

nexus 21

CONCEALMENT SYSTEMS

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



Below is a parts list describing all of the items included with the Model L-23i Lift System. You may also wish to refer to the dimensional diagram shown on Supplemental Page A for minimum installation dimensions (found at the end of this document).

IMPORTANT DETAILS ABOUT THIS LIFT MODEL:

This Lift Model is for use in an **inverted orientation** (e.g. lowering a TV from an upper kitchen cabinet) and cannot be used as a “pop-up” TV Lift. If your project calls for a pop-up lift (to raise your TV up from below), please call Nexus 21 customer Service, at (866) 500-5438.

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



1. Lift Column
(22" x 4")



2. Base Mount
(2 3/4" x 6")



3. Bayonet Bracket
(8" x 5 1/4")



4. Monitor Adapter Plate
(8 1/2" x 8 1/2")



5. Monitor Hanger
(9 1/4" x 15")



6. Control Box
(10 1/2" x 3 3/4" x 1 1/2")



7. Lid Plate
(18" x 4 1/2" - 6 1/2")

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) inside your cabinet to plug in the Lift System Control Box, TV and any other components in the cabinet.

Hardware

8. Eight (8) -- #10 x ¾" Truss Head Wood Screws
9. Four (4) -- #8 x ¾" Flat Head Wood Screws
10. Four (4) -- ¼" Flat Washers
11. Four (4) -- 6mm Hex Nyloc Nuts
12. One (1) -- Bag of Assorted TV Mounting Screws
13. Two (2) -- #10 x 1 ¾" Flat Head Wood Screws
14. Two (2) -- #6 x ¾" Flat Head Wood Screws
15. Two (2) -- #4 x 1" Pan Head Wood Screws
16. Four (4) -- 6mm x 20mm Flat Head Machine Screws
17. Four (4) -- 6mm x 40mm Flat Head Machine Screws

Contents of hardware pack that is labeled "Lid Stabilization Pack"

18. Two (2) – 10-32 Nut
19. Two (2) – 10-32 x 3" Threaded Studs
20. Two (2) – Lid Stabilization Springs
21. Two (2) – Brass Threaded Inserts
22. Two (2) – Flat Washers

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

- RF Controls or IR Controls (see explanation on page 6)
- Four (4) Wire Management Clips
- One (1) Allen Wrench – 4mm
- One (1) "Snakeskin" Wire Management Sleeve – 3 feet long
- One (1) Cable Re-coiler
- Four (4) Velcro end Ties, for use with Wire Management Snakeskin
- Four (4) Plastic Ties, also for use with Wire Management Snakeskin

Wire Management



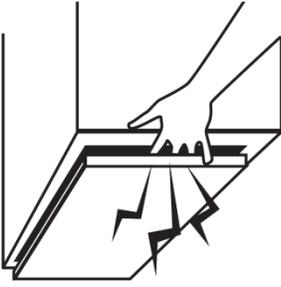
The Lift System has no exposed gears or moving parts that can damage your wires, so wire management is simple. We have included a three-foot long "SNAKESKIN" sleeve, which is a state-of-the-art wire bundling and protection system (the sleeve can be cut shorter if you wish). The System also includes 4 Velcro end ties, 4 plastic ties and a small cable re-coiler. 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. Use the small cable re-coiler to assist pulling the cables back into your enclosure.



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 Lid Stabilization hardware. 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.

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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.

About the Cabinet Lid Cover

NOTE: The Lid Cover is not provided with the Lift System, as it is part of your cabinetry

What is the Lid Cover? The Lid Cover is the piece of material that you choose to have “float” just below the TV. Typically, this material is made of wood and is not provided with the lift system. When the TV lift fully retracts, the Lid Cover will conceal the hole that is required for the system to drop-down through the cabinet and into view.



IMPORTANT NOTE: THE LID COVER IS OPTIONAL. Many people prefer to have the TV lower with no lid attached below the TV. If you are NOT going to be using a lid cover, please skip this section and continue to “Types of Controls” below.



SAFETY NOTICE:

- **WARNING! YOU MUST NOT DIRECTLY SCREW THE CABINET LID COVER TO THE LIFT SYSTEM!! THIS CREATES HAZARDOUS “PINCH POINTS” AND MAY AFFECT THE OPERATION OF THE LIFT OR CAUSE DAMAGE TO THE CABINET LID.**
- **DO NOT USE SCREWS to attach the lid cover to the Lift System.** Instead, use the “LID STABILIZATION PACK” (PARTS #16-20). This will keep the lid firmly in place, but will also allow it to **separate enough from the lift system** if anything (like a finger) gets in the way when the TV raises.

How to do the Cut-Out Lid Cover – You will “cut-out” part of your cabinet bottom, customizing it to the size of your TV. The dimensions for this cut-out are as follows: **Width= TV width plus 1”, Depth= TV Depth + 3.3”**. That cut-out lid then attaches to the lid plate of the Lift System and raises/lowers with the TV. This method uses the Lid Plate (part #7) and Lid Stabilization Pack (parts #17-21), but you must set up a “catch” for the cut-out lid so that when the TV raises, the lid stops level with the rest of your cabinet bottom (like a manhole cover). This procedure is described later on page 17.

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 $\frac{3}{4}$ ” thick. This applies to BOTH the back and top mounting points.
- The Lift Column is ONLY designed and rated for VERTICAL, INVERTED USE. **DO NOT MOUNT THIS LIFT SYSTEM UPSIDE DOWN or SIDEWAYS (HORIZONTALLY, AS IN A LATERAL MOUNT)!**

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

Depth= TV depth PLUS 3.3”

Height = 22.5” minimum.

Width= the inside of the cabinet should be at least 1” wider than your TV.



IMPORTANT NOTE: The Lift System must be mounted **as low as possible inside the cabinet**, so that when the Lift is in the fully “UP” position (fully retracted), the bottom of the TV will be just above the lid of the cabinet.

Lift System height and mounting position:

When fully assembled, the HEIGHT of the Lift will be 22.5”. If the **inside height** of your cabinet is taller than this, you will need to mount the Lift **lower inside the cabinet**.



TIP: If you need to mount the lift lower inside the cabinet, you can cut a wood block or mount a small shelf inside the cabinet for the top of the Lift Column (Base Mount) to mount on. Keep in mind that the “Bayonet Bracket” (part #3) will bear most of the weight.

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 12. 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 13. 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 Instructions – You Are Ready to Start

Please perform the following steps, in order:

Step 1: Inventory the Parts List. Carefully inspect all items, making sure you have everything shown in the Parts List.

Step 2: Seat the “pigtail” cable properly on the top of the Lift Column. Take the *Lift Column (Part #1)* and find the end with the short black cable (this cable is called the “pigtail”). This end will become the BOTTOM of the Lift Column. Before you begin to assemble the system, you must position the pigtail properly. Look at the bottom edge of the *Lift Column*. You will see two square cut-out channels, notched into the steel, one on either side of the pigtail. Choose one of the cut-outs (it does not matter which one), and seat the pigtail into the cut-out, using the rubber gasket attached to the cable.



IMPORTANT NOTE: IF THE PIGTAIL CABLE IS NOT PROPERLY SEATED, IT MAY BE DAMAGED WHEN YOU ATTACH THE MONITOR HANGER (Part #5), CAUSING LOSS OF POWER TO THE LIFT COLUMN.



IMPORTANT NOTE: The pigtail now hangs over one side of the Lift Column. From this point forward, that side will be referred to as the “Front” of the Lift Column.



BEFORE (pigtail is loose)



AFTER (pigtail is properly seated)

Step 3a: Attach the Bayonet Bracket to the Lift Column. Slide the *Bayonet Bracket (Part #3)* onto the *Lift Column (Part #1)*. Stand the Lift Column up. Gently slide the *Bayonet Bracket* into the tapered, welded slots on either side of the *Lift Column* (on the opposite side of the pigtail cable).



Step 3b: Lightly tap the right and left side of the *Bayonet Bracket* with a rubber mallet to properly seat the bracket. Turn the *Lift Column* around and **check to make sure the *Bayonet Bracket* is level.**



Step 4: Place the *Base Mount (Part #2)* inside of your enclosure against the back wall and the top panel of the enclosure. Make sure to center the *Base Mount* from left to right inside the enclosure. Mark the four countersunk holes of the Base Mount. Using a $\frac{1}{4}$ " drill bit, drill all four marked holes through the top panel of the enclosure.



Step 5: Place the *Base Mount (Part #2)* on the top side of the top panel of the enclosure. Place (4) 6mm x 40mm FHMS through the Base Mount.





Step 6: Attach the Lift Column to the Base Mount.
Place the *Lift Column (Part #1)* with the *Bayonet Bracket (Part #3)* attached against the back wall of the enclosure. Using the provided small *4mm Allen Wrench* drive the (4) *6mm x 40mm FHMS Screws* into the top of the lift column.

NOTE: The end of the Lift Column with the “pig-tail” is the bottom of the Lift Column.

Step 7: Using a level, make sure the *Lift Column* is level and parallel with side panels of the enclosure. Using (4) *#10 x 3/4" THWS Screws* mount the *Bayonet Bracket* to the back wall of the enclosure.



Step 8: Connect the *Motor Cable* to the pig-tail of the lift column.

Step 9: Mounting the Controls to the Back Panel of the Enclosure: Using (4) #10" x 3/4" FHWS attach the Control Box and (2) #8" x 3/4" FHWS for the IR or RF Receiver (Depending on which Controls you ordered) to the back panel of the enclosure. The RF Receiver or IR Receiver will plug into either RJ45 port on the Control Box. The Motor Cable must plug in to Port # 1 on the Control Box.

Control Box



IR Receiver



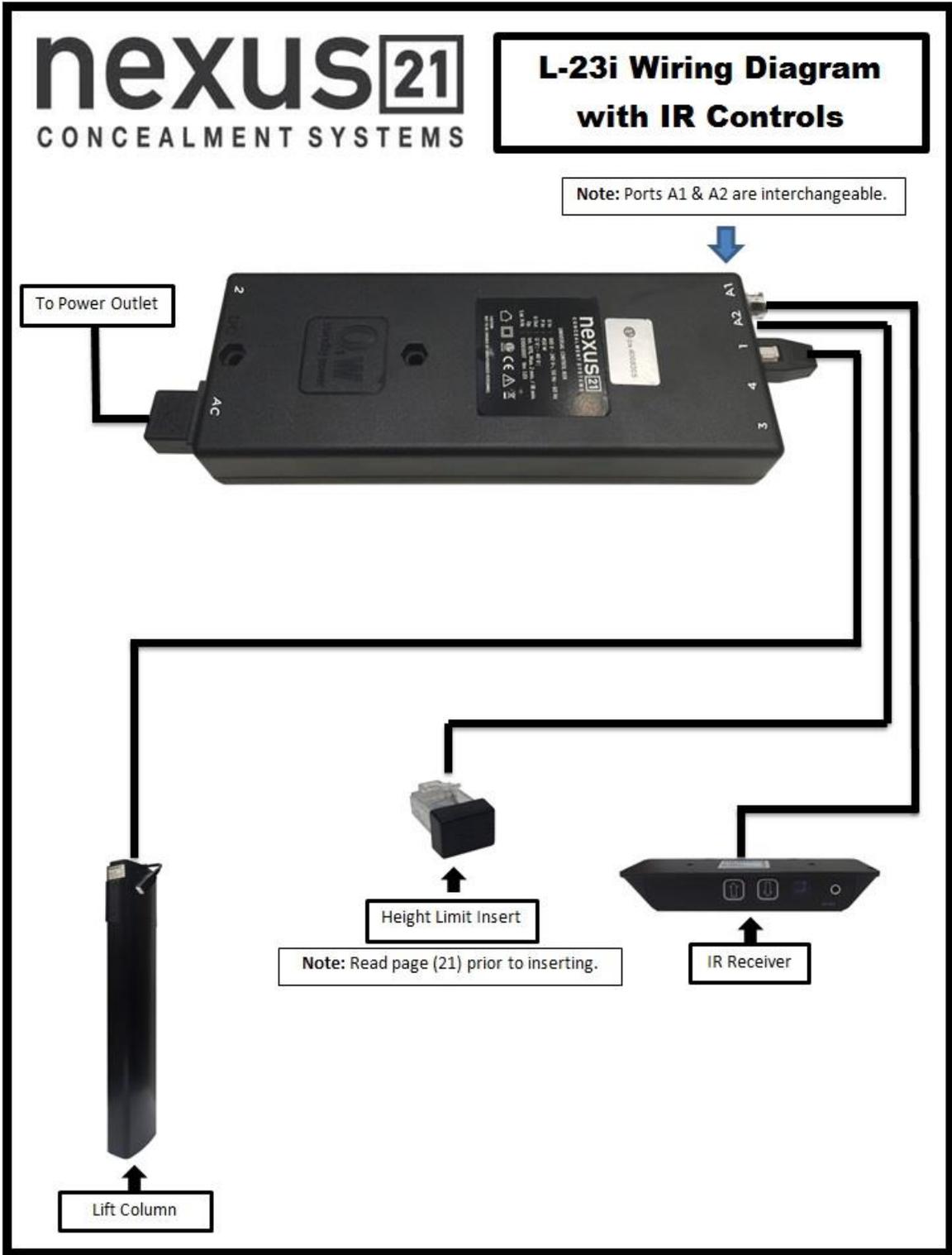
Wired Back Up Switch



RF Receiver



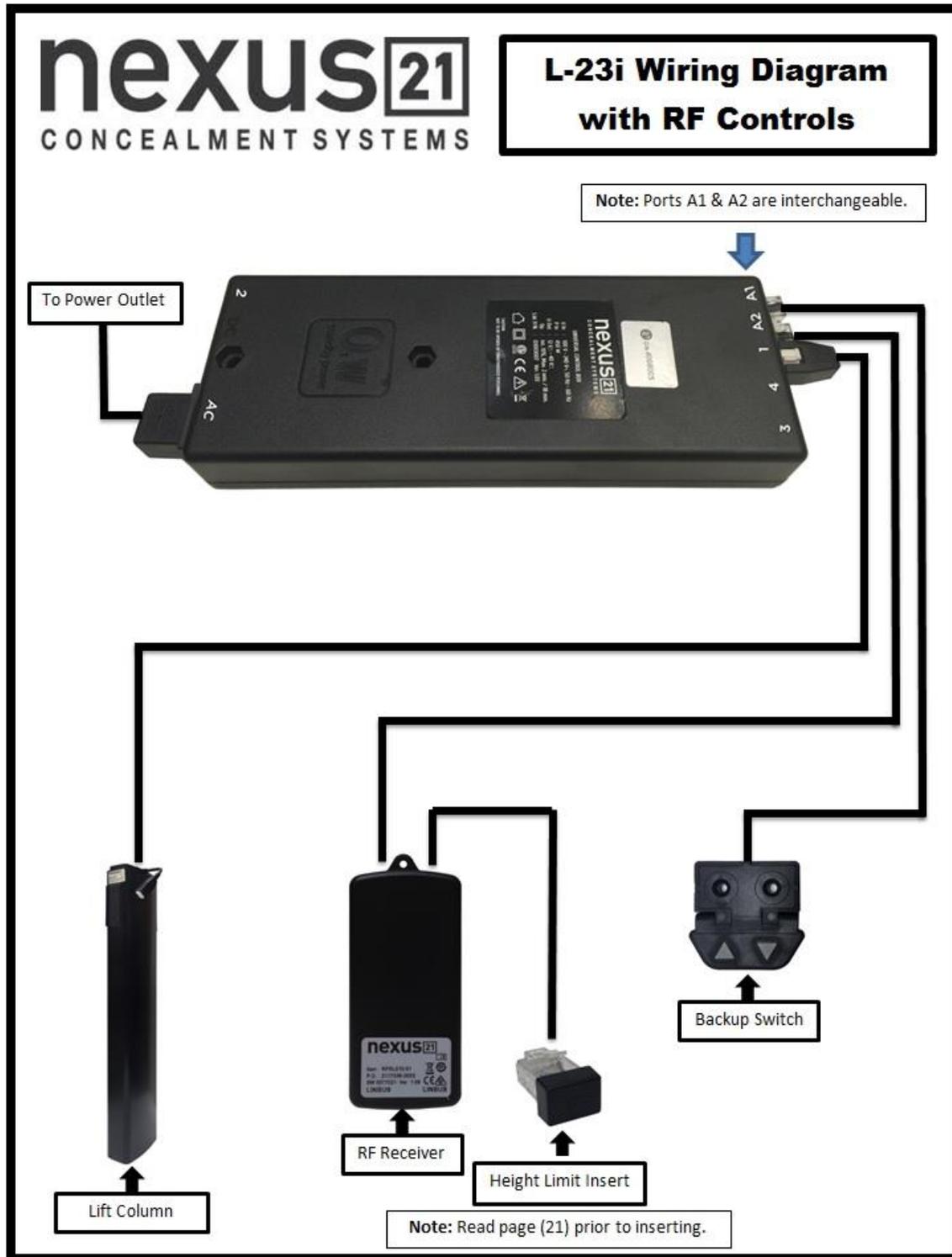
IF YOU HAVE IR CONTROLS, USE THIS DIAGRAM (for RF Controls, see the following page)



Once you have connected the controls, test the Lift Column as follows:

First, you need to “initialize” the Lift System. If you have already lowered the Lift Column, raise it again, since this step must be performed in the “up” or retracted position. Find the Wired Backup Switch, which has two triangle-shaped buttons - a DOWN (with raised dot) and an UP. Press the UP button and HOLD IT for approximately 5 seconds. You should see a slight movement in the Lift Column. If you do not see the movement, release the UP button, and repeat the process - press and hold the UP button again for 5 seconds. Once you have seen the slight movement, the Lift System is now functional. Test it by pressing the DOWN button (no need to hold the DOWN button) and the lift will lower. You may let it go all the way down, or stop it at any time by pressing the UP button.

IF YOU HAVE RF CONTROLS, USE THIS DIAGRAM (for IR Controls, see the previous page)



Once you have connected the controls, test the Lift Column as follows:

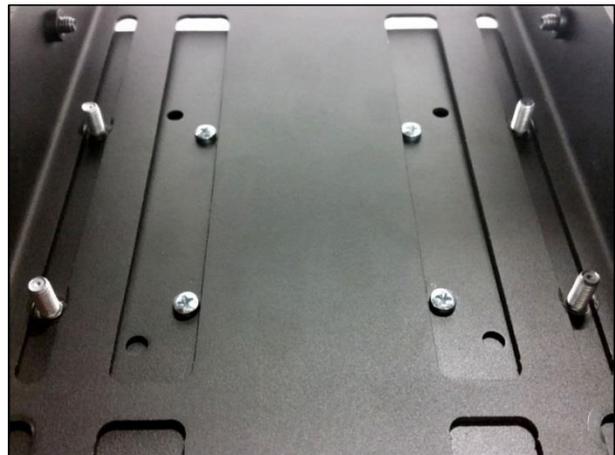
First, you need to “initialize” the Lift System. If you have already lowered the Lift Column, raise it again, since this step must be performed in the “up” or retracted position. Find the Wired Backup Switch, which has two triangle-shaped buttons - a DOWN (with raised dot) and an UP. Press the UP button and HOLD IT for approximately 5 seconds. You should see a slight movement in the Lift Column. If you do not see the movement, release the UP button, and repeat the process - press and hold the UP button again for 5 seconds. Once you have seen the slight movement, the Lift System is now functional. Test it by pressing the DOWN button (no need to hold the DOWN button) and the lift will lower. You may let it go all the way down, or stop it at any time by pressing the UP button.

Step 10: Attach the Monitor Adapter Plate (Part #4) to the back side of your TV. Located the VESA Bolt Pattern on the back side of your TV, they should be in a square or rectangle pattern. Align the *Monitor Adapter Plate* holes with the VESA holes on the back of your TV. Make sure the four studs on the *Monitor Adapter Plate* are facing away from the TV in a horizontal fashion. Using (4) of the appropriate length *M4 Phillips Head Machine Screws*, fasten the *Monitor Adapter Plate* to the TV.

NOTE: If you are using a TV with an irregular back (non-flat), you will need to use the provided spacers between the TV and the *Adapter Plate*.

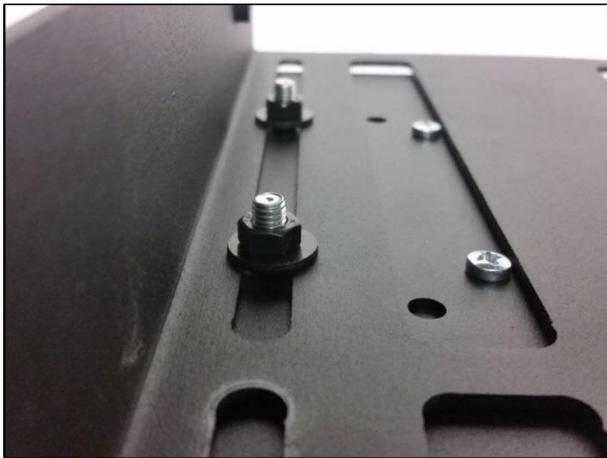
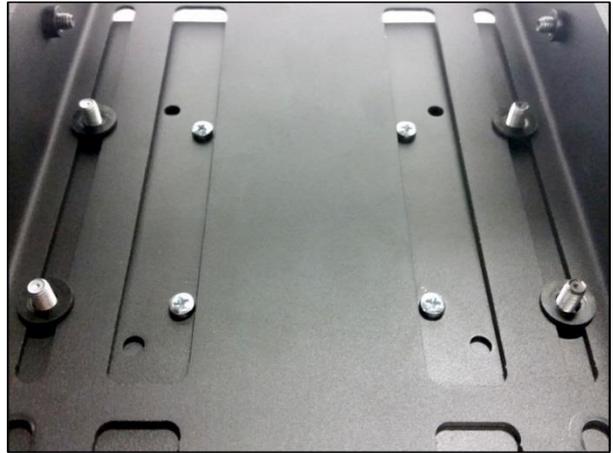


Step 11a: Fasten the Monitor Hanger (Part #5) to the Monitor Adapter Plate (Part #4). Align the four studs on the *Monitor Adapter Plate (Part #4)* with the slots on the *Monitor Hanger*. Slide the *Monitor Hanger* so the bottom of the bracket is $\frac{1}{2}$ " below the bottom of the TV.



Step 11b: Using (4) ¼" flat washers and (4) 6mm Nyloc Nuts fasten the *Monitor Hanger* to the *Adapter Plate*.

NOTE: Make sure the *Monitor Hanger* is level before tightening the nuts.



Step 12: Attaching wire management clips to the Monitor Hanger. Using (2) Wire Clips, place the Wire Clips on the inside wall of the Monitor Hanger. Place them on the same side the Control Box is mounted to. Position one Wire Clip towards the top of the Monitor Hanger and one clip just above the second PEM Nut. This will insure the "Pig-Tail" of the lift column is not damaged during travel.



Step 13a: Attach the Monitor Hanger and Lid Plate to the bottom of the Lift Column. Make sure to run the *Motor Cable* through the *Wire Clips* previously installed before you attach the *Monitor Hanger*. Align the *Lid Plate (Part #4)* with the holes on the *Monitor Hanger*.



Step 13b: Using (2) 6mm x 20mm FHMS Screws attach the *Monitor Hanger* to the bottom of the *Lift Column*. Make sure you use the (2) 6mm x 20mm FHMS Screws in a diagonal fashion, leaving two holes open for the *Top Plate*.

Step 13c: Using (2) 6mm x 20mm FHMS Screws attach the *Top Plate (Part #7)* to the bottom of the *Monitor Hanger* in the open two holes. Make sure you use the (2) 6mm x 20mm FHMS Screws in a diagonal fashion.

NOTE: Make sure the Lid Plate sits no greater than ¼" – ½" above the opening.

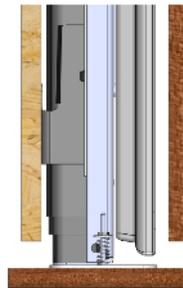


Attaching your Lid Cover to the Lid Plate

NOTE: The Lid Cover is not provided with the Lift System, as it is part of your

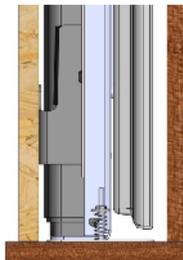
If you have decided to attach a Lid Cover to your system, please use the following procedure: The two Lid Stabilization Assemblies (each consisting of parts #18-22) are used to hold the Lid Cover in proper alignment with cabinet opening. The assemblies are spring loaded so the Lid Cover will stop level with the cabinet bottom, allowing the Lift to travel an additional 1/8" – 1/2" up into the cabinet. You should create a "stop", or "lip" around the edge of the opening, for your Lid Cover to pull up against, like an upside-down manhole cover. This illustration shows how it should work and details for assembly are shown on the following pages (Steps #14a-15b).

Side view of Lift System and Lid Cover, showing function of Lid Stabilization Hardware

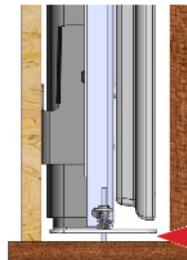


You should create a notch here (or bevel the opening) to provide a built-in "stop" for the Lid Cover

Side view of Lift System and Lid Cover, shown in the "almost closed" position



Lid Cover is now fully closed. Notice that the cover stops flush with the cabinet opening because of a notch that was created around the edge of the opening.

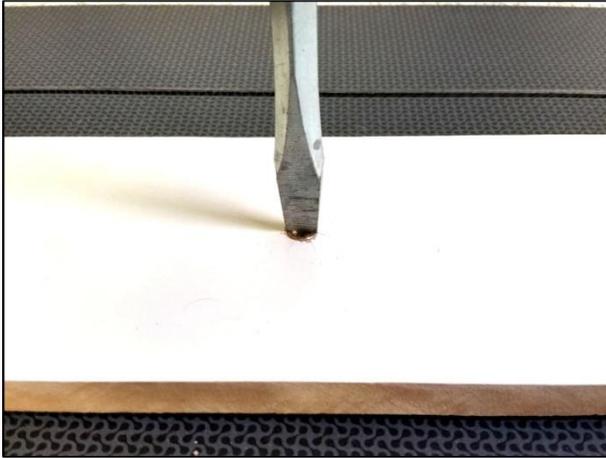


Notice separation here. Lid Cover remains flush with the cabinet opening, but the springs allow the lift to pull away from the Lid Cover

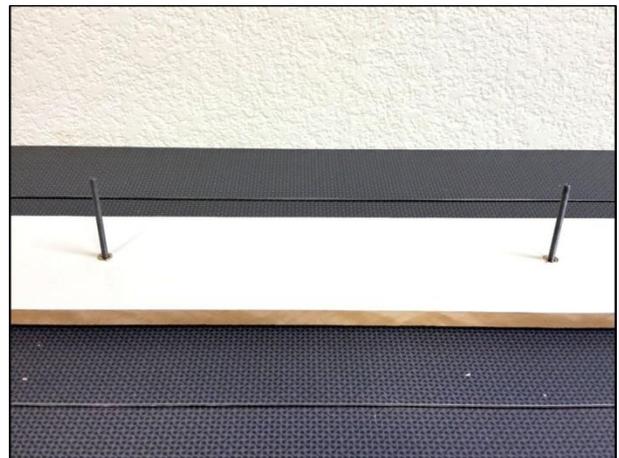
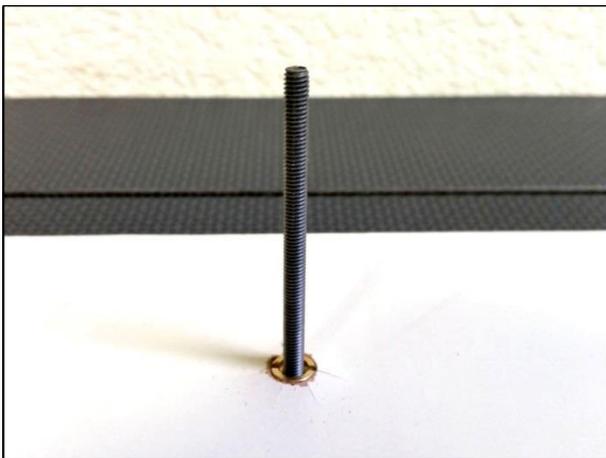
Once the Lid Cover is closed, the lift system is able to retract a little further into the cabinet, thanks to the Lid Stabilization Springs.

Step 14a: Hold your lid panel (your ceiling cut-out piece) up to the *Lid Plate (part #7)*, which you have already installed on the lift. The *Lid Plate* has 2 holes that are used to attach your lid piece. Mark the position of the holes on your lid panel. Drill two holes $\frac{1}{2}$ " deep using a $\frac{3}{8}$ " drill bit in the marked positions.

Step 14b: Using a flat head screw driver, drive the *Brass Inserts (Part #19)* into the $\frac{1}{2}$ " deep holes. Make sure to drive the *Brass Inserts* into your lid material, so they are flush with the lid material.



Step 14c: Screw the (2) *Threaded Studs (Part #17)* into each *Brass Insert*, until they are fully seated.



Step 15a: Place the lid material against the bottom side of the *Lid Plate*; slide the *Threaded Studs* through the two holes on the *Lid Plate*. Slide both *Lid Stabilization Springs (Part #24)* over the *Threaded Studs*.



Step 15b: Add a 1" Fender Washer to the Threaded Studs on top of the spring you previously installed. Once washer is added, fasten a 10-32 Nut (Part #22) to the top of the Threaded Studs. You will need to compress the spring in order to screw the nuts down.



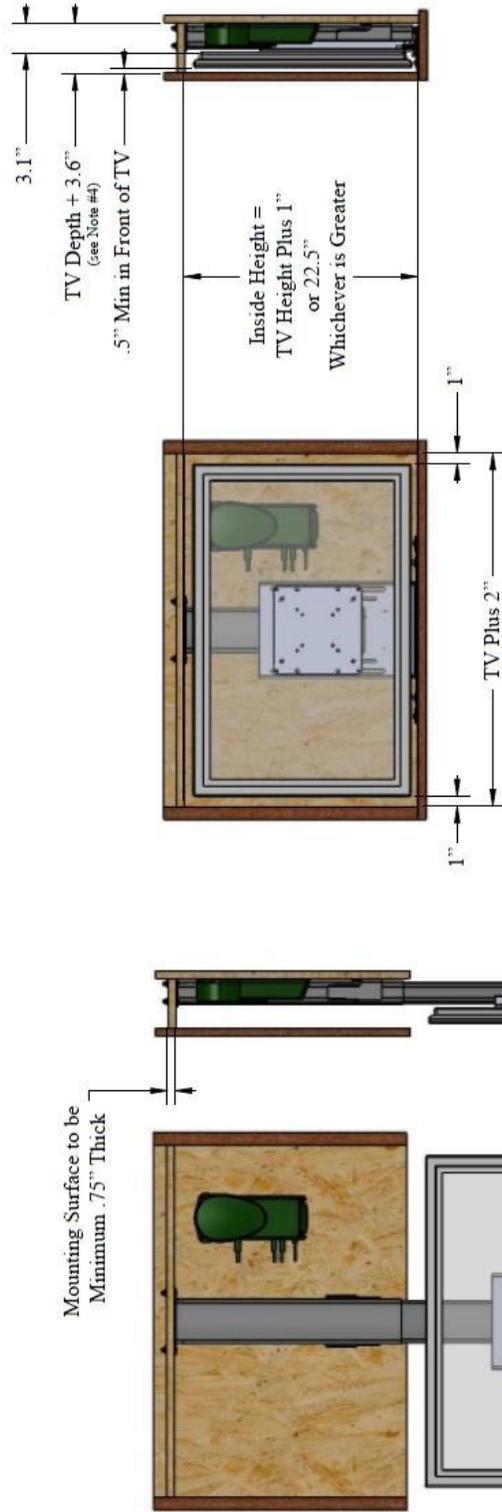
Step 16: Attach the Cable Re-coiler to your cables. Mount the provided Cable Re-coiler towards the top of your enclosure on the same side as the control box. Attach the cable to the bundle of wires that run to the back of your TV. This will help aid the cables back into the enclosure as the lift fully retracts. Test operate the lift and be sure that all wires are clear of the lift, so they do not get "hung up" when the TV is moving in either direction.



Congratulations your L-23i Lift System is now completed!



Model L-23i Installation Dimensions: For TV Drop-Down in Cabinetry



See Note #4: The stand has been removed but a protruding bump may remain on the back of your TV. If your TV has a bump similar to this, you must measure and add the depth of the bump when calculating the true depth of your TV. The depth dimension given by the TV manufacturer will never take this into consideration, and it will affect your minimum installation depth.



Notes:

- 1) Mechanism Extension is 23"
- 2) Weight Limit is 75 lbs.
- 3) The cabinet box in this drawing is for reference only and is not included with the TV Lift.
- 4) TV manufacturers often only calculate the TV's depth dimension by measuring the screen from front to back at the slimmest point. When calculating the true depth of your TV, please be sure to consider the depth added by any protruding plastic housings or stand attachments on the back panel. Spacers will be required to accommodate the protrusion. (see image at right)
- 5) TV not to exceed 22" in Height.

Supplemental Page B: Setting a Height Limit

Please follow this procedure if you would like to limit the distance that your TV Lift extends.

To set your Travel Limit with IR Controls:

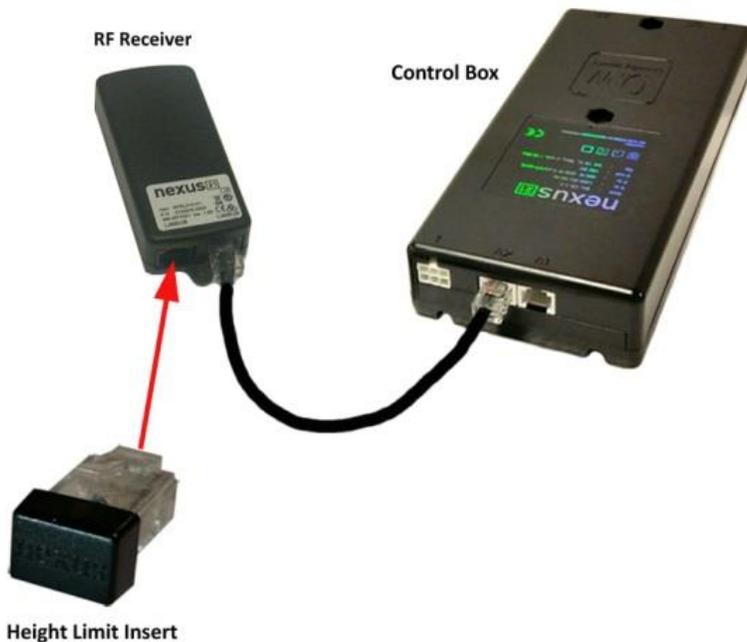
If you want the lift system to always go to its full extension, do NOT use the Height Limit Insert. Simply leave it unplugged and the system will always travel to the full extension. To limit the travel, follow the procedure below:



1. Using the IR Receiver, run the lift system to height limit position and stop it there.
2. With the lift system stopped, plug the Height Limit Insert into the available RJ45 port on the Control Box. This will set the height limit at this position for both the IR Remote (or 3rd party universal remote) and the IR Receiver.
3. If the height limit is set at the incorrect position, remove the Height Limit insert and repeat the procedure.

To set your Travel Limit with RF Controls:

If you want the lift system to always go to its full extension, do NOT use the Height Limit Insert. Simply leave it unplugged and the system will always travel to the full extension. To limit the travel, follow the procedure below:



1. Using the Wired Backup Switch, run the lift system to the ideal height limit position and stop it there.
2. With the lift system stopped, plug the Height Limit Insert into the available RJ45 port on the RF Receiver. This will set the height limit at this position for both the RF Remote and Backup Switch.
3. If the height limit is set at the incorrect position, remove the Height Limit insert and repeat the procedure.

Supplemental Page C: Connect the Lift to 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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