



SVS PLASMA TWO LIFT
(110v/50hz Version)

INSTALLATION MANUAL

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Lifting Your Image

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(110v/50hz Version)

INSTALLATION INSTRUCTIONS

SECTIONS:

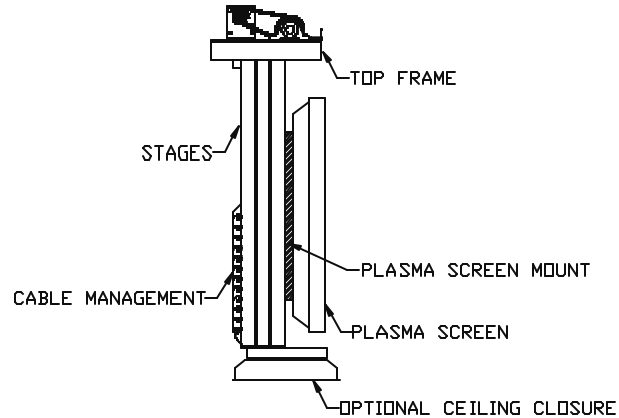
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SVS PLASMA TWO LIFT

Patent No. 5,261,645 & 5,366,203

GENERAL DESCRIPTION:

Designed to support 40", 50" and 60" plasma screens (one model fits all), the SVS Plasma-Two Lift lowers and raises a plasma screen straight up and down from the ceiling. With a strong lifting capacity (up to 400 lbs) and a standard lowering distance of 4'4" (1.32m), the Plasma Two lift is an ideal solution for your commercial or residential installation. Note: Custom Applications available upon request.



FEATURES:

VERSATILE	-Supports 40", 50" and 60" plasma screens (one lift model fits all)
TWO POSITIONS	- The lift is stored in the false ceiling when not in use - Lowered for viewing
LOWERING DISTANCE	52" (1.32m)
LIFTING CAPACITY	Up to 400 Lbs (181.44 Kg.)
LIFT'S NET WEIGHT	147 Lbs (66.67 Kg.)
LOW VOLTAGE CONTROLLER	Supplied with 75' (22.86 m) of cable (22g./9conductor).
PRECISION GROOVED DRUM	Insures quiet operation & consistent cable pick-up release
PATENTED FAIL SAFE DRUM LOCK SYSTEM	Insures safety in the event of mechanical failure. 100% safety record after 14+ years of manufacturing
QUIET AND STRONG MOTORS	Extra quiet for meetings and presentations or simply for home use.
REDUNDANT LIMIT SWITCHES (UP AND DOWN)	For secure and safe motor shutdown.
CABLE MANAGEMENT SYSTEM <i>(on applicable models)</i>	Keeps cables and cords out of the way during operation.

OPTIONAL ACCESSORIES:

#1 Ceiling Closure * Spring Loaded Ceiling Closure system installed under screen and used to conceal the ceiling opening (based on the size of the plasma screen)

*** Custom accessories/non-returnable**

PMT-9 Fixed mounting bracket used to attach the plasma screen to the mast of the lift (model varies with the Plasma Screen model).

PLEASE READ THROUGH ALL INSTRUCTIONS (INCLUDING ACCESSORY INSTRUCTIONS) BEFORE PROCEEDING.

This lift is designed to be used with a remote control unit, either automatically or manually controlled. The lift is supplied with a low voltage key switch controller (designed to be wall mounted), which can be left in the "On" or "Off" position for normal operation. Normal safety requirements of handling heavy equipment must be followed.

1. PRELIMINARY INSTALLATION CHECKS:

- The support structure should hold at least four (4) times the weight of the lift and plasma screen combined. **Always follow the local building codes.**
- Required space, lift support, and necessary cabling (i.e. low voltage control lines, audio/video control and power supplies) should be considered or installed prior to the lift installation.
- Do not install the plasma screen on the lift until the lift, hardware and any other accessories have been properly installed and operational.
- This lift has been adjusted at factory with cables tightly packed on the drum and leveled for precise tracking, prior to being shipped from SVS Factory. Do not remove the lift's shipping block until instructed to do so (see Section 4-5). SVS lifts are shipped in a slightly open position to eliminate stress on the limit switches and to maintain a tight cable pack on the drum. If physical height measurements are taken before the blocks are removed from the lift, they may not accurately reflect the actual measurement of the lift in a closed position.
- All weight attached to the lift must be centered between the lift's cables.
- For ease of installation, lift can be hoisted into ceiling location with blocks and tackle or by using a ratchet puller.
- As a reminder, clear all persons and obstructions from the lift's path during its operation. Keep fingers and other objects away from all moving parts. Technical Personnel should always be present whenever the lift is being serviced.

2. CONSIDERATIONS FOR THE PLACEMENT OF THE LIFT (for standard Plasma Two lift with 52" of lowering distance):

- **Vertical Clearance:** Once the location of the plasma lift is determined, please verify that there is sufficient space above the false ceiling to accommodate the lift, the screen, the optional ceiling closure, and that nothing will interfere with their operation. The lift needs a minimum clearance of 41.75" (106.04cm) of vertical height in the ceiling (supporting structure of the lift and spring loaded ceiling closure system not included).- see figure 1.
- **Please keep in mind that the overall height of the lift as well as the lowering distance may vary with the size of the plasma screen.** The inside clearance of the lift for the screen's height is 34" High (86.36 cm). Considering that the clearance above the screen should be at least 1" (2.54 cm), and if you are using a 35" tall screen, the screen will extend below the lift's bottom frame by 1" .

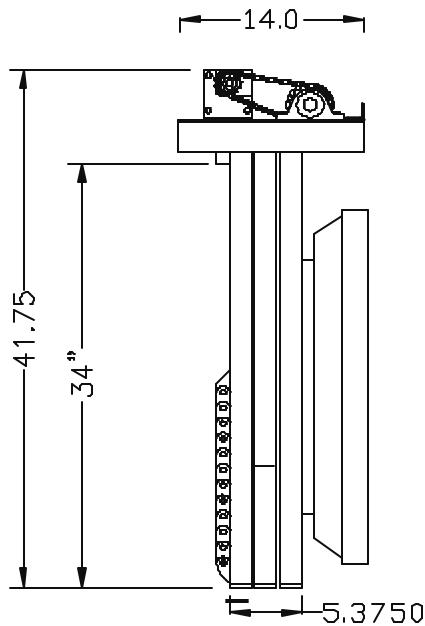


Figure 1.

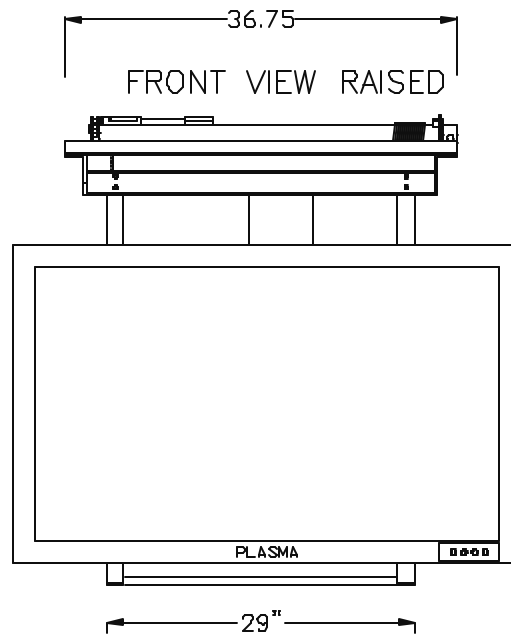


Figure 2.

- **Horizontal Clearance:**

Depth of the lift: 14" Deep (top frame) x 5.375" Deep (bottom frame)- 35.56 cm x 13.65 cm- see Figure 1. Note: The ceiling opening size is based on the bottom frame of the lift (only part that travels through the ceiling opening). To determine the depth of the ceiling opening, you will need to add the depth of the plasma screen and the depth of the screen's mounting bracket. Important: If the plasma screen needs to be tilted, this will also increase the overall depth of the ceiling opening.

Width of the lift: 29" Wide (bottom frame) x 36.75" Wide (top frame) - 73.66 cm x 93.34 cm -see Figure2. The width of the ceiling opening will be based on the width of the plasma screen- see Figure 2.

3. LIFT SUPPORTING STRUCTURE:

The Plasma Two Lift can be mounted from four 1/2" threaded rods spaced at **34.75" Wide (88.26 cm) x 12.25" Deep (31.11 cm)** -as shown in figure 3. The threaded rods must be supported by a rigid structure and should not extend more than 2' (0.6m). If the length of the rods exceed 2' (from the support structure to the lift's top mounting holes), cross bracing should be installed between the rods to increase the stability of the installation.

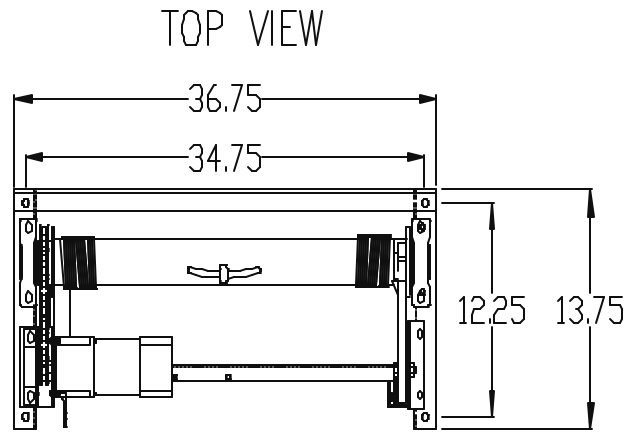


Figure 3.

CORRECT POSITION OF THE LIFT IN THE FALSE CEILING:

- Determine the overall height of the lift with plasma screen and any optional accessories in a closed position.
 - Verify the vertical ceiling space available in the false ceiling. The height of the supporting structure is calculated by deducting the overall height of the equipment from the vertical ceiling space available.
- Note: Position the lift at correct height to have the ceiling closure "flush" with ceiling framework.
Caution: DO NOT ALLOW the front threaded rods to extend below the lift's top frame (in the plasma screen area).

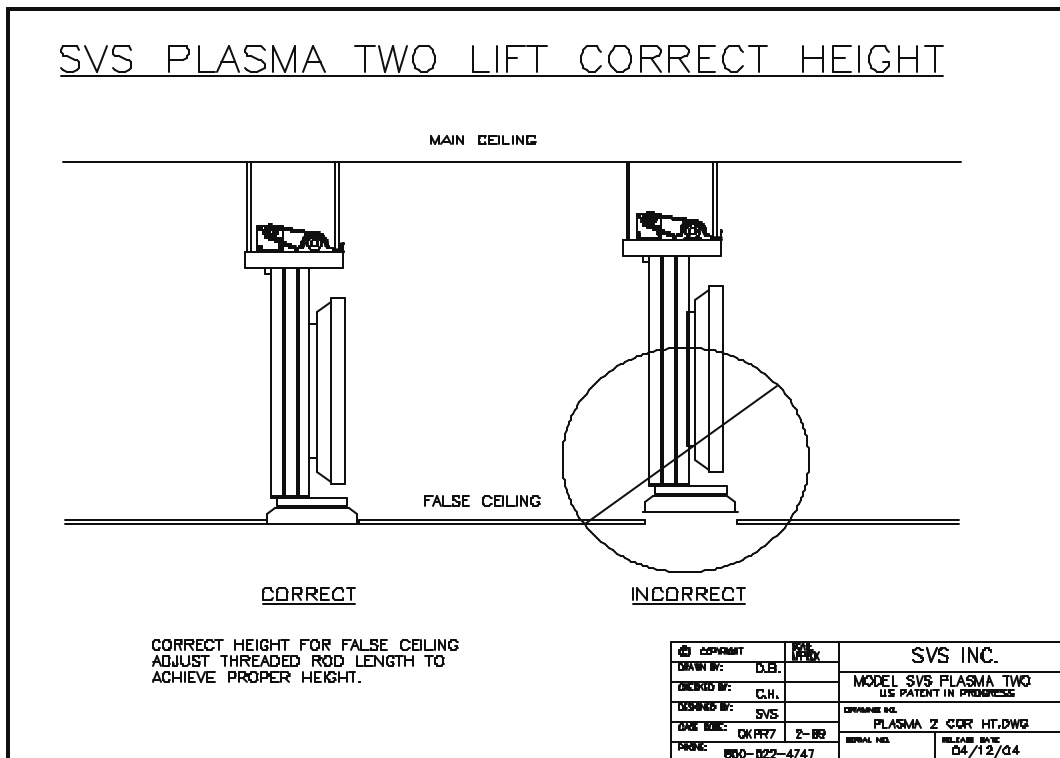


Figure 4 (Correct Position of the lift in the ceiling).

If ceiling clearance allows, an "X-Y" or a cross-supporting structure is strongly suggested (as shown in Figure 5a and 5b). This will allow front-to-back or side-to-side adjustments if the lift is found to still be slightly offset with the screen once it has been installed.

SVS PLASMA TWO LIFT MOUNTING ON EXISTING BEAMS

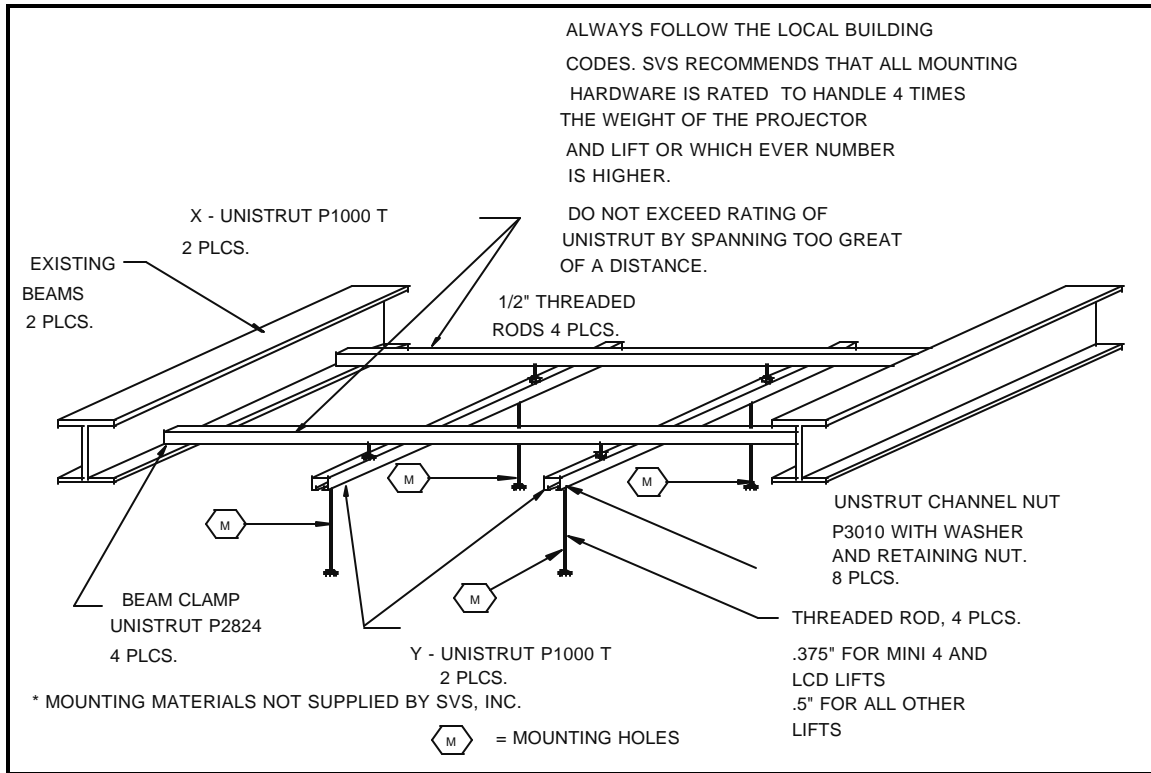


Figure 5a.

SVS PLASMA TWO LIFT MOUNTING ON A FLAT CEILING

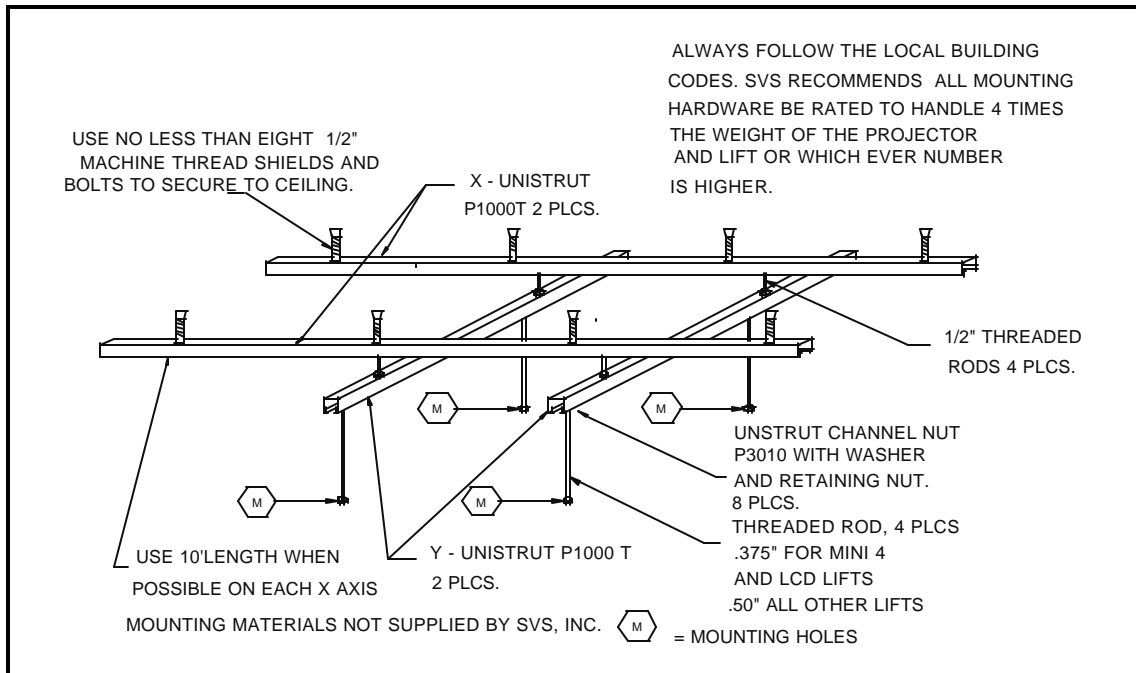


Figure 5b.

Important note for concrete ceiling installations: when attaching the lift to a flat ceiling, SVS suggests two (2) pieces of #P1000T Unistrut (approx. 10' long -3.04 m), to be installed on the ceiling first. Proper spacing between the 2 pieces will be based on the distance between the top four (4) mounting holes of the lift (as shown in Figure 1).

You should use at least four (4) ½" bolts and anchors evenly spaced out on each piece of Unistrut to distribute the weight of the supporting structure. Attach ½" threaded rods to the Unistrut, using Unistrut #P3010- ½" channel nuts in the channel, along with a locking washer and nut below channel to lock into place.

IMPORTANT: IF A #2 PLENUM SHROUD IS TO BE INSTALLED WITH THE PLASMA TWO LIFT. PLEASE READ THEIR INSTALLATION INSTRUCTION BEFORE PROCEEDING. THE SUPPORTING STRUCTURE SHOULD ALSO ALLOW ENOUGH SPACE TO INSTALL THE MOUNTING HARDWARE OF THE PLENUM SHROUD.

4. LIFT INSTALLATION:

a. Preparation:

1. The lift is shipped in a wood crate. Remove the Philips screws from the top lid.
2. Unbolt the lift from the bottom panel of the crate to remove the lift out of the crate.
3. The warranty information and the low voltage controller are located in the white box.

b. Installing the lift in the ceiling:

1. Raise the lift, insert it into the ceiling and line up the four (4) mounting holes of the top frame to the .5" threaded rods of the supporting structure. Make sure that there is a ½" Hexnut and a lock washer before the lift is mounted -see figure 6. Once the lift's top frame has been inserted, add an hexnut and a lock washer to each threaded rod. Always leave top nut loose to allow adjustments until the lift is leveled.

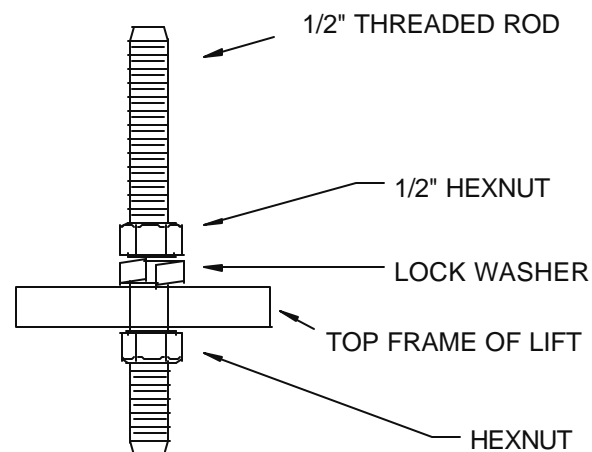


Figure 6.

2. Secure the lift to the threaded rods.

3. Check that the top frame of the lift is leveled front-to-back and side-to-side

4. Secure the top nuts. Do not over tighten the fasteners before the lift is leveled as it could distort the top frame.

5. Remove the one (1) shipping Blocks from the lift. Never remove the block until the lift is properly installed in the ceiling.

6. Make sure that cables are out of the way of operation.

7. Before lowering the lift, you should have some weight attached to the bottom of the lift in order to keep the cables tight until the plasma screen is mounted. Both cables are placed on the drum so that they start unwinding from the inside to the outside of the drum. They are vertical to the eye bolts in the closed position and slightly angled toward the outside of the drum to avoid friction/rubbing with the previous cable loop.

To avoid cable spill:

- Do not push the bottom frame upward once the lift has been installed.

- Make sure that there is no obstructions in the lift's path. If the bottom frame lowers onto a chair, table or any other object, this will cause the cables to slack and spill over the drum.

5. CEILING CLOSURE INSTALLATION – Please refer to installation instructions included with the #1 Ceiling Closure. It is the self-aligning closure system installed underneath the plasma screen and used to conceal the ceiling hole when the lift and projector are raised in the ceiling. It is attached to the unistrut channel on the lifts bottom mast stage.

6. ELECTRICAL WIRING AND LIFT CONTROL:

Electrical Connections should be made at this time. The Plasma Two lift is controlled with a low voltage 24v/AC controller (Key Switch Control Wall Plate). This controller can be easily connected to external controllers like Crestron, AMX etc.

SVS WALL PLATE

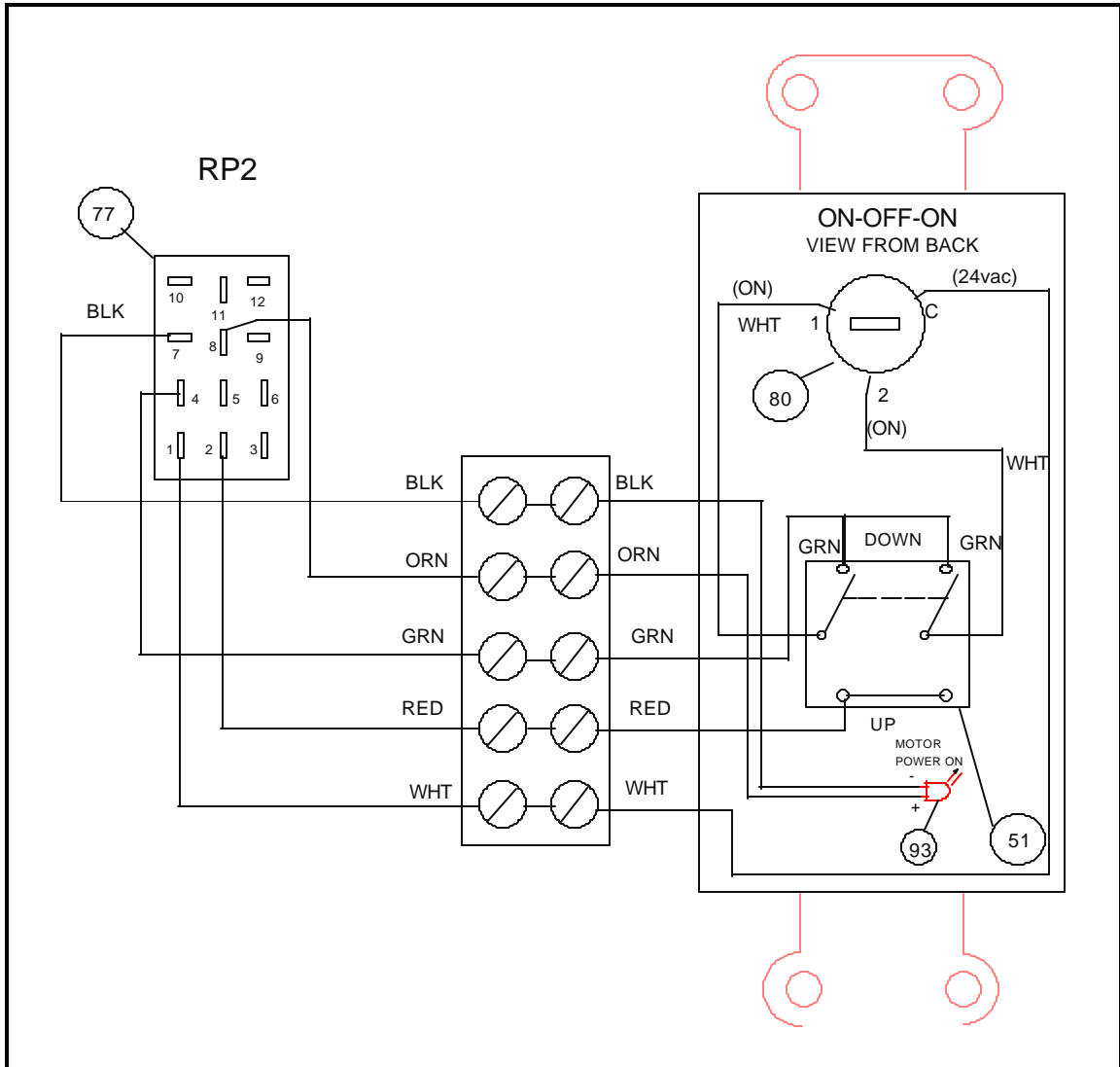


Figure 7.

How to use the low voltage controller:

a. To lower the lift, turn the keyswitch to the "ON" position and press the toggle down. When the lift reaches its down limits, the lift will stop.

b. To raise the lift back to a storage position, turn the keyswitch to "ON" and press the toggle switch up. The lift will stop once its top frame compresses the up limit switches.

Important: The toggle switch on the control plate needs to be pressed at all times to activate the lift. It is designed as a safety feature (the lift can be stopped at any time). The key is an extra precaution as well: when removed, the lift is secured. If an external controller is use, please make sure that no object is standing in the lift path as it lowers to a service position.

<u>LIFT SPECIFICATIONS</u>		
	USA	INTERNATIONAL
VOLTAGE	110V/60HZ	220V/50HZ
LOW VOLTAGE CONTROLLER	24v/ac	24v/ac.
CURRENT DRAW	2.3 amps	2.3 amps/1.2 amps
MATERIAL	Steel/Aluminum	Steel/Aluminum

Power Requirements: 110v/50-60hz -220v/50-60hz

Low Voltage Controller: Supplied with the lift. 12 pin connector plug. 75' of Cable (22 gauge/5 conductors).

7. MOUNTING THE PLASMA SCREEN:

After checking the lift operation and all clearances, the plasma screen can be installed.

- The plasma screen can be attached to the lift by using a #9 Mounting Bracket, which is the actual connecting hardware between the screen and the lift. The base box of the #9 mounting bracket will need to be bolted to the lift's mount adaptor. The mount base should be centered side to side with the lift frame.

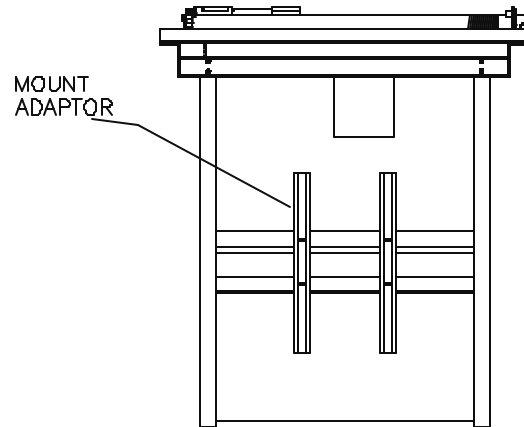


Figure 9.

Note: All weight attached to the lift must be centered between the cables.

1. Install the plasma Screen onto the mount adaptor. Again, make sure screen is leveled. There should approx. 1.5" of clearance all the way around the plasma. **Failure to maintain proper clearance could damage the plasma screen when closing.**
2. Using the low voltage controller, raise the lift towards a closed position. The toggle switch will allow you to safely stop at several intervals and observe all clearances. Make sure that there are no obstructions in the cavity where the plasma screen will be stored.

8. CABLE MANAGEMENT:

(on applicable models):

The SVS Plasma Two Series lift feature a cable mgt. system installed in the rear of the lift, which is used to keep cables and other cords securely out of the way during operation- see Figure 10.

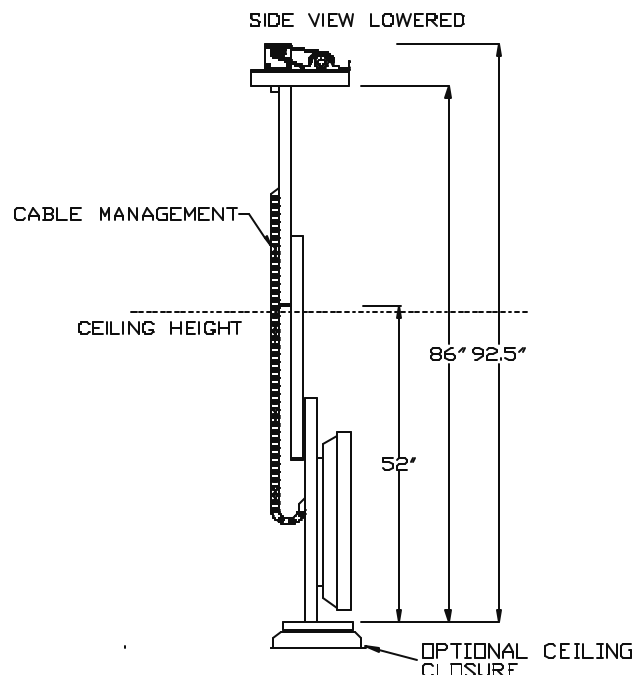


Figure 10.

9. MAINTENANCE AND ADJUSTEMENTS

- Inspect the lift occasionally for any looseness of bolts, check cables and clamps. Pillow block bearings are pre-lubricated and motor does not need attention. If magnetic brake does not hold properly, it must be replaced immediately.
- Level corrections are to be made (with screen is mounted) after confirming that the cable is packed tightly and is straight on the drum.
- For plasma screens mounted within the ceiling and lowered to a viewing position, level adjustments must be made at the viewing level.
- After adjustments are completed, check all bolts and clamps for tightness.
- Check drum lock solenoid occasionally – see if arm raises during down travel – all other times it stays in a locked position. If the solenoid does not pull up, the microswitch will not start motor in the down position. Check the centrifugal cam located on the drum stop block. It should be able to move freely and will drop when it reaches the top of the drum, this avoiding contacting the arm of the drum lock. If drum rotates fast, the cam will lock the arm after the first rotation.



SVS Plasma Two Lift Warranty

SVS provides a limited warranty on all products to cover failures due to defects in materials or workmanship which occur during normal use. This limited warranty does not cover failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification or service by anyone other than a factory authorized person or company. Specific product warranties are as follows:

A 5 year parts and 90 day factory labor warranty applies to the following SVS products:

- All scissor style lift models (does not include LCD-1 and Plasma One Lifts)
- Plasma Two Lift
- Acc. #4 Power Sensor
- Acc. #5 Power Sensor with Screen Control
- Acc. #7 Cable Retractor
- Acc. #11 Extra Show Position
- Acc. #14 Floor Access Motor Control
- Acc. #15 12 Volt trigger

A 1 year parts and 90 day factory warranty applies to the following SVS products:

- SVS LCD-1 Lifts (S and L models) and Plasma One (4 & 7 models)
- SVS TMD Lift and SVS Column Lift
- All motors
- Acc. #1 Ceiling Closure
- Acc. #2 Plenum Shroud
- Acc. #9 Mount
- Acc. #10 Dual Stack Mount
- Acc. #13 and 13R platforms

A 60 day factory labor warranty applies to:

- Acc. #12 Decorative Cover

A Return Material Authorization (RMA) number must be received from SVS prior to the return of any product. Products returned from SVS must be shipped adequately insured with freight prepaid and the RMA number clearly noted on the shipping label. Items received freight collect or without RMA numbers clearly noted will be refused. Lift model, serial number and proof of original purchase date may be required before warrant performance is rendered.

Cut-Here

WARRANTY CARD

CUSTOMER NAME _____
 ADDRESS _____
 CITY _____ ST _____ ZIP _____
 PHONE _____

SERIAL # _____
 MODEL # SVS PLASMA TWO LIFT
 DATE PURCHASED _____
 DATE INSTALLED _____

PURCHASED FROM _____
 DEALER NAME _____
 ADDRESS _____
 CITY _____ ST _____ ZIP _____
 PHONE _____

SEND TO: **SVS, INC**
2513 Jenks Avenue
Panama City, FL 32405
 PHONE: **850-522-4747**
 FAX: **850-522-4739**

CARD MUST BE SENT IN WITHIN 15 DAYS FROM DELIVERY DATE