Scissor Lift SL 115V & 240V AC

Planning sheet submission required with your order or request for quotation. Please mark appropriate response to each numbered item *(front and back)*.

Specifications — Scissor Lift SL UL

_____ video projector lifts.
White or black powder coat finish. Projector bolts onto operating pan, or mounts to pan with mounting bracket *(by others)*. Electrically operated. Available with 110-120V AC, 60 Hz., or with 220-240V AC, 50 Hz. UL recognized gearmotor, with metal chain drive system, to be lifetime lubricated.

Projector to be suspended from steel pan supported by steel scissor arms and operated by two, ⅛" *(3.175 mm)* aircraft cables with 2000 foot/pounds tensile strength per cable.

Equipped with 3 sets of stabilizing scissors, positioned on the left, right, and rear sides. Also equipped with fail-safe inertial safety belt system and Cable Management System with projector power outlet. Factory set limit switches to automatically stop travel at store, show, and service positions. Single Station Low Voltage Control, standard, consists of one 3-button wall switch to lower lift from "stored" to "show " position, and one momentary key switch to lower lift to "service" position.

Scissor Lift SL is approved to **UL 2442** and **CSA C22.2 No. 60065-03**.

OPTIONAL CURRENT SENSOR: Must be used with Environmental Air Space Housing.

OPTIONAL ENVIRONMENTAL AIR SPACE HOUSING: Consists of suitable steel panels for use in return Environmental Air Space situations. Includes trim ring for ceiling opening. Four sizes available. Must be used with Current Sensor.

OPTIONAL CEILING CLOSURE PANEL: Finished in white baked textured powder coat, shall descend smoothly with projector. Four sizes available.

CEILING FINISH KIT: Finished white. Trims ceiling opening when required. Consists of trim ring and closure panel. Four sizes available.

Factory-installed control cables available.

> *Please Note:*
> The Scissor Lift SL should be specified in conjunction with a Draper motorized screen.

OPTIONAL CEILING ACCESS DOOR: Provides access to projector and lift when unit is installed above hard ceiling. Two styles: White painted finish or accepts ceiling tile.

OPTIONAL UNIVERSAL PROJECTOR MOUNT: Tilt, yaw and pan adjustment. Available in 2 sizes. **SMALL:** for projectors up to 26 lbs. **MEDIUM:** for projector up to 100 lbs. Patented by Draper.

Patent information available at http://www.draperinc.com/legal/patents/

Downloadable 3-part specifications are available at www.draperinc.com.

| Added Pieces Reference	Part #s	Net Weight
Small Projector Mount	300212 / 300215	6 lbs
Medium Projector Mount	300454 / 300453	12 lbs
Cables	Varies by Length	5-15 lbs
SL Closure panel	300291 / 300580	10.5 lbs
B Closure panel	300289 / 300583	24 lbs
E Closure panel	300290 / 300586	29.5 lbs
U Closure panel	300292 / 300589	32.5 lbs

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1. Select one model based on the maximum exact distance you need the projector to descend from "store" position to "service" position.

Draper does not recommend setting show position at the maintenance/service position. For example, if you wish to have 8' (2.4 m) Show position, order a lift with at least a 10' (3 m) maintenance position.

Scissor Lift—SL Series

Quantity	Closed Height	Extended Height	Lift Max Load (lbs)*	Lift Net WT (lbs)
☐ 4' *(1.2M)* — Model SL4 _____	**8"** *(20.3cm)*	**4'** *(121.9cm)*	132	88
☐ 6' *(1.8M)* — Model SL6 _____	**10"** *(25.4cm)*	**6'** *(182.9cm)*	125	95
☐ 8' *(2.4M)* — Model SL8 _____	**12"** *(30.4cm)*	**8'** *(243.8cm)*	118	102
☐ 10' *(3M)* — Model SL10 _____	**14"** *(35.6cm)*	**10'** *(304.8cm)*	109	111
☐ 12' *(3.65M)* — Model SL12 _____	**16"** *(46.6cm)*	**12'** *(365.8cm)*	100	120

*Net Weight of Projector + Mount + Closure Panel + Cables *(See Added Pieces Chart Above)*

16½" *(419 mm)* ⌀ ⁷⁄₁₆" *(11 mm)*
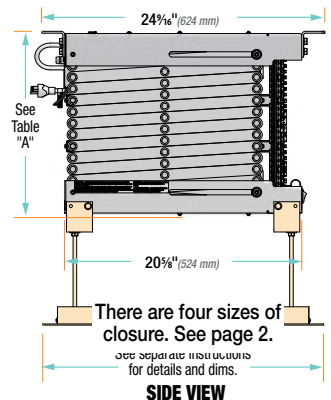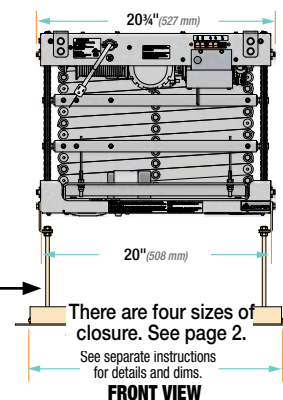
22¹⁵⁄₁₆" *(583 mm)*

TOP VIEW
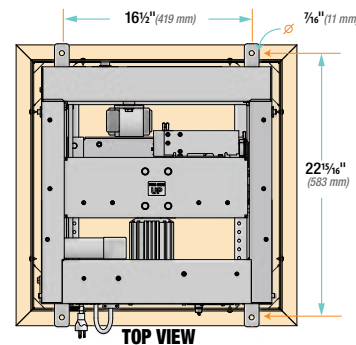
2. Standard, factory set "show" position is 36" *(914 mm)* **below "store" position. "Show" position can be adjusted after installation. For "show" position of more or less than 36"** *(914 mm)*, **list show position:** _____

3. Select Powder Coat Finish:
   ☐ White *(Standard)*
   ☐ Black
      ☐ Trim Ring Only *(Standard)*
      ☐ Entire Environmental Air Space Housing *(Optional)*

16" (406 mm) threaded rod included. Can be cut down to match projector and mount dims.

20¾" *(527 mm)*

20" *(508 mm)*

There are four sizes of closure. See page 2.
See separate instructions for details and dims.
FRONT VIEW

24⁹⁄₁₆" *(624 mm)*

See Table "A"

20⅝" *(524 mm)*

There are four sizes of closure. See page 2.
See separate instructions for details and dims.
SIDE VIEW

For drawings/dims with Environmental Air Space Housing, see page 3.

PROJECT: _____

_____

ARCHITECT: _____

CONTRACTOR: _____

SUPPLIER: _____

DATE: _____ REVISED: _____

4. Select Optional Accessories

- ☐ Optional **Ceiling Access Door** (2' x 2' [60 x 60 cm]) to allow access above finished ceiling (highly recommended).
  - ☐ White Painted Finish ☐ Accepts Ceiling Tile

- ☐ Optional **Environmental Air Space Housing:** Optional ceiling closure panel not included (see page 3).
  - ☐ "B" Closure ☐ "E" Closure ☐ "SL" Closure ☐ "U" Closure

- ☐ Optional **Ceiling Closure Panel:** Pairs with Environmental Air Space Housing. Installs with ceiling trim lip or as Lipless Closure (see page 3).
  - ☐ "B" Closure ☐ "E" Closure ☐ "SL" Closure ☐ "U" Closure

- ☐ Optional **Ceiling Finish Kit:** Ceiling closure panel and mating trim kit used to finish ceiling opening when no Air Space Housing is needed (see page 3).
  - ☐ "B" Closure ☐ "E" Closure ☐ "SL" Closure ☐ "U" Closure

- ☐ Optional **Universal Projector Mount**
  - ☐ SMALL (max. load 26 lbs.) ☐ MEDIUM (max. load 100lbs.)

- ☐ Optional **Current Sensor.** *(Please Note: Optional Current Sensor may reduce projector space available. Contact Draper).*

5. Select up to four (4) optional factory installed cables for RGB, Video and Projector Control?

(Note: Cables are Optional, not plenum rated and are shielded)

☐ Yes   ☐ No

What type of connectors do you need? *(Inputs to Projector and Outputs at top of Lift)*

- ☐ BNC   How Many? _____
- ☐ 15 Pin HD   How Many? _____
- ☐ RCA   How Many? _____
- ☐ S-Video   How Many? _____
- ☐ RS232 *(DB9)*   How Many? _____
- ☐ Cat 6   How Many? _____
- ☐ HDMI   How Many? _____

Please note: In addition to the 2 power cords provided, there is a limit of four *(4)* additional video, RGB and control cables per Scissor Lift.

6. Select Voltage:

- ☐ 110-120V
- ☐ 220-240V

(c UL us)

7. Select Low Voltage Controls: *This unit comes with one 3-Button Wall Switch and one Momentary Key Control.*

For other switching options, please select from below:

- ☐ Replace 3-Button Wall Switch with optional second Momentary Key Control (SP-KSM)
- ☐ Optional Key Operated Power Supply Key Switch (On-off)

8. Will this unit be controlled by other equipment?

- ☐ No.
- ☐ Yes. What kind of equipment? _____

Optional Ceiling Closure

SL Closure (Standard)

B, E & U Closures

Ceiling Closure Options

Dim	Closure B	Closure E	Closure SL	Closure U
A	30⁹/₁₆" (776 mm)	40¹³/₁₆" (1037 mm)	24³/₈" (619 mm)	37¹¹/₁₆" (957 mm)
B	30⁹/₁₆" (776 mm)	30⁵/₁₆" (770 mm)	24³/₈" (619 mm)	37¹¹/₁₆" (957 mm)
C	21¹/₈" (537 mm)	25¾" (654 mm)	18¹³/₁₆" (478 mm)	27" (686 mm)
D	26" (660 mm)	36¼" (921 mm)	18¹³/₁₆" (478 mm)	31¼" (794 mm)
E	28³/₁₆" (716 mm)	27¹⁵/₁₆" (710 mm)	22¹/₁₆" (560 mm)	35¹/₈" (892 mm)
F	28³/₁₆" (716 mm)	38⁷/₁₆" (976 mm)	22¹/₁₆" (560 mm)	35¹/₈" (892 mm)

Lipless Ceiling Closure Dimensions *(Optional)*

Dim	Closure B	Closure E	Closure SL	Closure U
Width	27⁵/₈" (700 mm)	27⁷/₁₆" (697 mm)	21¹/₂" (546 mm)	33³/₄" (883 mm)
Depth	27⁵/₈" (700 mm)	37¹⁵/₁₆" (963 mm)	21¹/₂" (546 mm)	33³/₄" (883 mm)

Lipless Closure Option is available by removing the Trim Ring from the Closure Panel. A substrate material *(ceiling tile, gypsum board, etc.)* can be attached directly to the Closure Panel using adhesive, double-sided tape or screws.
NOTE: Make sure the added weight of the substrate does not exceed the stated weight capacity of the lift. Substrate should be installed so that it is centered within the finished opening in the ceiling, with a gap of no less that ⁷/₁₆" around all edges.
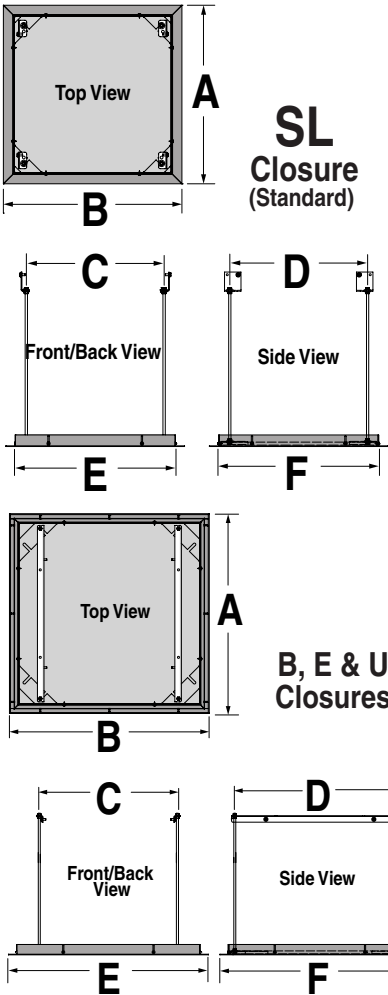
Scissor Lift SL—Dimensions & Data

	SL4	SL6	SL8	SL10	SL12
Height of lift in closed position[1]	8" (21 cm)	10" (26 cm)	12" (31 cm)	14" (36 cm)	16" (41 cm)
Max. down travel (to service position)	4' (122 cm)	6' (183 cm)	8' (244 cm)	10' (305 cm)	12' (366 cm)
Net Weight (lbs)	88 (40 kg)	96 (44 kg)	104 (48 kg)	111 (51 kg)	118 (54 kg)
Estimated Travel Time[1]	72 sec.	108 sec.	144 sec.	180 sec.	216 sec.

[1] Height of Scissor Lift in closed position only. Overall height of projector, plus optional mount, plus optional ceiling closure, plus optional Environmental Air Space Housing adds to overall height of equipment installed above ceiling.

[2] Based on travel speed of 90 inches per minute.

## Optional Environmental Air Space Housing Dimensions

Top View
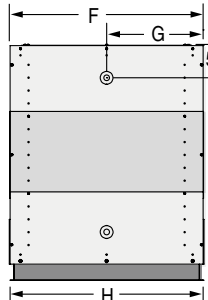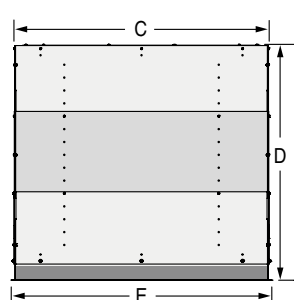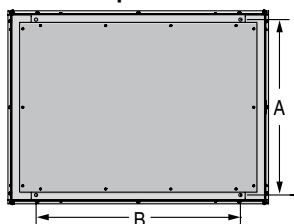
Environmental Air Space Housing Dimensions

Dim	B	E	SL	U
A	27½" (699 mm)	27¼" (692 mm)	18⁹/₁₆" (471 mm)	26½" (673 mm)
B	22⅝" (575 mm)	31¾" (806 mm)	20⁵/₁₆" (524 mm)	34⅝" (879 mm)
C	29⁷/₁₆" (748 mm)	39¹¹/₁₆" (1008 mm)	23¹/₁₆" (586 mm)	36⁹/₁₆" (929 mm)
D	16"-36⅝"(406-930mm)	16"-36⅝"(406-930mm)	16"-36⅝"(406-930mm)	16"-36⅝"(406-930mm)
E	30¼" (768 mm)	40½" (1029 mm)	24¹/₁₆" (611 mm)	37¹¹/₁₆" (957 mm)
F	30¼" (768 mm)	30" (762 mm)	23⅞" (606 mm)	37⅛" (943 mm)
G	15⅛" (384 mm)	15" (381 mm)	11⁵/₁₆" (287 mm)	18¹¹/₁₆" (475 mm)
H	30¼" (768 mm)	30" (762 mm)	24¹/₁₆" (611 mm)	37¹¹/₁₆" (957 mm)

Environmental Air Space Housing Net Weights

B	E	SL	U
95½ (43 kg)	139 (63 kg)	78½ (36 kg)	142½ (65 kg)

Optional Ceiling Trim Kit Dimensions
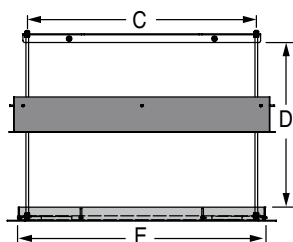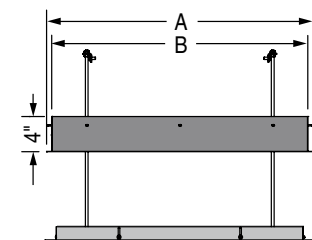
Ceiling Trim Kit Dimensions

Dim	B	E	SL	U
A	30¼" (768 mm)	40½" (1029 mm)	24¹/₁₆" (611 mm)	37⅜" (949 mm)
B	29⅛" (740 mm)	39⅜" (1000 mm)	22¹⁵/₁₆" (583 mm)	36¼" (927 mm)
C	26" (660 mm)	25¾" (654 mm)	18¹³/₁₆" (478 mm)	27" (686 mm)
D	18¹¹/₁₆" (475 mm)	18⁹/₁₆" (471 mm)	19⅝" (498 mm)	18⁹/₁₆" (471 mm)
E	28¼" (718 mm)	27¹⁵/₁₆" (710 mm)	22¹/₁₆" (560 mm)	35⅛" (892 mm)

Scissor Lift SL 115V & 240V AC

page 4 of 4

Wiring Schematic

c(UL)us LISTED
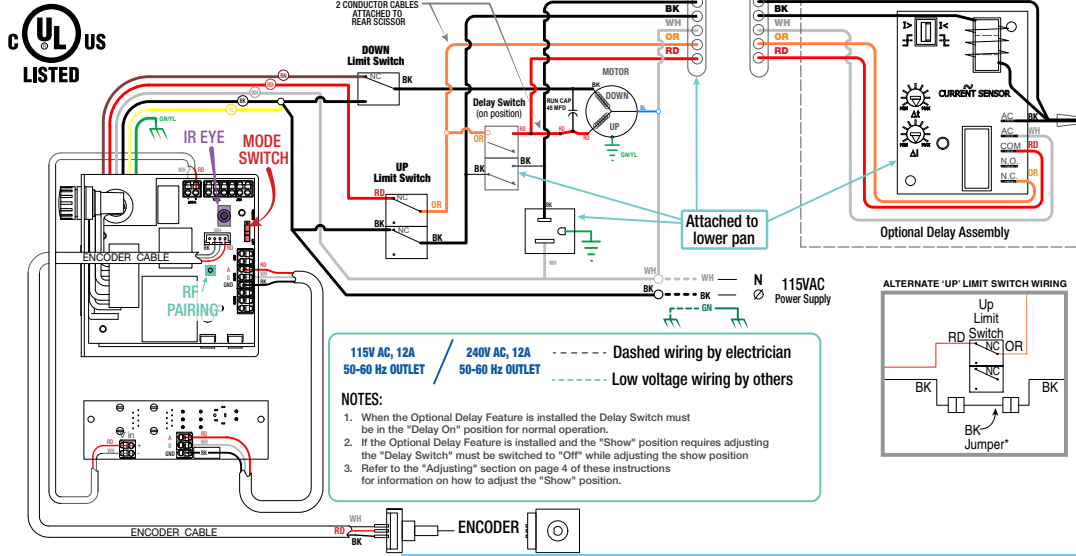
SHOW POSITION CONTROL

One three-button switch with "UP, "DOWN, and "STOP" buttons is provided to operate lift between closed and show position. Using installer supplied cable, connect switch to "WALL" port on lift.
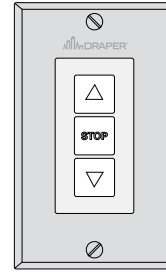
LVC-S SWITCH 121225
Up & Show

SERVICE POSITION CONTROL

One momentary key switch is provided to operate lift to service position. Using installer supplied cable, connect switch to "KEY" port on lift.

SP-KSM KEY SWITCH 121022
Service

2 CONDUCTOR CABLES ATTACHED TO REAR SCISSOR

DOWN Limit Switch

IR EYE   MODE SWITCH

ENCODER CABLE

RF PAIRING?

Delay Switch (on position)

RUN CAP 45 MFD

MOTOR   DOWN   UP

UP Limit Switch

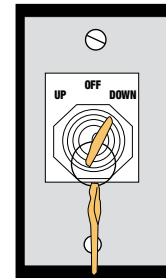Attached to lower pan

CURRENT SENSOR

Optional Delay Assembly

115VAC Power Supply

ALTERNATE 'UP' LIMIT SWITCH WIRING

Up Limit Switch

Jumper*

ENCODER CABLE   ENCODER

115V AC, 12A 50-60 Hz OUTLET / **240V AC, 12A 50-60 Hz OUTLET**

- - - - Dashed wiring by electrician
- - - - Low voltage wiring by others

NOTES:

1. When the Optional Delay Feature is installed the Delay Switch must be in the "Delay On" position for normal operation.
2. If the Optional Delay Feature is installed and the "Show" position requires adjusting the "Delay Switch" must be switched to "Off" while adjusting the show position
3. Refer to the "Adjusting" section on page 4 of these instructions for information on how to adjust the "Show" position.

Both switches are required for programming

Additional momentary switches or control systems using dry contact closure, can be connected to the switch cables, or in conjunction with the provided switches, for multiple station control.

Connecting Controls to Data Cable Splitter Board

Please Note:
Any control, including automated dry contact systems, being connected to the wall switch input MUST send a momentary signal.

1. Controls plug into the Data Cable Splitter Board *(See diagram below)* which is located on the Top Frame on the front side of the lift, using RJ45 connectors.

2. IR or RF Control options available.

3. For serial control, use data cable connectors on splitter board.

DATA CABLE SPLITTER BOARD

| KEY SWITCH | WALL SWITCH | Serial Ports | IR | LOW VOLTAGE TRIGGER | 3-28 VDC Polarity Independent |

KEY   WALL   RS-485   RS-232   IR EYE   LVT

PORT PINS   PORT PINS

B+ A- GND   GND Tx Rx

LED Feedback:
Flicker GREEN **WORKING**
Flicker ORANGE **ERROR**

MAKING YOUR OWN CABLES?

PIN OUTS
1 - UP
2 - DOWN
3 - NOT USED
4 - NOT USED
5 - NOT USED
6 - NOT USED
7 - COM
8 - COM

SP-KSM
Key Switch Service Position
- Red - Down - - - - Pin 2
- Black - Com - - - Pin 7 or 8
- Black - Com
- Blue - Up - - - - Pin 1

LVC-S Show Position

BACK of LVC-S
DCU

- - - Pin 2
- - - Pin 7 or 8
- - - Pin 1

DRAPER®