

Installation/Operating Instructions

AeroLift 25 by Draper

Caution:

- ① Read instructions completely before proceeding.
- ② Follow instructions carefully. Installation contrary to instructions invalidates warranty.
- ③ Do not obstruct operation of AeroLift 25 with fingers or any object. Serious injury or damage could result.
- ④ It is not uncommon to overheat the motor during initial installation when setting limits. The motor is thermally protected and will stop working until it has cooled to a safe temperature before it will start operating again.
- ⑤ The AeroLift 25 is designed to accommodate ceiling suspended equipment. Equipment should not be allowed to rest on ceiling closure during operation. (Refer to section titled "Installing Projector.")
- ⑥ Entire bottom of unit must be unobstructed to permit proper operation.
- ⑦ Unit must be installed level (use a carpenter's level).
- ⑧ Unit operates on 110-120V AC 60 Hz. current.

Note: Unit has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.

Planning

- ① Based on screen location and projector specifications, determine proper position for projector installation.
- ② Confirm that there is adequate space for installation and operation. Minimum clearance above ceiling level varies according to height of projector, optional projector mounting bracket, optional ceiling closure and optional plenum housing.
- ③ Arrange to provide service access to the unit.
- ④ Total capacity of lift is 25 lbs, including closure, projector and bracket.

As Soon As AeroLift 25 Arrives

- ① Open carton and inspect for damage.
- ② Locate the following parts:
 - A. The unit itself
 - B. Controls
 - C. Any optional equipment

Hanging Unit

The AeroLift 25 is provided with four (4) mounting angles for suspending or direct mounting the unit from above or direct mounting from the sides. These angles provide up to 1½" of adjustment (front to back). The AeroLift 25 is designed to fit between joists spaced 16" apart on center (assuming 2" joists), and to close to approximately 4", not including the projector, bracket or closure. The unit should be guy wired or blocked to prevent swinging. All installations should observe the following guidelines:

- ① Installer must ensure that all fasteners and supports are of adequate strength to securely support AeroLift 25 and projector. It is recommended that hardware structure be able to hold at least four times the combined weight of the lift, projector, plenum, closure and ceiling material attached to closure.
- ② Fastening methods must be suitable for mounting surface, and securely anchored so that vibration or abusive pulling on unit will not weaken installation.
- ③ Bottom of unit must be unobstructed after installation. Sufficient clearance must be allowed below projector or optional ceiling closure.
- ④ Do not use unit to support adjacent ceiling, light fixtures, etc.
- ⑤ Do not complete the ceiling below unit until electrical connections have been completed and unit has been operated successfully.
- ⑥ Use slots on the projector plate and on the closure to adjust the unit to ensure proper alignment of ceiling closure relative to ceiling opening.

Electrical Connections

Unit operates on 110-120V AC, 60 Hz. current.

The AeroLift 25 is shipped closed, with a temporary field connection provided in the form of a pigtail temporarily wired to the unit. After hanging the unit, make sure power is off and use this pigtail to temporarily connect the unit to power and to a switch, so the unit can be lowered to allow access inside.

DRAPER

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Please note: Make sure electrical supply has been disconnected before attempting to connect AeroLift 25 to electricity.

Terminal strip for field connections is located inside a junction box on the end of the unit. Unit is shipped with internal wiring complete to the terminal strip. Once the unit has been lowered, turn off power and remove the J-box cover. The terminal strip is attached to the cover. Disconnect temporary pigtail from unit, then complete permanent wiring to electricity and to switches. Wire to connect unit to power supply and to switches should be furnished by installer. Connections should be made in accordance with wiring diagram, and wiring should comply with national and local electrical codes. All operating switches should be "off" before power is connected. AeroLift 25 should be operated and checked prior to installing projector and/or optional ceiling closure.

Operation

When unit is first operated, be cautious! If unit fails to operate when the switch is flipped "down", return switch to "off" and recheck electrical connections before proceeding. Cycle unit down and up several times to confirm satisfactory operation.

110-120V Single Station Control — 3-position up-off-down switch permits operation to be stopped at any point. Factory adjusted limit switches automatically stop AeroLift 25 when fully down or fully up.

Optional 110-120V Multiple Station Control—Switches are similar in appearance to 110-120V Single Station Control. AeroLift 25 stops when switch is released and may be restarted in either direction. Factory adjusted limit switches automatically stop AeroLift 25 when up or fully down.

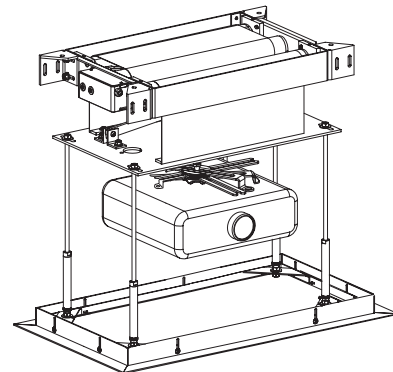
Optional 24V Control — Three-button up-stop-down switches stop at any point desired, operate in any sequence. Factory adjusted limit switches automatically stop AeroLift 25 when fully up or fully down.

Optional Infrared or Radio Frequency Remote Control—If ordered, a three-button transmitter is provided, with "up", "down", and "stop" buttons. Unit starts up or down when appropriate button is pressed, and may be stopped by pressing "off" button. Factory set limit switches stop unit automatically when projector is in "show" position.

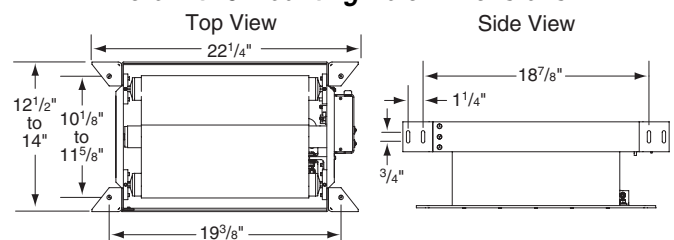
Optional RS232/Ethernet—Serial communication and network communication optionally available with wall switches, RF or IR remote.

Optional Key Operated Switching — Two kinds of key-operated switches are optionally available with this unit. ① The key-operated power supply switch controls power to the AeroLift 25 and switches. When it is "off", the switches will not operate lift. Key may be removed from the switch in either "on" or "off" position. ② A three-position key switch permits the AeroLift 25 to be operated directly by key. In this case, the screen's operator must always have a key.

Please Note: As weight is applied to the AeroLift 25, the projector plate may shift slightly. If this occurs, use setscrews on bottom of fabric roller brackets to compensate for shift and level projector plate.



AeroLift 25 Mounting Hole Dimensions



If you encounter any difficulties installing or servicing your AeroLift 25, call your dealer or Draper, Inc. in Spiceland, Indiana, 765-987-7999, or fax 765-987-7142.

Installing Optional Plenum Housing

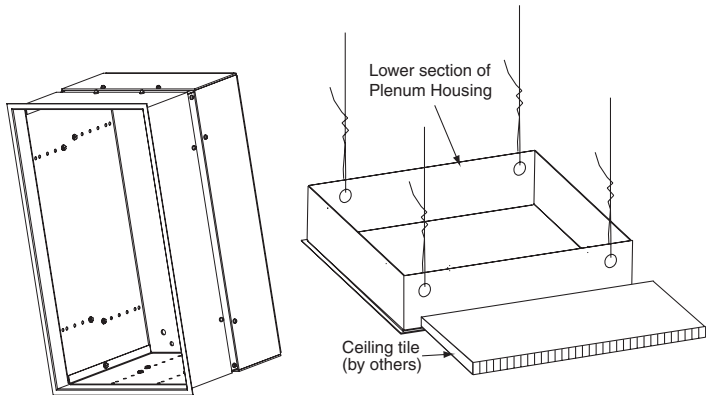
The Plenum Housing is shipped pre-assembled in its shortest position. The height of the plenum can be adjusted by moving the screws to different mounting holes in side panels. The incremental adjustment for the top screw and bottom screw is $\frac{1}{2}$ "; the incremental adjustment for the rest of the screws is 1". You can install the plenum housing in a pre-assembled state or as separate components, which will require that the plenum housing be completely disassembled prior to installation.

Please note that if the plenum is to be installed in a space where there is no access from above the plenum, then it is recommended that the AeroLift 25 be installed to the upper section prior to installing the plenum housing. It is also recommended that an access panel be installed to allow future access.

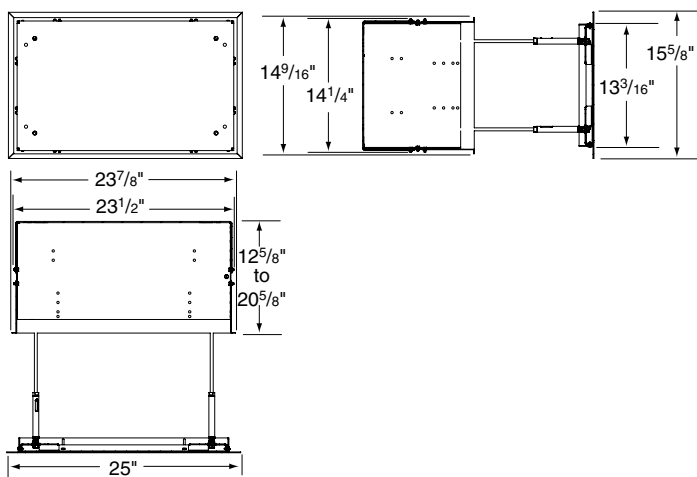
- ① Install top section of plenum housing using outer four holes located on top of upper section. If installing large plenum, make sure plenum is oriented properly to allow correct placement of lift within plenum.
- ② If installing the large closure, attach brackets to bottom of projector plate (see drawing on page 3).
- ③ Attach AeroLift 25 to upper section of plenum housing through the inner four holes in the upper section with the $\frac{5}{16}$ " $-18 \times \frac{7}{8}$ " hex head screws, $\frac{5}{16}$ " flat washers and lock nuts provided with plenum housing. The lock nuts should be used **above** the plenum housing (one per screw).
- ④ Attach the two flat panels of the middle section across from each other with the clinch nuts to the outside of the housing.
- ⑤ Attach the two middle section panels with the formed ends across from one another.
- ⑥ Attach lower section of plenum housing.

Plenum Housing

Ceiling Trim Kit



Small Plenum Housing, Lift, and Closure Dimensions



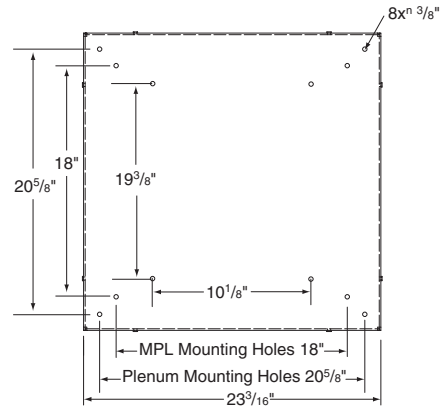
Installing Optional Ceiling Trim Kit

The AeroLift 25 is available with a ceiling trim kit, which consists of the lower section of the plenum housing and the optional closure panel.

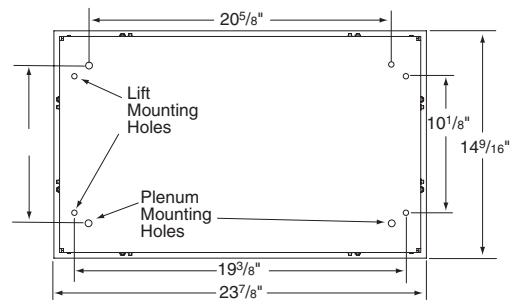
- ① Install AeroLift 25 as previously described in these instructions.
- ② Install bottom section of plenum housing in opening. This can be accomplished by suspending with wire, or by mounting directly to the ceiling joists (if space permits).
- ③ Install projector and attach optional ceiling closure to AeroLift 25 (see instructions on page 3).

Mounting Hole Spacing

Large Plenum

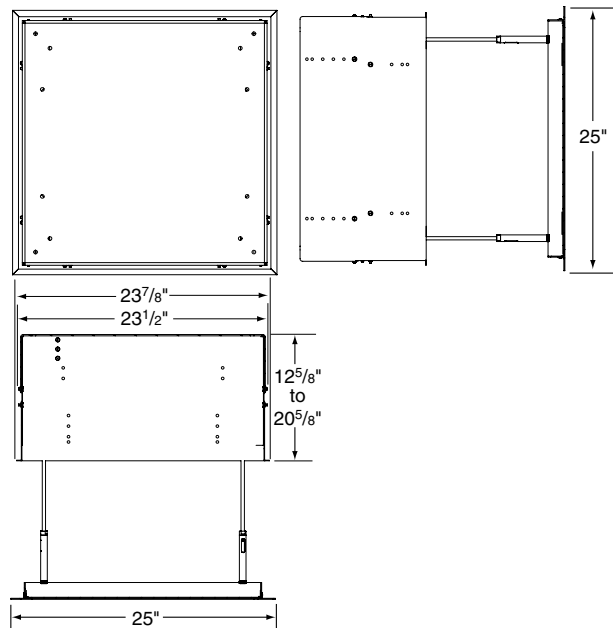


Small Plenum



(Top views shown)

Large Plenum Housing, Lift, and Closure Dimensions



Installing Projector

Generally, the video projector should be suspended from the bottom pan according to projector manufacturer's instructions or using optional SMS Low Profile Mount. If installing with a small closure, maximum projector size is 18" x 8¾" (width x length x plenum height). If installing with a large closure, maximum projector size is 18" x 18" (width x length x plenum height).

The projector plate is not pre-drilled. When drilling initial holes for mounting projector, or if for any reason the hole placement must be changed, completely lower AeroLift 25 before attempting to drill holes.

Unit and projection system should be operated, checked and adjusted as necessary at this time (see below for limit adjustment procedures).

Warning: Keep fingers & other objects away from ceiling closure when unit is operating. Serious injury or damage can result.

Adjustments (see drawing at right)

CAUTION: Be sure all switches are in "off" position before adjusting limit switches. Always be prepared to shut lift off manually when new adjustment is being tested.

Limit switches for the AeroLift 25 are preset at the factory. The "Up" (closed) limit switch is set for fully closed. The "down" (show) limit switch is set for fully lowered. Once unit is in place, the "down" limit switch may need to be changed to stop the AeroLift 25 closer to the ceiling (that is, to raise the "down" position). Limit switches are located on the end of roller, and are accessible by removing the cover of the junction box at the left end of the unit. To adjust the limit switches, use a 5/32" screwdriver/allen wrench.

Caution: It is not uncommon to overheat the motor during initial installation when setting limits. The motor is thermally protected and will stop working until it has cooled to a safe temperature before it will start operating again.

Adjusting "Down" (show) position — "Down" position may be adjusted by turning the #1 limit switch adjustment socket. Turning the socket clockwise will stop the AeroLift 25 closer to the ceiling. Turning it counter-clockwise will cause the lift to stop at a lower point.

Adjusting "Up" (closed) position — Because the "up" ("closed") position is preset at the factory, Draper does not recommend changing this position using the limit switch. The "up" position of the closure may be changed by changing the length of threaded rod (see instructions for closure installation below). If necessary, however, "up" position may be adjusted by turning the #2 limit switch adjustment socket. Turning the socket counterclockwise creates a higher, or more fully closed position. Turning it clockwise creates a lower "UP" (closed) position.

Caution: Do not set limit switch so that the AeroLift 25 motor is still running after the lift is closed. This could result in damage to the motor.

Installing Ceiling Closure

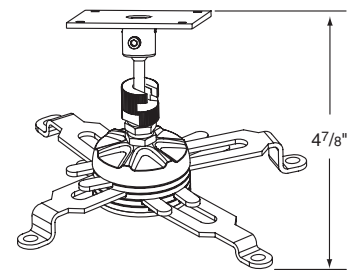
If your AeroLift 25 is equipped with a ceiling closure system, it can be used as is, or in conjunction with a piece of existing ceiling tile.

Please refer to diagrams at right for these instructions.

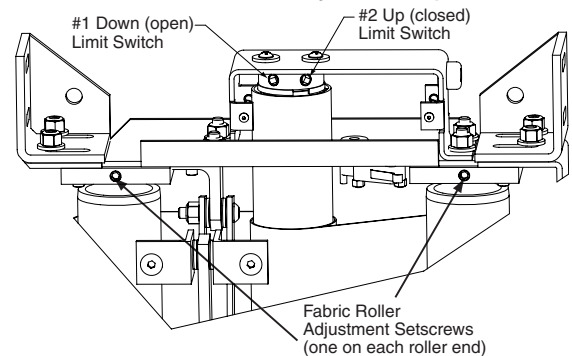
- ① If installing with ceiling tile, you may need to cut tile so that its overall dimensions are the same as (or slightly less than) the closure panel. Place tile into trim frame. Lay closure panel on top (back side) of ceiling tile, and tighten screws to hold in place.
- ② If installing large closure, attach brackets to bottom of projector plate (see drawing at right).
- ③ Attach 5/16" threaded rods to slots in projector plate or brackets.
- ④ Run unit "up" until bottom pan stops at highest position. Mark position on 5/16" rods even with ceiling level and cut rods to length (removing from pan if convenient).
- ⑤ Run unit "down" until bottom pan stops at "show" position.
- ⑥ Attach closure to lower end of 5/16" rods by slipping into four corner slots and secure with nuts above and below slots.
- ⑦ Run unit "up" again to highest position. Measure distance by which panel fails to reach required "closed" height for surrounding ceiling.
- ⑧ Run unit "down" then re-adjust mounting of 5/16" rods in traveling grid to raise panel required distance.
- ⑨ Test unit operation to confirm that panel will stop in closed position just before touching ceiling.

NOTE: Immediately upon completion of the surrounding ceiling, unit should be operated to confirm that optional ceiling closure panel stops just short of touching ceiling in closed position.

SMS Low Profile Mount with Universal Bracket



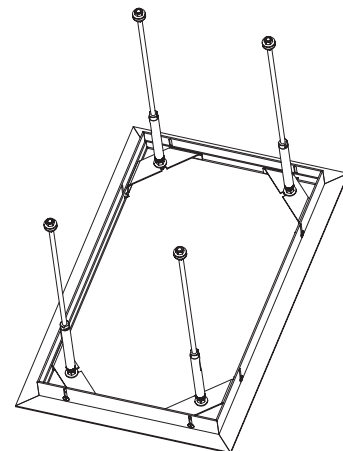
AeroLift 25—Limit Switch Adjustment (Bottom View)



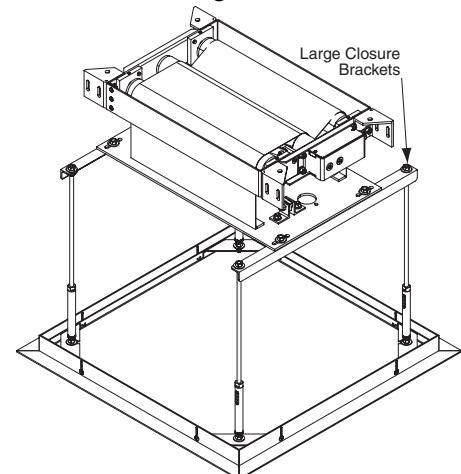
Please Note:

If load is off-center of pan, you may need to adjust the pitch of the fabric rollers. One setscrew is provided on each end of both fabric rollers (see above drawing). Use these to adjust roller pitch to keep entire fabric panel taut, so load is evenly distributed. Use 1/8" hex key to adjust.

AeroLift 25 Standard Closure

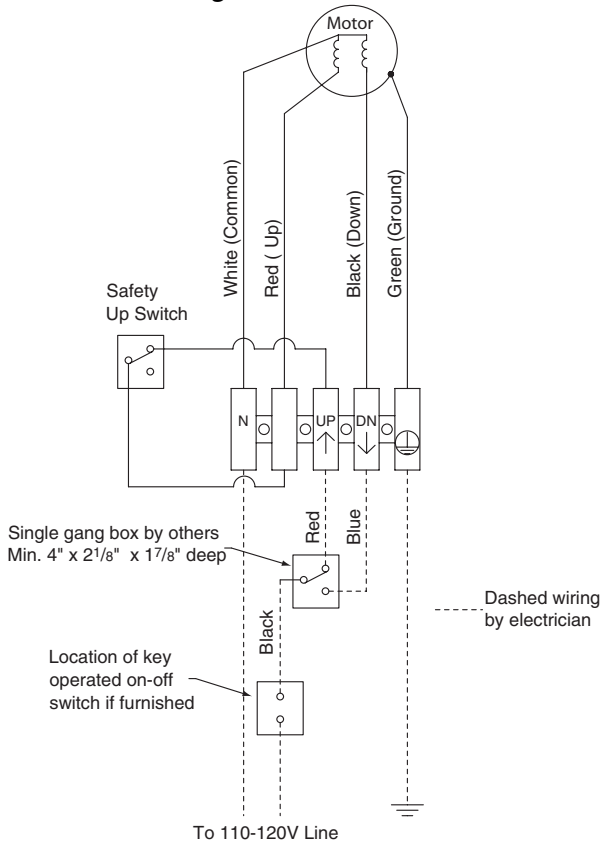


AeroLift 25 with Large Closure and Brackets

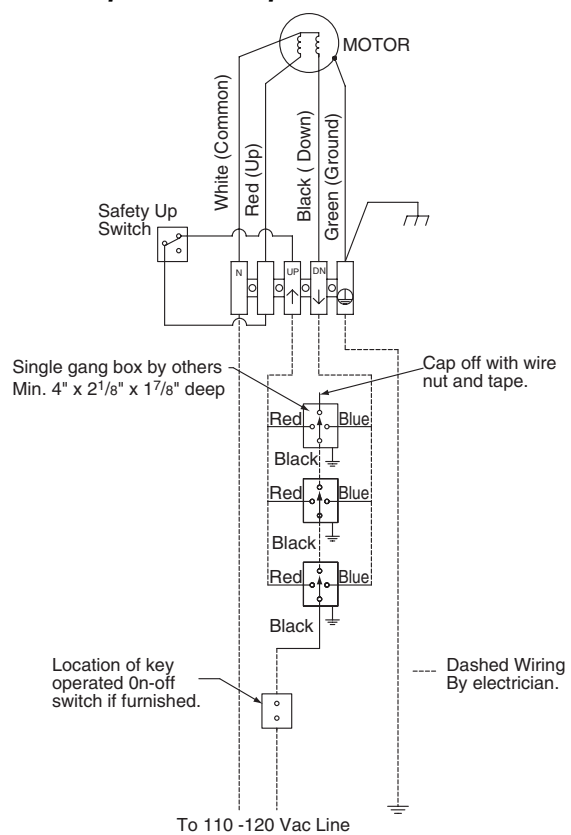


Wiring Diagrams

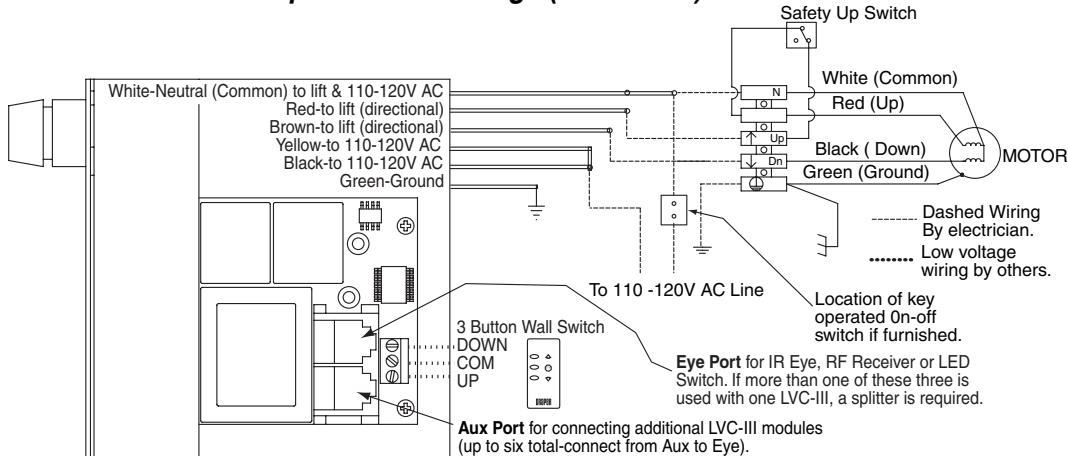
Single Station Control



Optional Multiple Station Control



Optional Low Voltage (& Wireless) Control



Optional MC1

