety switch is functioning and that the dumbwaiter will not operate if the door is open, and that it will stop if the door is opened while the dumbwaiter is in operation. NOTE: The clicking noise will be coming from the dumbwaiter controller, not the door safety switch. (See Fig. 22)

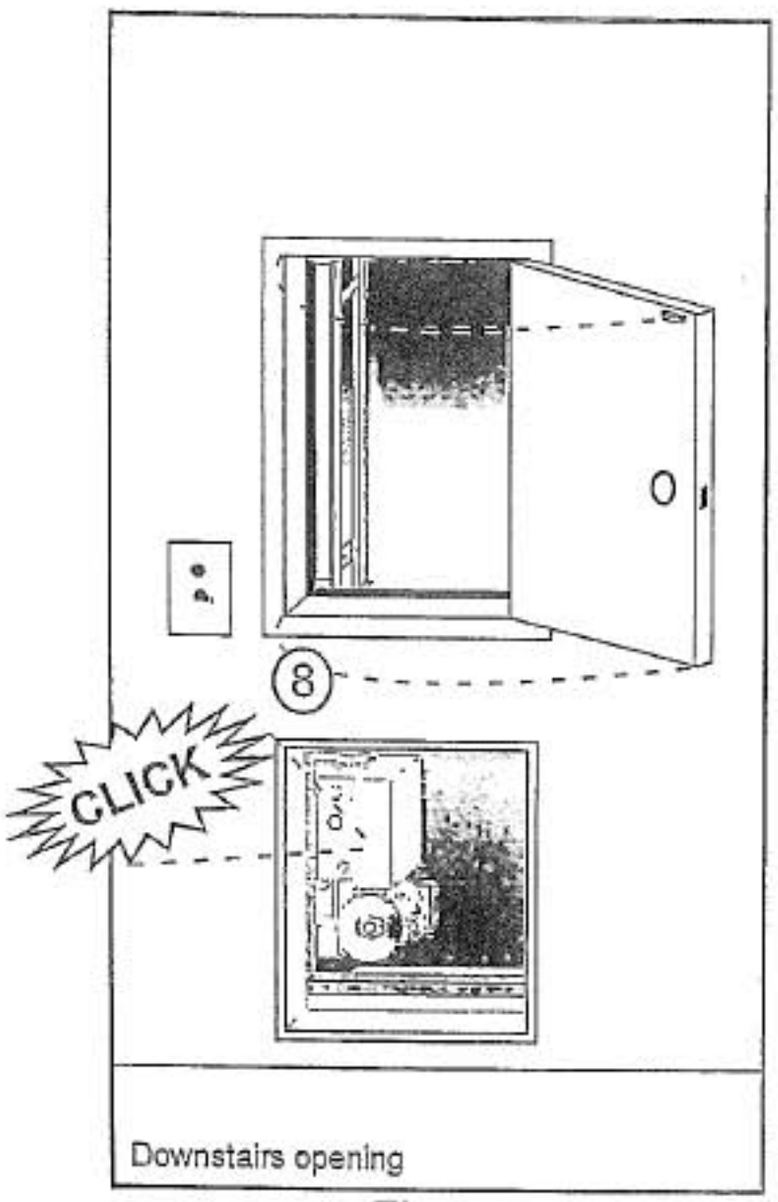


Fig. 23

⑧ Repeat the above step with each additional opening you have. NOTE: Each floor above the first requires two people, one downstairs by the access door listening for the clicking noise, and the other upstairs to open and close the door. (See Fig. 23)

⑨ Now open all doors and try to send the dumbwaiter up or down. THE DUMBWAITER SHOULD NOT FUNCTION!! Close one door and try to operate the dumbwaiter again, repeating until all doors are closed. NOTE: If the dumbwaiter operates with a door open, unplug the machine and call Powerlift at 800-409-5438.

Now that you have tested the dumbwaiter and know that the door safety switches are functioning properly, you can press the call button up or down, depending on which floor you are on, and the dumbwaiter trolley will go up or down. NOTE: If any strange noise is heard (scraping, crashing, banging, etc) during dumbwaiter operation, open door immediately to stop the dumbwaiter, UNPLUG THE MACHINE, and call Powerlift at 800-409-5438.

NOTE: Never unplug 3- or 4- stop units between floors. If you do, the trolly must be brought to limit switch manually.

PART 6 - INSTALLING DUMBWAITER CAR

WARNING

DUMBWAITER CAR CAN CAUSE INJURY OR DEATH

DO NOT INSTALL DUMBWAITER CAR UNTIL ALL ADJUSTMENTS ARE COMPLETE, AND PUSH BUTTONS & DOOR SWITCHES ARE INSTALLED & WORKING PROPERLY

DANGER

WARNING! DISCONNECT DUMBWAITER FROM AC POWER OUTLET BEFORE INSTALLING DUMBWAITER CAR. FAILURE TO DO SO COULD CAUSE LOSS OF LIFE OR LIMB AND/OR DAMAGE TO THE DUMBWAITER

(10) Fasten dumbwaiter securely to trolley with furnished bolts and washers which are attached to dumbwaiter car prior to shipping from the factory. (See Fig. 25)

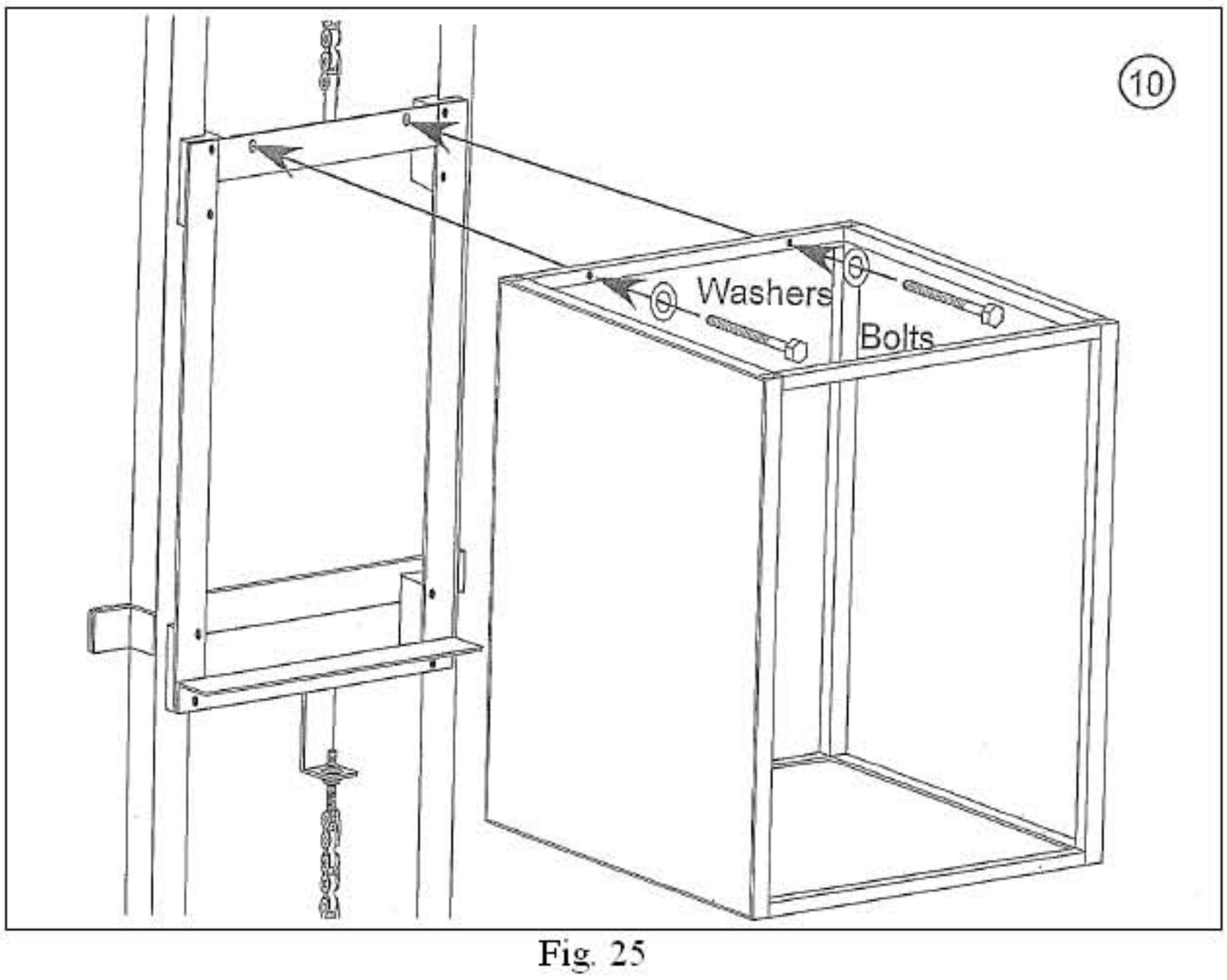


Fig. 25

Please read the Owner's Manual for important safety and warranty information regarding your dumbwaiter. If you do not have an Owner's Manual, please go to http://www.dumbwaiters.com/html/support.html to download a copy, or call Powerlift at 800-409-5438.

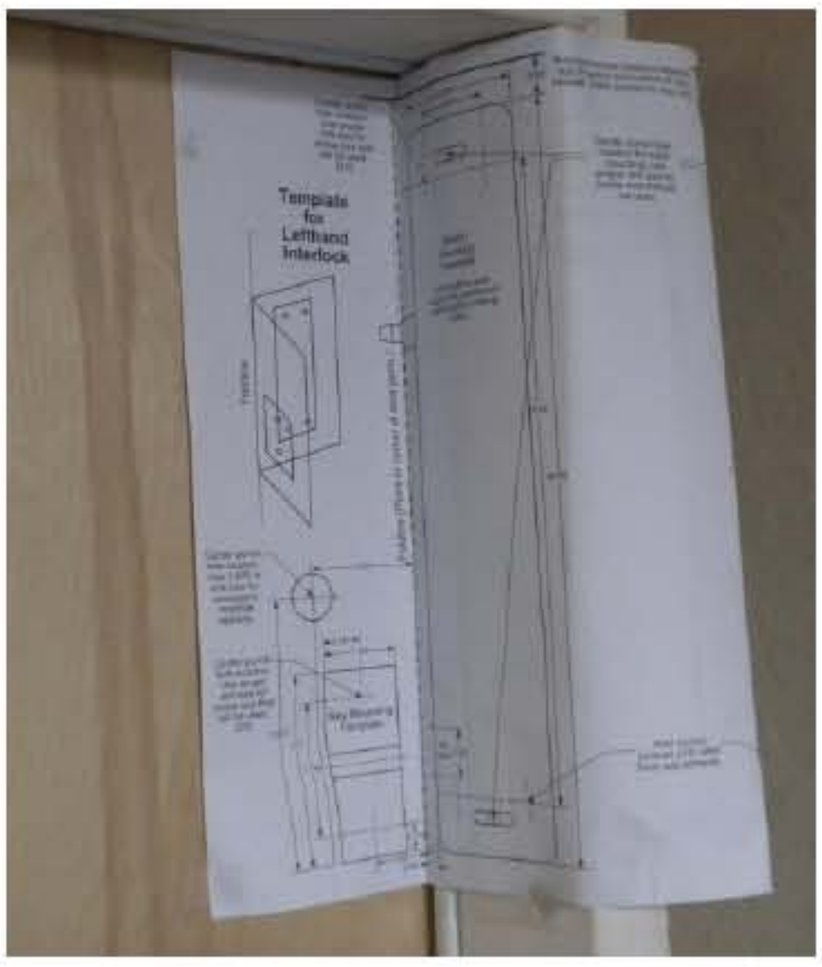
If you have any questions or need of tech support or assistance, please feel free to give us a call. It is our goal to service our customers' needs to the best of our ability, and we welcome any opportunity to do so. Your comments and suggestions are encouraged.

From all of us at Powerlift Dumbwaiters, Inc ~ Thank you for your business, and God Bless you and your family.

INTERLOCK FOR P-300 and -500 SERIES

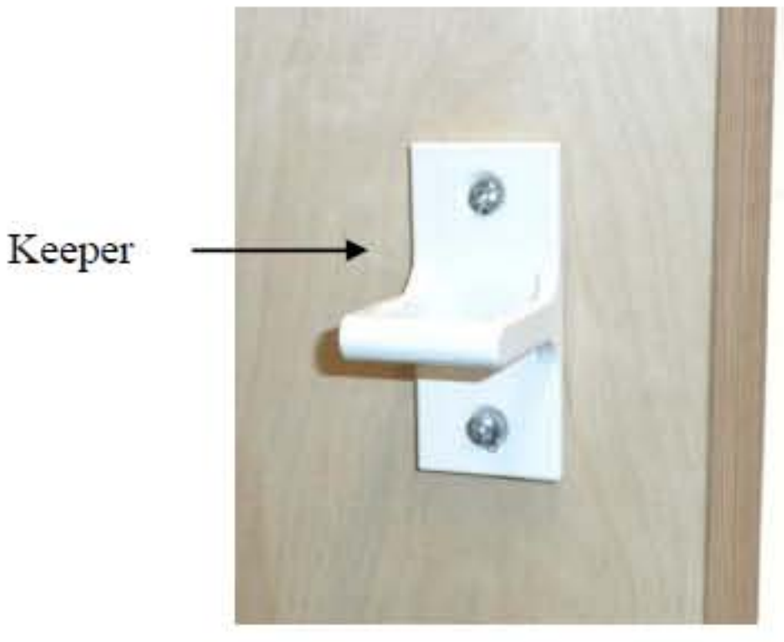
Install door at each level. Doors MUST have a latch to keep them shut -- INTERLOCKS ARE NOT A LATCH!

The interlocks are mounted in the upper corner of the door jamb on the side opposite the hinges. The interlock "keeper" is mounted on the inside of the door so it latches with the interlock when the door is closed.



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.

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 so that the keeper locks in place when the door is shut.



IMPORTANT NOTE: Interlock must be mounted to the SIDE jamb. Cannot be mounted horizontally. The box will tell you the mount you've chosen; for example, RDI-G-R means the interlock is to be mounted top right jamb as you're looking at it. RDI-G-L means top left

INTERLOCK FOR P-300 AND -500 SERIES

Honeywell RDI Interlock wire connection