

DISPLAY DEVICES

PROJECTOR LIFTS LCD-100, DL3B, DL3W

Installation & Owners Manual

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Important Installation Notes

Before starting...

DO Read **all** instructions before installation.

DO Leave wood blocks in place to protect you **and** the lift from damage until fully and securely mounted.

DO Ensure the electrical outlet is readily accessible and complies with the lift and projector specifications for voltages and amperages. (Show diagrams of 110v and 220v receptacles.)

DO Check above the ceiling for obstructions, i.e., water pipes, wires, cables, duct work, extreme temperature variations, etc. before beginning installation.

DO Ensure the ceiling structure is capable of holding at least **four times** the combined weight of the lift **and** projector. This is a **minimum** requirement. Follow any local or state codes that apply to your specific area.

DO Plan out your mounting hardware and tool requirements before installation.

DO Attach the projector, ceiling closure system, or other items to the lift only when the lift has been properly installed and tested.

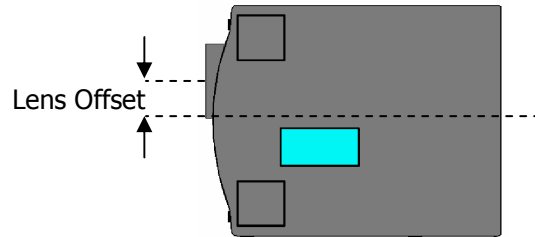
CAUTION:

Anytime that you are installing or performing maintenance on the lift, disconnect power at the receptacle or breaker/fuse panel, program the lift to **MANUAL MODE, or activate the **NO MOVEMENT** switch on the side of the control box to prevent inadvertent movement of the lift.**

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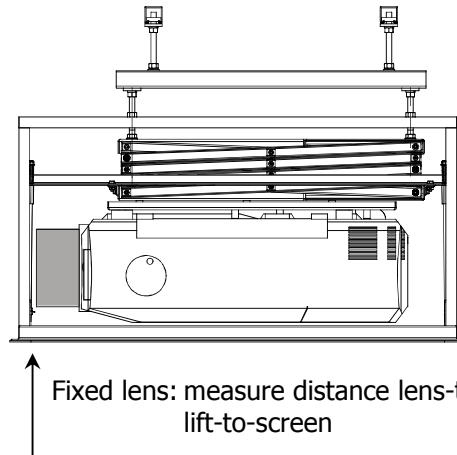
Lift Placement and Location

Many projector lenses are not centered on the chassis of the projector. Ensure that the centerline of the lens is aligned perpendicular to the center of the screen. Position the lift offset the same distance as the offset of the projector lens. If your projector has horizontal lens shift this is not as critical. We recommend offsetting the lift for optimum projector alignment.



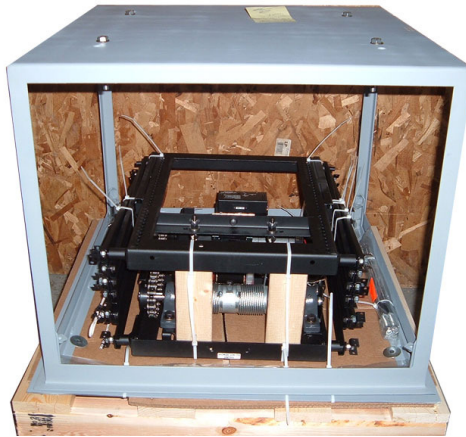
Projection Distance

If using a fixed focal length lens -- the screen-to-lens distance is critical. Offset the lift position to compensate for the lens-to-lift difference. See your specific projector manual for detail.



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Lift Preparation



Unpack Lift – remove phillips head screws & lag screws securing frame & lift to the pallet. (photo of LCD-100 with Option 4). The lift is shipped upside down. Leave the wood blocks and plastic tie wraps in place.

Control Box

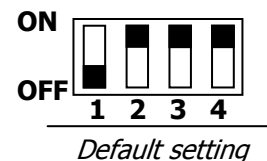
NOTE: *The factory default setting will not change for most installations.*

SET DIP SWITCHES before you install the lift. Be sure there is no power connected to the lift. The control box is located inside the lift on the upper frame. Depending upon your lift model the location and orientation of the control box varies.



Dip switches are located under the small access panel on the Control Box attached to the lift frame. Use a 1/16" Hex driver to open.

	ON	OFF
SW1	Aux AC Trigger (see SW2 below)	Aux AC Trigger is on all the time
SW2	Aux AC Trigger upon going down	Aux AC Trigger at show position
SW3	12V out turns off upon going up	12V out turns off at top position
SW4	12V out turns on upon going down	12V out turns on at show position



Dip Switch SW1: configuration only works in automatic mode.

Set the 12 volt trigger and AC Trigger based on your system design.

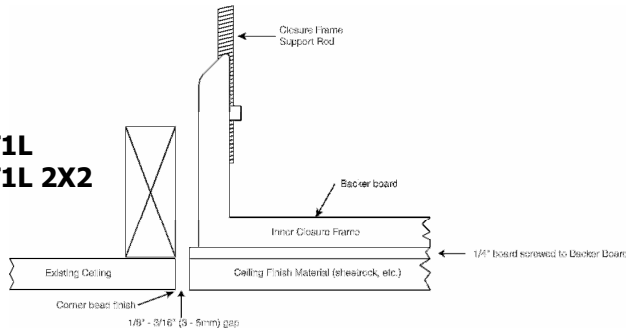
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Typical Ceiling Finish Methods

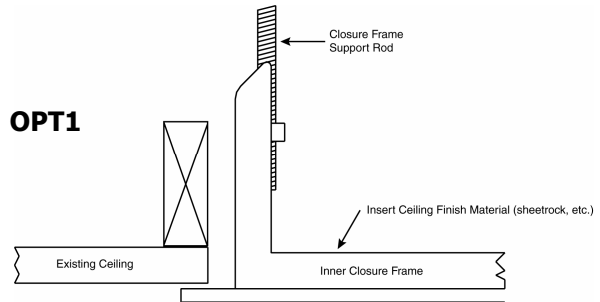
Determine your ceiling closure system (OPT 1 – 4) and finish method as it can effect the vertical placement of the lift.

Lift with Option 1 ceiling closure frame/panel

**OPT1L
OPT1L 2X2**

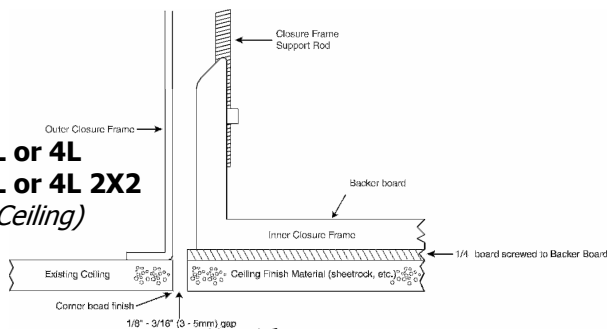


OPT1

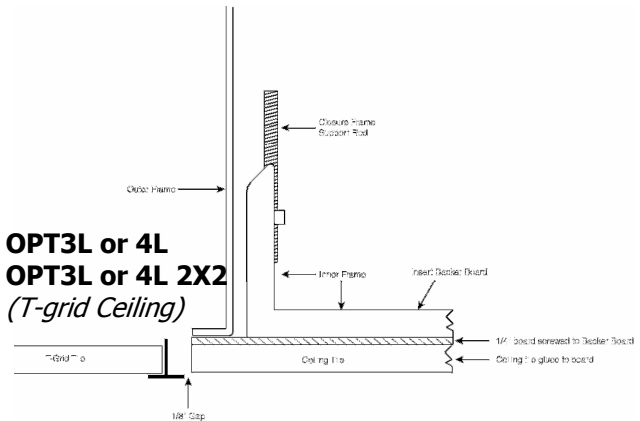


Option 3/4 Enclosure Frame with Option 1 ceiling closure frame/panel

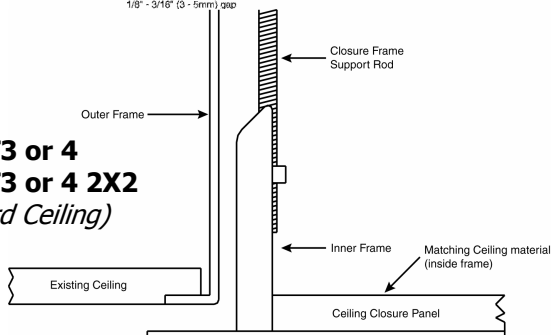
**OPT3L or 4L
OPT3L or 4L 2X2
(Hard Ceiling)**



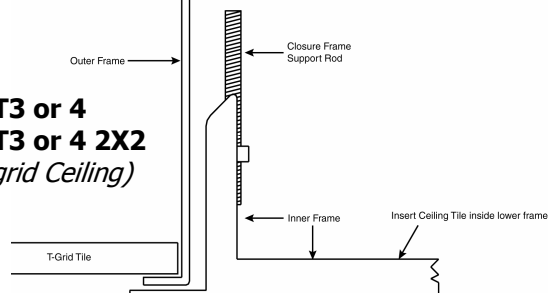
**OPT3L or 4L
OPT3L or 4L 2X2
(T-grid Ceiling)**



**OPT3 or 4
OPT3 or 4 2X2
(Hard Ceiling)**



**OPT3 or 4
OPT3 or 4 2X2
(T-grid Ceiling)**



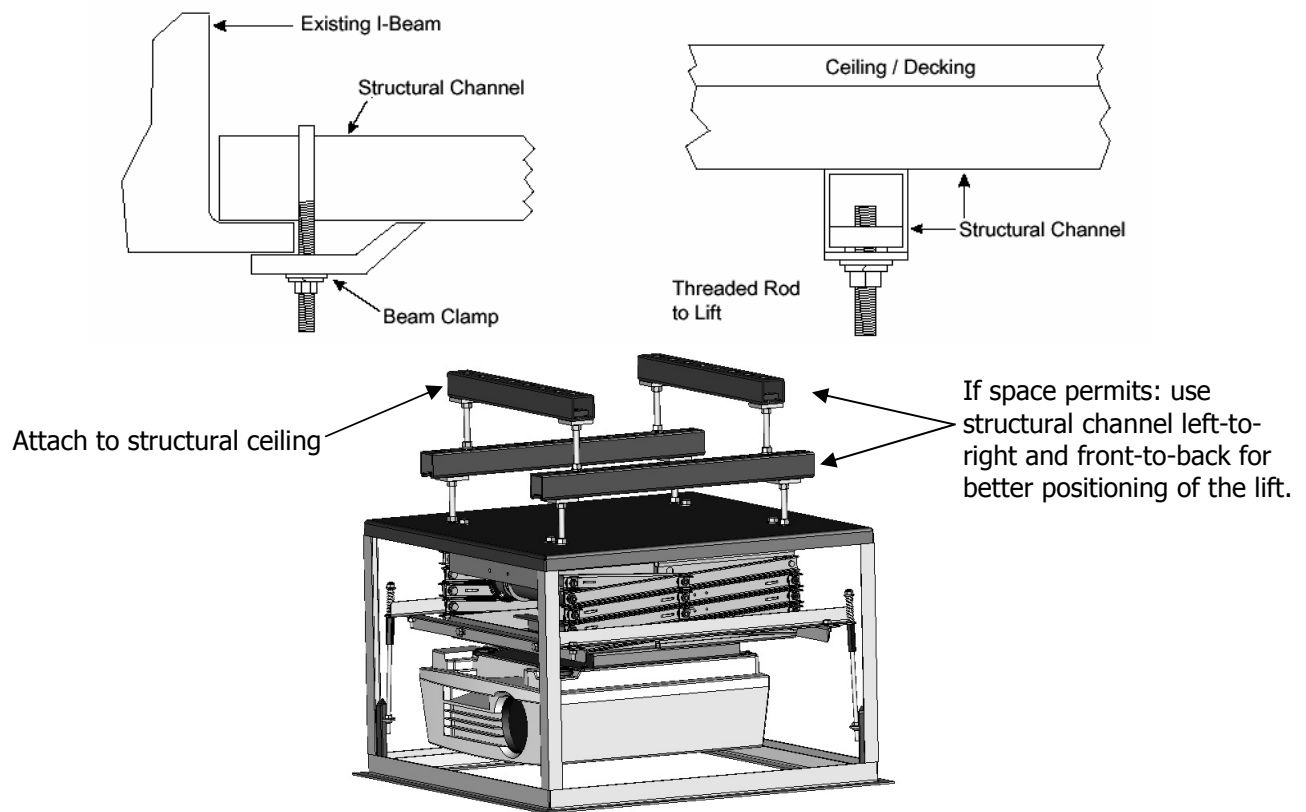
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Installation – Enclosure Housing and Lifts

Mounting hardware is not provided unless you ordered the option UMK (Universal Mounting Kit). Be sure to have all your mounting hardware and tools readily accessible before installation. Consult your local building codes for proper structural attachment.

Tools you will need:

Safety glasses, Socket set, Box wrenches, Adjustable wrench, Magnetic torpedo level (two, if possible), Ladders or manlift, Genie Lift or heavy straps and pulleys (for DataLift and DataLite Models), Knockout kit or Hole saw, ½" Drill and/or ½" Hammer drill.



We recommend you install mounting hardware into a structural channel. All hardware should be **at least ½" (M12)** in diameter for the DataLift (DL3B) and DataWide (DL3W) series, or **3/8" (M10)** for the DataLite (LCD100) series.

You should use angled stabilizers if threaded rods extend 2' (60 cm) or more between structural channel and the lift. You should also leave the threaded rods slightly loose to ease in alignment and leveling after installing the lift. You need to make sure all hardware is securely tightened at the end of your installation.

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Optional Enclosure Housing –Side Panel Removal

If you are **not** installing the OPT3 (Plenum Housing Enclosure) or OPT4 (Non-Plenum Housing Enclosure) proceed to Part 4.

The OPT4 is the enclosure frame without side panels. You may skip the steps on the OPT3 panels if you are installing the OPT4 only.

Use a Sharpie pen to mark the alignment of the side panels to the frame so you can reinstall them from the side they were removed from. Take note the location of the electrical outlet and the signal cables in relation to the lift location. Mark where you want knock-outs for cable pass-through on the side panels -usually in the opposite upper corners. (½" knockout for control/video cables & 1¼" knockout for AC power) Keep these cables away from each other to avoid electromagnetic interference.

Remove the screws holding side panels from the frame, then lift out the plenum panels. Be careful, the edges and corners are SHARP!

The lift is shipped upside-down with the specific projector's mounting adapter bolted to the bottom of the frame.

The outer frame will have a white sticker indicating the FRONT and TOP side of the frame.

Note:

DataLite and DataLift models attach to the pre-installed bolts on the top of the enclosure frame. DataWide models attach to pre-drilled horizontal holes on the front and rear channels.

For DataLift (DL3B) and DataLite (LCD100) be sure the lift hanging hardware is installed in the frame before mounting the enclosure to the structural ceiling.

Optional Enclosure – Mounting

Remove the mounting adapter from the bottom frame of the lift (7/16" socket/wrench).

Raise the Option 3 or 4 housing to the mounting points – add washer and nuts, then tighten. Make sure the threaded rod you are attaching to does not protrude further than ¼" past the nut. If there is too much threaded rod in the housing, the lift may not be high enough in the housing – then your closure panel may contact the projector prior to closing fully. After you have the mounting structure and/or housing installed in the ceiling, you are ready to raise the lift into position and mount it.

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Lift Installation

CAUTION!

The lift is heavy. Take proper safety precautions and get adequate help when raising the lift. We recommend using a Genie™ or scissor-type lift when installing the heavier DataLift and DataWide models. Add a safety line to the lift to prevent it from falling to the floor in the event of an accident.

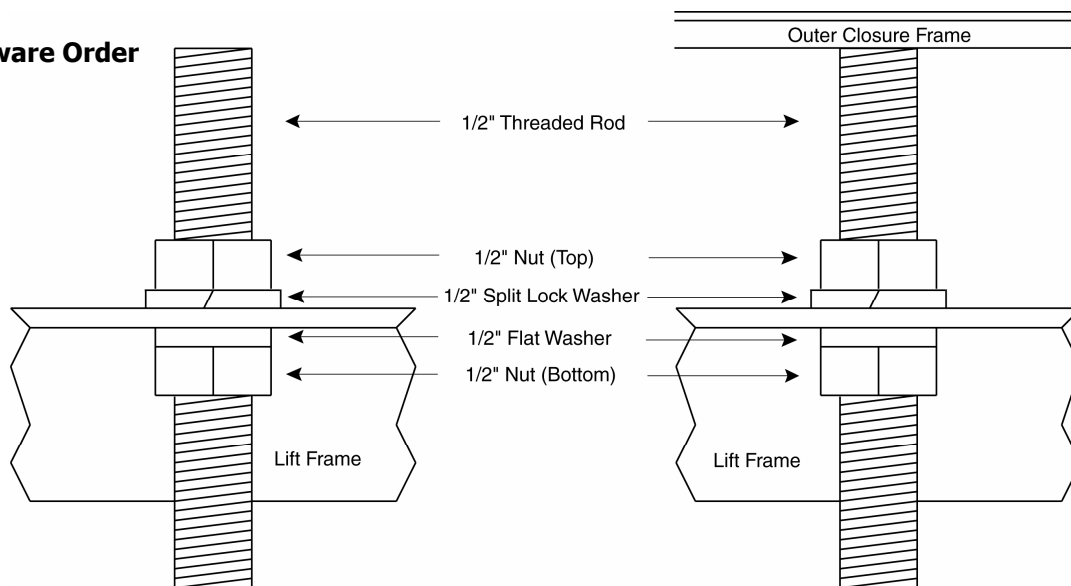
Remove the mounting adapter from the bottom frame of the lift (7/16" socket/wrench).

Before you begin, be sure the threaded rods have a nut and split washer above the lift frame, and a flat washer and nut below the frame. These can be temporarily held in place with tape, glue or gum.

Use 3/8" hardware for the DataLite models, and 1/2" hardware for the larger, heavier DataLift and DataWide models.

Raise the lift into position and add hardware. Follow the hardware order to ensure stability and accuracy when leveling the lift after you have successfully mounted it.

Hardware Order



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Note:

The following are some of the most important steps in proper lift installation!

Use a torpedo or bubble level to level the top frame of the lift. You may want to use more than one.

1. Level the lift from the right front to the left front.
2. Level the lift from left front to left rear.
3. Level the lift from right front to right rear.
4. Level the lift from right rear to left rear.
5. Recheck.
6. Recheck again.
7. To be absolutely positive, recheck again.
8. Tighten all hardware.

You may cut the tie wraps and remove the wood shipping blocks. Be sure to remove **all** blocks and **all** tie wraps on both sides of the lift.

Optional Enclosure - Side Panel Replacement

If this is a **plenum-rated housing**, (OPT3), you can now replace the side panels that are not knocked out. Be sure the correct panel goes on the correct side of the frame.

Next, install the strain relief/cable clamps in the panels that are knocked out, with the screws on the inside, facing down.

It may be convenient to put the cables through at this time, depending upon the ceiling's finish and accessibility. If it is drop-tile ceiling, accessibility should not a problem.

If the ceiling is a finished sheetrock or other solid material, you may need to feed the cables through the connectors first, **before** you reinstall the panels.

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Connecting Power

Verify voltage at the outlet/power source for the projector/lift. You can now connect the lift's power cord to a properly rated electrical circuit in the ceiling near the lift.

Next, plug the remote control unit cable into either of the two 9-pin control remote ports on the side of the control box.

Tighten the cable clamps / strain relief connectors as required.

If using the 12V trigger and/or AC Trigger, plug 1/8" mono mini plug on the sides of the control box at this time. Be sure the cable won't interfere with the lift mechanics.

Do not use a stereo mini connector.
(Tip / Ring / Sleeve)



Use the provided 1/8" mono mini connector.
(Tip / Sleeve)



Be sure the cables do not sag into the lift mechanism during its operation.

Remove the tie wraps and remove the wood shipping blocks. Be sure to remove **all** blocks and **all** tie wraps on both sides of the lift.

Caution!

If you do not remove the wood blocks, and attempt to lower the lift, they will fall out when the unit is lowered. If you forget to remove the tie wraps from the wood blocks and scissor mechanisms, lift damage will occur.

After following these precautions, you are now ready to turn on the power switch on the lift control box.

On the side of the control box, you will find the small black switch labeled NO MOVEMENT. The lift is shipped from the factory with the NO MOVEMENT switch in the ON position.

Flip the NO MOVEMENT switch to the OFF position. The LED will then blink twice. If the NO MOVEMENT switch is on, the STATUS LED on the control box and the remote control will be on solid -non blinking.

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Caution!

Make sure all tools, cables and body parts are clear of the lift before pushing the UP button.

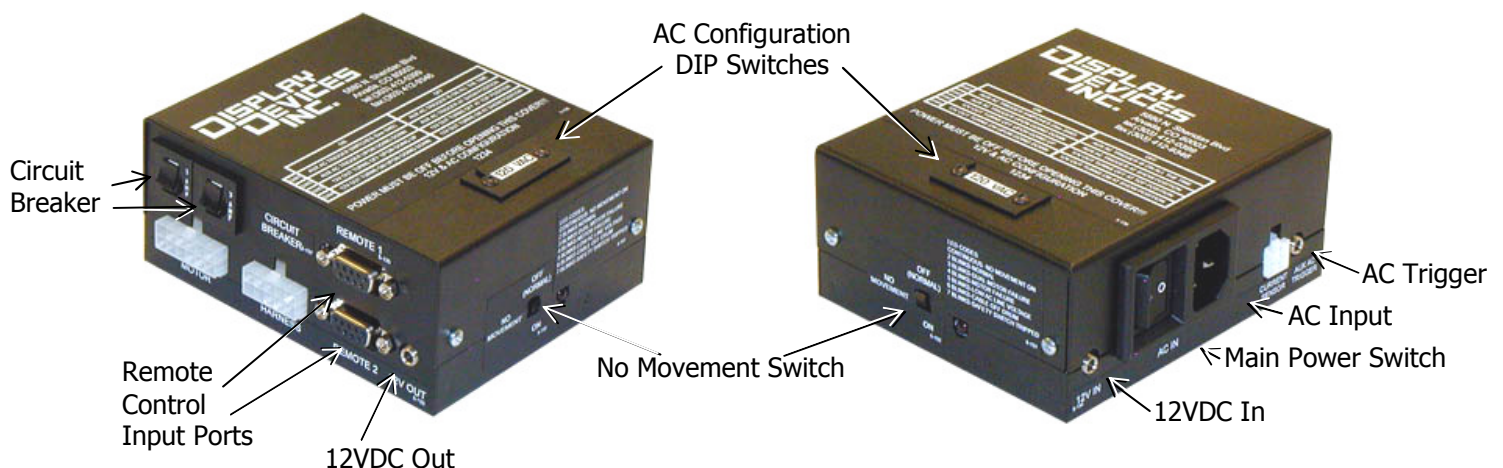
With the hand-held remote control, press the UP button to send the lift to the home position. Refer to the separate manual for the remote control (enclosed) for details on operation of the remote and program the lift's functions.

For this installation, here is a guide to the LEDs on the control box and the remote, and what the blinking means:

If the LED...	It means...	Fix it by...
Is Continuously Blinking	The NO MOVEMENT switch on the side of the control box is activated. This disables all movement of the lift.	Moving the switch to the OFF position
Blinks twice (after unit is powered up, LED then stops blinking)	The lift is operational	
Blinks three times	Dual motor current problems*	Call DDI technical support
Blinks four times	Motor is not moving	Check the power to the motor or for a mechanical obstruction on the lift
Blinks five times **	Low AC line voltage	Check circuit voltage
Blinks six times	Cables off the drum	Re-cable the drum(s)
Blinks seven times	Lower limit safety switch activated	Follow steps on page 7 of the remote instructions

* 2004 or earlier – non-volatile memory corrupted

** stops automatically after voltage is restored to proper level



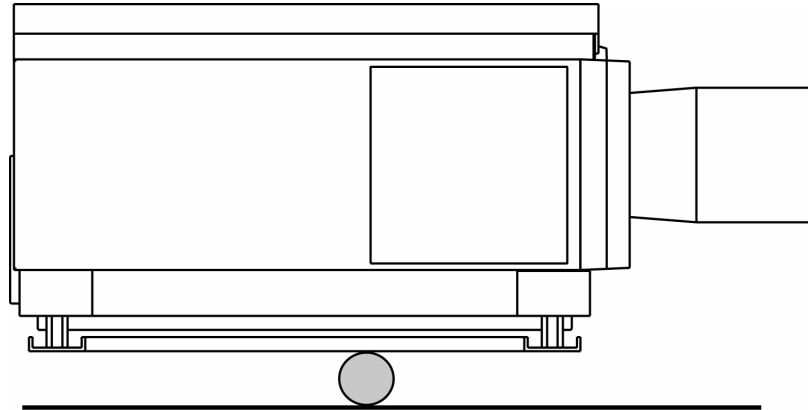
Refer to the Remote Control Operators Manual for clarification as needed.

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Projector Mounting

Most lifts are shipped with the projector mounting adapter attached. Remove it from the lower frame of the lift, if you have not already done so.

Find the projector's center of gravity using a dowel, pipe or broom handle.

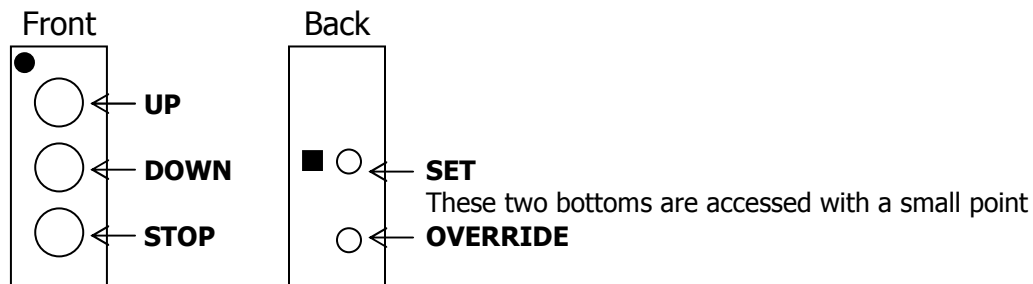


Invert your projector and attach the mounting adapter to the bottom of the projector with the enclosed hardware.

Use the Remote Control to lower the lift to a good working height – see the Remote Control Operation section for further information.

Place the lift in manual mode - use a small point (straightened paperclip) press and hold the **VERRIDE** button then press the **UP** button. Release **UP** then release **VERRIDE**.

Test the unit by pressing the **DOWN** button. It should move only when the button is depressed. The lift will stop when the button is released.



Attach the adapter to the lift with the projector's center of gravity under the wire rope and eye bolts of the lift. If you ordered OPT11- Pre-wire package proceed to Part 7.

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Cabling the Lift

Caution:

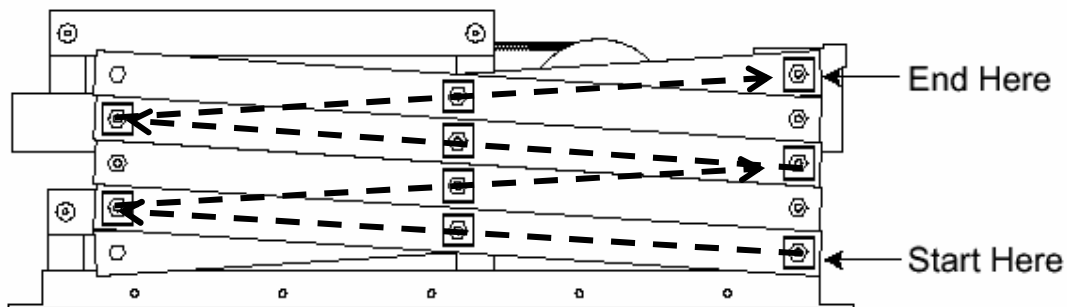
Using large-diameter RGB and other signal and/or control cable is not recommended on Display Devices' lifts.

This type of cable has too large of a bend radius to allow it to fit in the cable management clips mounted on the outside of the scissor assembly.

If your system uses large cables, keep them coiled neatly to the top of the lift, and provide an interconnected miniature RGB cable to make the run down through the cable management clips to the projector.

Attaching the Cables

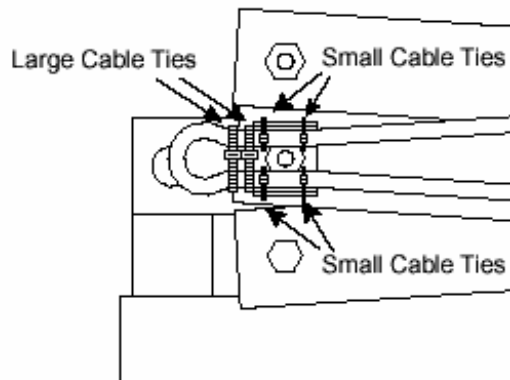
Using the hand-held remote, bring the lift down to the MAINTENANCE position. See the separate Remote Manual to learn how to program this position. The signal, power and control cables can now be routed into the cable management clips on sides of the scissor assembly.



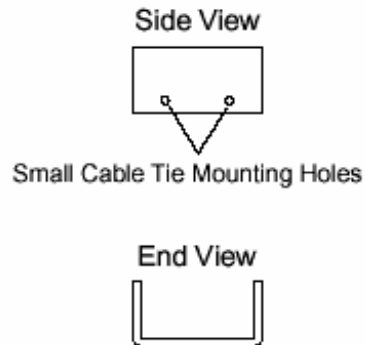
When routing the cables always start at the fixed end of the scissor on the bottom frame. Your cable routing will end at the fixed end of the scissor on the top frame.

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Loop Detail



Cable Clip Detail



The lift is shipped with a sample cable in the clips – after reviewing the sample cable - remove. Attach your cables in a likewise manner. Small cable tie wraps are supplied for securing the cables into the clips.

Use both of the small holes when attaching the cables to the clips. Leave a loop at the end of each scissor.

Carefully route the projector cables starting at the bottom scissor towards the front of the lift and work towards the top front of the lift. **Be careful you do not allow the cables to twist.**

NOTE:

It is common practice to keep the signal cables (audio, video, RGB) separate from the projector power and control cables to prevent signal interference. Utilize the clips on both sides of the lift for isolation.

Raise the lift to its home position with the **UP** button (in MANUAL mode) slowly, carefully, and intermittently. Observe carefully the cables rigged to the sides of the lift and watch for any problems.

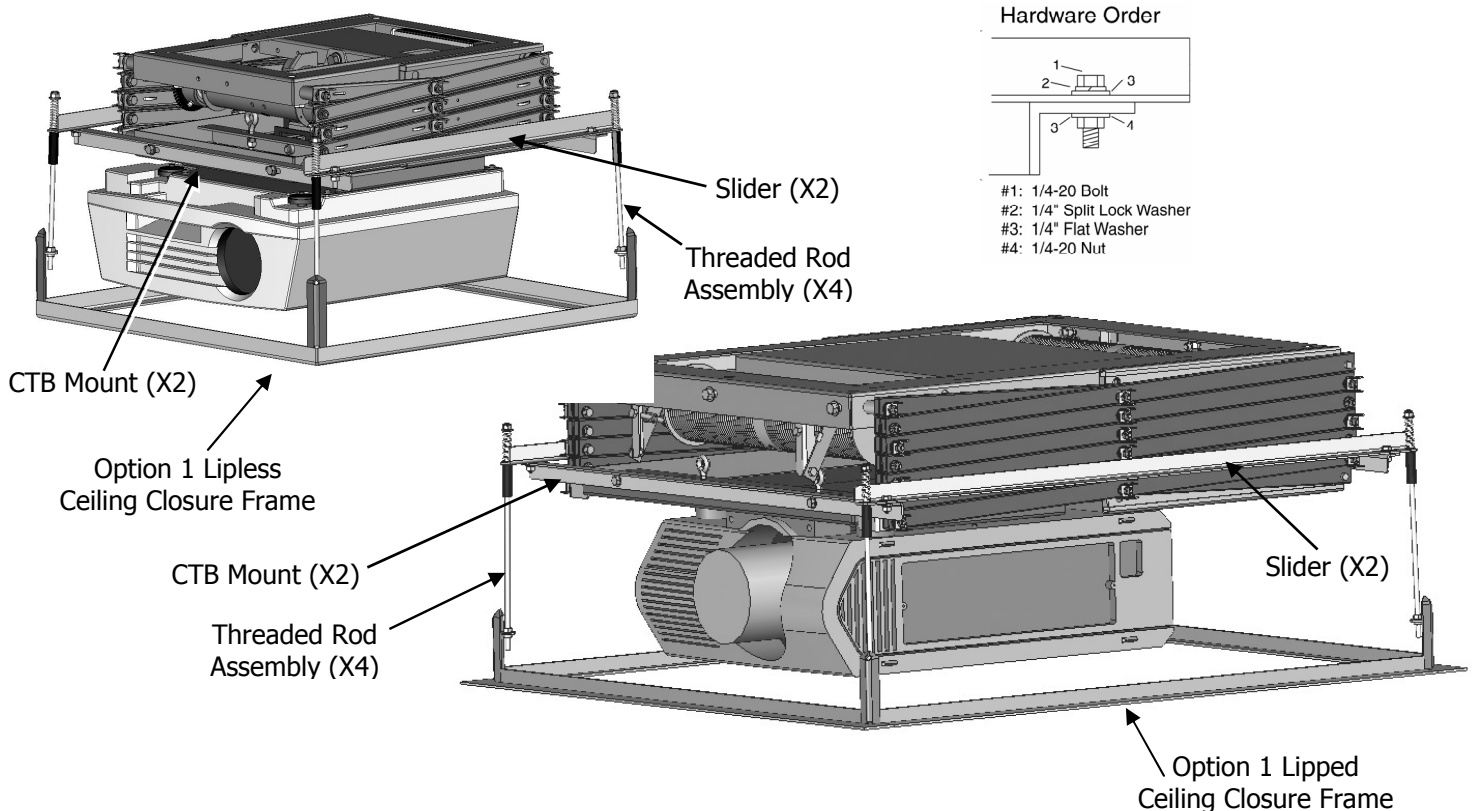
Bring the lift down with the **DOWN** button. Again, watch for any problems and ensure proper overall operation. Do this several times.

If you did not set the 12-volt trigger and AC configuration, revisit Part 1 and set the Dip Switches for your system design.

You are now ready to attach the ceiling panel closure system.

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Ceiling Closure System – CTB Mounts & Sliders



NOTE: If you are not installing an OPT1 Ceiling Closure Frame, proceed to Part 8.

Lower the lift to a workable height. Install the CTB mounts to the corresponding holes in the front and rear on the lower frame of the lift. (If your system includes the EMRCM Rotating Option, attach the CTB to the EMRCM lower frame). See the supplemental EMRCM/LIFT Interface directions.

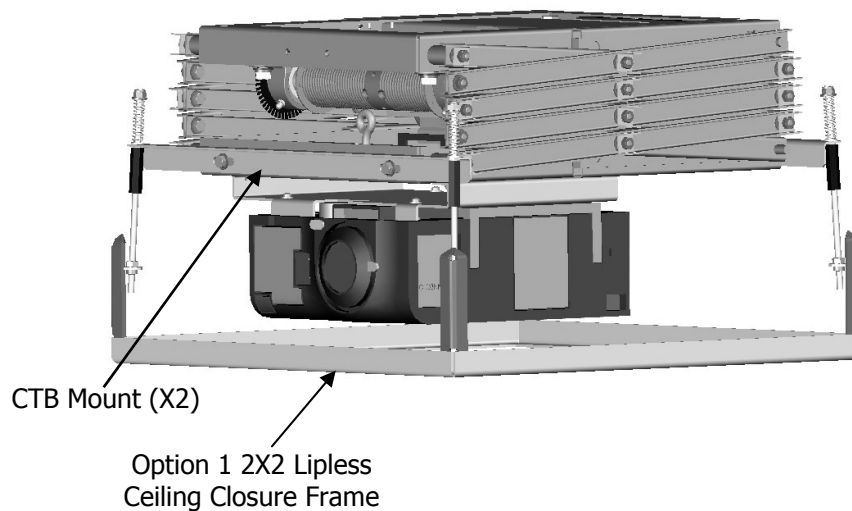
Use 1/4-20 x 1" bolts, 1/4" split lock washers, and 1/4" flat washers to attach the CTB mounts to the lower lift frame.

Place the sliders on top of the CTB mount tabs that extend out from the right and left sides. Add hardware but do not tighten the sliders to the tabs completely as they will need to be adjusted for alignment.

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NOTE:

If you have the 2X2 configuration, you will not use the sliders (front-to-back bars).



For a Lipless Closure System (OPT1L, OPT3L) cut a plywood backer board and ceiling media (drywall, ceiling tile) 3/8" smaller than the hole cut out in the ceiling.

Glue or screw the ceiling media to the backer board. Add two 1" x 4" wood supports across the width of the closure frame. Screw through the wood supports into the plywood backer board.

NOTE:

Leave enough play in the screws to slide the ceiling closure for precise alignment of the panel. Prep the ceiling closure panel by painting it to match the existing ceiling.

If you have a Lipped Closure System (OPT1, OPT3), fit your ceiling tile or other ceiling media within the closure frame.

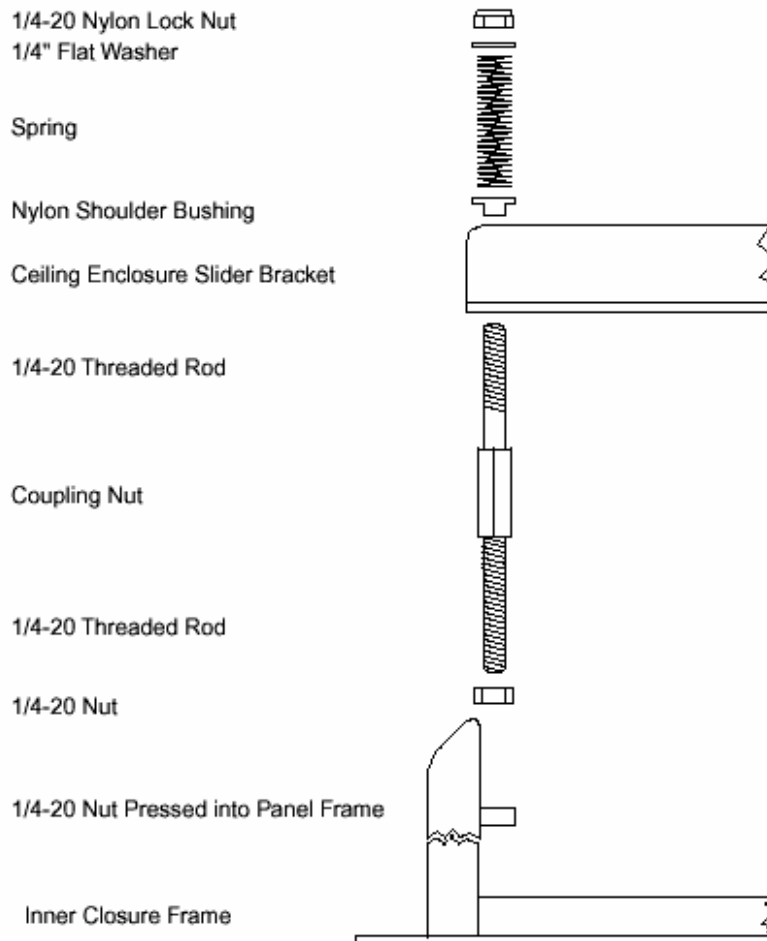
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Ceiling Closure System – Threaded Rod Attachment

Thread the (4) 1/4-20 rods into the ceiling closure frame, stopping about 1 1/2" from the bottom.

Lift the closure panel and insert the rods into the slider.

Add the nylon shoulder bushing, spring, 1/4" flat washer, and 1/4-20 lock washer on the top end of the rod.



Carefully raise the lift using the remote control.

Be sure the inner closure frame is centered inside the OPT3 or OPT4 outer frame. After the closure panel is centered, tighten the bolts that attach the sliders to the CTB mounts.

Finally, adjust the rods so that the ceiling closure panel fits flush with the ceiling.

When adjusting the Lipped Closure System (OPT1, OPT3), the springs should compress about 1/8" to 1/4".

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Final Adjustments

Operate the lift up and down several times to verify all adjustments and ensure proper overall operation.

Place the lift in Manual Mode – press and hold **Override**, press and release **UP**, release **Override**. Raise the lift to its home position with the **UP** button slowly, carefully, and intermittently. Observe carefully the cables rigged to the sides of the lift to watch for any problems.

Bring the lift down with the **DOWN** button. Again, watch for any problem and ensure proper overall operation. Adjust the closure system as needed.

Operate the lift up and down several times.

Place the lift in automatic mode. (press and hold **OVERRIDE**, press and release **STOP**).

If you did not set the 12-volt trigger and AC configuration, revisit Part 1 and set the Dip Switches for your system design.

The lift is now installed and ready for operation.

Specifications

	DataLite LCD-100	DataLift DL3B	DataWide DL3W
Operating Temperature Range	32° – 104°F 0° – 40°C	32° – 104°F 0° – 40°C	32° – 104°F 0° – 40°C
Horsepower	1/12 – 110V or 220V	1/12 – 110V or 220V	1/12 x 2 – 110V or 220V
Current Draw	.6A @ 110V .3A @ 220V	1.2A @ 110V .6A @ 220V	2.4A @ 110V 1.2A @ 220V

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Lift Removal

Disconnect all cables from the projector. It may be necessary to remove all cabling from the cable management clips on the side of the lift if disconnects were not installed.

Remove the Ceiling Closure Panel.

Remove the projector from the lift.

Place wood blocks between the upper and lower frame of the lift, and secure them with tie wraps. The wood should be ½" to 1" longer than the fully-retracted lift height to prevent the limit switches from being crushed. Close the lift up until contact is made with the blocks.

Disconnect the AC power and remote control cables.

Support the lift with an appropriate support system (Genie Lift, winch, rope / pulley).

After the lift is secured, remove the mounting hardware. **Caution:** mounting hardware may fall when removed.

Lower the lift from the ceiling, and crate for transport.

Maintenance & Safety

All Display Devices lifts are virtually maintenance-free.

Annual safety checks are suggested to insure continued reliability and safe operation.

Inspect lifting cables for wear.

Inspect drive belt/chain for any wear.

If equipped with safety strap(s), verify that they are drawing smoothly in and out of the clutch area, and that there is no sign of wear and tear. Also check them for proper locking operation with a quick tug on the strap(s).

Check motor and bearings for any leakage.

Verify limit switch operation.

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Emergency Operation

If your lift has traveled **below** the service position, and activated the lower limit safety switch, you will need to refer to the Remote Manual, and/or follow the steps below.

1) Open the back cover of the handheld remote control case, or remove the switch plate from the wall box.

(More detailed information is in the Remote Control Manual page 26.)

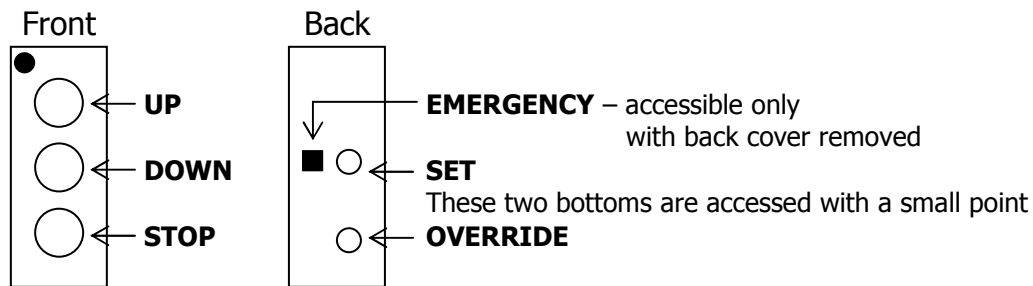
2) Press and hold the **STOP** button for 15 seconds to clear the error. Press the **EMERGENCY** button in the circuit board, press the **UP** button and release, then release the **EMERGENCY** button. The Lift should travel upward.

3) Verify operation and reprogram positions if necessary. See the Remote Control Manual enclosed as a supplement.

If the above steps do not resolve the problem, call Technical Support at 303.412.0399 during normal business hours, or E-mail Display Devices, Inc. at tech@displaydevices.com.

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Remote Control Unit



The Display Devices hand-held Remote Control Unit is a versatile, multi-functional programmable unit for lift operation.

The **UP** button moves the lift to the home position in AUTOMATIC mode, and raises the unit intermittently on command (in MANUAL mode).

The **DOWN** button lowers the lift to its SHOW position in AUTOMATIC mode, and lowers the unit intermittently on command in MANUAL mode.

The **STOP** button stops the lift's motion while in AUTOMATIC mode.

The **OVERRIDE** held down then followed by the **DOWN** button will lower the lift to service position while in Automatic Mode.

The **SET** and **OVERRIDE** buttons on the back of the unit are used in combination with the three command buttons on the front to program lift functions.

The **EMERGENCY OVERRIDE** button should only be accessed in case the lower limit switch is activated. This will be discussed later.

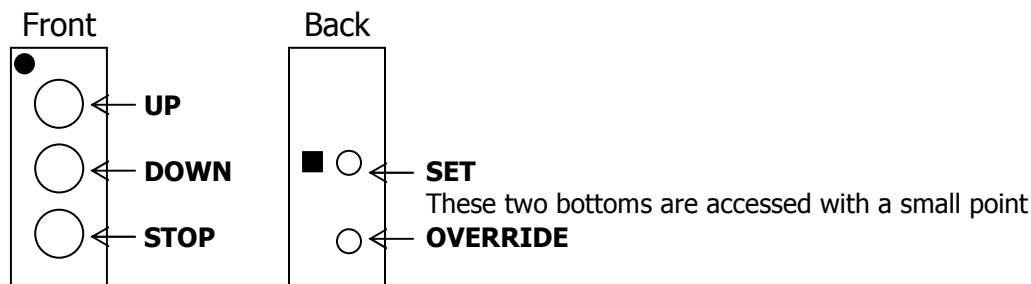
* It is recommended to keep the handheld 9-pin remote attached to the control box **in addition** to any control system (Crestron/AMX/etc.) for easy maintenance override or control system failure.

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Program the lift to MANUAL MODE –

To set Show and Service positions the lift must be in Manual Mode.

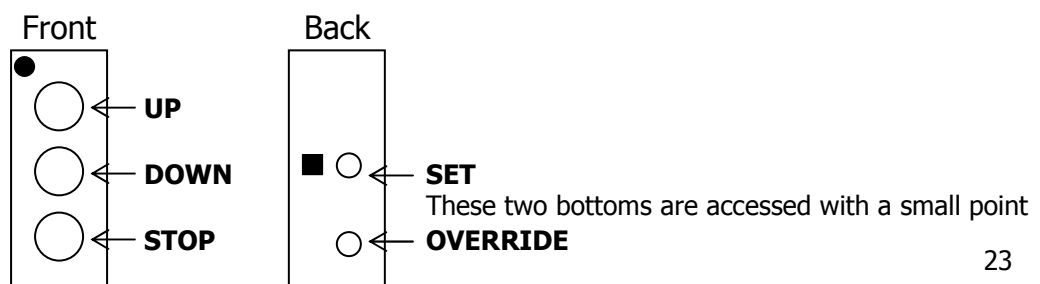
1. Use a small point (straightened paperclip) press and hold the **OVERRIDE** button then press the **UP** button. Release **UP** then release **OVERRIDE**.
2. Test the unit by pressing the **DOWN** button. It should move only when the button is depressed. The lift will stop when the button is released.



Set the SHOW position

This is the intermediate level for "on screen" projection. Be sure to start this procedure from the HOME position.

1. Program the remote to MANUAL MODE (**OVERRIDE + UP**). Press and hold the **OVERRIDE** button, then press the **UP** button. Release **UP**, then release **OVERRIDE**.
 2. Lower the lift with the **DOWN** button to its desired projection position.
 3. To program the remote to the SHOW position, press and hold the **SET** button then press the **UP** button. Release **UP**, then release **SET**.
 4. To return the remote to the AUTOMATIC MODE, press and hold the **OVERRIDE** button, followed by the **STOP** button. Release **STOP**, then **OVERRIDE**.
 5. Return the lift to the HOME position by pressing the **UP** button once.
 6. Test the operation of the lift to verify it has accepted your program.
 7. Press the **DOWN** button once. The lift will travel to its programmed position. If the lift does not travel to the position just programmed, repeat this process.
- * Remember, the remote must be in AUTOMATIC MODE for the commands to operate correctly.



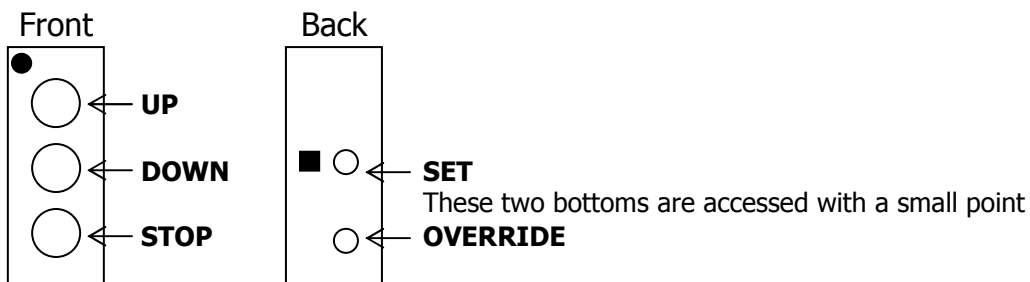
DISPLAY[®] DEVICES

Set the SERVICE / MAINTENANCE position

This is lower than the SHOW setting, bringing the lift to a level making maintenance, service, lamp and filter changes, and projector adjustments easier. Be sure to start this procedure from the HOME position.

1. Program the remote to MANUAL MODE – (**OVERRIDE + UP**). Press and hold the **OVERRIDE** button, then press the **UP** button. Release **UP**, and then release **OVERRIDE**.
2. Lower the lift with the **DOWN** button to its desired position for the easiest access for maintenance and repair.
3. To program the remote to the SERVICE/MAINTENANCE position, press and hold the **SET** button, followed by the **STOP** button. Release the **STOP**, and then **SET** buttons.
4. To return the remote to the AUTOMATIC MODE, press and hold the **OVERRIDE** button, followed by the **STOP** button. Release the **STOP**, and then **OVERRIDE** buttons.
5. Return the lift to the HOME position by pressing the **UP** button once.
6. Test the operation of the lift to verify it has accepted your program. Press and hold the **OVERRIDE** button, followed by the **DOWN** button. The lift will travel to its programmed position.

Remember, the remote must be in AUTOMATIC MODE for the programmed positions operate correctly.



Return to AUTOMATIC MODE

1. Press and hold the **OVERRIDE** button, followed by the **STOP** button. Release the **STOP** then **OVERRIDE** buttons.

In the AUTOMATIC MODE, the lift will automatically descend to the proper show level, rise to the HOME position, and descend to its lower limit service and maintenance.

DISPLAY DEVICES

Access Service/Maintenance Position

Press and hold **OVERRIDE** then press **DOWN** – release. The lift will lower to service position while in Automatic Mode.

LED Communications Codes

BLINKING LEDs ON THE REMOTE OR CONTROL BOX

If the LED is...	It means...	Fix it by...
Continuously Blinking	The NO MOVEMENT switch on the side of the control box is activated. This disables all movement of the lift.	Moving the switch to the OFF position.
Blinks twice (after unit is powered up, LED then stops blinking)	The lift is operational	
Blinks three times	Dual-motor current problem	Call DDI Tech Service.
Blinks four times	Motor is not moving	Check the power to the motor or for a mechanical obstruction on the lift
Blinks five times	Low AC line voltage	Check circuit voltage
Blinks six times	Cables off the drum	Re-cable the drum(s)
Blinks seven times	Lower limit safety switch activated	First cycle the power off then on and take note of what the LED does upon power up. Follow steps on the next page.

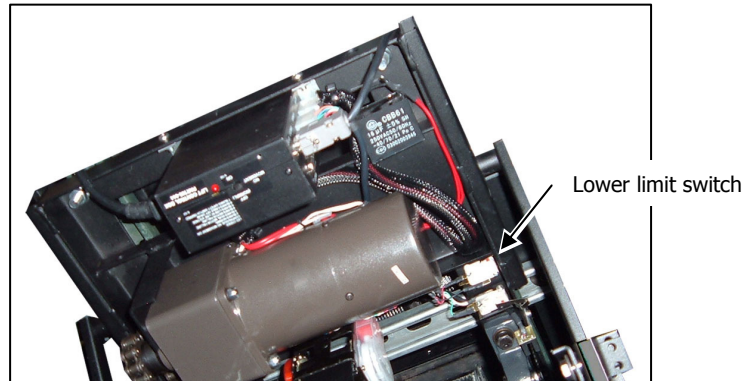
Clearing Errors: Press and hold the STOP button for 15 seconds and release. If the same error occurs, call Display Devices technical support.

DISPLAY DEVICES

Recover Lift from LOWER LIMIT SWITCH ACTIVATION and EMERGENCY OVERRIDE

When the Lift is lowered beyond its lower limit or Service/Maintenance position, a small wheel bearing activates a safety shut-off on the lower limit switch. It is located on the channel near the wheel bearing on the scissors. If the lift will not respond to any command buttons and the LED on the remote and Control box blinks seven times, proceed with the following.

The procedure is also required if a new control box is installed.



1. Remove the back cover of the remote control with a small Phillips-head screwdriver. Now you have access to the **EMERGENCY OVERRIDE** button on the circuit board.
2. If the LED is blinking you must clear the error. Press and hold the STOP button for 15 seconds then release.
3. Hold in the **EMERGENCY OVERRIDE** button, followed by the **UP** button. The lift will return to its HOME position in the ceiling, allowing the lift to reset its memory.
4. Put the cover back on the remote.
5. Put the lift into MANUAL MODE (**OVERRIDE + UP**).
6. Press the **OVERRIDE** and **SET** buttons at the same time. This allows you to set a new Electronic Lower Limit position for the lift.
7. Press and hold the **DOWN** button until the small wheel bearing on the upper frame is 1/2 inch from tripping the lower safety switch (release button before wheel bearing touches switch) or reaches the desired SERVICE/MAINTENANCE position (but not so low as to activate the safety switch again!)
8. Press both the **OVERRIDE** and **SET** buttons at the same time. This will reset the electronic lower limit switch.
9. Return the remote to AUTOMATIC MODE (**OVERRIDE + STOP**).
10. Press the **UP** button, and allow the lift to travel up to its home position.
11. Operate the lift to verify the Show and Maintenance positions are programmed.

DISPLAY DEVICES

DISPLAY DEVICES

Summary of the Remote Control Functions

The OVERRIDE and SET buttons are hidden on the back of the remote control. The lower button is OVERRIDE and the top button is SET. A straightened paper clip or similar device will be needed to activate them.

When using the OVERRIDE and SET buttons, these buttons must be pressed first and released last in the sequence.

To set the show position, press and hold SET, press UP, release UP, and then release SET.

Automatic Mode:

UP moves lift to the top position, DOWN moves lift to show position, and STOP stops the motion of the lift.

UP, DOWN, and STOP are functional while the lift is moving.

Manual Mode:

UP and DOWN buttons move the lift only while the buttons are depressed. Unit will stop at the top limit switch.

STOP stops the motion of the lift at the current position.

OVERRIDE & DOWN from the show position moves the lift to the maintenance position.

OVERRIDE & UP from any position will place the lift into manual mode.

OVERRIDE & STOP terminates the manual mode and returns the lift to automatic mode.

SET & UP sets show position and only works in manual mode.

SET & STOP set the maintenance position and only works in manual mode.

When in the automatic mode, press and hold OVERRIDE, then press STOP & UP together to place the unit into test mode. This will continually cycle the lift between home and show positions, pausing at each position. To terminate, press stop.

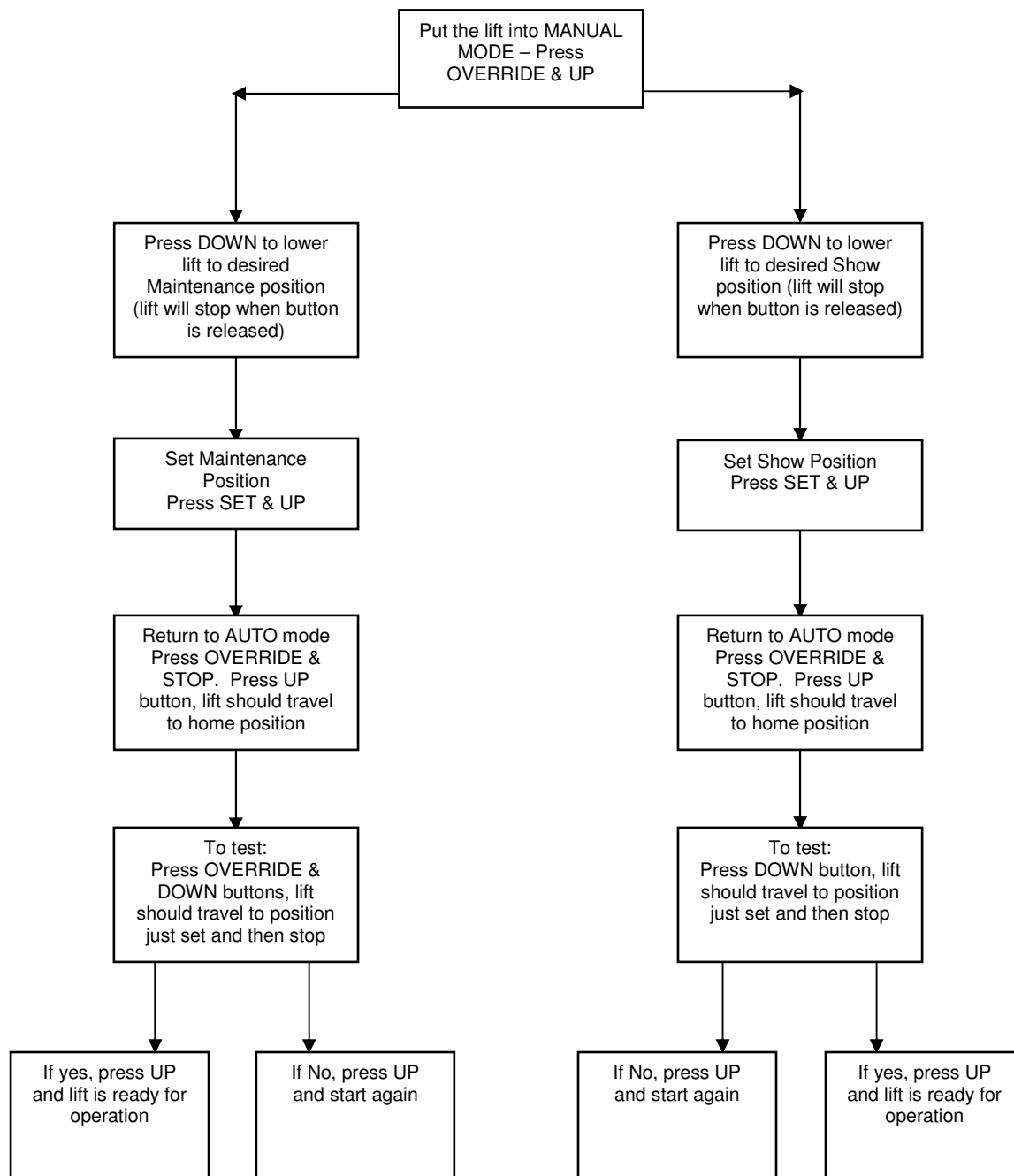
The NO MOVEMENT switch is located on the control box mounted to the lift frame and disables all movement of the unit. Remote control buttons become inactive.

EMERGENCY OVERRIDE & UP raises the lift only after the lower safety switch has been triggered.

Holding the STOP button for 10 seconds will clear the last Communication Code (blinking LED).

DISPLAY_® DEVICES

Programming Maintenance and Show Positions



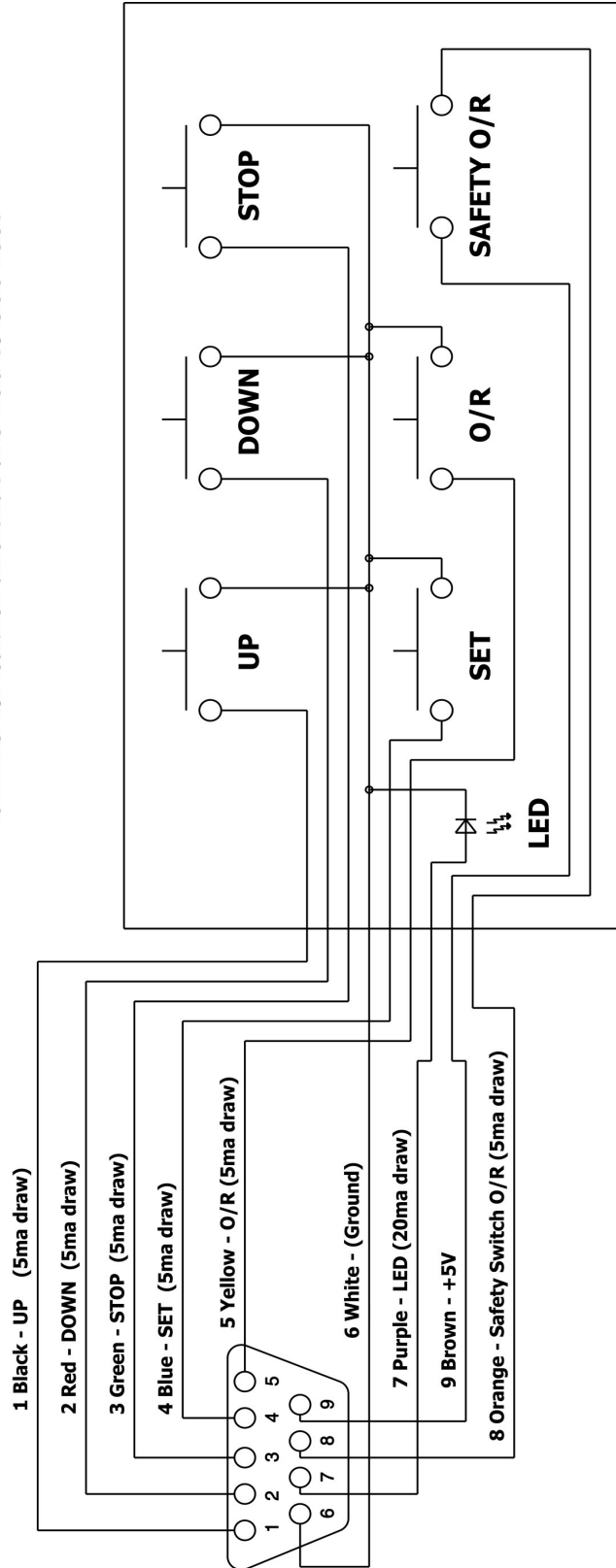
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DISPLAY DEVICES

Digital Remote Interface Schematic

22 AWG for cable runs up to 100 feet
20 AWG for cable runs that are 100 to 500 feet



NOTES:

- * O/R = OVERRIDE
- * DO NOT CONNECT OR SHORT ANY WIRES TO PIN 8 OR 9 EXCEPT SAFETY OVERRIDE BUTTON.

DISPLAY[®]DEVICES

Warranty

This product is warranted against defects in material and labor for 12 months from the date of shipment from Display Devices, Inc. Unit must not exhibit previous alterations or repairs except those performed by an authorized Display Devices dealer, distributor or factory service center.

Exclusions:

Lack of routine maintenance, normal wear and tear, misuse, improper operation or installation, neglect, abuse or acts of nature.

Fax or mail to:

Display Devices, Inc.
5880 N. Sheridan Blvd.
Arvada, CO 80003
(v) 303-412-0399
(f) 303-412-9346

Company Information: _____

Name: _____

Address: _____

City/State/Zip: _____

Phone: _____

Fax: _____

Dealer purchased through: _____

Date purchased: _____

Model #: _____

Serial #: _____

Comments: _____

DISPLAY DEVICES

Help us help you!

We value your feedback about our products. Any input you can provide will help us design and build better products for you. Please take a few minutes to answer the following questions. Use a 1 to 10 scale with 1 being poor to 10 being excellent.

When complete, fax it back to us at 303-412-9346. Thanks for your support!

Product Quality

Appearance of finish	_____
Packaging	_____
Dimensionally correct	_____
Mounting Bracket alignment (if applicable)	_____

Installation

Ease of installation	_____
Understandability of Manual	_____

Customer Service

How was your purchasing experience?	_____
Was the product shipped on time?	_____
Was your order shipped complete?	_____

Product Improvement

Are there any features or options you would like to have available?

If we designed and built a new product for you, what would it be?

What can we do better for you next time?

Order Number _____
Name _____
Phone _____
E-mail _____

Company _____
Fax _____