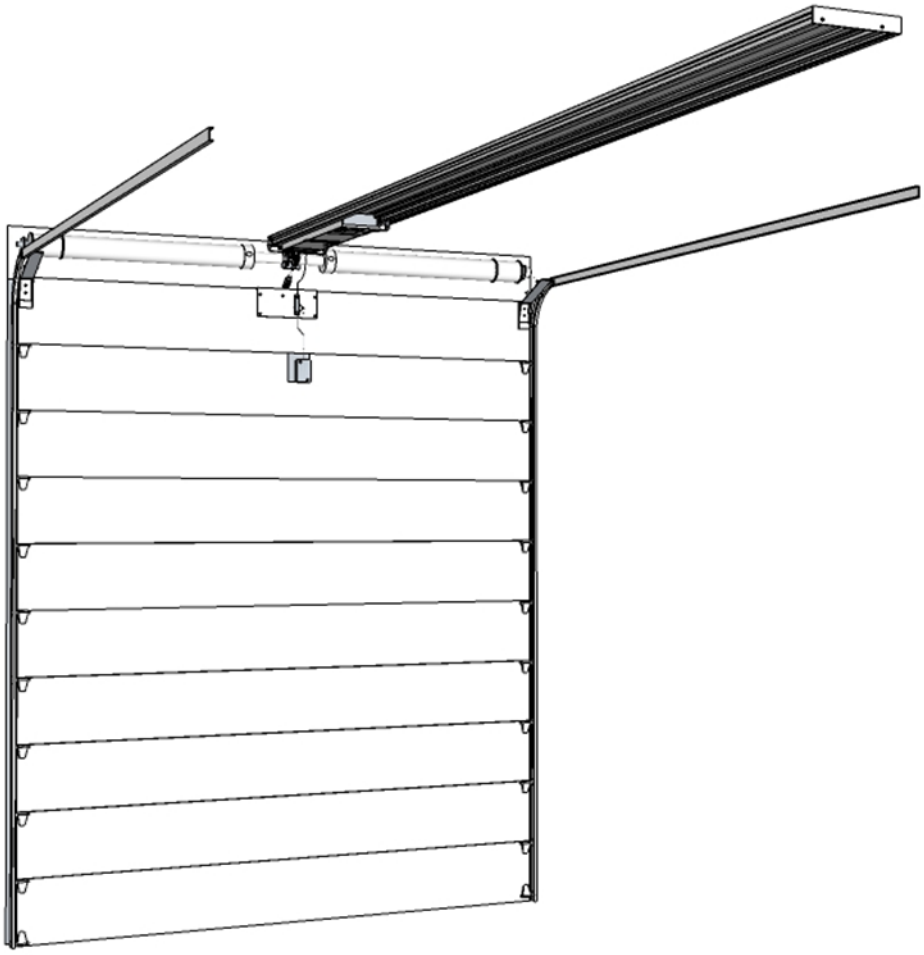
INSTALLATION GUIDE

CommandLIFT®

REMOTE DOOR SYSTEM

www.commandlift.com



WHITING®

Quality Products for the Transportation Industry

United States

(716) 542-5427

Canada

(905) 333-6745

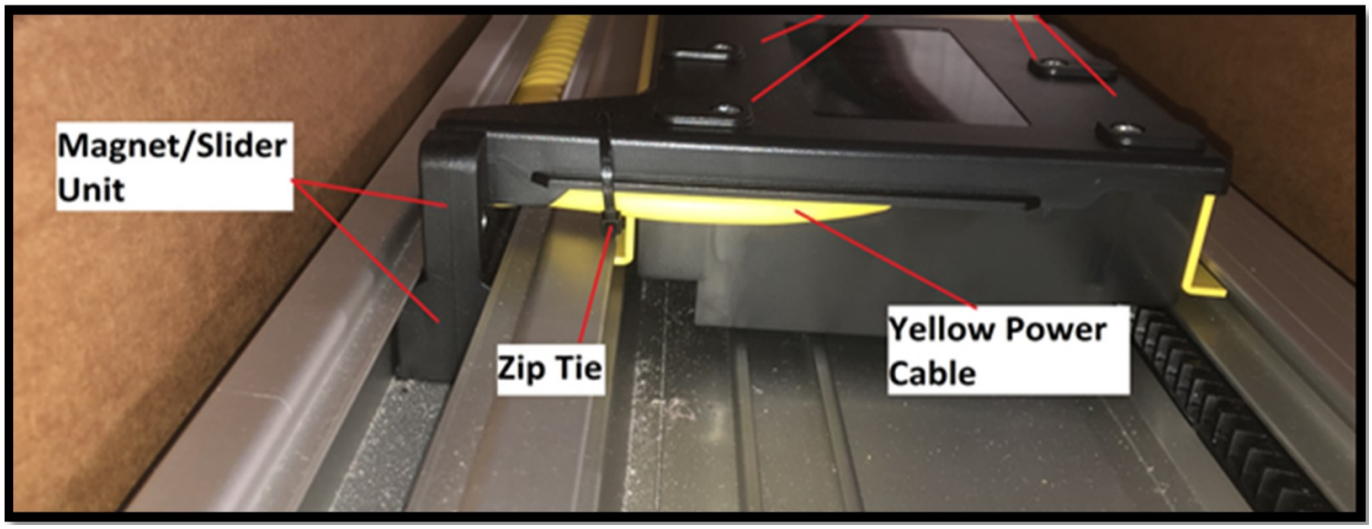
Need help?

For assistance with this product please visit www.whitingdoor.com

Version 02-2024

Special note:

When opening the shipping box, do not remove the zip-tie that binds the black cover on the motor-unit to the yellow curly power cable. This is not part of the ship packaging but plays a crucial role in the operation of the unit.



1. Index

Index

1 Index 3
2 Whiting hardware kit explanation 4
3 Dry freight kit components #17003 5
4 Insulated kit components #17002 6
5 Hardware kit drawing 7
6 Before you start 8
7 Pre-installation requirements 9
7.1 General review 9
7.2 Ensure adequate clearance above door 10
7.3 Change the top roller brackets 10
7.4 Body specific requirements 11
8 Electrical planning 12
9 Track installation 13
9.1 Assembling the rail 13
9.2 Changing the center bracket 15
9.3 Connecting the rail to the center bracket 15
9.4 Positioning the rail on the roof 16
9.5 Fastening the rail to the roof 16
9.6 Secure the header bracket 17
10 Installing the door connector plate 18
11 Installing turnbuckle connecting rod 20
11.1 Installing the turnbuckle connecting rod 20
11.2 Checking the turnbuckle connecting rod 21
12 Installing the emergency release cable system 22
12.1 Drilling the holes 22
12.2 Installing the lock 22
12.3 Installing the release cable 23
13 Installing the control box 26
13.1 Mounting the control box 26
13.2 Feeding the cable through the box 26
13.3 Connect the cable to the control box 27
13.4 Connect the cable to the track 27
13.5 Optional functions 28
13.6 Connect to the battery 29
14 Adjusting the sensors 30
14.1 Adjusting the door closed sensor 30
14.2 Adjusting the door open sensor 32
15 Programming remote controls 33
16 First operation of the system 34
17 Finalizing installation 36
18 Overview of electronic indicators 38
Appendix - Inquiry Form 40

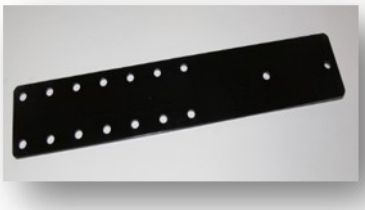
2. Whiting hardware kit explanation

This CommandLIFT kit contains one of the three hardware kits that are put into this box that have to be installed with the CommandLIFT parts listed on page 8. These three kit types depend on the Whititing Door type. Insulated, dry freight, and Hinge Truss II. See pages 4 to 6 of this manual for the parts list breakdown details and pictures.

1. The #17032-face plate is used on all insulated and Hinge Truss II applications. It is optional on other dry freight applications. But it is recommended. This is why this part is put in all three kit types.

2. The Hinge Truss II door comes standard with the pair of #15886 closure brackets and two rollers #3228. The other dry freight doors do not have these as standard. This is why the Hinge Truss II doors do not have these in their hardware kits and the other dry freight models do. See pages 4 to 6.

3. The connector plate extensions, part number #17054 and its four rivets #10-1054-1, that are put into the insulated hardware kits are used exclusively on the Temp Guard door models only. Not the Cold Saver door models. See pages 4 to 6.



3. Dry freight kit components #17003

#3228 Description -Track Roller - Quantity- 2
These two additional rollers are required with the new top closure arms (#15886) that have to be installed on all dry freight doors except Hinge Truss II and insulated doors.

#15886 Description-Top Closure Arm - Quantity- 2
Original top closure slides are replaced with these two top closure arms. All dry freight except Hinge Truss II and insulated doors.

#10-1015-15 Description-1/4-20 X 1-3/4 Machine Screws - Quantity- 5
5 bolts are used as through bolts that fasten the internal connector plate (#17182) through the door to the front side of the door. Hollow core dry freight doors like the Hinged Truss ll require a face plate as well #17032. See page 6. Note: these bolts should be ground flush with the nuts after installation for safety.

#10-1095-1 Description-1/4-20 Nylon Lock Nut - Quantity-5
These are the associated nuts that mate with the five 10-1015-15 bolts. See drawing on page 6.

#17032 Description-Front Face Plate - Quantity-1
Used on Hinge Truss ll and all insulated doors. This plate is optional on other dry freight type doors

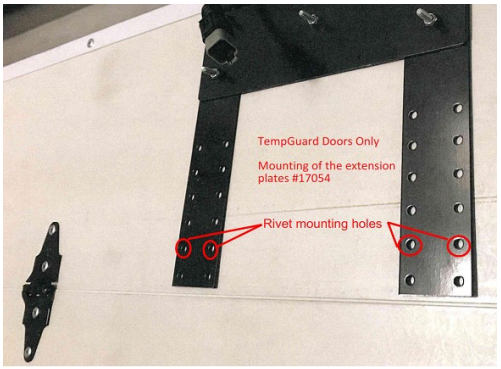
4. Insulated kit components #17002

#10-1054-1 Description-Steel Pull Type Rivet - Quantity-4.
Temp Guard doors only. These four rivets are used to fasten the lower portions of the connector plate extensions (#17054 one each side) to the door. Use an 'F' bit drill size to drill the holes for these 1/4" rivets. See #17054 description below.

#10-1015-16 Description-1/4-20 X 2-3/4 Machine Screws - Quantitity-5.
These 5 bolts are used as through bolts that fasten the internal connector plate (#17182), the extensions plates (#17054 TempGuard only), through the door to the external face plate (#17032 TempGuard, ColdSaver, Hinge Truss II). The 17032 plate is optitional on other dry freight doors. See drawing on page 7. Note: these bolts should be ground flush with the nuts after installation for safety.

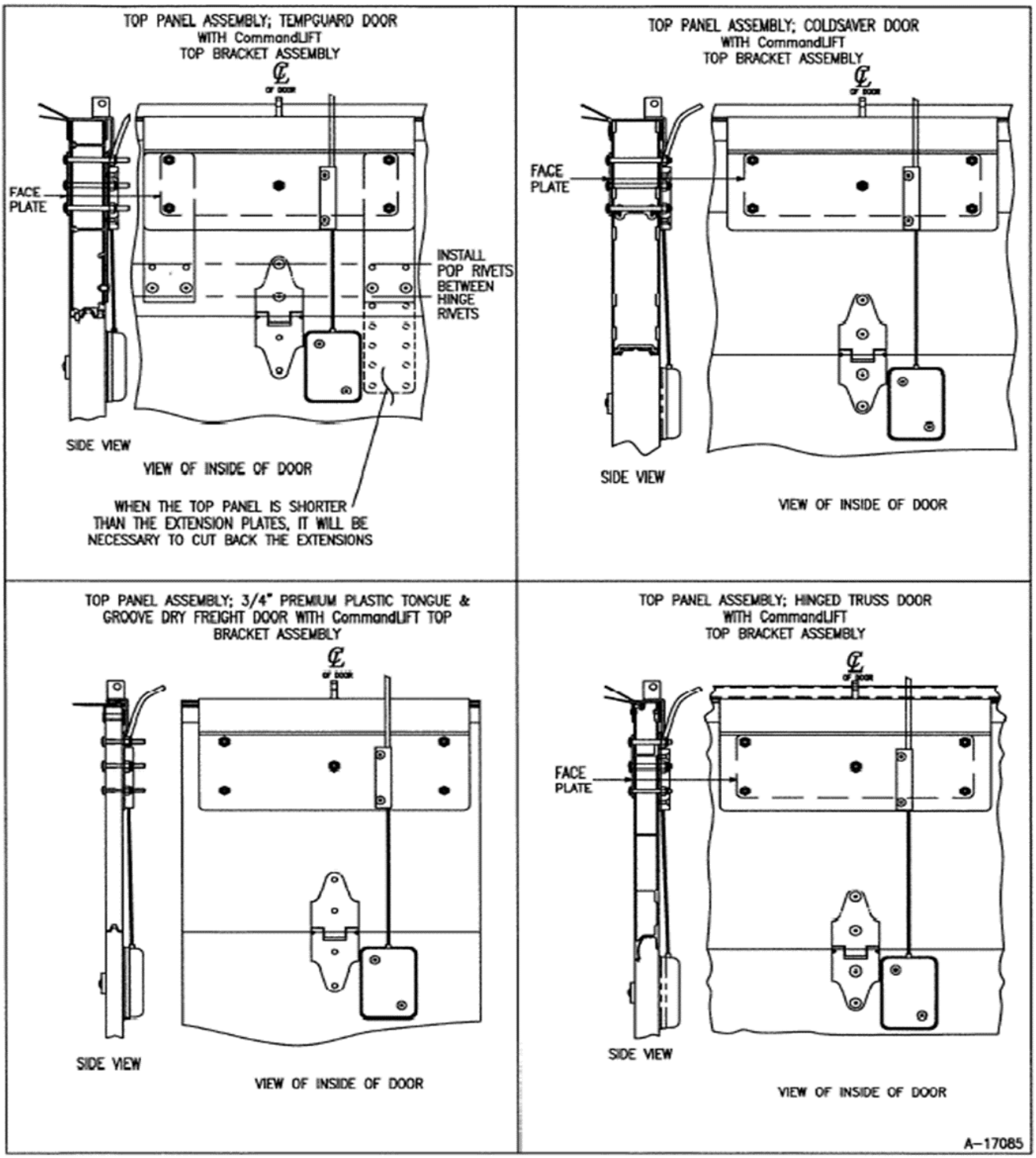
#10-1095-1 Description -1/4-20 Nylon Lock Nut - Quantitity-5.
These are the associated nuts that mate with the five 10-1015-16 bolts.

#17054 Description-Connector Plate Extensions - Quantitity-2.
TempGuard Doors only. These are mounted on top by four of the five 10-1015 -16 through bolts and on the bottom by the four 10-1054-1 rivets. These two parts are sandwiched between the connector plate (#17182) and the door. These are located on the inside face of the door. Note: the lower portition of the extensions may have to be cut to accommodate panel widths. These are not used on ColdSaver doors. See drawing on page 7.



#17032 Description-Face Plate - Quantity-1
Used on TempGuard, ColdSaver and Hinge Truss ll doors. Optional on other dry freight doors. This is fastened to the outside of the door with the five #10-1015-16 through bolts and the #10-1095-1 lock nuts. See drawing on page 7.

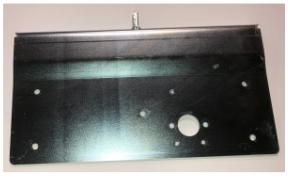
5. Hardware kit drawing

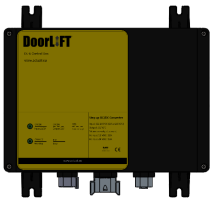


6. Before you start

Review installation manual to ensure you have all the required tools and materials supplied with the CommandLIFT. Check the contents of package to ensure you have all the required parts as shown in the photo and list below. There is also a Whiting hardware kit. See pages 4-7.

1. Fuse wire and 30 amp fuse
2. Lock cover with plate
3. Lock cylinder kit
4. Turnbuckle
5. Release cable mounting bracket
6. Drill template sticker
7. Release cable with sleeves
8. Front lock cover with fasteners
9. Center balancer bracket with hardware
10. Sticker labels
11. Auxiliary 8-pin cable
12. Harness 70 foot.
    Two pieces with splice kit
13. Two remote FOBs
14. Battery cable 8 foot
15. Install / Owner's manual
16. Connector plate
17. Control Box
18. Wrench Set
19. Track
20. Heat shrink for box cables





7. Pre-installation requirements

7.1 General review

The minimum power requirements are a 12 volt, 30 amp power source. The CommandLIFT is a heavy duty drive system which requires consistent, reliable power. Batteries that are poorly maintained or highly discharged may not be able to operate the system. The “LOW VOLTAGE” indicator light will FLASH RED and shut the system down.

40 mA	In “stand-by” mode
10 to 15 amps	Throughout the entire Open/Close cycle
20 amps “momentary”	When the door reaches the Closed position
20 amps “momentary”	If the door contacts an obstruction during movement

As well as ensuring the body and vehicle can accept the CommandLIFT, it’s important that the door is compatible. Use the following checklist to ensure the door is in good working condition.

1. Has the correct Balancer been installed on your Roll-Up door? Confirm that either a WHITING 2376 or 7176 two spring balancer has been used.
2. Is the radius of the track suitable for CommandLIFT operation? The CommandLIFT might have difficulty with tight radius tracks during the closing cycle.
3. Is the Roll-Up door balanced properly? Does it work easily, UP or DOWN by hand?
4. Is the door in good working condition? Make sure there are no broken panels, hinges or rollers etc.
5. Is the top panel of the door strong enough, or will it require reinforcement to prevent it from “flexing” during the closing cycle?
6. Is the power supply adequate? The system requires a 12 volt, 30 amp source. Has the battery and charging system been well maintained?
7. Will a proper power supply always be available? In a trailer application a secondary power supply may be required when the tractor is absent.
8. The CommandLIFT is supplied with two remote transmitters. Will that be adequate or will alternative activation devices be required? Additional remote transmitter, remote switches, etc. These items might be useful for dock workers or others who may need access to the cargo area of the truck or trailer.

If any of the above answers are "no", do not continue with the CommandLIFT installation and contact Whiting Door for installation support.

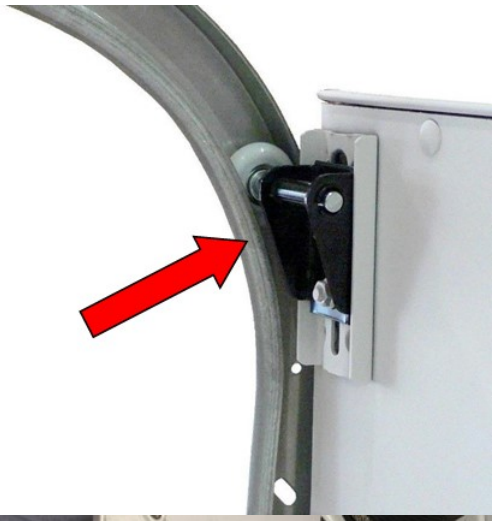
7.2 Ensure adequate clearance above door

Check to ensure you have enough clearance above the open door to allow the top edge of the door to go through the radius. An easy method of doing this is to hold a piece of 2 x 4 against the ceiling and open the door. If the door doesn't clear the 2 x 4 it wont clear the CommandLIFT rail.

If you are planning on installing the CommandLIFT in a vehicle with a Dry Freight door change the top roller brackets as shown below before checking for clearance with the 2 x 4.

If there isn't enough clearance contact Whiting to enquire whether the track can be modified to allow installation of the CommandLIFT.

7.3 Change the top roller brackets



WHITING® DryFREIGHT™ style roll-up doors come equipped with regular top closure assemblies (shown to the right). It is necessary to replace these assemblies with the adjustable top closure slide arm and bracket assemblies that are included in the CommandLIFT™ box (See Illustration below).

1. Fully close the roll-up door.
2. Using a 1/2" wrench, remove the nuts from the existing top closure slide brackets.

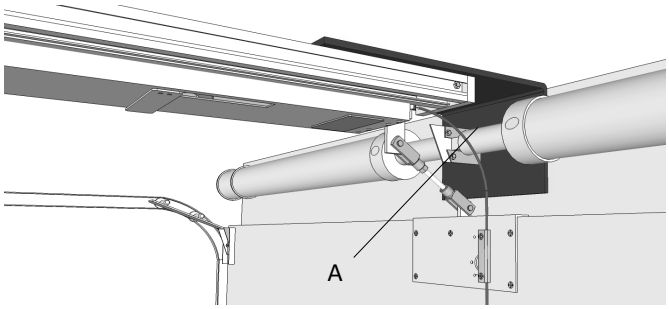
3. Replace the brackets with the adjustable top closure arm and rollers.
4. Make sure the brackets are installed so that the top panel of the roll-up door pushes against the header to ensure a good seal when the door is closed. Check to make sure the top door panel clears the Balancer Brackets.

NOTE: It is not necessary to change these bracket if you are installing the Commandlift™ on the WHITING ColdSAVER, TempGUARD or Hinge Truss II doors as these type doors already have this hardware on them.

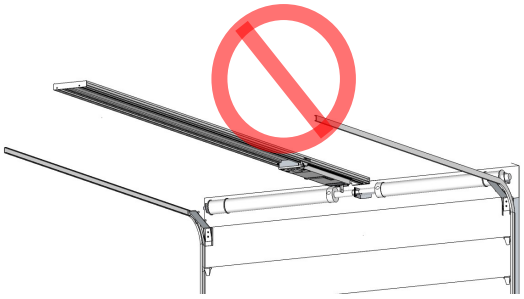
7.4 Body specific requirements

As every vehicles body is different, your Doorlift supplier can not be responsible for the body specific mechanical connections to roof and roll-up door. Although we strongly suggest:

1. In case the track will be **mounted to roof bows** a reinforcement (A) at the header (above the roller shutter) could be necessary, as forces applied upwards can go up to 1000N. In worse case, it can lift the roof.

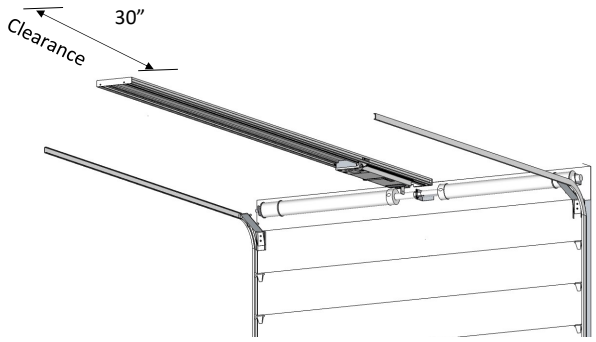


2. Never glue the complete track against the roof. In case of installation errors or future repairs, it should be possible to disconnect the track from the roof.

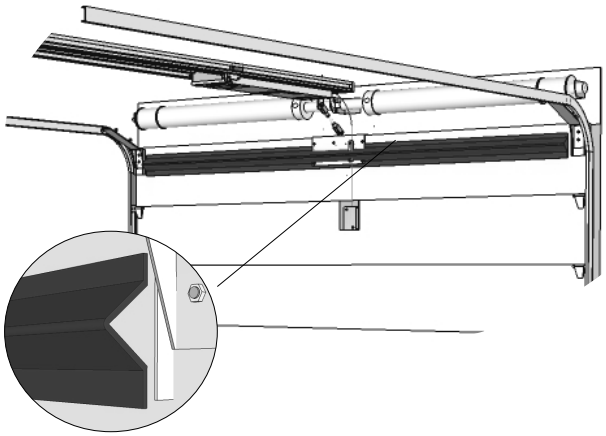


3. Keep a minimum clearance of 30” behind the track! This because for a proper service to the system the motor unit needs to be removed from the track. This only can be done by removing the rear cover and slide the 30” long motor unit out of the track.

   Note: If the length of the aluminium track needs to be reduced, the cut must be made at rear of the track (furthest from the door opening). The shortest length of track required, to operate properly is: door height + 36”.



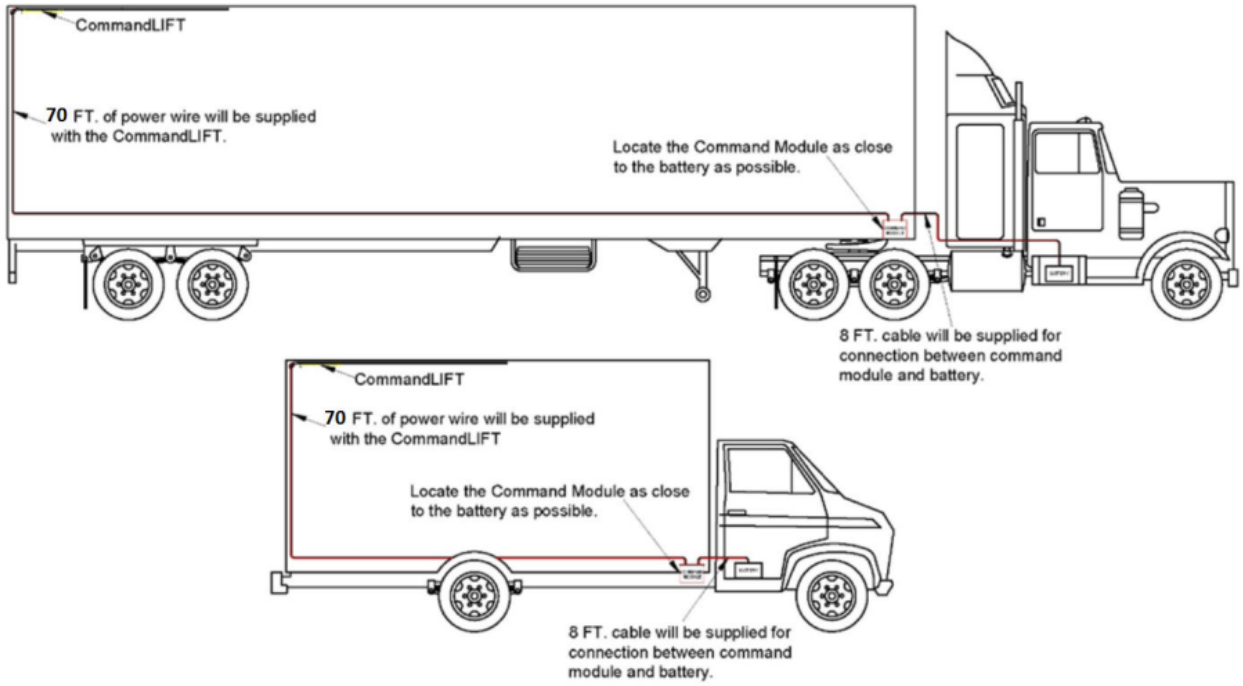
4. Roll up door reinforcement may be needed in the case of a Premium Plate door. Part number 1823. Consult with your CommandLIFT supplier if this is needed on your roll-up door.



8. Electrical planning

The first decision to make is where to install the control module. By now, this location should be known through the Pre Install Inquiry Form that was filled out by you. See Appendix C. Ideally this is to be installed as close to the battery as possible keeping in mind the supplied battery cable is 8’ long. Depending on which side of the vehicle the batteries are on will determine the route of the 70’ CommandLIFT output cable. Battery harnesses have a diameter of 0.35" while the output harness has a diameter of 0.38". These will be relative if these harnesses are routed into conduits.

The diagram below depicts suggested positions of the control module for trucks and trailers.



In small truck applications you could install the control module in the cab. This is only recommended if there is an alternative entry into the cargo area, side door or cab pass-through. If the door does not open for any reason, you will have no access to the control box without these alternative entry points.

Insulated trucks or trailers will require some additional support in the ceiling before installing the CommandLIFT rail. Do not attempt to install the CommandLIFT track to an unsupported substrate. Track mounting measures for insulated retro fits should of been accounted for already in the pre-sale inquiries. See Appendix C.

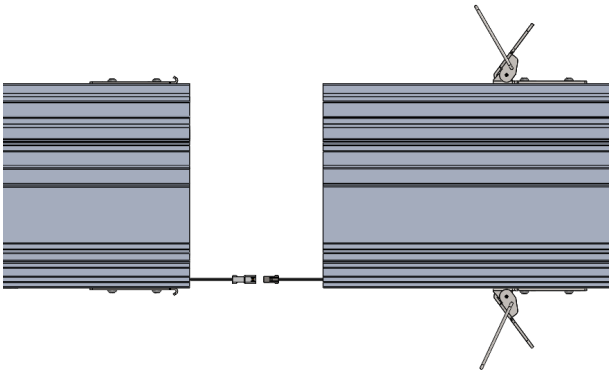
If installing auxiliary items such as switches, lights, etc, plan locations and wiring routes. Note: these auxiliary items are not included with the CommandLIFT and are supplied by the fitter or end-user.

9. Track installation

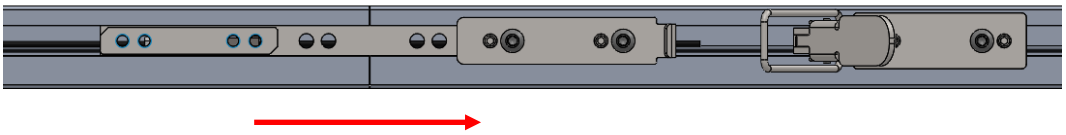
9.1 Assembling the rail

1. Connect the two connectors together.

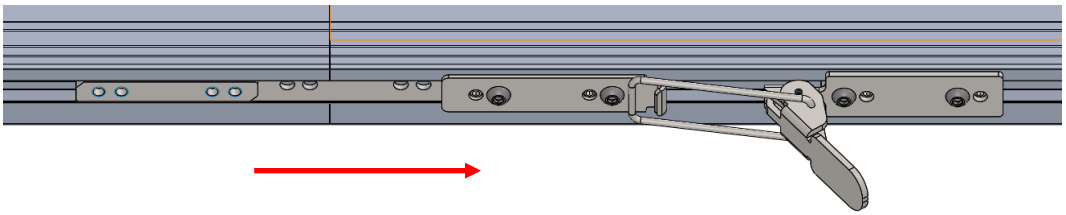
Note: The switch wires must be tucked into the track channel upon track assembly.
Be careful that these wires do not get pinched or damaged while connecting the track together



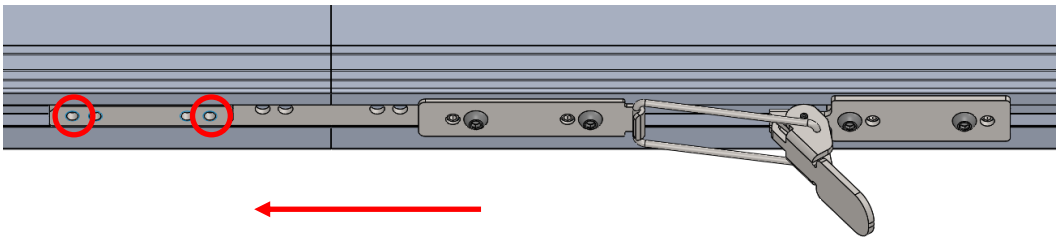
2. Line up the two tracks and slide them together. Make sure that the sensor cable is not clamped in between anywhere.



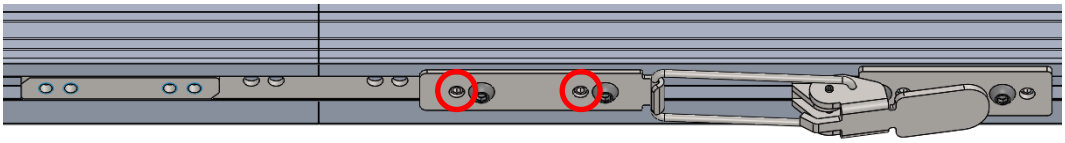
3. Slide the base with hook, into the counter aluminium track



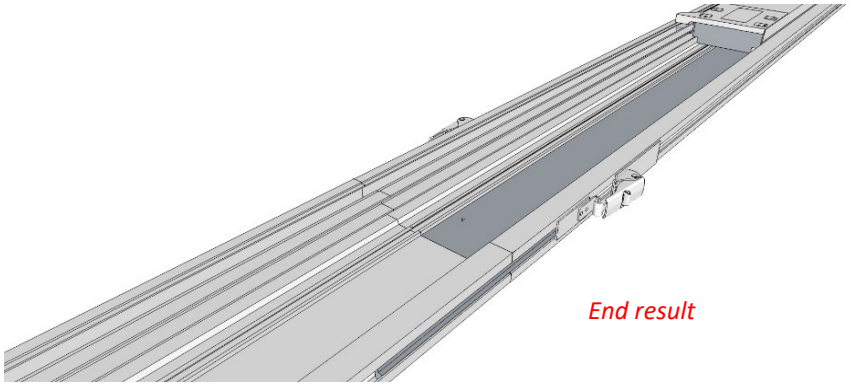
4. Open the latch and slide the hook behind the clamp



5. Pull the hook back as far as possible and secure the base of the hook

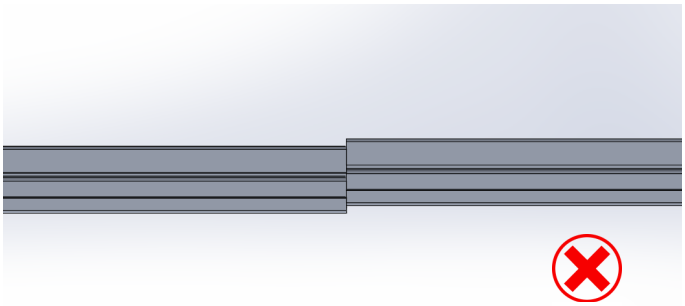


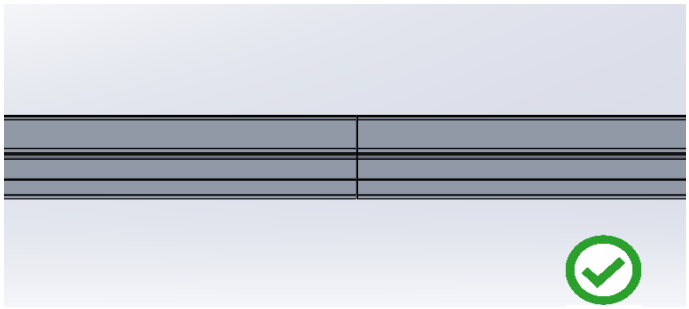
6. Secure the latch, ensure the hasp is locked. Tighten the two set screws.



End result

IMPORTANT: make sure that tracks are exactly in line with eachother, or else damage may occur during use of the CommandLIFT. It might be helpful to use a support plate on the back of the profile to hold to two pieces in place.

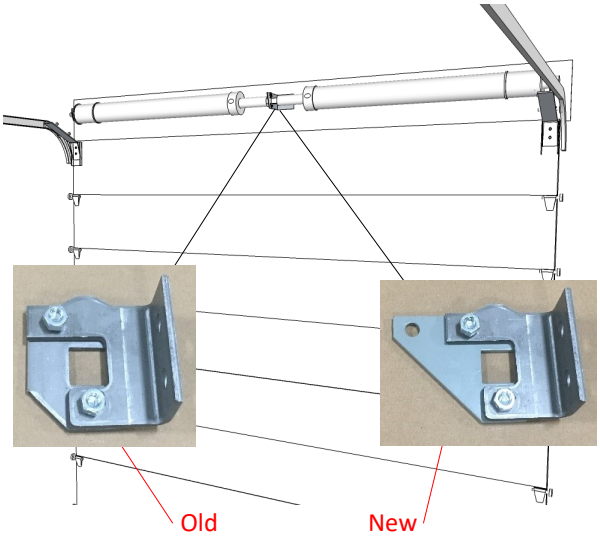




NOTE: It is not recommended, but if the length of the aluminum track has to be reduced for any reason, the cut must be made at the front of the track (furthest from the door opening). Replace the “Stop Screw” that was cut off the track. The shortest length of track required for the CommandLIFT to operate properly is: **DOOR HEIGHT PLUS 36 Inches. Cutting the track will limit the amount of open travel and will result in having to lower the top panel to gain access to the balancer for maintenance. The lower panel may set lower than the header exposing it to possible hit damage from material handling equipment. If the motor unit has to be serviced for any reason, the CommandLIFT track will have to be unfastened from the ceiling to gain access to the motor unit.**

9.2 Change the center bracket

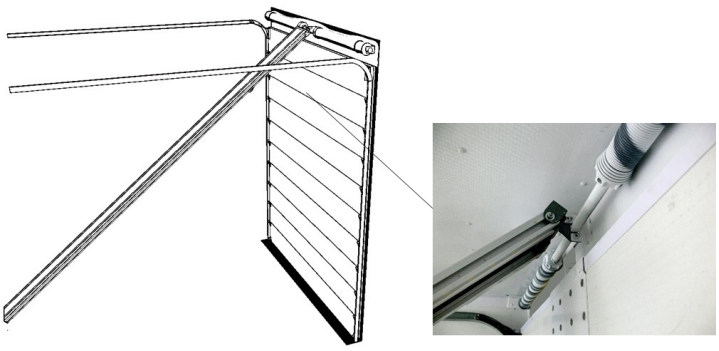
1. Insert a 3/8” diameter winding bar into the round holes on the balancer spring winding cone. Hold this rod tightly so the balancer spring does not unwind when the balancer center bracket is removed.
2. Using a 1/2” wrench, remove center bracket clamp fasteners.
3. Remove the old balancer center bracket and replace it with the extended one in the CommandLIFT box.

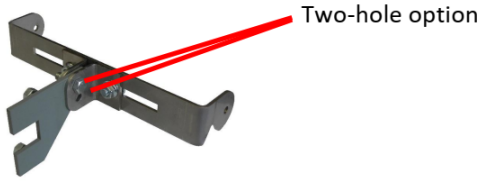


NOTE: This step can only be done if the roll-up door operates with two balancer springs as shown in the picture. If your door only has one balancer spring, you will have to make any necessary modifications in order to fasten the CommandLIFT track firmly to the header. Do not rely on the rear roof bows to support the CommandLIFT. This will damage the roof and CommandLIFT.

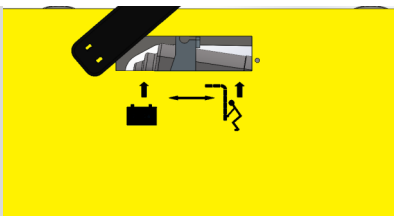
9.3 Connecting the rail to the center bracket

Disengage the motor unit in the track and slide the motor all the way towards the front of the truck body. Pick up the end of the track closest to the header and fasten the adjustable header track bracket to the balancer center clamp bracket using one of the three bolts that came with the clamp kit. Tighten all bolts finger tight at this time. Note: the header track bracket has a two-hole option for mounting to header clamp. Choose the most convenient hole option.





TIP: Moving the motor unit back and forth in the track in this step and the next makes lifting the track assembly easier. Move the lever, shown at the right, to the manual position. The motor unit can now be moved by hand. Moving the lever towards the battery icon will put the motor unit back in automatic mode.



9.4 Positioning the rail on the roof

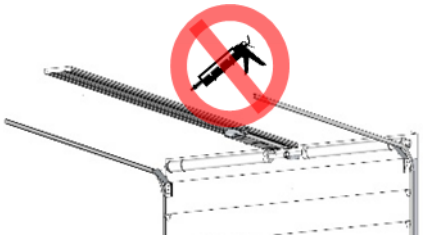
1. Using cargo poles or some other suitable method, lift the front end of the CommandLIFT track to the ceiling or roof bows
2. Measure from the edge of the body roof to the edge of the CommandLIFT track at the header.
3. Adjust the other end of the track and confirm that the same measurement is used along the entire length of the track. This is a critical measurement as the track has to be parallel to both sides of the cargo area.
4. Tighten the stands to ensure the track will not move while it is being fastened to the roof

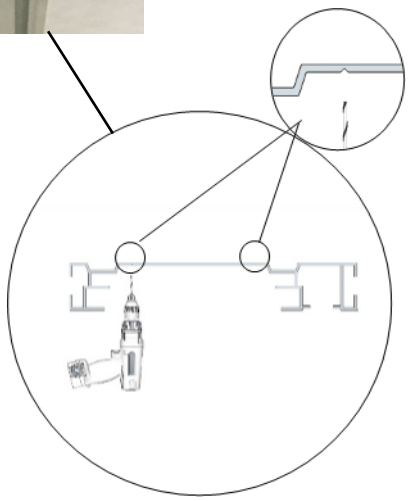
9.5 Fastening the rail to the roof

Use the two V-groves that run the length of the track to DRILL the required holes. The number of holes depends on the roof structure. Minimum requirements: front, back and middle of the track. In case of dry freight applications, always connect to every roof bow with two rivets/bolts per roof bow (curbside and roadside).

Insulated ceilings require furring strips or some type of mounting brackets to secure the track to the ceiling liner and roof. These measures should of been accounted for in the Pre Install Inquiry. DO NOT SECURE TRACK TO THE CEILING LINER ONLY WITH NO SUPPORT.

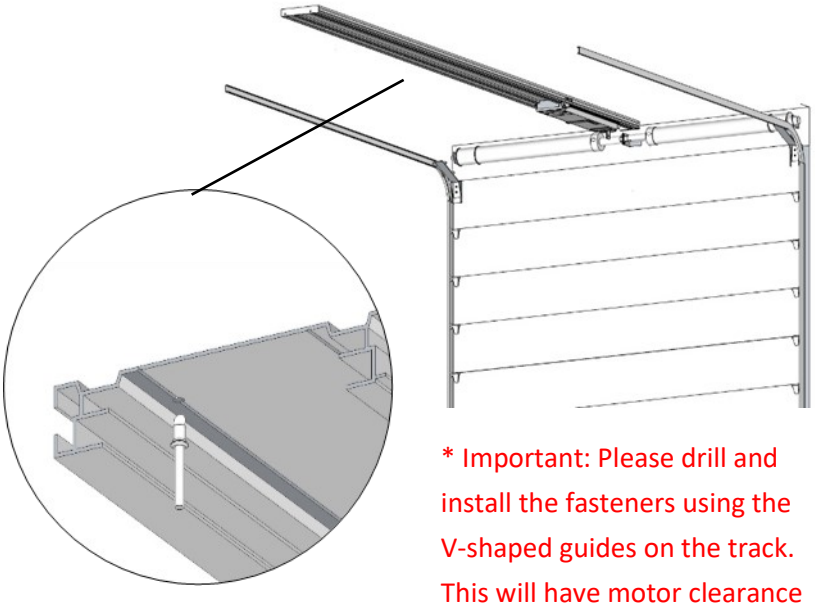
Never glue the track to the ceiling





Use large diameter head screws or rivets where the screw heads or rivet heads do not protrude more than **1/16”** from their seated position. The motor unit will hit the protruding screw or rivet heads during its travel if the heads protrude more than **1/16”** into its path of motion.

Secure the track to the roof. The number of rivets is to be decided by the installer, as every body is different. The track weighs approximately 46 lbs.



* Important: Please drill and install the fasteners using the V-shaped guides on the track. This will have motor clearance implications if not followed.

9.6 Secure the header bracket

The track must be straight and level. The motor unit must move along the track unhindered.

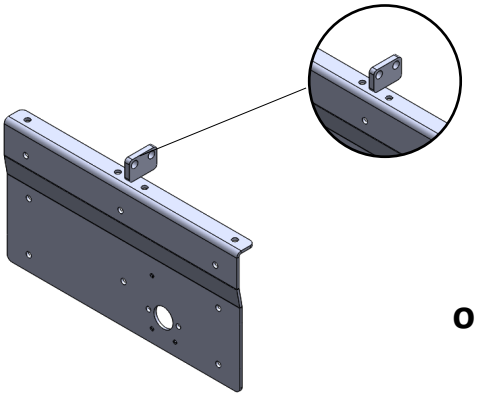
Put the motor in manual mode. Slide the motor unit by hand through the whole length of the track. Watch or feel for any obstructions or mechanical resistance during its travel. Some slight resistance is normal. Listen for any "clacking" noises. This usually indicates the motor unit chassis is hitting a protruding bolt, rivet head or there's some type of off set in the track seam that joins the two pieces of track. If the track appears wavy, shims may be used to correct.

Once the track is secure and straight, tighten all the bracket hardware

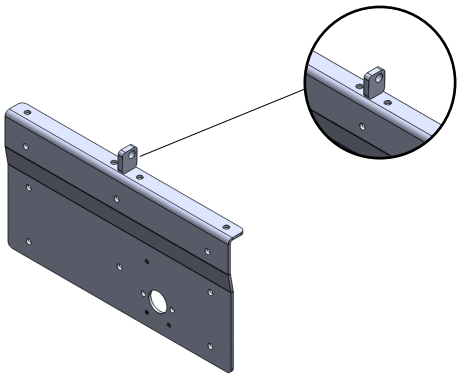
10. Installing the door connector plate

IMPORTANT: Page 4 indicated that top panel reinforcements may be required. Usually hollow core or foam filled doors will have face plates as well as panel stiffeners for Temp Guard doors. These should have been supplied depending on the type of door specified when the CommandLIFT was ordered. If you don't have the reinforcements and think you should have them, call Whiting for assistance.

NOTE: The five through bolts and nuts are supplied with the Whiting hardware kits. See pages 4 to 6 for details.

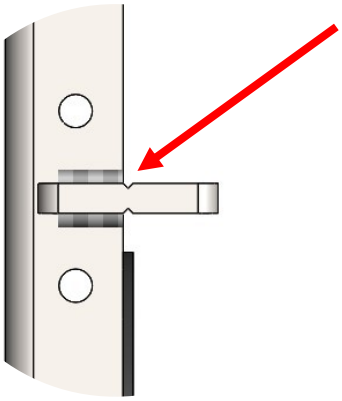


or



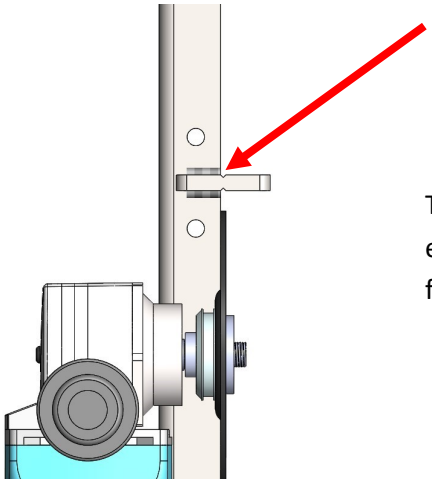
Insulated-freight door connection plate
No re-work needed

Dry-freight door connection plate
Re-work needed

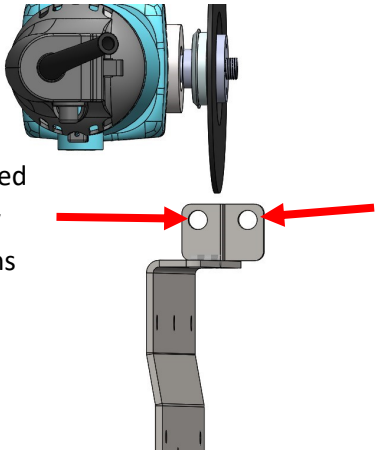


Re-work dry freight door needed. Grind off the steel plate as shown in the picture on the "V" cutting line.

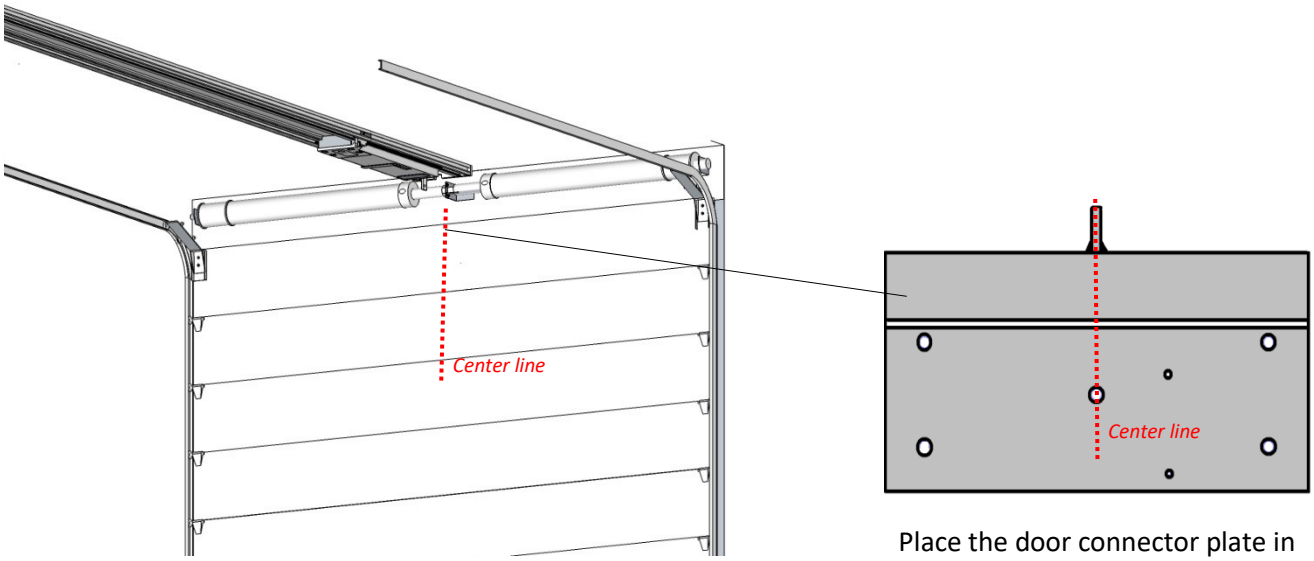
After cutting, deburr and spray with galvanic zinc spray against corrosion.



This tab hole is used exclusively for dry freight applications



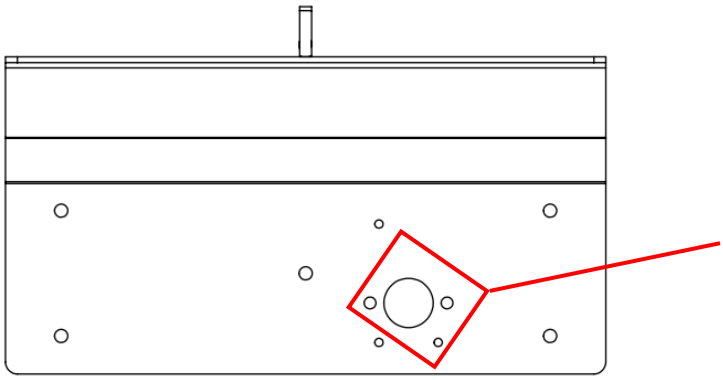
This tab hole is used exclusively for insulated applications



Place the door connector plate in the center of the door. Do not drill through yet.

Confirm alignment with motor unit before drilling holes

With the door in the closed position and the motor as close to the door as possible, raise the door slightly to ensure the tab on the connector plate is aligned with the tab on the motor unit. Once you are satisfied with the position of the connector plate, secure it to the top panel with the hardware from the supplied kit.
See pages 4-6 for door type and hardware combinations to use. Any protruding bolts through the plate should be ground flush with the mounting nuts when completed. This is for safety.

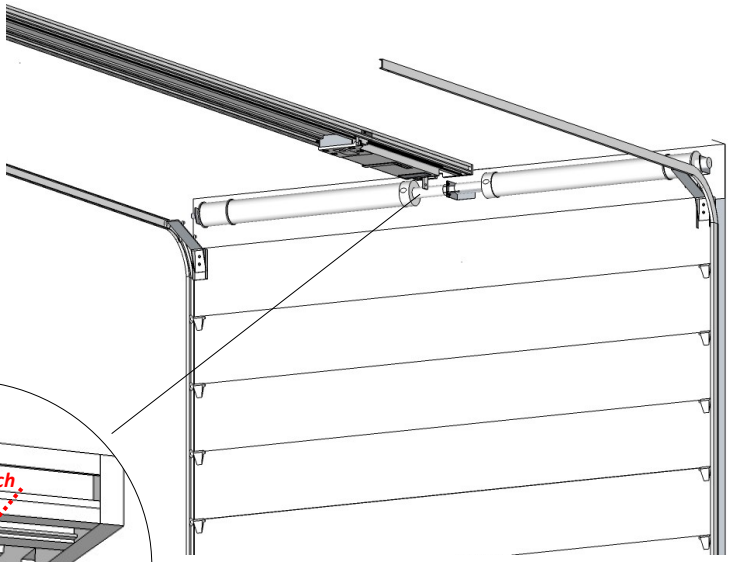


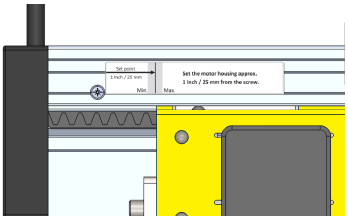
Note: these four holes are not used

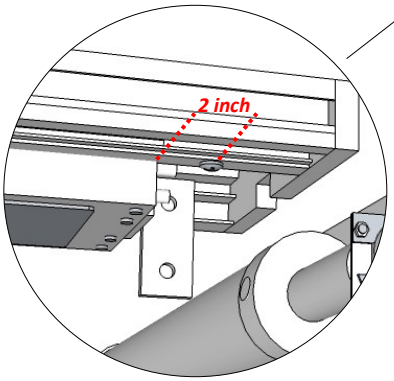
11. Installing turnbuckle connecting rod

11.1 Installing the turnbuckle connecting rod

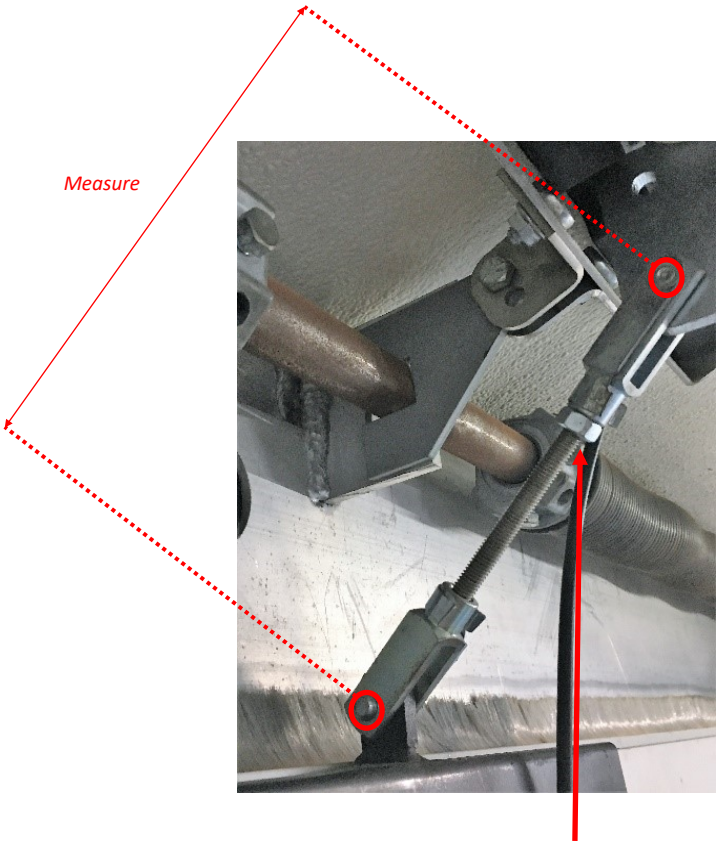
Make sure the roll-up door is in the fully closed position.
Slide the CommandLIFT motor unit towards the door, as far as it will go, then slide it back from the stop screw approximately 2”. See "inch" marker on the track. Lock the motor at this position.
Note: when electrical power is eventually hooked up, the park position of the motor unit will be 1” behind the stop.
See page 21.







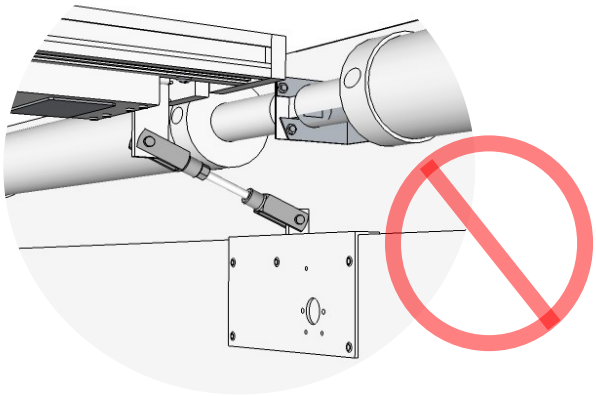
Cutting the turnbuckle rod to length. Determine whether the upper or lower hole on the motor tab is best suited to provide an approximate 45° angle on the rod when the door is closed. Measure the distance between the hole on the mounting plate tab and the selected hole on the motor. Subtract 1” from that measurement and cut the rod to that length. When installed, the rod should be at an approximately 45° angle, as shown in picture.
Tighten jam nut on the turnbuckle.

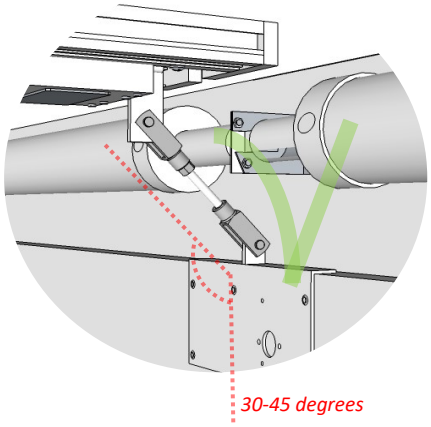


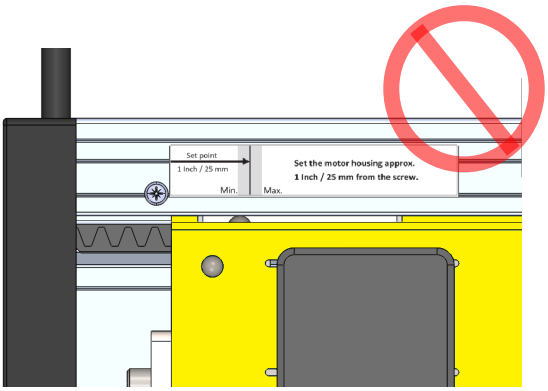
11.2 Checking the turnbuckle connecting rod

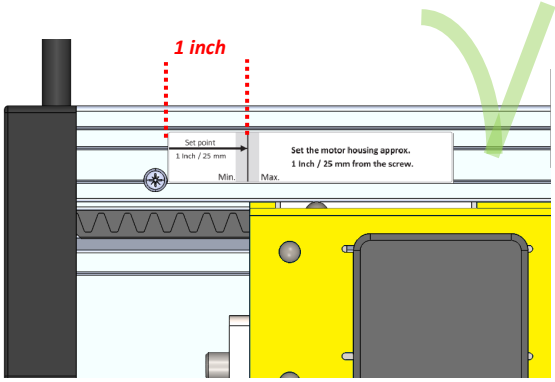
After installation the connection bar should be in a 30-45 degree angle, when the door is in closed position.

The motor-unit should always be parked 1” away from the stop screw when the door is in a closed position with electrical power hooked up. See pictures below.







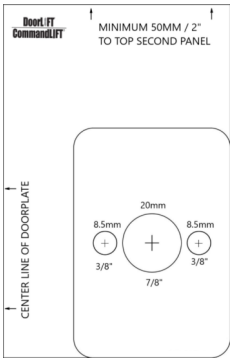


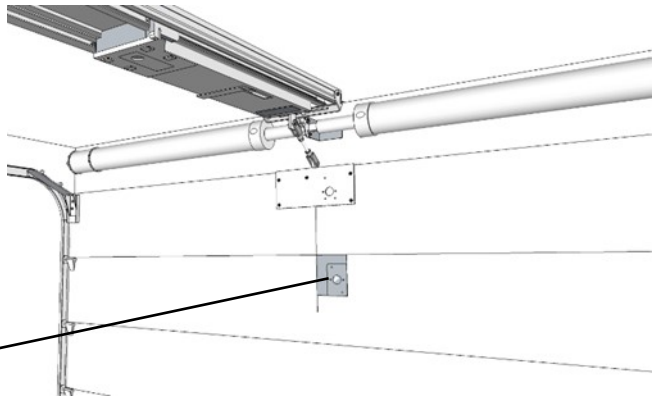
12. Installing the emergency release cable system

12.1 Drilling the holes

Apply the drill template decal and align the left edge of the template with the centerline of the connector plate.

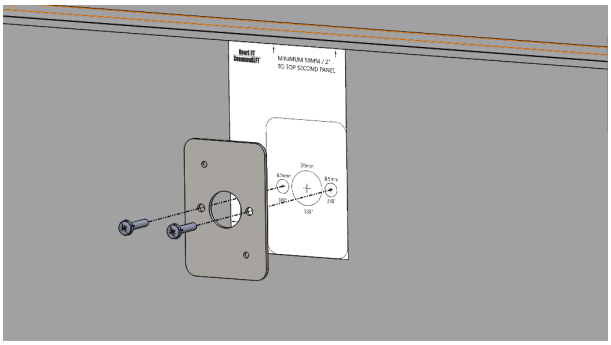
Drill the holes completely through as per drill template.





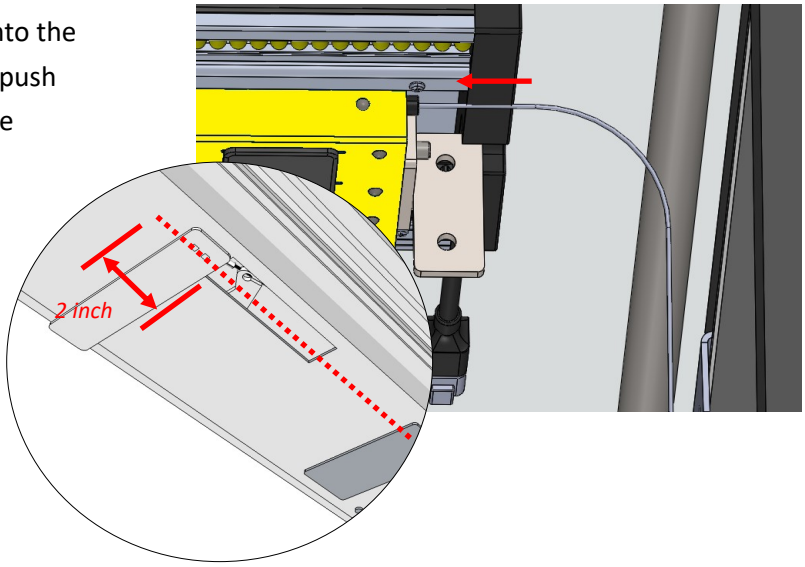
12.2 Installing the lock

1. Locate the lock assembly, turn the key 90 degrees and remove the core of the lock from the lock housing plate. Insert the housing plate into the holes on the face of the door. Use masking tape if necessary to hold the housing to the face of the door.
2. Select the appropriate length screw from the kit and secure the interior mounting plate to the housing.

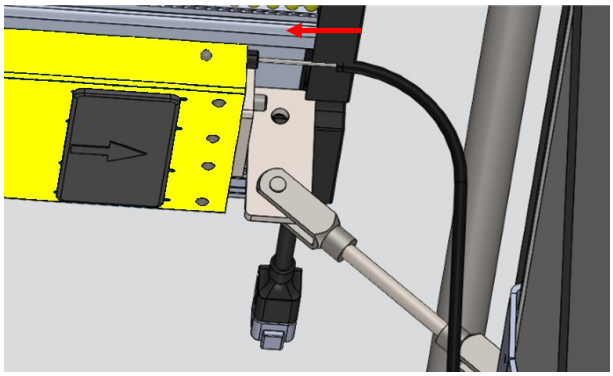


12.3 Installing the release cable

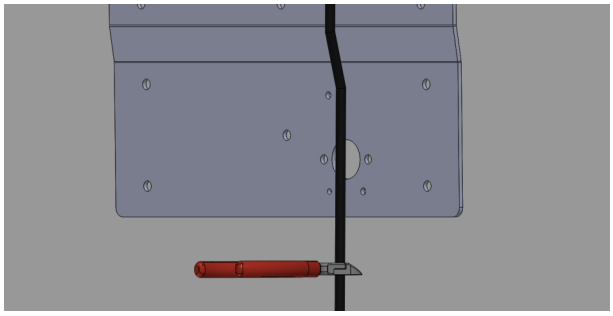
1. Insert the end of the cable with the stop into the guide tube at door-end of the motor unit, push the cable through until you can see it in the opening where the lever is. Insert the stop through the release lever and engage the lever (lock the DoorLIFT). With the lever engaged, push the cable **2”** further into the motor. You can temporarily hold the cable **2”** past the lever with masking tape to keep it from moving during installation.



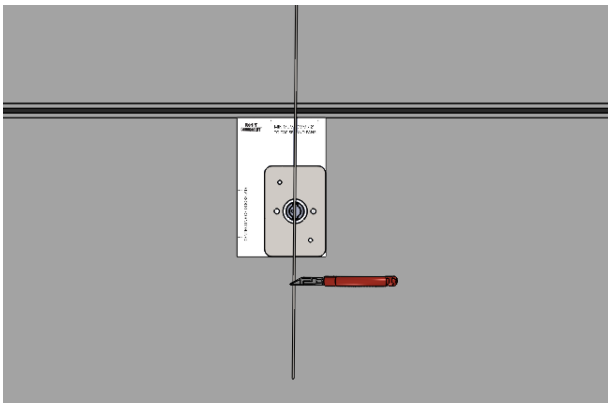
2. Slide the cable sleeve over the cable and 2” into the guide tube in the motor housing. You can temporarily hold the sleeve 2” into the guide tube end with masking tape to keep the sleeve from moving during installation.



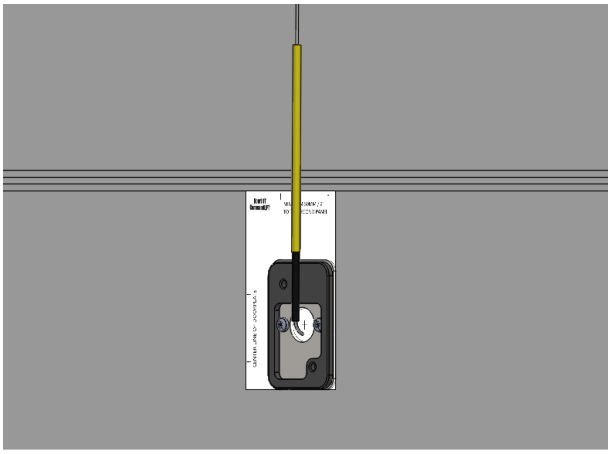
3. Mark the sleeve 1” below the door connector plate. Remove the sleeve and cut it on the mark. DO NOT CUT THE CABLE. Slide the sleeve back over the cable and into the motor housing tube.



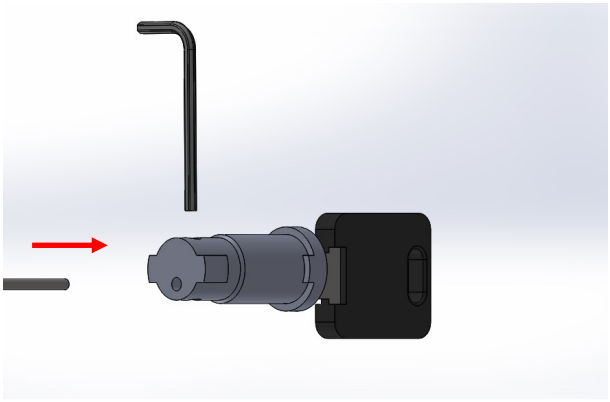
4. Ensure the cable is still 2” past the release lever in the motor housing and the lever is still engaged. Using good quality cutters cut the cable 1” below the lock mounting plate. Not using a proper tool to cut the stainless cable can cause the end of the cable to fray and become difficult to insert into the lock cylinder.



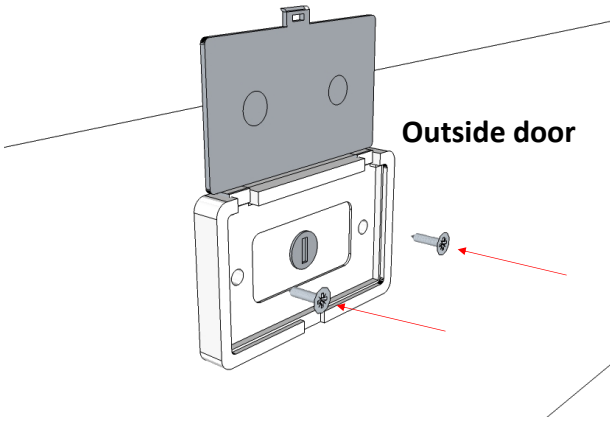
5. Slide the yellow tube, the 2” piece of cable sleeve and the plastic cover base over the cable. Push the cable through the door and lock housing so it protrudes through the face



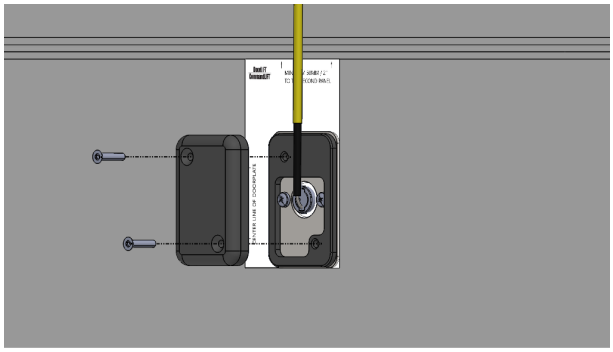
6. Insert the cut end of the cable into the hole on the back of the lock core. Secure the cable by tightening the set screw on the side of the core with a 2mm Allen key. Be sure it is as tight as possible. Insert the core into the housing, turn 90 degrees, and remove the key.



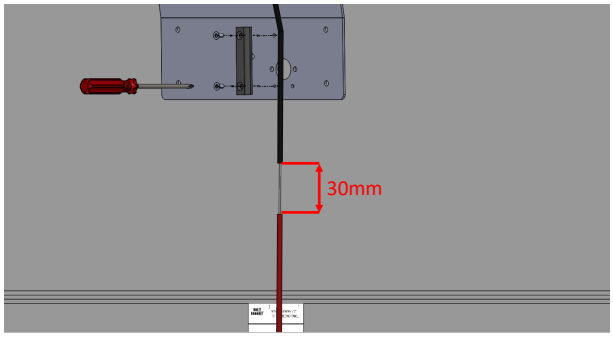
7. Use the two screws provided to secure the exterior cover over the lock assembly.



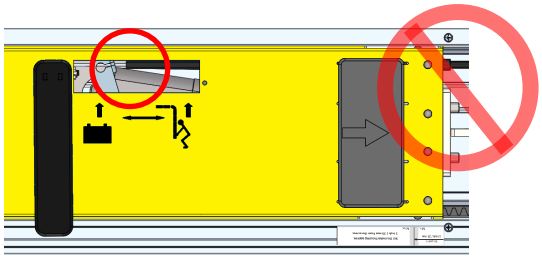
8. Locate and secure the rear cable cover on the mounting plate using the two 4.8x32 screws provided. This cover also acts as a clamp for the 2” section of cable sleeve. Make sure the cable sleeve ends in the middle of the lock.
See picture.

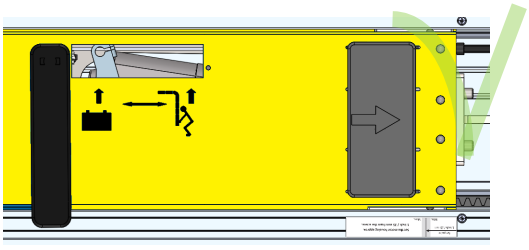


9. Slide the cable sleeve up so there is a clearance of 1” to the yellow sleeve. Use the two 4.8x19 screws and plastic clamp to secure the cable sleeve and clamp to the holes on the door connector plate.



10. Make sure that the sleeve is only 2” into the guide tube and not protruding in the slot of the motor-unit. This will prevent the lever from moving and the door from being disengaged.

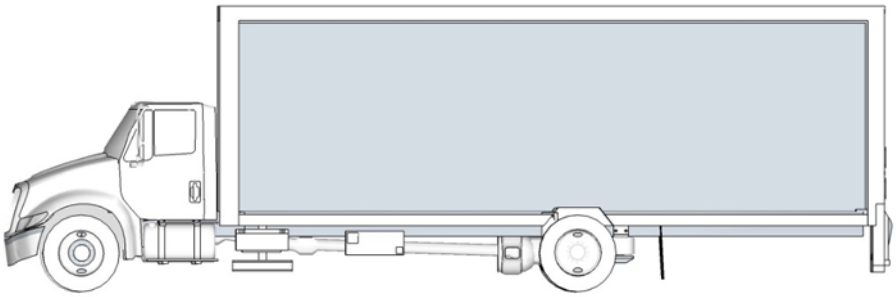


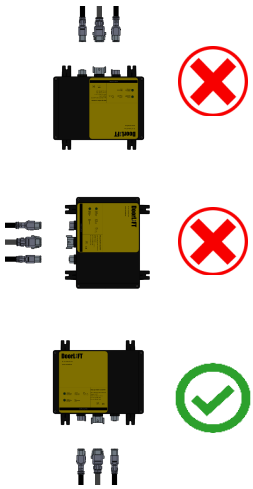


13. Installing the control box

13.1 Mounting the control box

Mount the control box as determined earlier in the manual. Double check the points below to ensure the ideal location.





Reminder: the battery cable is 8’ long so the distance from the box to the battery can’t be more than that.

Be aware: of the environmental conditions of your chosen location when the truck is in use. For example, placing the box behind the wheels could result in high pressure water and road debris against the box.

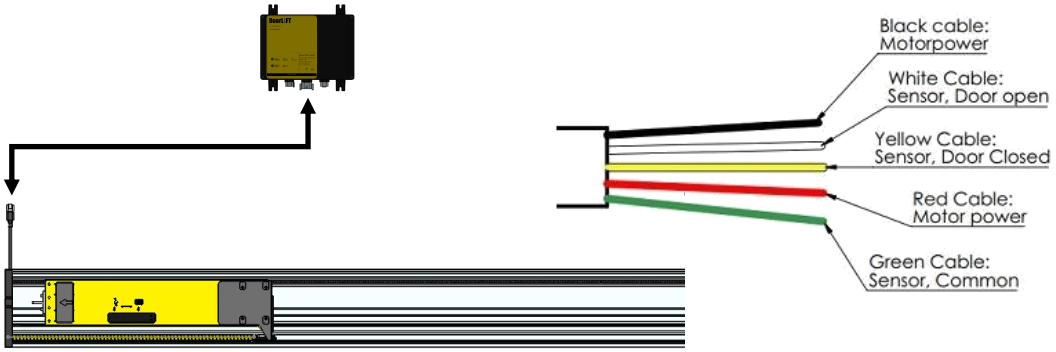
Make sure the cable connectors are down to prevent moisture entering the box

WARNING: The size of the supplied cable(s) is determined by the CommandLIFT power requirements. **DO NOT** splice wires for extra length, this can cause voltage drop, resulting in poor/intermittent operation or damage

DO NOT CONNECT THE BOX TO THE BATTERY YET

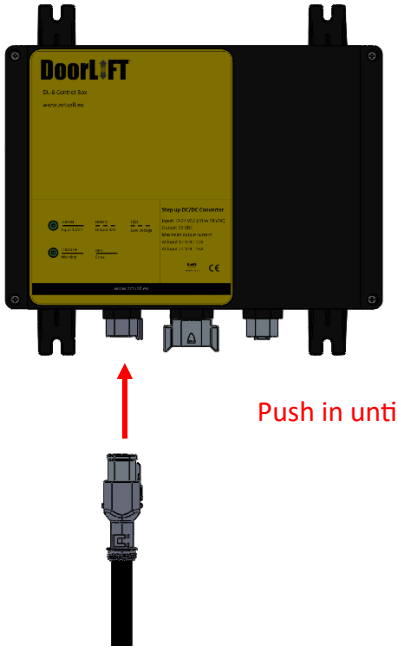
13.2 Feeding the cable through the box

Run the 70’ cable from the track to the control box. This cable comes in two pieces and will have to be spliced with the solder/butt connector kit given in package. Match the color scheme below between the two cut cables.
Note: If the cable is too long, it can be cut accordingly.



WARNING: Be sure to protect all cables from sharp edges by using loom and or grommets while routing cables through conduits and bulkheads.

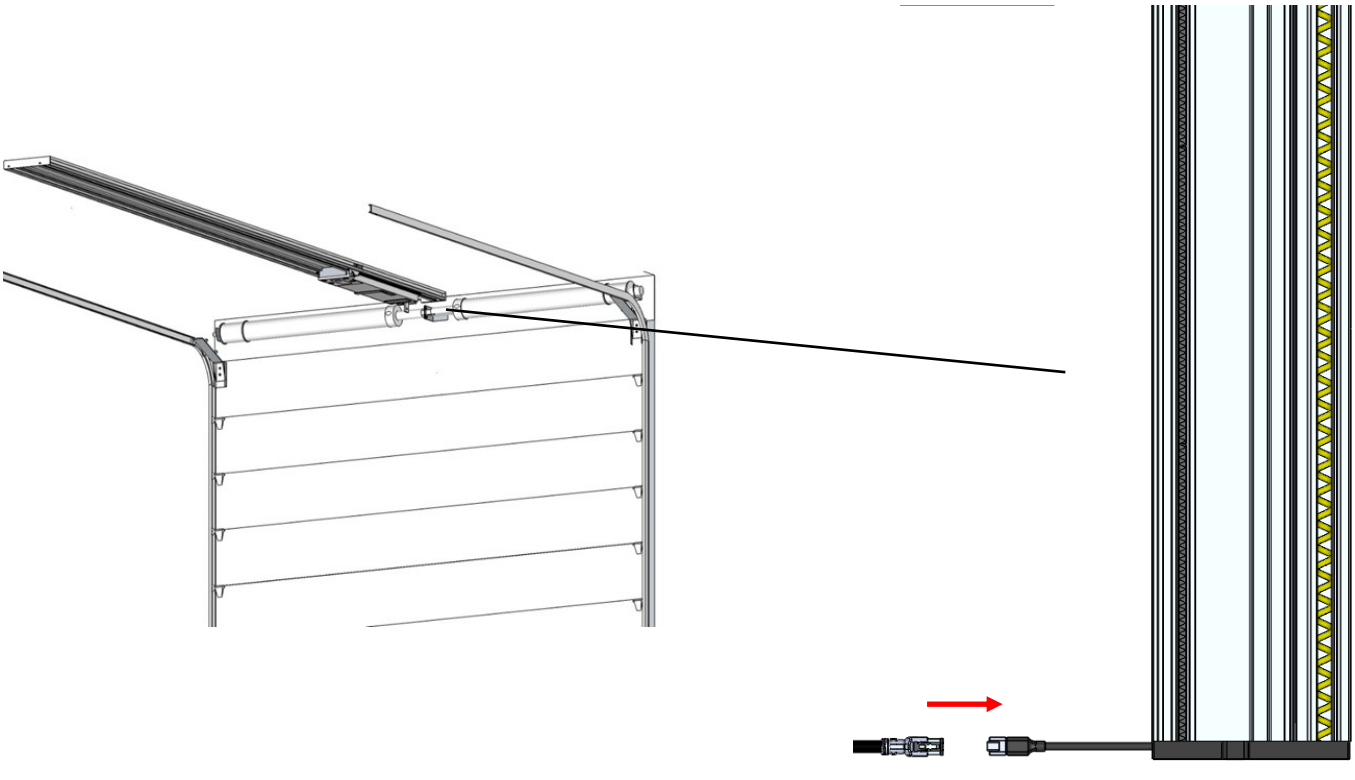
13.3 Connect the cable to the control box



Push in until you hear it “click”

13.4 Connect the cable to the track

Plug the other end of the 70’ profile cable to the track plug. While connecting, push until you hear a "click".



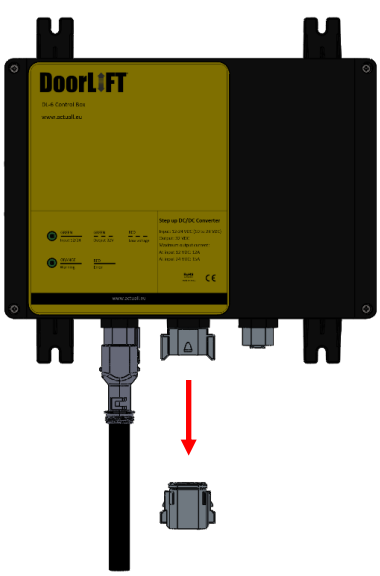
Push in until you hear it “click”

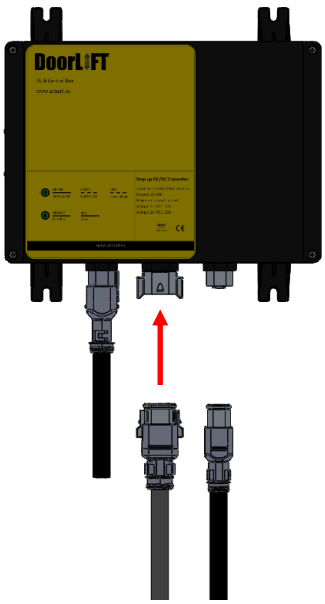
13.5 Optional functions

Connect auxiliary devices to the CommandLIFT control box through the 8-lead auxiliary harness using the wire chart below as a guide. The pig-tailed end of the harness has numbers.

Wire	Item
1	Up/down input
2	Up input
3	Down input
4	Signal block (ignition lockout)
5	+ 12V output (max 250 mA)
6	Door ajar output (ground)
7	Cargo light output (ground)
Yellow/green	Ground (max 250 mA)

The 8-pin male receptacle on the box comes equipped with a plug to protect the connector from water and dirt if the harness is not used. This plug is removed if the harness is utilized.





8-lead wire harness

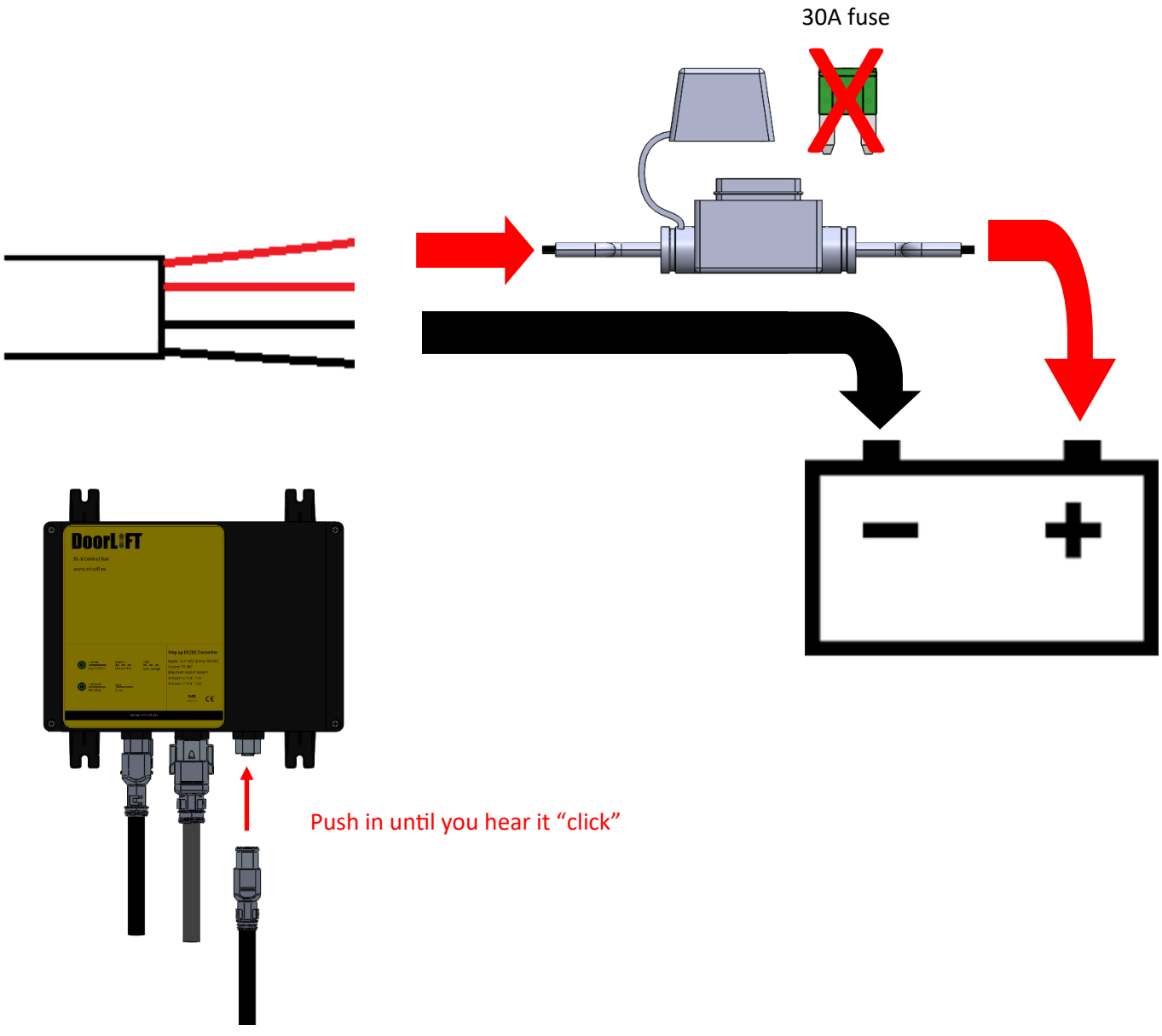
Push in until you hear it “click”

WARNING: Protect unused harness leads against water, debris, dust and possible short-circuits

13.6 Connecting to the battery

On the pig-tailed end of the CommandLIFT battery cable, splice red wires , and one end of the fuse wire together. A solder splice with heat shrink is recommended. Crimp a terminal to the other end of the fuse wire. This will be attached to the positive battery terminal. Splice the black wires with a terminal which will be attached to the negative terminal of the battery. Connect the connector end to the control box.

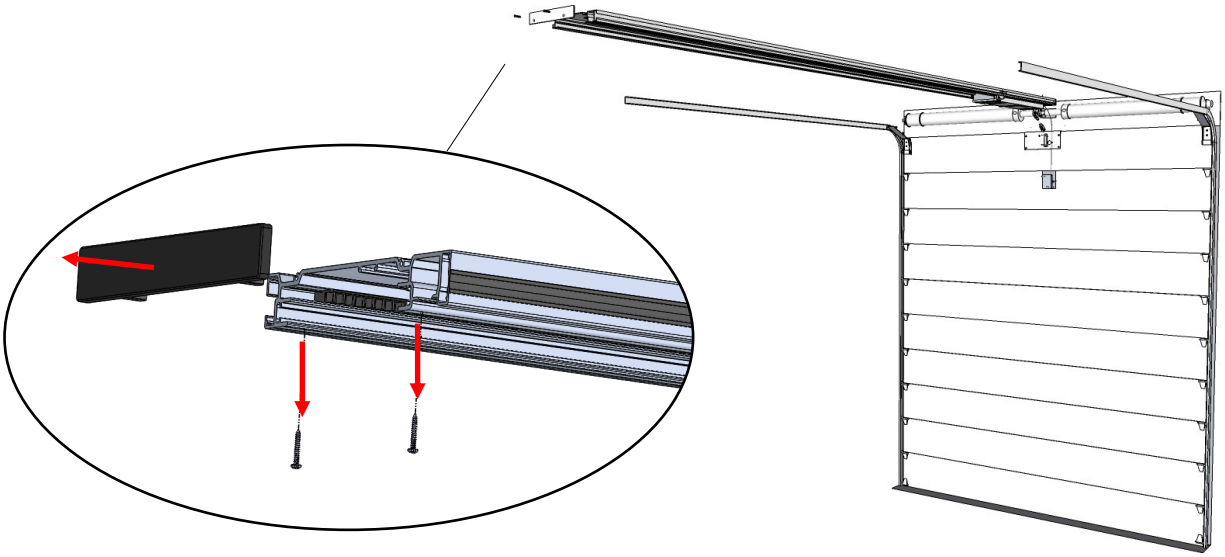
DO NOT PUT IN THE FUSE UNTIL FURTHER NOTICE (CHAPTER 12)



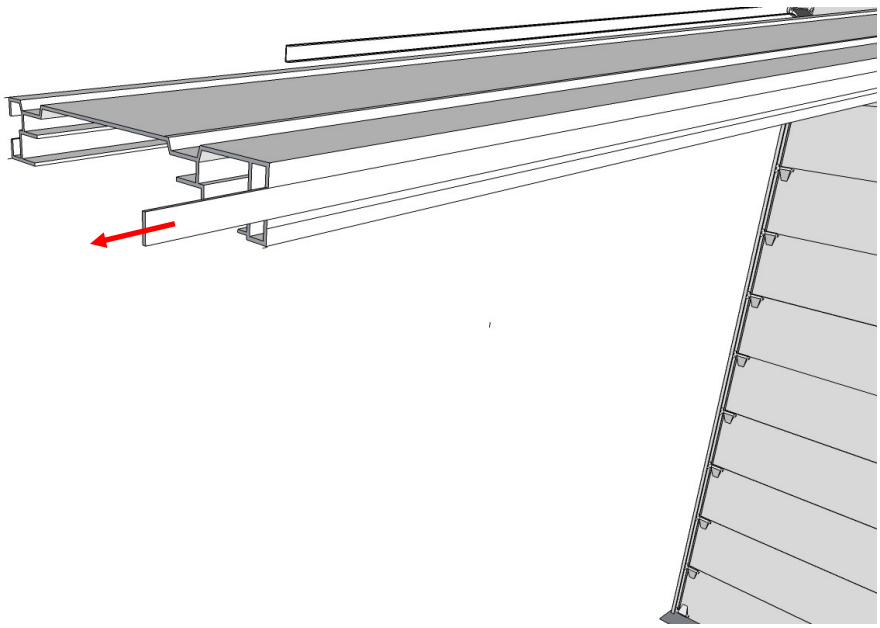
14. Adjusting the track sensors

14.1 Adjusting the door closed sensor

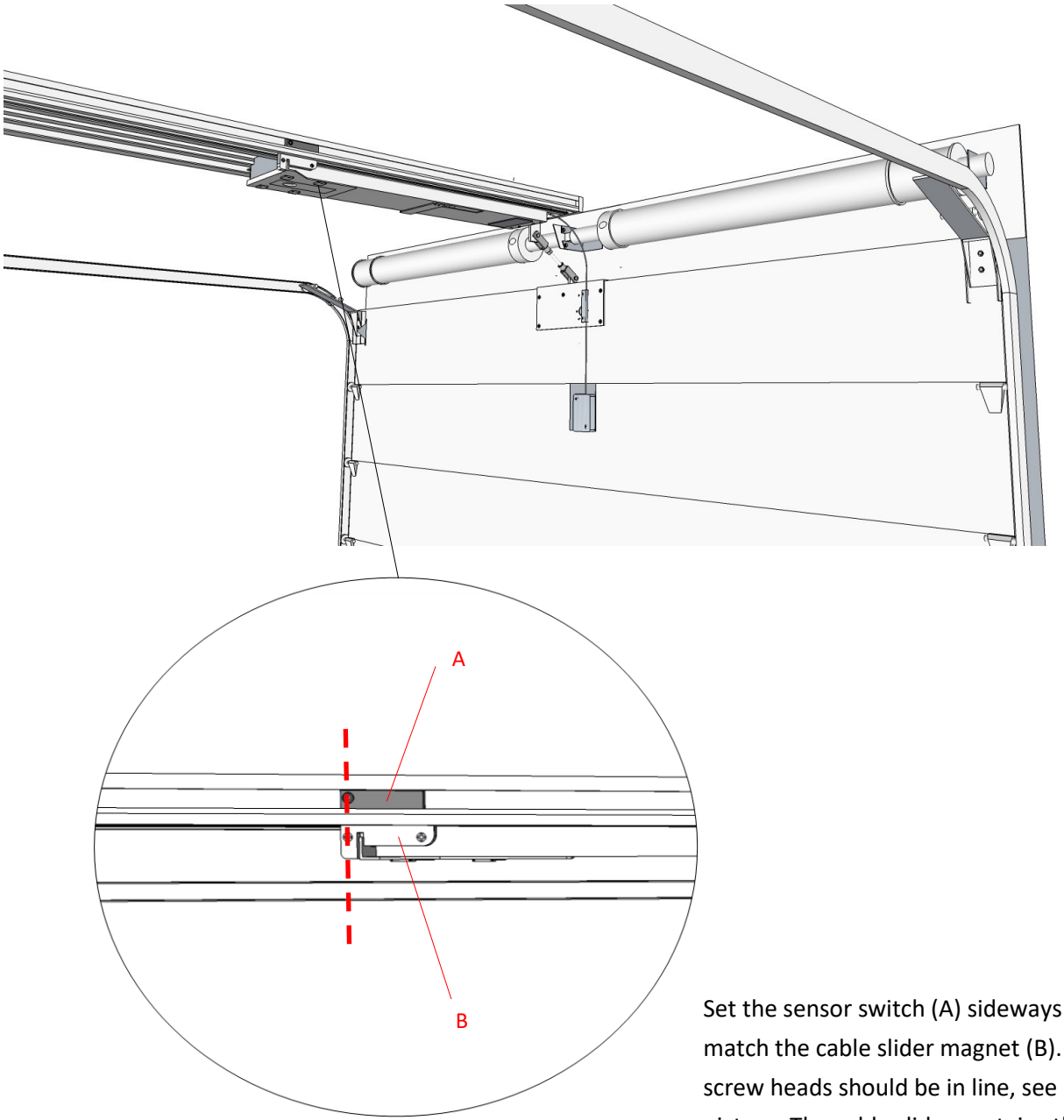
Remove the rear cover from the track.



Remove the plastic cover on the side of the track



Check the door closed sensor and if necessary set it in the proper place, by closing the door with connected motor unit manually.

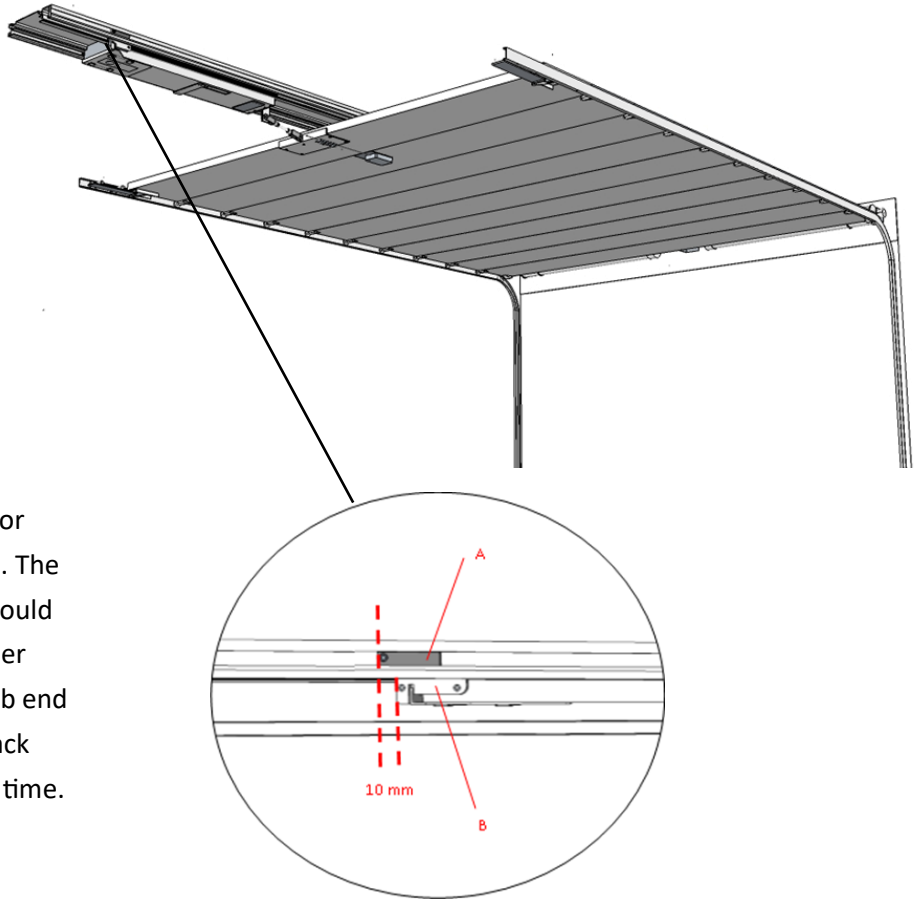


Set the sensor switch (A) sideways to match the cable slider magnet (B). Both screw heads should be in line, see picture. The cable slider contains the magnet that moves with the motor unit and trips the sensor switches to signal the control box that the door is either fully opened or fully closed.

14.2 Adjusting the door open sensor

The sensor switch for the OPEN position **WILL** need to be set. Follow the same process as the close sensor switch, mark the track and slide the sensor switch to the desired location.

1. Open the door to the desired height.



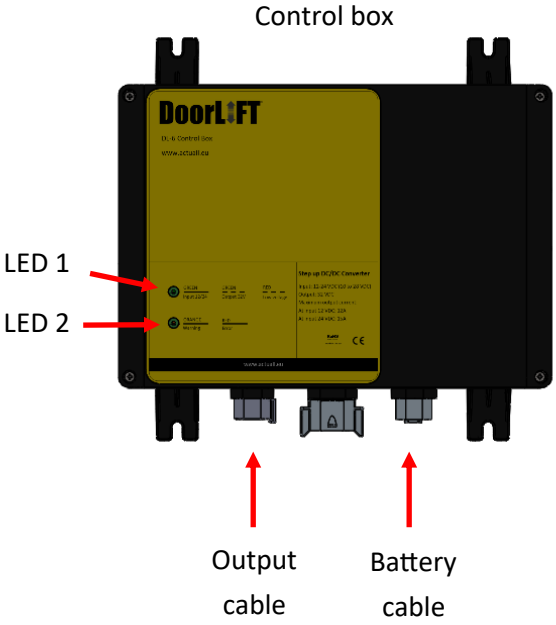
2. Using an Allen key, slide the sensor switch (A) to the desired location. The sensor switch adjustment bolt should be 10 mm ahead of the cable slider magnet (B) bolt relative to the cab end of the track. Do not install the track wire trim or track end cap at this time. This will be done in chapter 12.

WARNING: Do not adjust the CommandLIFT to open the door too far. The lock on the face of the door can jam against the CommandLIFT track on the ceiling.

15. Programming remote controls

Note: If applicable

1. Remove power from the box by unplugging the 30-Amp fuse in the battery cable. Wait 25 seconds.
2. Unplug the output cable to the track from the box.
3. Insert fuse. Within 5 seconds, press buttons 1 and 2 at the same time. The system will then enter the code learning mode. The UNLOCK OUTPUT will trigger to remind you that the system is in code learning mode.
4. Within 5 seconds of entering the learning mode, press any button on the transmitter. The UNLOCK OUTPUT will trigger to tell you the transmitter has been recognized and is compatible with the system. A maximum of 12 transmitters can be coded per system.
5. During code learning, if there is no action after 5 seconds, the system will exit learning mode. The UNLOCK OUTPUT will sound indicating its leaving learning mode.
6. If old FOBs have to be erased from the receiver's memory for any reason, program the new FOBs with the above procedure and don't include the old FOBs in this procedure. This process will erase the old FOB data from the receiver's memory.
7. Plug the output cable back into the box and test the system.



Note: If the FOB battery has to be replaced for any reason, the battery type is a dry cell A23 type 12 Volt.

16. First operation of the system

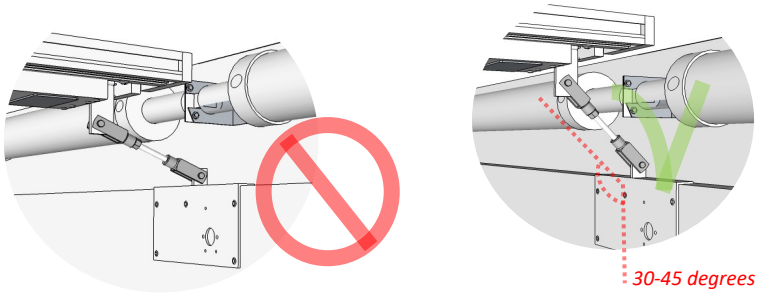
THE FIRST ACTIVATION AFTER POWER UP IS ALWAYS OPEN.

BEFORE TESTING THE SYSTEM FOR THE FIRST TIME, PARTIALLY OPEN THE DOOR SO THE MOTOR IS APPROXIMATELY IN THE MIDDLE OF THE TRACK.

1. Open the door half way so the motor unit is between the OPEN and CLOSED sensor switches.
2. Engage the motor.
3. Press the button on the remote FOB and the door should open to the sensor that was set earlier. If the door is open too far or not far enough adjust the sensor accordingly.
4. Press the button to close the door. The door should close tightly against the floor. If the door closes and then raises approximately 6” the closed switch needs to be adjusted. Loosen sensor switch on the side of the track and slide the sensor switch towards the front of the truck, approximately 1”. Test the close function again, repeat the process as necessary.
5. Once you are satisfied with door's open and close positions, install the sensor wire trim onto the sensor side of the CommandLIFT track and install the track cap to the cab-end of the track

When you are satisfied with the installation and the system has cycled a few times review the following points:

1. Do the turnbuckle clevises move freely when the door moves from the vertical to the horizontal position?
2. Is the lock nut on the turnbuckle rod tightened against the clevis joint?
3. Is the turnbuckle at an acceptable angle, 30 -45°, with the door fully closed?



4. When the door is closed, the motor should not be touching the stop screw at the door end of the track, it should approximately be 1” behind the stop screw.
5. Are you satisfied with the position of the door in the fully open position?
6. Is there still enough slack in the emergency cable with the door fully open?
7. Are all the nuts tightened that secure the track to the header?

Apply the DoorLIFT warning label above the lock on the outside of the door.

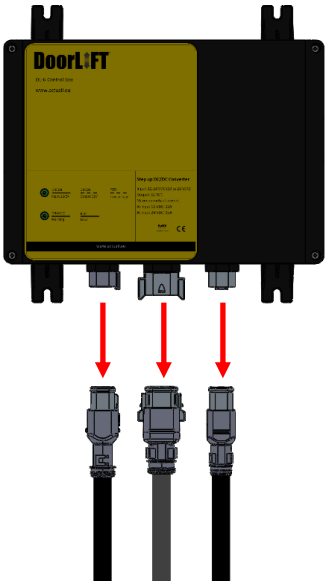
Apply the emergency release label beside the yellow cable sleeve on the inside of the door.

RECOMMENDATION: It is recommended that the close cysle safety feature be verified. Place a small 2 x 4 piece of wood on the bottom sill of the trailer of cargo box of a truck-body and let the door strike the wood on a close cycle. The door should stop and backup three to four inches. If it does not, contact Whiting.

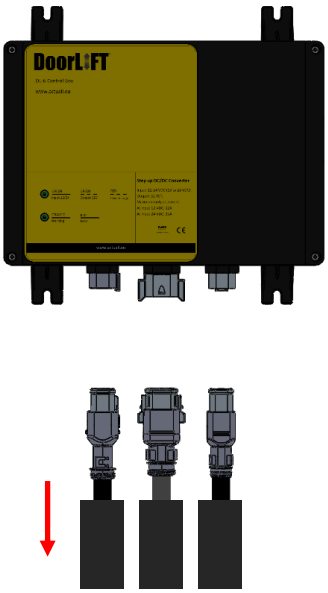
17. Finalizing installation

When you have finished the installation, the connectors have to be sealed.

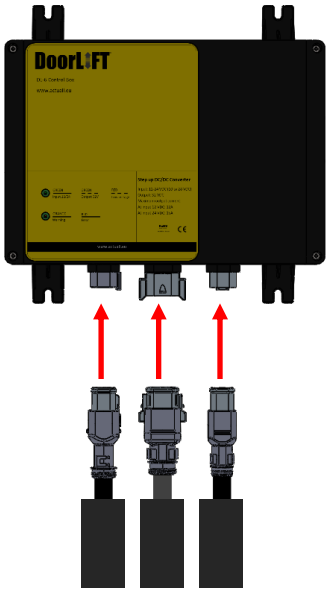
1. Take out all three cables



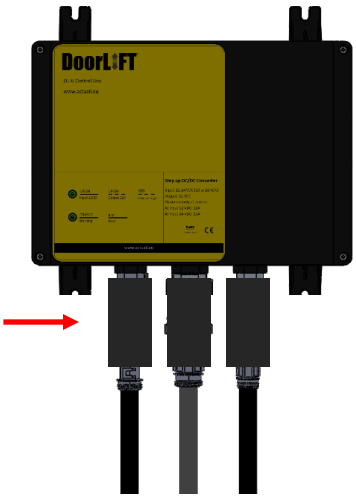
2. Slide the supplied heat shrink sleeve over the cables

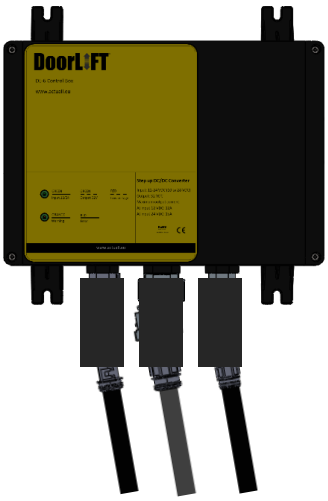


3. Put the cables back in the control box



4. Crimp the heat shrink sleeves over the connectors. Make sure the cables are in a straight line down and not in an angle.

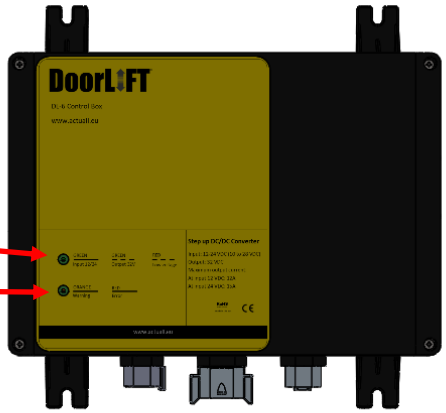




18. Overview of electronic indicators

Control box

Control box



LED 1 indicator

LED 2 indicator

Remote control

LED indicator

After connecting the system to power:

1. When a command is given, the LED's will indicate the signal was received.
   - LED 2 on the converter starts to flash orange, as the signal is received from a FOB or external devices like switches
   - LED 1 will start to flash green, as power is converted to 32 VDC
   - For the meaning of all other LED indications, see the chart below.

2. The following conditions must be met:
   - Sufficient input voltage
   - Sufficient output voltage
   - No obstruction in door path.
   - No block signal active (ignition lockout)
   - All FOB components are programmed to the receiver in the box. Upon initial power up, the first allowed function is the door 'UP' function.

How does the remote-control work? LED explanation

LED	Colour	Sequence	Issue/Function
LED 1	Red	Flash	Low voltage input (during operation)
LED 1	Green	Solid	Power in
LED 1	Green	Flash	In operation
LED 2	Orange	Flash	Signal received
LED 2	Orange	Solid	Warning, overload motor-unit / obstruction
LED 2	Red	Solid	Error, time out door travel

Appendix

Inquiry Form

Note: This form must be completed, signed, and accompany the order for all CommandLIFT applications

If there are any questions, contact Whiting at 716-542-5427 Ext. 127

Date _____

Whiting Inquiry # _____

Customer name _____ Contact name _____

Phone # _____ Contact e-mail _____

Address _____

Fleet (info if know)

New application?: ☐ Retrofit?: ☐

Application type? Truck Body - dry box ___ reefer ___ Trailer - dry ___ reefer ___

Manufacturer make: _____ Model: _____ Year: _____

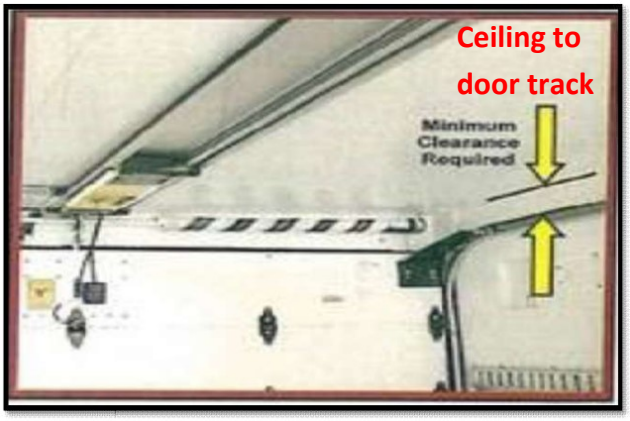
Number of CommandLIFTs requested: _____

CL Part Number (this will be determined after form is filled out): _____

Please read the following and check mark the box

1. Installation of CommandLIFT requires specific minimum clearance be provided between the top of the horizontal door track and the roof. What door type? See minimum clearance chart below. These measurements are based on Whiting Door products:

Type of Whiting door being used	Minium clearance required
☐ Whiting — Dry Freight	3-5/8 inches
☐ Whiting — TempGuard	4-5/8 inches
☐ Whiting — Coldsaver	5-1/8 inches



Inquiry Form

2. In retrofit applications to an existing door, check to see if you have CommandLIFT track clearance between the top panel of the door and the CL track while the door is moved through its track radius. To model this, use a 2x4 piece of wood held to the ceiling and open the door. The actual CommandLIFT track height is 1.46 inches. If the top panel hits the wood, it will not clear the track. Door track modifications may be required. See picture below. Will track clearance be an issue in a retrofit application?

☐ Yes?
☐ No?
☐ Non applicable: New door will be purcased with the CommandLIFT

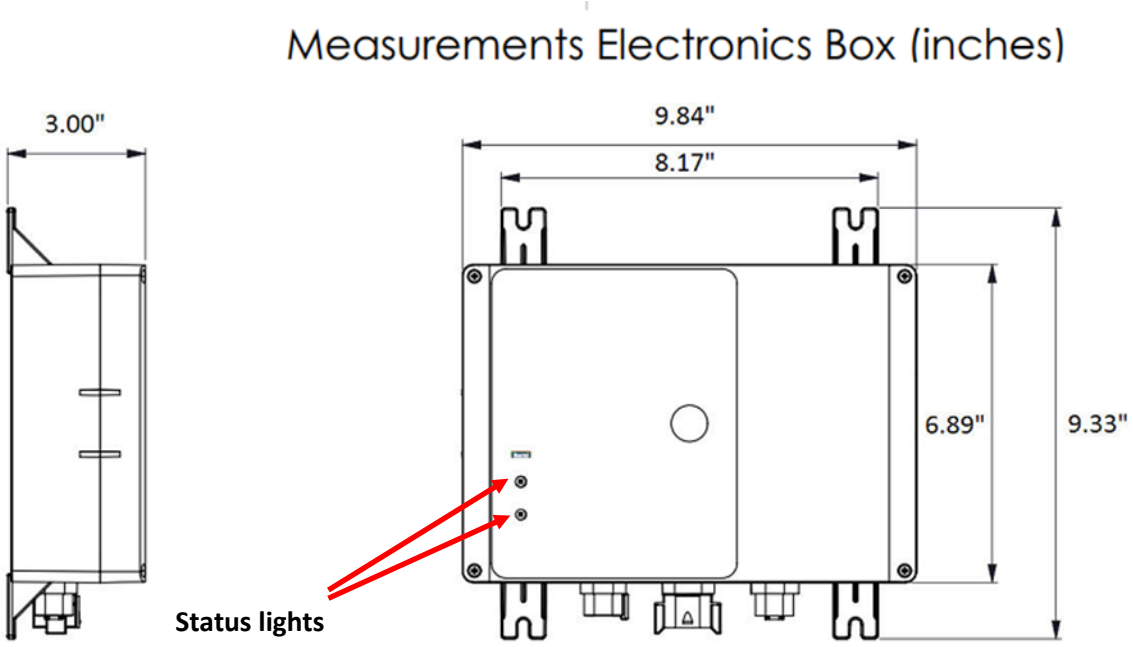
3. Whtiing offers four principal types of dry freight doors. Premium (wood core), Premium Plate (polyethylene core), Hinge Truss II, and the General Purpose type (wood core). The General Purpose type is the only category that uses a single-spring balancer. The CommandLIFT is designed to be used with a dual-spring balancer. A modification will have to be done to the door end of the CommandLIFT track to mount it securely to the header. The upfitter or installer will have to do this modification. Does your application involve the Genereal Purpose door type or a retro fit onto a door with a single-spring balancer?

☐ Yes?
☐ No?

4. The CommandLIFT-6 comes standard with an 8-foot input battery cable and a 70-foot output harness that connects the battery, box, and motor unit. There is a 16-foot input cable harness available as an option. This can be purchased separately. The 70-foot harness comes in two pieces that have to be spliced together and can be cut to any length to fit an application. Distances through conduits, frames, and bulkheads will have to be accounted for. Do you need the 16-foot input cable option?

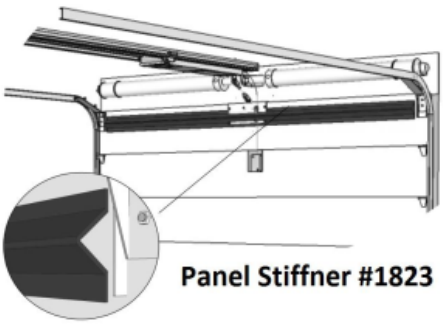
☐ No?
☐ Yes? 16-foot input (#17625)

Inquiry Form



5. The CommandLIFT system cannot work with a ¼-inch Premium Plate door with an 1823 stiffener plate due to fitting interference between the door parts and the CommandLIFT parts. Do you have a ¼-inch plate door with an 1823 stiffener? See picture below.

☐ Yes?
☐ No?
☐ Non-Applicable. Non Premium Plate ¼-inch Door



6. A 12 or 24 Volt, 30 Amp DC power supply is required to operate this system. If 30 or more open/close cycles are anticipated on a given day with the vehicle not charging the power source, a deep-cycle battery may be in order. A 95 to 125 Amp-Hour charge capacity, AGM battery would be recommended with a means to charge it. Check the 'Yes' box if a deep-cycle battery is anticipated. Otherwise select the 'No' box.

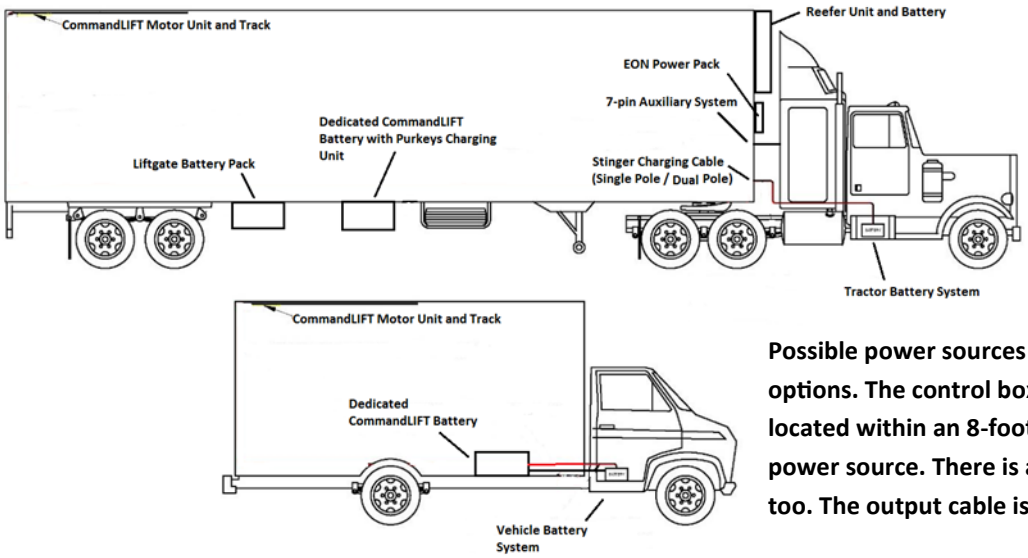
☐ Yes?
☐ No?

Inquiry Form

7. The system will draw about 40 mA of current in an idle state. If long periods of inactivity are anticipated, a series-mounted disconnect switch placed in one of the system's input battery cables would be recommended. These are used in the RV and boating industries. Is a switch anticipated? Note: Switches are not provided by Whiting.

☐ Yes
☐ No

8. Where is the power source coming from? Select below.



Possible power sources and charging options. The control box must be located within an 8-foot radius of its power source. There is a 16 foot option too. The output cable is 70 foot.

☐ Reefer battery?
☐ Lift Gate battery pack?
☐ Dedicated or auxiliary battery?
☐ Vehicle's battery system?
☐ Other?

How will the battery be charged

☐ Auxiliary pin the 7-way (trailer)?
☐ Stinger cables (trailer)?
☐ Vehicle's charging system (truck body)?
☐ Other?

Inquiry Form

9. The CommandLIFT system comes standard with two remote FOB transmitters and a 39-inch long auxiliary cable that can interface with external devices, switches, lights, etc. Note: All external devices and wiring will be supplied by the fitter or end-user.
   - ☐ Are more than two FOBs anticipated? These can be purchased separately. #17140
   - ☐ Are external devices applicable to your application?

10. On new insulated doors or insulated retro fits, are there supporting structures above the ceiling liner to support the CommandLIFT track?
   - ☐ Yes?
   - ☐ No?
   - ☐ Non-Applicable. Dry Freight.

11. In new and retrofit insulated applications, what is the approximate distance of the evaporator unit with respect to the door end of the cargo box? There should be at least 30 inches of clearance behind the CommandLIFT track for future servicing of the motor unit. A mid-trailer mounted evaporator may interfere with the CommandLIFT track or motor unit removal. The CommandLIFT track is 143 inches in length. Will this be an issue?
   - ☐ Yes? What is the approximate distance? _____
   - ☐ No?
   - ☐ Non-Applicable. Dry Freight.

12. With new and retro fit applications, the mechanical door lock has to be engaged while the vehicle is in motion. Vibration damage will occur to the CommandLIFT with the door not locked and the vehicle in motion. This could have warranty implications. Does your application have a door lock?
   - ☐ Yes?
   - ☐ No? Consult with Whiting

13. There is a door height limit to the CommandLIFT-6. That limit being 108 inches. Beyond this limit, the lower panel will not clear the header when the door is fully opened. Is the door height greater than or equal to 108 inches in your application?
   - ☐ Yes? Consult with Whiting
   - ☐ No?

Inquiry Form

14. The CommandLIFT systems cannot be used in conjunction with the door hold-open devices such as Whiting's 1184HD and the 7181HBR door brackets. Also, the 20560COM balancer spring adjuster cannot be used in conjunction with a CommandLIFT system neither. Does your door have either of these systems? See pictures below.

☐ Yes? Consult with Whiting

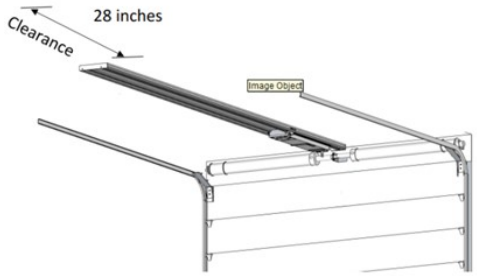
☐ No?

20560COM 7181HBR 1184HD

Information Notes: In general retro fit applications, the door has to be amendable to the CommandLIFT. Smooth operations with no binding, no broken or waterlogged panels, hinges, rollers, and have a properly balanced spring with no spring damage.

CommandLIFT is designed to operate with all Whiting roll-up doors equipped with a Whiting two spring balancer (2376 or 7176), installed and balanced to Whiting's specification. Fabrication by the fitter will be required if a single -spring balancer is used to mount the track to the header. The CommandLIFT track is 143 inches long. The track can be cut to a given limit in short cargo applications. The limit being the door height plus 36 inches. This comes with three warnings:

1. The door opening range will be limited with the shorter track and the lower panel will hang below the lower edge of the header.
2. Access to the balancer spring will be hindered.
3. If the motor unit has to be removed for any servicing, the whole track will have to be unfastened from the ceiling to facilitate access to the motor unit. Where possible, keep a clearance of 28 inches behind the track to allow the motor unit to be removed. See picture.

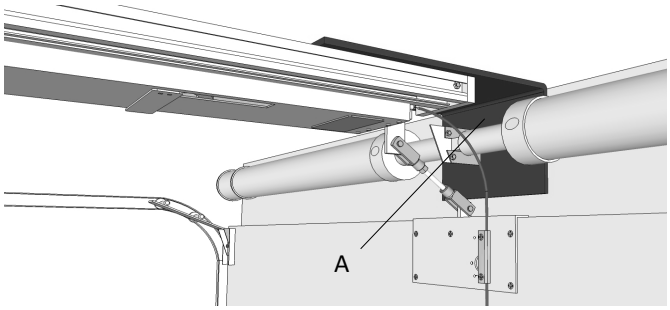


Inquiry Form

The battery cable harnesses have a diameter of 0.35 inches while the output harness cable has a diameter of 0.38 inches. The output harness comes in two pieces that will get spliced together.
These metrics will be relevant if the cables are to be routed through any type of conduit through bulkheads or frames, etc.

In general, retro fits on insulated applications are challenging. The CommandLIFT track cannot be simply bolted, riveted or glued to the ceiling liner. It has to be anchored to something with structural integrity like roof bows, furring strips or some type of mounting brackets. Fabrication by the fitter will be required in these retro fit applications which could be labor intensive. The bow pitch will have to be determined from the trailer or truck body manufacturer. These points will have to be considered before any purchasing on insulated retro fits.

In the special cases of bigger, heavier door applications where the extreme door-end of the CommandLIFT track is not supported by a roof bow, a reinforcement structure (A) may be necessary. This will have to be fabricated by the fitter. See picture. The door height limit is 108 inches. Beyond this limit, the door will not clear the header when fully opened.



It is recommended that the CommandLIFT system be installed by an experienced technician with rollup door experience.

Below is a chart depicting the three part numbers for the door types used. This is one of the three numbers you'll be entering at the top of this form.

Door Type	Part Number
Dry Freight:	17660-1
Insulated:	17661-1
Hinge Truss II:	17662-1

Customer Signature _____ Date _____

Whiting Representative _____ Date _____

Quality Products for the Transportation Industry

United States

(716) 542-5427

Canada

(905) 333-6745