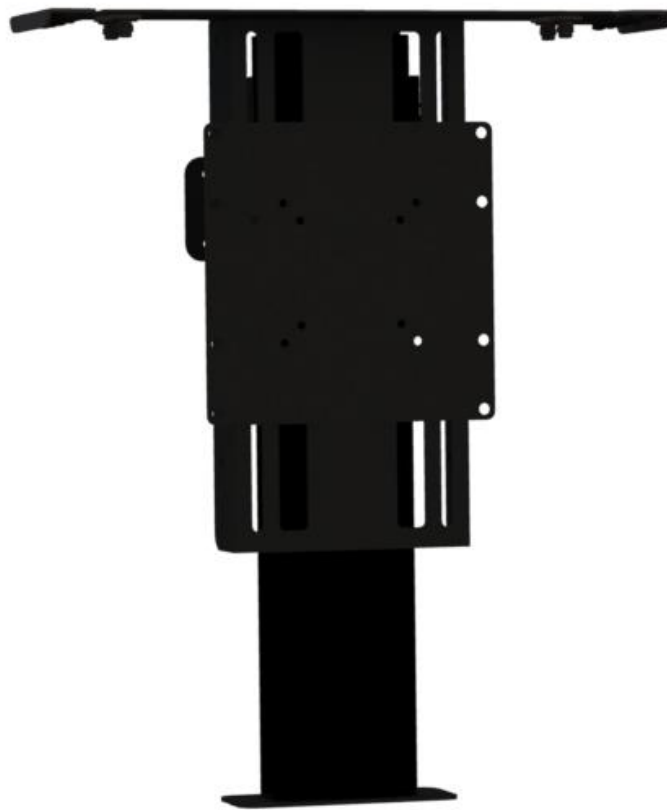


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CONCEALMENT SYSTEMS

**TV Lift System Model L-23
Installation Instructions**



Below is a parts list describing all of the items included with the Model L-23 Lift System. Before beginning assembly and installation, please make sure that you have all items included on the list. If any parts are missing or damaged, please contact Nexus 21. Our contact information is shown at the top of this page.

Parts List



Bayonet Bracket



Lift Column



Base Mount



Adapter Plate



Monitor Hanger



Control Box



Top Plate
(This part is not included when using a hinged-lid)

Parts List, continued

Cables

- **Motor Cable** – Black cable with white, six-pin plugs. Use this cable to connect the Lift Column to the Control Box (using slot #1 on the Control Box). Six feet long.
- **Power Cable** – Connects Control Box to power outlet. Three feet long.
- **RF Cable (only present if you ordered the RF version of the Lift System)** – Use to connect the RF Receiver to the Control Box. Ends have telephone-style connectors. One foot long.



TIP: You may want to install a power strip (not included) in the bottom of your cabinet to plug in the Lift System Control Box, TV and any other components in the cabinet.

Hardware

9. Two (2) -- 1 ½" x ¼" diameter Steel Threaded Taper Pins
10. Four (4) -- #8 x ¾" Flat Head Wood Screws
11. Four (4) -- ¼" Flat Washers
12. Four (4) -- 6mm Hex Nyloc Nuts
13. One (1) – Bag of Assorted TV Mounting Screws
14. Two (2) -- #10 x 1 ¾" Flat Head Wood Screws
15. Eight (8) -- #10 x ¾" Truss Head Wood Screws
16. Eight (8) -- 6mm x 20mm Flat Head Machine Screws

Items that are included, but not shown in Parts View diagram on Supplemental Page A:

- RF Controls or IR Controls (see explanation on page 5)
- Four (4) -- Wire Management Clips
- One (1) -- Allen Wrench – 4mm
- One (1) -- "Snakeskin" Wire Management Sleeve – 3 feet long
- Four (4) -- Velcro end Ties, for use with Wire Management Snakeskin
- Four (4) -- Plastic Ties, also for use with Wire Management Snakeskin
- Four (4) -- Lid Catch Brackets w/ #10 x ¾ Truss Head Wood Screws


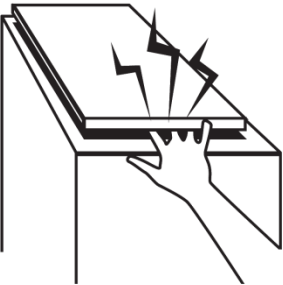
Wire Management



The Lift System has no exposed gears or moving parts that can damage your wires, so wire management is simple. We have included a three-foot long "SNAKESKIN" sleeve, which is a state-of-the-art wire bundling and protection system (the sleeve can be cut shorter if you wish). The System also includes 4 Velcro end ties and 4 plastic ties. Use the Velcro ties at the ends of the SNAKESKIN, to close the ends of the sleeve and to keep the wires together inside it. Use the plastic ties to fasten the cable bundle in a fixed position, so it moves up and down with the lift.

 **SAFETY INFORMATION** 

SEVERE PERSONAL INJURY AND PROPERTY DAMAGE CAN RESULT FROM IMPROPER INSTALLATION OR ASSEMBLY. READ THE FOLLOWING WARNINGS BEFORE BEGINNING:

<p>TV HAZARD</p> 	<p>CABINET LID HAZARD</p> 
<p>CAUTION: Avoid contact with the TV and Lift System during operation. Use with caution.</p>	<p>CAUTION: The cabinet lid must be installed as described in the instructions, using the Steel Threaded Tapered Pins. Installing the cabinet lid in any other fashion will create hazardous pinch points that can cause serious personal injury.</p>

WARNINGS:

1. Do not use this product for any application other than those specified by Nexus 21.
2. Do not exceed the weight capacity. This can result in serious personal injury or damage to the equipment. It is the installer's responsibility to ensure that the total combined weight of all attached components does not exceed that of the maximum figure stated.
3. Follow all technical specifications and instructions during the installation.
4. Only use attachments/accessories specified by the manufacturer.
5. Close supervision is necessary when this system is being used by, or near, children, or disabled persons.
6. It is the responsibility of the installer to warn all potential users of the dangers of interfering with the mechanism during operation.
7. Read all technical instructions fully before installation and use. It is the installer's responsibility to ensure that all documentation is passed on the users and read fully before operation.
8. Failure to provide adequate structural strengthening, prior to installation can result in serious personal injury or damage to the equipment. It is the installer's responsibility to ensure the structure to which the Lift System is affixed can support four times the weight of the system.
9. Risk of electric shock. Do not attempt to open the Control Box.
10. To reduce risk of fire or electric shock, do not expose parts to rain or other liquids.
11. Protect the power cord from being walked on or pinched.
12. Keep all documentation.
13. Heed all warnings.
14. Clean only with a dry cloth.
15. Refer all service questions to Nexus 21 if the system does not operate normally.

Nexus 21 disclaims any liability for modifications, improper installations, or installations over the specified weight range. Nexus 21 will not be liable for any damages arising out of the use of, or inability to use, Nexus 21 products. Nexus 21 bears no responsibility for incidental or consequential damages. This includes, but is not limited to, any labor charges for the servicing of Nexus 21 products performed by anyone other than Nexus 21.

Nexus 21 intends to make this and all documentation as accurate as possible. However, Nexus 21 makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. The information contained in this document is subject to change without prior notice or obligation of any kind. Nexus 21 makes no representation of warranty, expressed or implied, regarding the information contained herein. Nexus 21 assumes no responsibility for accuracy, completeness or sufficiency of the information contained in this document.

Types of Controls for Nexus 21 Lift Systems

All Nexus 21 Lift Systems come standard with a **wireless remote control** and receiver. We offer a choice of two different type of remotes: IR and RF (both of which are explained in detail below). Our standard control type is RF, so unless you specifically requested the IR version when you made your purchase, you probably received the RF controls with this Lift System. The method of installation for each type of remote control is slightly different, so you should now identify which type of remote you have by reading below, and then follow the instructions for that type of remote.

NOTE: If you will be using the Lift with a home control system (like the ones made by companies such as Crestron or Control 4) the most common form of control is to WIRE IT DIRECTLY to the relays of your home control system. This direct-wire method is called **Integration by Contact Closure**, and is accomplished by using the Backup Control Switch (Height Limit Switch) that was supplied with the Lift System to connect the Lift to the control unit from your home control system.

Before You Begin the Installation: Identify Your Control Type

IR (Infrared) – This control option allows you to utilize a 3rd party universal style remote control to raise and lower the TV Lift. Your universal remote will “learn” the IR codes from the provided IR Handset, which will enable you to control the lift. The universal remote will then communicate with the “eye” located on the IR Receiver via your 3rd party emitter (or flasher). Instructions for mounting the IR controls are on page 10. Instructions for setting the TV Lift’s travel limit are on Supplemental Page B.

NOTE: If you are NOT planning on using a 3rd party Universal Remote, switch to the RF setup. (There is no charge for swapping)

These are the parts included with IR controls:



Contact Closure Hardware



IR Receiver



IR Handset



Height Limit Insert

RF (Radio Frequency) - This system utilizes a wireless remote control handset that sends a radio signal to the RF Receiver. The radio signal can go through cabinet walls and does not require line-of-sight. Instructions for mounting the RF controls are on page 10. Instructions for setting the Lift System travel limit are on Supplemental Page B.

TIP: Planning to integrate the TV Lift with your UNIVERSAL REMOTE CONTROL? The RF version of the Nexus 21 controls won't do it. Switch to IR.

These are the parts included with RF controls:



Backup Switch



RF Receiver



RF Handset



Height Limit Insert

Integration by Contact Closure – To direct-wire the TV Lift controls to a home control system (Crestron, Control 4, AMX, etc.) you will use the Back-up Control Switch (Height Limit Switch). You won't use any Nexus 21 receiver or handset for this type of control because you will use the handset or control pad that comes with your home control system. **Instructions for setting up the System using Contact Closure are on “Supplemental Page C”.**

Assembly and Mounting – Things to Think About First



SAFETY NOTICE:

- For proper support, the Lift System MUST NOT be attached to any material that is less than 3/4" thick. This applies to BOTH the back and bottom mounting points.
- The Lift Column is ONLY designed and rated for VERTICAL, NON-INVERTED USE. **DO NOT MOUNT THIS LIFT SYSTEM UPSIDE DOWN or SIDEWAYS (HORIZONTALLY, AS IN A LATERAL MOUNT)!**



TIP: Inverted (drop-down) lift systems are available from Nexus 21. Contact Customer Service at (866) 500-5438.

Space requirements for the L-23 Lift System are as follows:

Depth = TV Depth + 3.6" (TV + 6" for hinged-lid).

Height = TV Height + 1", or a minimum of 22.8" (TV Height + 1", of a minimum of 24.2" for hinged-lid).

Width = TV Width + 1"



IMPORTANT NOTE: The Lift System must be mounted **as high up as possible inside the cabinet**, so that when the Lift is in the fully "DOWN" position (fully retracted), the top of the TV will be just underneath the lid of the cabinet.

Lift System height and mounting position:

When fully assembled, the HEIGHT of the Lift will be 22.8" (configured for "floating top") or 24.2" (configured for hinged top). If the **inside height** of your cabinet is taller than this, you will need to mount the Lift **higher up inside the cabinet**.



TIP: If you need to mount the Lift higher up inside the cabinet, you can cut a wood block or mount a small shelf inside the cabinet for the Lift column to sit on. Keep in mind that the Bayonet Bracket (part #3) will bear most of the weight.

About the Cabinet Lid (Cabinet Top)



SAFETY NOTICE:

- **WARNING! YOU MUST NOT DIRECTLY SCREW THE CABINET LID (TOP) TO THE LIFT SYSTEM!! THIS CREATES HAZARDOUS "PINCH POINTS" AND MAY AFFECT THE OPERATION OF THE LIFT OR CAUSE DAMAGE TO THE CABINET TOP.**
- For floating lids, **DO NOT USE SCREWS to attach the lid to the Lift System**. Instead, use the "Threaded Tapered Pins". This will keep the lid firmly in place, but will also allow it to **separate from the lift system** if anything (like a finger) gets in the way when the TV lowers.



Which Lid Style Will You Use? (There are 3 Different Styles)

Floating Lid (Floating Top) – The whole top of the cabinet sits on top of the Lift System and raises/lowers with the TV. This is the standard Installation method, using the Top Plate (part #7) and Threaded Tapered Pins.

Cut-Out Floating Lid (Top) – You will "cut out" part of your cabinet top, customizing it to the size of your TV. That cut-out lid then sits on top of the Lift System and raises/lowers with the TV. This method uses the Top Plate (part #7) and Threaded Tapered Pins, but you must set up a "catch" for the cut-out lid so that when the TV lowers, the lid stops level with the rest of your cabinet top (like a manhole cover).



TIP: There are several different methods for setting up the "catch", but the hardware to do it is not included with the Lift System because it is part of the cabinet. Hardware suggestions include: buy 4 small corner brackets and screw to underside of main top, with edges exposed to catch the corners of the cut-out lid. The same thing can be accomplished with 1" x 1" "cleats", which are strips of hardwood, mounted underneath, with edges exposed to catch the lid.

Hinged-Lid (Hinged-Top) – The cabinet top is hinged at the back of the cabinet, behind the TV. It is pushed open by the motion of the Lift System when the lift travels up, and closes by gravity when the lift travels down. This type of installation does NOT use the Top Plate or the Tapered Guide Pins, but **requires use of the optional Nexus 21 "Hinged-Top Guides" (purchased separately)**.



IMPORTANT NOTE: For hinged-top installations, the pivot point of the hinge must be at least 2" behind the back of the Lift Column. This requires up to one inch of extra depth inside the cabinet. **TIP:** The actual HINGES are part of your cabinet and are not provided with the Lift System.

[Table of Contents](#)

This guide will walk you through the installation of the L-23 Lift System. It will cover how to build, install, connect, and integrate your Lift System.

- 1) [Building the Lift System](#)
- 2) [Connecting the Lift](#)
 - a) L-23 IR Wiring Diagram
 - b) L-23 RF Wiring Diagram
- 3) [Initializing the Lift System](#)
- 4) [Installing the Actuation Assembly](#)
- 5) [Mounting the Lift Controls](#)
- 6) [Mounting the TV to the Lift](#)
- 7) [Installing the Floating Lid](#)
- 8) [Installing a Lid Catch for the Lift System](#)
- 9) [Dimensional Drawing](#)
- 10) [Reference Guide](#)
 - a) Setting the Height Limit
 - b) Common Procedures
- 11) [Control System Integration](#)

Building the Lift System

Actuation Assembly

For these steps, you will need the following parts:

- Lift Columns
- Base Mount
- Bayonet Bracket
- (4) 6 x 20 mm FHMS Screws
- Small Hex Key



Step 1: Attach the *Base Mount* to the *Lift Column* using (4) 6 x 20 mm FHMS screws.

Step 2: Slide the *Bayonet Bracket* into the *Welded Metal Sleeves* of the *Lift Column*.

Step 3: Tap the *Bayonet Bracket* into the *Welded Metal Sleeves* of the *Lift Column*, using a Rubber Mallet.



Connecting the Lift System

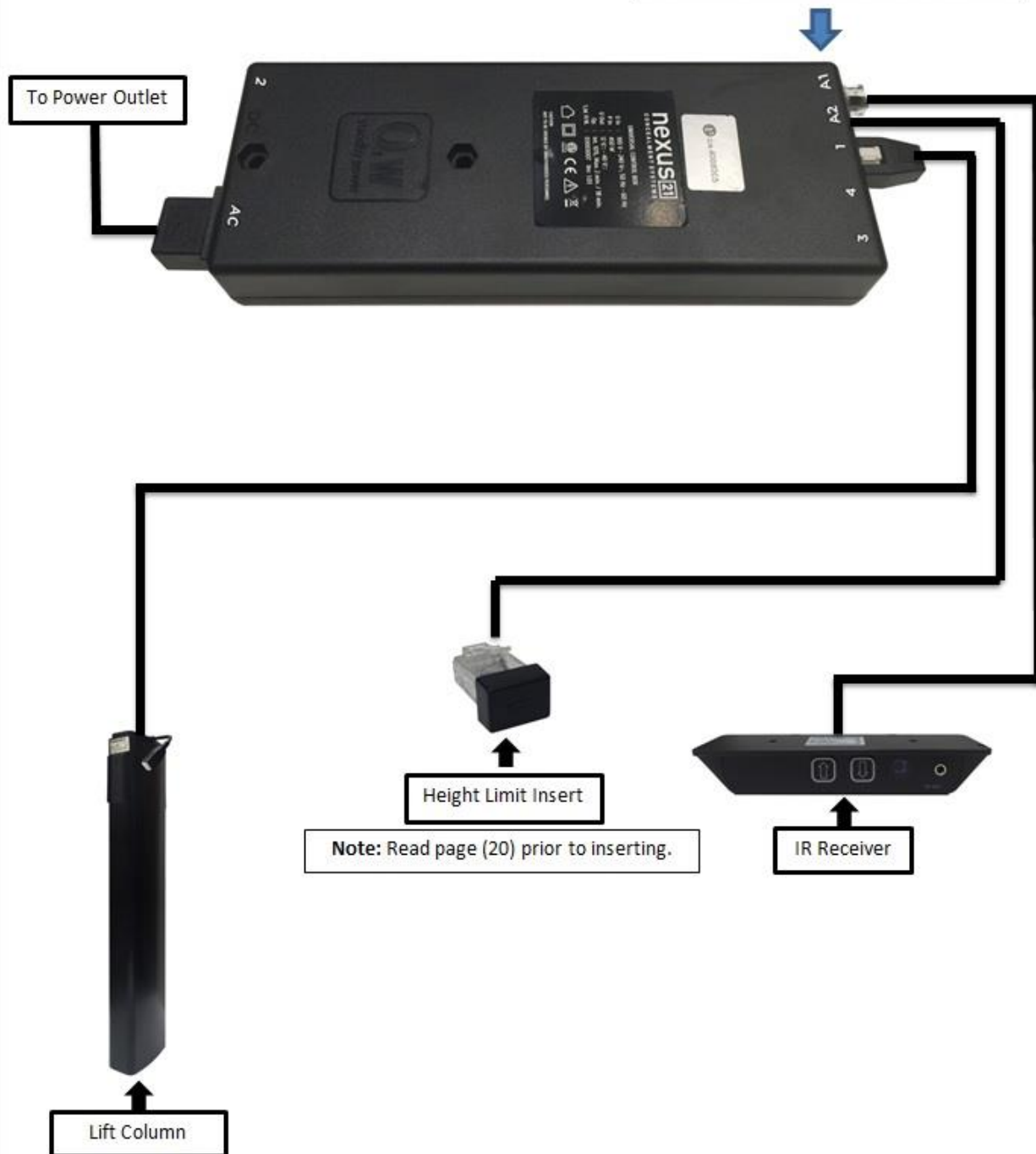
Connect the lift system according to the diagram listed on the following 2 pages.

(The L-23 RF Wiring Diagram is listed on the next page)

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L-23 Wiring Diagram with IR Controls

Note: Ports A1 & A2 are interchangeable.



(The L-23 IR Wiring Diagram is listed on the previous page)

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L-23 Wiring Diagram with RF Controls

Note: Ports A1 & A2 are interchangeable.

To Power Outlet



Lift Column



RF Receiver



Height Limit Insert



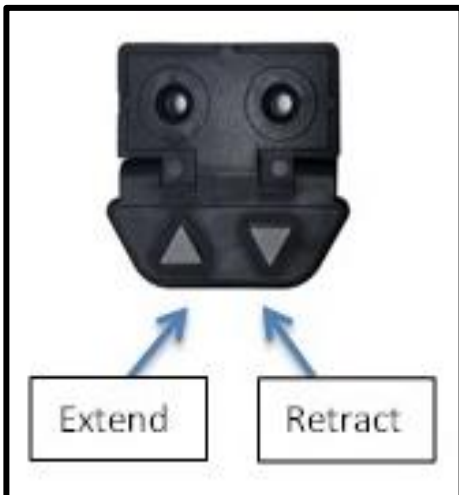
Backup Switch

Note: Read page (20) prior to inserting.

Initializing the Lift System

Once the lift has been connected per the wiring diagram on the previous pages follow the steps below to Initialize the lift and run it to its resting height.

Important Note: You must follow the steps below as the collapsed height of the column will change after running the lift causing all measurements to be off by 2 to 6 mm.



Step 7: Press and hold the DOWN button on the *Wired Backup Switch* for a full 5 seconds.

Note: You should hear or see the lift jog up and down very slightly. If you do not hear or see any movement, release the down button and try this step again. It may take 2 or 3 tries.

Step 8: Hold the Lift Column in the upright position and press the UP button on the *Wired Backup Switch* to extend the lift column to its maximum travel.

Note: If you hear the Lift Column engage but do not see any movement, make sure the height limit insert is removed, repeat the step 7 and try again.

Step 9: While still holding the Lift Column, press the DOWN button to fully retract the lift.

You have successfully initialized the lift system.

Installing the Actuation Assembly

For these steps, you will need the following parts:

- Actuation Assembly
- Drill w/ Phillips Bit
- (8) #10 x ¾" THWS Screws

Note: For the following steps disconnect the Motor Cable from the top of the Actuation Assembly. You will be instructed to connect it again later on.



Step 4: Position the *Actuation Assembly* inside your cabinet so that the top of it rests ½" below where the cabinet lid will rest, when the lift is in the retracted position.

Note: You may need to use a block or shelf to position the *Actuation Assembly* at the proper height.

Step 5: Attach the *Actuation Assembly* to the back wall of the cabinet using (4) #10 x ¾" THWS Screws.

Step 6: Attach the *Actuation Assembly* to the cabinet using (4) #10 x ¾" THWS Screws.

Note: If you used a block or shelf on Step 4, attach the *Actuation Assembly* to that instead.



Mounting the Lift Controls

For these steps, you will need the following parts:

- Wired Backup Switch
- IR or RF Receiver
- Control Box
- (2) #10 x 1-3/4" FHWS Screws
- (4) #8 x 3/4" FHWS Screws
- (2) #6 x 3/4" FHWS Screws (For RF Controls only)



Note: Reconnect the Motor Cable to the top of the Actuation Assembly.

Step 7: Mount the *Control Box* to a nearby accessible location using (2) #10 x 1-3/4" FHWS Screws.



Step 8: Mount the *Wired Backup Switch* to a nearby accessible location using (2) #8 x 3/4" FHWS Screws.

Note: These will be the backup push buttons should the remote be lost or fail.

Step 9: Mount the *IR Receiver* a nearby accessible location using (2) #8 x 3/4" FHWS Screws. If you are using *RF Controls* mount the *RF Receiver* to a nearby accessible location using (2) #6 x 3/4" FHWS Screws.



Mounting the TV to the Lift

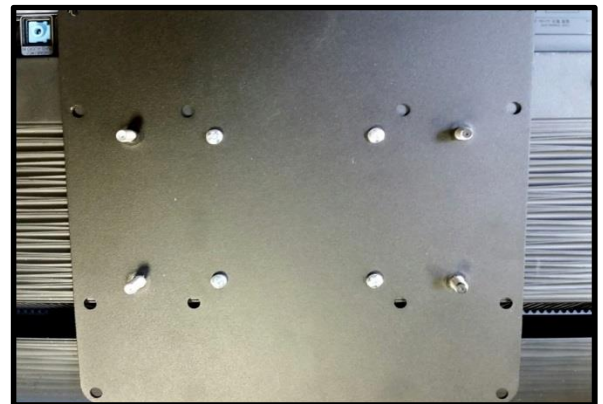
For these steps, you will need the following parts:

- Actuation Assembly
- Monitor Hanger
- Adapter Plate
- Top Plate
- Assorted TV Mounting Hardware
- (4) ¼" Flat Washers
- (4) 6mm Hex Nyloc Nuts
- (4) 6 x 12mm FHMS Screws
- (2) Plastic Wire Clips

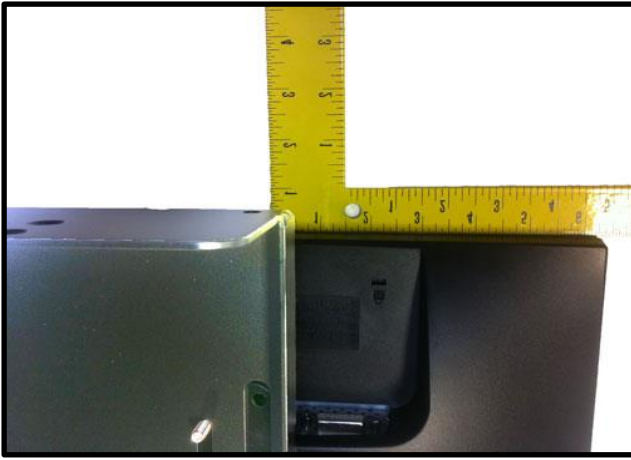


Step 10: Place the TV on a flat surface with the screen facing down and place the *Adapter Plate* on the back of the TV with the 4 threaded studs facing towards you.

Step 11: Align the *Adapter Plate* with the VESA Pattern/Mounting Holes on the back of the TV and fasten it using the appropriate sized bolts located in the *Assorted TV Mounting Hardware Pack*.



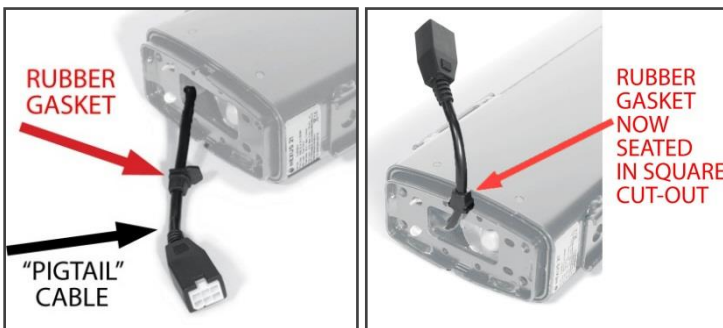
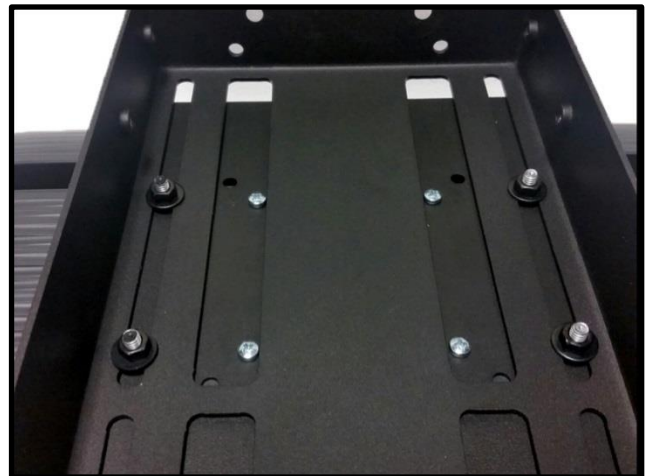
Step 12: Place the *Monitor Hanger* on top of the *Adapter Plate*, ensuring the 4 Threaded Studs on the *Adapter Plate* line up with the smaller slots on the *Monitor Hanger*.



Step 13: Position the *Monitor Hanger* on the *Adapter Plate*, so that the top edge of the *Monitor Hanger* sits $\frac{1}{4}$ " to $\frac{1}{2}$ " higher than the top of the TV.

Note: This step will determine the gap between the lid and the TV, the smaller the gap the better it will look. If you purchased the Hinged Top Guides, mount the TV as high as possible on the Monitor Hanger.

Step 14: Fasten the *Monitor Hanger* to the *Adapter Plate* by placing (4) $\frac{1}{4}$ " Flat Washers and (4) 6mm Nyloc Nuts on the threaded studs of the *Adapter Plate*.



Step 15: Press the UP button on the Wired Backup Switch to Extend the lift then seat the Pigtail in the Square Cut-Out at the top of the *Actuation Assembly*. Ensure the pigtail is seated on the side the TV will be on.

Step 16: Align the Monitor Hanger with the 4 threaded holes on the top of the *Actuation Assembly*.

Note: You will need to move the Motor Cable and pigtail out of the way in order to get the holes to line up. To do this gently pull the Motor Cable to the side the Control Box is mounted to.



Step 17: Align the 4 holes in the center of the Top Plate with the 4 countersunk holes on the Monitor Hanger.



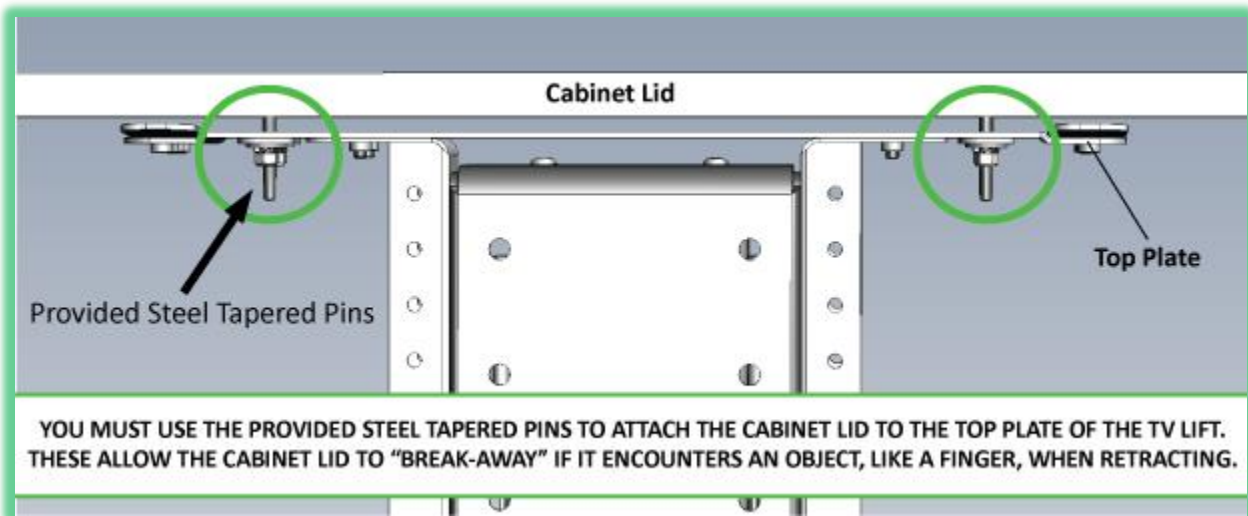
Step 18: Fasten the Top Plate and Monitor Hanger to the Actuation Assembly using (4) 6 x 12mm FHMS Screws.

Step 19: Place (2) Plastic Wire Clips on the interior of the Monitor Hanger at the top and bottom as shown in the photo, then secure the Motor Cable in the clips. (Monitor Hanger removed for reference)

Note: Make sure to place the Wire Clips on the side of that is closest to the Control Box as that is where the Motor Cable will run to.



Installing the Floating Lid



What Are the Tapered Pins, and Why Use Them?

The two 1½" x ¼" Steel Threaded Tapered Pins are used IN PLACE OF SCREWS to hold your cabinet top (lid) in place on the Lift System Top Plate (Part #8). The Tapered Pins will keep your lid firmly in place, but will also allow it to **separate from the lift system** if anything (like a finger) gets in the way when the TV lowers. [See Safety Notice above. Please do NOT use screws with your cabinet lid.](#)

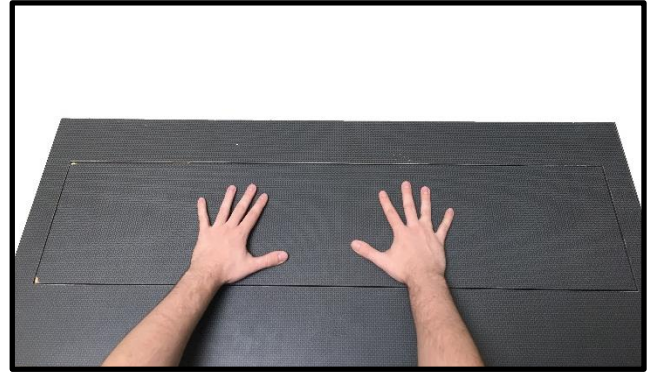
Before You Install the Tapered Pins, Here is a Reminder of the Two Types of Floating Lids (Floating Tops):

Floating Lid (Floating Top) – The whole top of the cabinet sits on top of the Lift System and raises/lowers with the TV.

Cut-Out Floating Lid (Top) – This option assumes that you have “cut out” part of your cabinet top, customizing it to the size of your TV. That cut-out lid then sits on the Top Plate of the Lift System, held in place by the Taper Pins, and raises/lowers with the TV. You must set up a “catch” for the Cut-Out Lid so that when the TV lowers, the Lid stops level with the rest of your cabinet top (like a manhole cover), and the Lift System continues down a little further into the cabinet (no more than ¼" to ½"). In this way, when the Lift System is fully retracted, the Cut-Out Lid will always be level, and the Top Plate of the Lift System will always be positioned just below the Lid. Since the Lid and the Top Plate are slightly separated from one another, but still very close, the Taper Pins (which are 1½" long) will still be hanging down through the holes in the Top Plate so when the Lift System moves, everything is properly aligned and the Lid rides smoothly up and down.

Step 20: Fully retract the lift, place the Cabinet Lid onto the Top Plate, and center it within the cabinet opening.

Note: It is fine if the Lid is resting lower than the Counter or Cabinet Top for now as you will be creating a lid catch in the next section of this manual.



Step 21: Run the Lift up using the IR or RF Controls and then back down. Making sure that when the lift comes down, the Cabinet Lid drops into a centered position within the cabinet opening.

Note: You may temporarily tape your lid in place to prevent any shifting if needed.



Step 22: Run the lift all the way up again, making sure the lid does not move out of place and locate "nesting holes" for the *Top Plate*. Using a pencil or felt tipped pen, mark the position of each of the holes on the underside of the cabinet lid.

Note: Make sure nesting nuts are hand tight and centered before you mark your lid.

Step 23: Remove Cabinet Lid and drill two holes in the marked positions using a 7/32" drill bit, 1/2" deep, in the underside of the Cabinet Lid.

General Tip: You can wrap tape around the bit, 1/2" deep to ensure you don't go too far into the lid.

Granite Tip: If you have a granite, marble or quartz lid, you can put a wood sub decking below the granite and drill into that or bore a hole slightly larger than the Tapered Pin into the granite directly and epoxy the pin in.





Step 24: Using a Phillips head screw driver (not provided) screw each Tapered Pin into the holes drilled in step 16.

Step 25: Align the Tapered Pins with the holes you marked in Step 41 on the Top Plate and put the Lid on. Tighten the nuts on the underside of the hole where the Tapered Pins pass through the Top Plate.

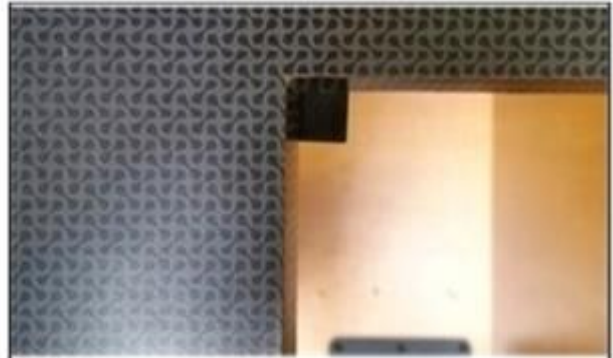
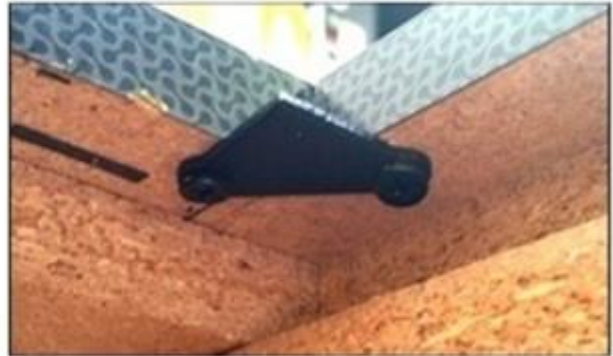
Note: If you have any misalignment the nesting hole nuts from step 22 allow the floating lid to be adjusted up to 1/4" in every direction.



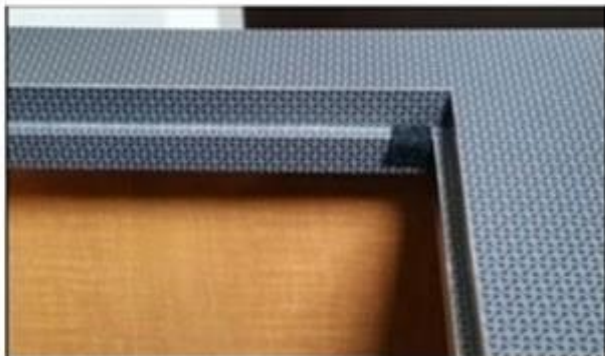
Installing a Lid Catch for the Lift System

There are multiple ways to properly create a "catch" for the lid to rest on, when the lift is in the fully retracted position.

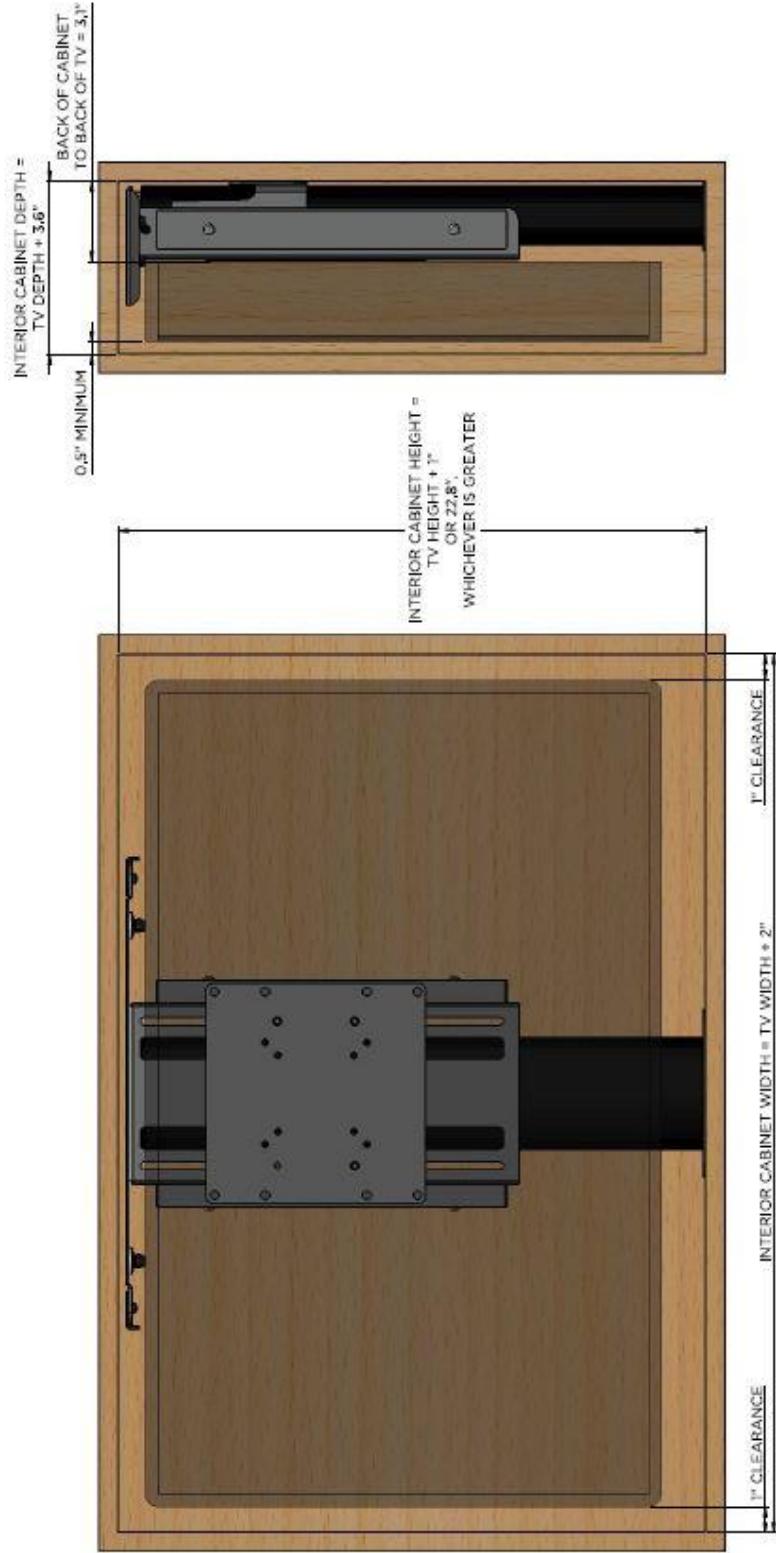
Down below are a few examples. Using the provided Lid Catch Brackets with (8) #10 x $\frac{3}{4}$ " THWS attach the brackets to each corner of the lid opening. This will provide a support point for the lid to rest on while the lift is in the fully retracted position, assuring the lid is flush with the rest of the cabinetry every time.



Here are a few other examples on how to create a "catch" or "lip" for the cabinet lid to rest upon.



MODEL L-23 DIAGRAM



- NOTES:
1. THE CABINET BOX SHOWN IN THE DIAGRAM IS FOR REFERENCE ONLY AND IS NOT PROVIDED WITH THE LIFT SYSTEM
 2. FOR THIS LIFT MODEL, THE LENGTH OF ITS TRAVEL [EXTENSION LENGTH OR STROKE] IS 23"
 3. FOR THIS LIFT MODEL, THE TOTAL WEIGHT CAPACITY IS 130 LBS
 4. LID IS DESIGNED TO FLOAT WITH PROVIDED TAPERED PINS - LID MUST BE REMOVABLE FOR SAFETY
 5. WHEN DETERMINING TV HEIGHT, ALWAYS USE MANUFACTURER SUPPLIED "TV WITHOUT STAND" HEIGHT
 6. LIFT MECHANISM IS POWDERCOATED BLACK STEEL - COLORS IN DIAGRAM ARE FOR CLARITY ONLY

Reference Guide

Lift Components:



Wired Backup



Height Limit Insert



Control Box



IR Receiver



Motor Cable



RF Receiver

Setting your Height Limit

Setting the Height Limit for IR and RF:

1. Simply extend the lift to your desired height using *IR Receiver* or *Wired Backup Switch* and tap the down button to stop the lift at that height.
2. Then put the *Height Limit Insert* into either port A1 or A2 on the *Control Box*.
3. Your remote will now obey the height limit you have set.

Common Procedures:

Reinitialize:

1. Fully retract the lift;
2. Once the lift is fully retracted, press and hold the down button on either the *Wired Backup Switch* or *IR Receiver* for about 5-10 seconds. You should see a slight movement from the lift system.
 - a. **Note:** If you do not see the movement on the first attempt, release the down button and try these steps again. It may take 2 or 3 tries.

Resetting the Lift from Safe Mode (Safe Mode occurs when power is lost while the lift is extended):

1. The lift will only retract and it moves at half the speed.
2. Press and hold the down button until the lift fully retracts.
3. Then follow the steps to Reinitialize the lift.

Pairing your RF Remote:

1. Locate the pinhole on the side of the *RF Receiver*.
2. Using a paper clip, press and hold the button inside the pin hole and the down button on the *RF Remote* at the same time. Keep them both held for 5 seconds.
 - a. **Note:** The paper clip should only go a short distance into the *RF Receiver* to press the button. If your paper clip goes all the way in, reposition it and try again.
3. Release both buttons and try using your *RF Remote* again.
4. If the remote does not respond, please contact our Technical Support at 480-275-8613 or email us at support@nexus21.com for further troubleshooting.

Connecting the Lift to your Home Control System

Connecting the Nexus 21 Lift System to Other Control Systems

Use these instructions if you need to wire the Lift System directly to a Home Control System, like those made by Crestron, AMX, Control 4, RTI, etc. A common term for this method of integration is "connection by contact closure."

Contents of Contact Closure Hardware Pack:

Step 1: Contact Closure Hardware Pack

This pack contains the following parts:

- 1 – *Contact Closure Cable*, RJ-45 to Relays
- 1 – *Height limit Insert*



Contact Closure Cable, RJ-45 to Relays



Height Limit Insert

Step 2: Connecting the Lift System to the Control System

Using the *Contact Closure Cable* to connect the three wires directly to the relays on your control module (see image below). Then connect the RJ-45 plug on the *Contact Closure Cable* to the Nexus 21 system, using either one of the two RJ-45 ports on the side of the Nexus 21 *Control Box*.

The colored wires function as follows:

BLUE = common (Pin 4 from RJ45) **GREEN** = Extend (Pin 5 from RJ45) **RED** = Retract (Pin 8 from RJ45)

Wire combinations for the relays:

The lift system uses two relays. One for "extend" and one for "retract." The common wire runs between both relays, by using the **BLUE common wire**, together with a jumper wire you supply.

Relay 1 Extend: **BLUE** common wire with **GREEN** normally open.

Relay 2 Retract: **BLUE** common wire (use jumper) with **RED** normally open.



Close-up View of RJ-45 Pins



Step 3: Setting a Height Limit for the Lift System

Begin with the Height Limit Insert UNPLUGGED. Then send the "UP" command from your control system and run the Lift System up to your desired height. Once the Lift System is at the desired height, send the "DOWN" command to stop the lift at the point. Now PLUG the Height Limit Insert into the available RJ45 port on the Nexus 21 Control Box. The Lift will now remember the height and always stop at that point. To change, unplug the Height Limit Insert and repeat Step 3.

For technical support or to ask questions, call Nexus 21 Customer Service, toll-free at (866) 500-5438.

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