

AeroLift 100 / 150 (220v)

Installation & Operating Instructions

⚠ Caution: ⚠

- ① Read instructions completely before proceeding. Follow instructions carefully. Installation contrary to instructions invalidates warranty.
- ② Do not obstruct operation of AeroLift 100 or 150 with fingers or any other object. Serious injury or damage could result.
- ③ It is not uncommon to overheat the motor during initial installation when setting limits. The motor is thermally protected and will stop working temporarily. DO NOT physically pull the unit down when this occurs. Once it has cooled to a safe temperature, it will begin operating again.
- ④ The AeroLift 100 and 150 are designed to accommodate ceiling suspended equipment. Equipment should not be allowed to rest on ceiling closures during operation (see "Installing Projector").
- ⑤ Entire bottom of unit must be unobstructed to permit proper operation.
- ⑥ Unit must be installed level (use a carpenter's level).
- ⑦ Unit operates on 220-230V AC 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, projector mounting bracket, optional ceiling closure and optional Environmental Air Space Housing.
- ③ Arrange to provide service access to the unit.
- ④ Total maximum capacity of AeroLift 100 is 45 kg.; capacity for AeroLift 150 is 68 kg. (including closure, projector and bracket).

As Soon As AeroLift Arrives

- ① Open carton and inspect for damage.
- ② Locate the following parts:
 - A. The unit itself
 - B. Controls
 - C. Any optional equipment
- ③ Test lift **prior to installation**.

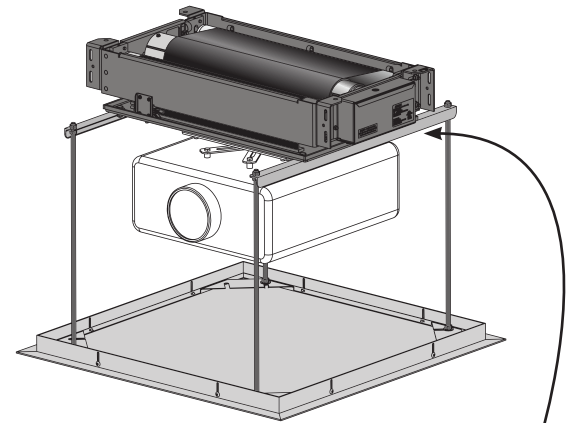
Electrical Connections

Unit operates on 220V, 60 Hz. AC current. The AeroLift 100 and 150 are shipped closed. After hanging the unit, make sure power is off and temporarily connect the unit to power and to a switch, so the unit can be lowered to allow access inside.

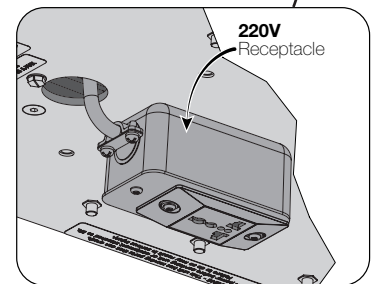
Please note: Make sure electrical supply has been disconnected before attempting to connect AeroLift to electricity.

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 should be operated and checked prior to installing projector and/or optional ceiling closure.

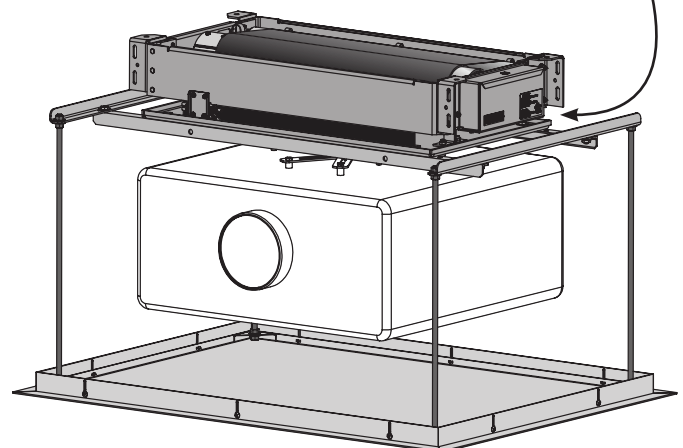
AeroLift 100
(with Closure panel)



Projector can be installed as shown or turned 90° depending on projector size.



AeroLift 150
(with Closure panel)



Projector can be installed as shown or turned 90° depending on projector size.



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If you encounter any difficulties installing or servicing your AeroLift 100 or 150, call your dealer or Draper, Inc. in Spiceland, Indiana, 765-987-7999 or fax 765-987-7142.

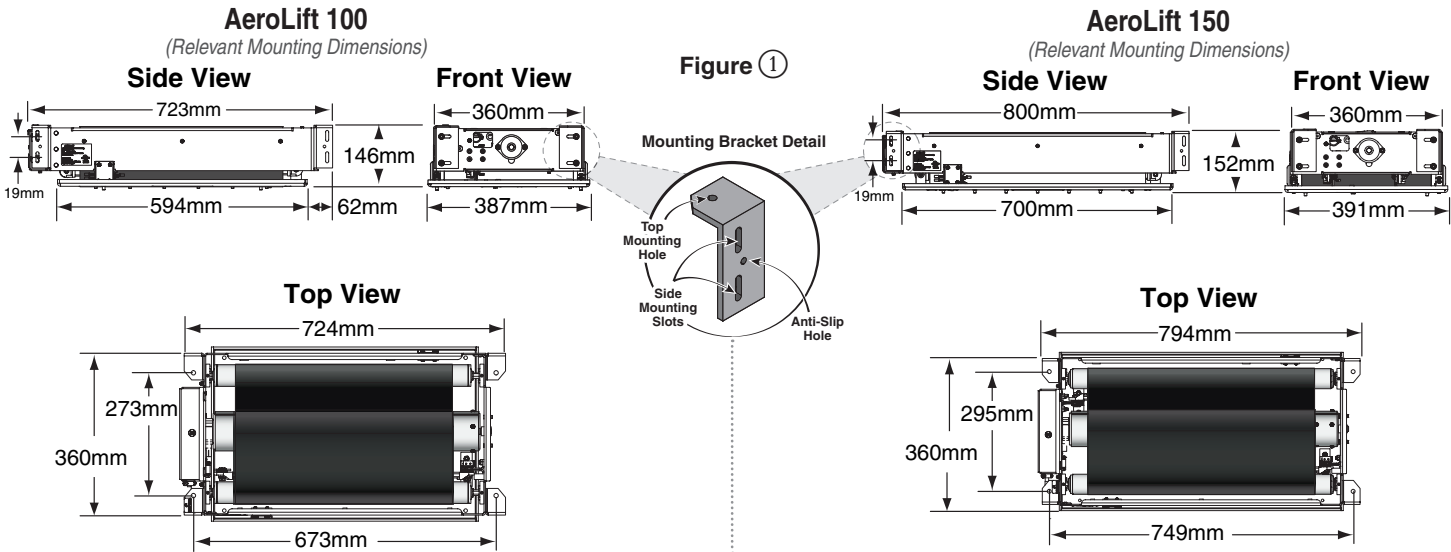
Hanging Unit

The AeroLift 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 38mm of adjustment (side to side). 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 100/150 and projector. It is recommended that hardware structure be able to hold at least four times the combined weight of the lift, projector, housing, closure and ceiling material attached to closure.

⚠ **Caution: DO NOT hang from, "ride" or pull down on the unit. This could create a failure and cause damage and/or injury.**

- ② Fastening methods must be suitable for mounting surface, and securely anchored so 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 the 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.



Operation

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

220V Single Station Control

3-position up-off-down switch permits operation to be stopped at any point. Factory adjusted limit switches automatically stop AeroLift when fully down or fully up.

Optional 220V Multiple Station Control

Switches are similar in appearance to 110-120V Single Station Control. AeroLift stops when switch is released and may be restarted in either direction. Factory adjusted limit switches automatically stop AeroLift 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 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. Multiple Station Control required for this option.

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 100/150 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 100/150 to be operated directly by key. In this case, the screen's operator must always have a key.

Testing the Safety Limit Switches

The AeroLift 100 and 150 are equipped with two Safety Limit Switches (see "AeroLift—Limit Switch Adjustment (Bottom View)" diagram on page 3). These switches may be damaged during shipping or by rough handling on the job site.

Once the AeroLift has been installed in the ceiling, but before the projector and closure are attached, the Safety Limits must be tested.

Use a screwdriver or other tool to press and hold the limit switch. While holding down the limit switch, have someone operate the unit. **If the unit runs up while the limit switch is depressed, the limit switch is broken and must be replaced.** Operating the unit without a functioning Safety Limit Switch could cause the unit's motor to continue operating after the lift is closed, leading to a failure and the possibility of damage or injury. Make sure to test BOTH switches.

Please Note: As weight is applied to the AeroLift, 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 (see page 3).

Limit Switch Adjustments

⚠ **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 100/150 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 100/150 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.

Limit Switch Adjustments (Continued)

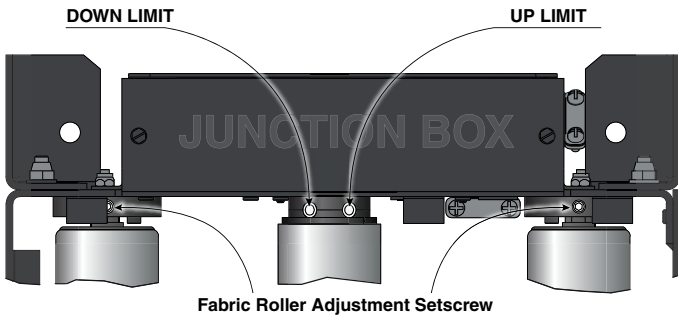
⚠ Caution: It is not uncommon to overheat the motor during initial installation when setting limits. The motor is thermally protected and will stop working until it has cooled to a safe temperature before it will start operating again. DO NOT physically pull the unit down when this occurs.

Adjusting "Down" (SHOW position)

"Down" position may be adjusted by turning the DOWN limit switch adjustment socket (see Fig. 2 below). Turning the socket clockwise will stop the AeroLift 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 Fig. 5). If necessary, however, "up" position may be adjusted by turning the UP limit switch adjustment socket (see Fig. 2 below). Turning the socket counterclockwise creates a higher, or more fully closed position. Turning it clockwise creates a lower "UP" (closed) position.



⚠ Caution: Make sure limit switch is set so that the AeroLift 100/150 motor is NOT still running after the lift is closed. If it continues to cycle once the lift is closed, a failure may occur, making the unit descend rapidly and causing damage and/or injury.

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 3mm hex key to adjust.

Installing Optional Environmental Air Space Housing

The Environmental Air Space Housing is shipped in pieces, and must be assembled by the installer. The height of the Environmental Air Space Housing is set by drilling out the knockouts at the desired locations then using screws to connect side panels. It is recommended that an access panel be installed in the ceiling to allow future access. The optional environmental air space housing must be installed to isolate the lift from the "other space used for environmental air." Includes trim ring for ceiling opening.

See installation instructions included with Environmental Air Space Housing.

Installing Optional Ceiling Closure

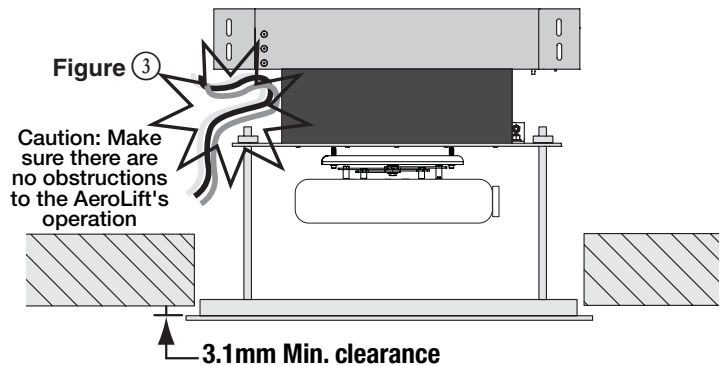
If your AeroLift is equipped with optional ceiling closure, it can be used as is, or in conjunction with a square of existing ceiling tile.

See installation instructions included with ceiling closure.

Installing Optional Ceiling Trim Kit

The AeroLift is available with a ceiling trim kit, which consists of the lower section of the Environmental Air Space Housing and the optional closure panel. **See installation instructions included with Ceiling Trim Kit.**

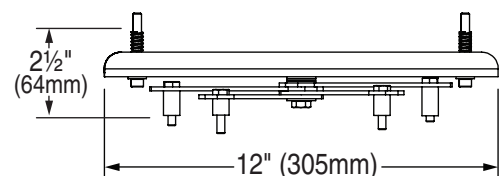
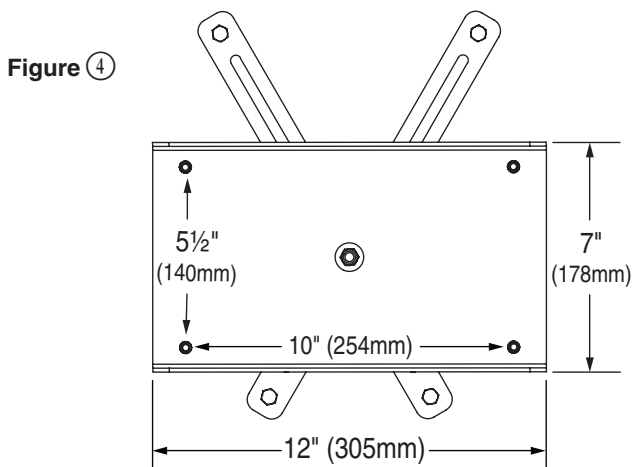
AeroLift Clearance



Installing Projector Using Universal Projector Mount

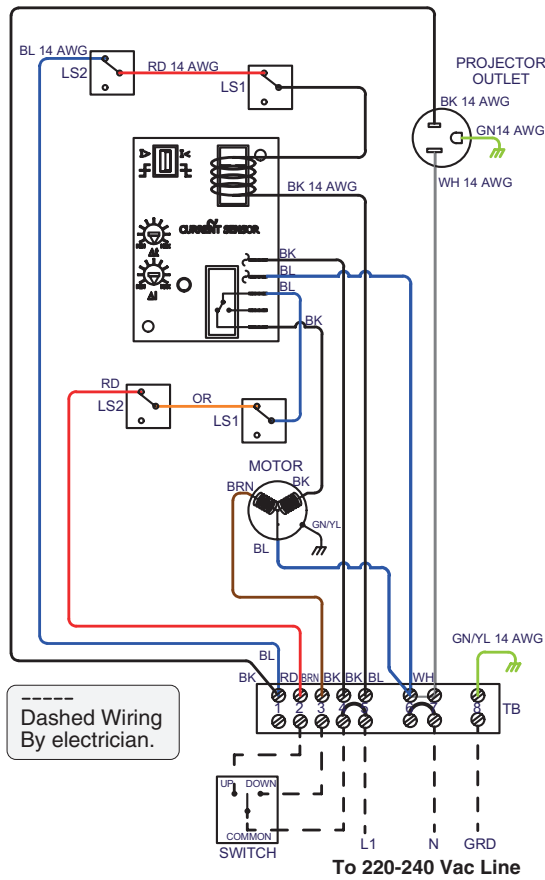
(Maximum Capacity 11.8kg)

See Installation Instructions included with Universal Projector Mount.

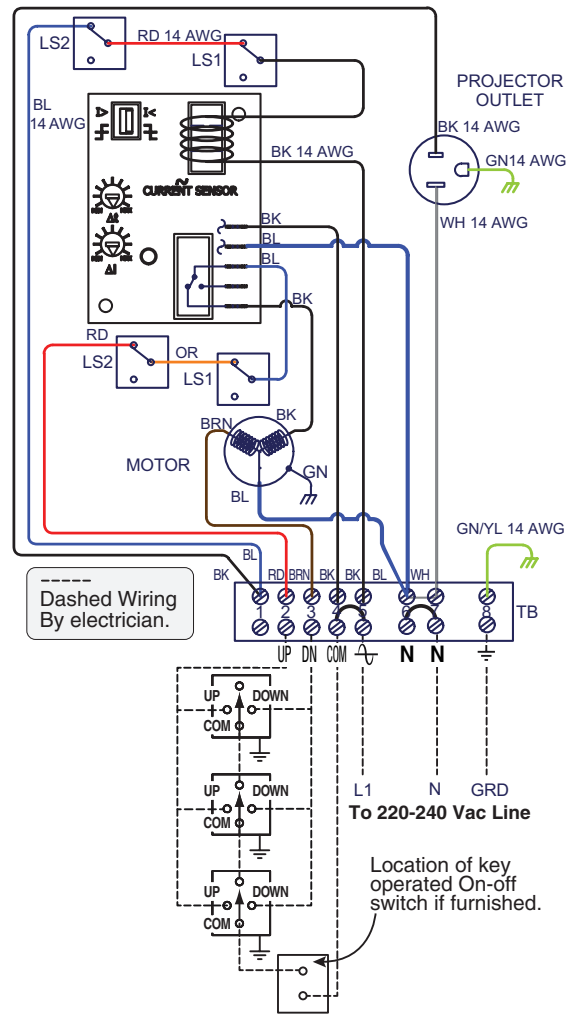


Wiring Diagrams

Single Station Control



Optional Multiple Station Control



LVC-IV (Low Voltage & Wireless) Control

