

Master Owner's Manual

Beds



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User notice

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Master Owner's Manual

The Master Owner's Manual is intended to provide information on Lippert Components Inc.'s most widely-used products. Products described in the Master Owner's Manual may not be on every trailer. The trailer may also have products not included in this manual. All manual information is subject to change without notice. Revised editions will be available for free download at lci1.com/support. Manual information is considered factual until made obsolete by a revised version. Manual information may be distributed as a complete document only, unless Lippert Components provides explicit consent to distribute individual parts.

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SCHWINTEK BUNK LIFT

POWER AND MOTION

System Information

The Schwintek Bunk Lift System is designed to raise and lower an unoccupied and unloaded bunk bed integrated into a dinette/bed setting in a stationary recreational vehicle.

Bed is not to be occupied, loaded or used for cargo storage in any way while being raised or lowered. The dinette/bed setting is not to be occupied during raising or lowering the bunk bed.

Periodic light lubrication (multi-purpose lubricant) of the gear racks may be necessary if gear chatter sounds occur due to normal wear.

Operation

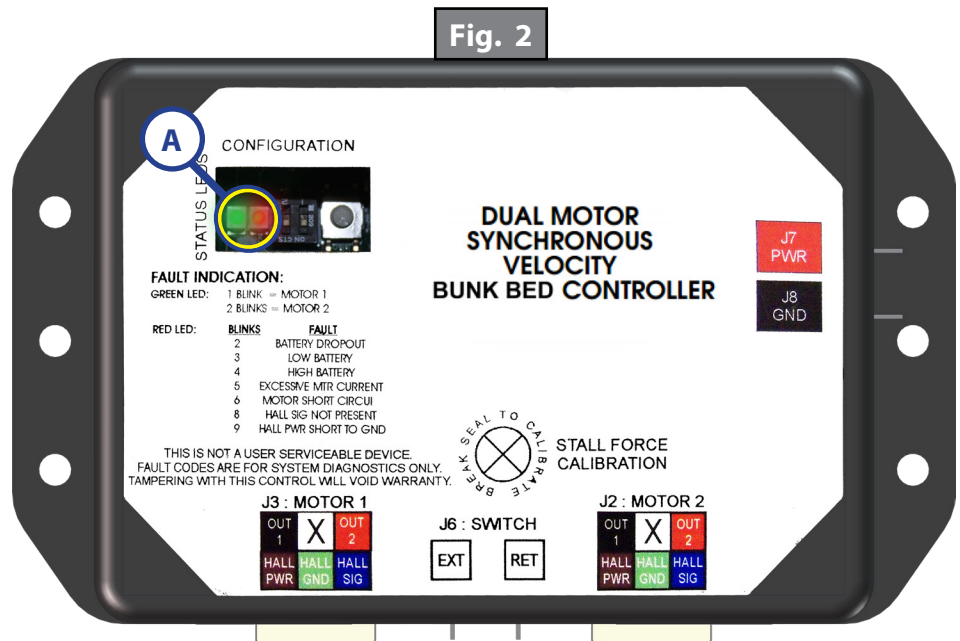
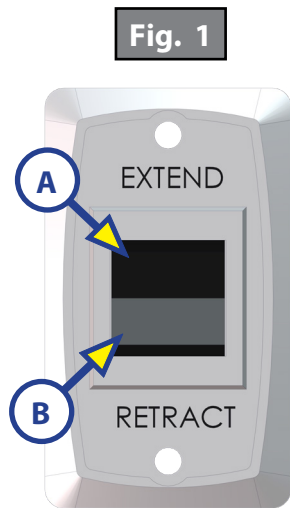
1. Press and hold the "RETRACT" button (Fig. 1B) until the Bunk Lift lowers into the rested position. Continue to press the switch for 2-3 seconds after the Bunk Lift has stopped moving.
2. Press and hold the "EXTEND" button (Fig. 1A) until the Bunk Lift raises up to the ceiling. Continue to press the switch for 2-3 seconds after the Bunk Lift has stopped moving.

NOTE: Holding the switch for 2-3 seconds after the mechanism stops maintains motor synchronization.

Programming

Homing the Bunk Lift

1. Using the wall switch, press the "EXTEND" button (Fig. 1A).
2. Quickly verify that both motors are moving in the same direction.
3. If not stop and see Troubleshooting on Page 4.
4. Allow the Bunk Lift to power all of the way up and continue pressing the "EXTEND" button (Fig. 1A) until both sides have completely stopped and the motors turn off by themselves.
5. Release the "EXTEND" wall switch and check the red and green LED lights on the controller and confirm that both are on (Fig. 2A). They will both turn off automatically after one minute.
6. If only one of the LEDs is on, go back to the wall switch, press the "RETRACT" button (Fig. 1B) for one second and release and repeat Step 1 until both LEDs are on (Fig. 2A).



Troubleshooting

Electronic Manual Override

NOTE: See (Fig. 3) for locations of the mode button and LEDs.

- 1. Press the mode button on the controller six times and hold on the seventh for five seconds to enter electronic manual override mode.
- 2. Use the extend/retract switch to move both motors in or out.

NOTE: Over-current and short circuit detection are still enabled. Electronic manual override provides 12V directly to both motors.

- 3. To exit the mode, push and hold the mode button until the LEDs begin to blink simultaneously. Exiting the override mode resets the motor positions.

Extend and Retract Switch Connections

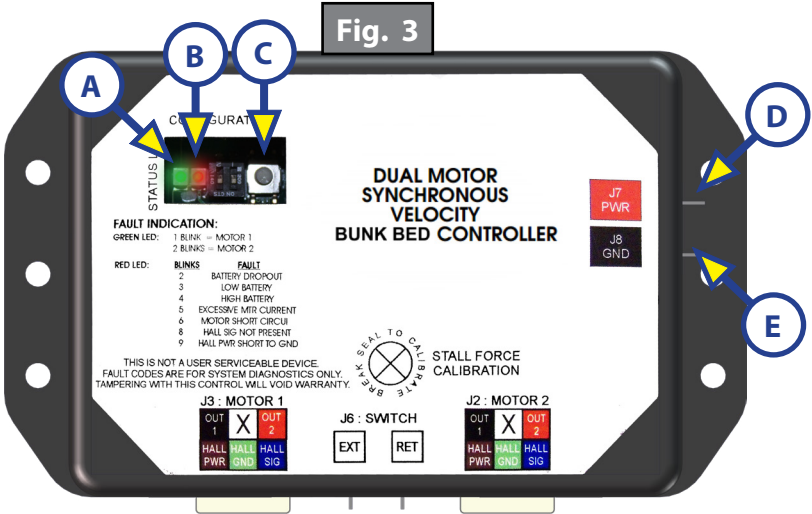
Common connection on controller goes to common connection on extend and retract switch. Extend and retract connections on the controller go to the extend and retract terminals on the switch. Switch is powered by the OEM supplied 12V DC power source.

Power, Ground Connections at Controller

Power and ground are supplied to the controller through the spade terminals located on the right hand side of the controller (Fig. 3D, 3E). 12V DC is recommended. A 10 ga wire is the minimum size recommended. 30 Amp resettable or blade is required.

Error Codes

During operation when an error occurs the board will use the LEDs to indicate where the problem exists. For motor-specific faults the green LED (Fig. 3A) will blink 1 time for motor 1, and 2 times for motor 2. The red LED (Fig. 3B) will blink from 2 to 9 times depending on the error code.



Error Code	Name	Description
2	Battery Drop Out	Battery capacity low enough to drop below 8 volts while running.
3	Low Battery	Voltage below 8 volts at start of cycle.
4	High Battery	Voltage greater than 18 volts.
5	Excessive Motor Current	High amperage, also indicated by 1 side of bunk continually stalling.
6	Motor Short Circuit	Motor or wiring to motor has shorted out.
8	Hall Sig Not Present	Encoder is not providing a signal, which is usually a wiring problem.
9	Hall Power Short To Ground	Power to encoder has been shorted to ground, which is usually a wiring problem.
When an error code is present, the board needs to be reset. Energizing the extend/retract switch resets the board. Energize the extend/retract switch again for normal operation.		

Low Voltage

The Schwintek Bunk Lift Controller is capable of operating the bunk with as little as 8 volts. But at these lower voltages the amperage requirement is greater. Check voltage at the controller (Fig. 3D and 3E). If voltage is lower than 11 volts, it is recommended that the battery be placed on a charger until it is fully charged. It may be possible to "jump" the RV's battery temporarily to operate the system. Consult the RV manufacturer's owners manual on the procedure for "jumping" or charging the battery.

NOTE: Never "jump" or charge the battery from the power connections on the Schwintek Bunk Lift Controller. Always do this at the battery.

Obstructions

Check inside the RV for any obstructions near the bunk. Also, check for smaller objects that may be wedged in the gear rack or in the bearing block assembly. Remove obstructions before proceeding.

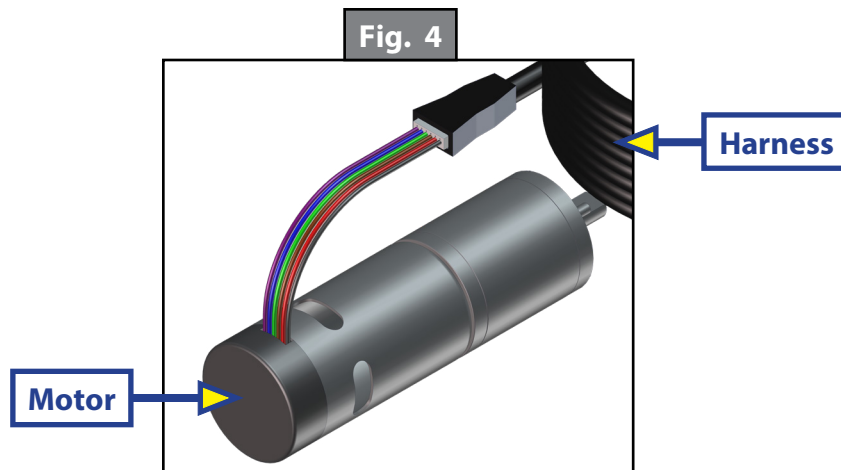
Checking Fuses

The Schwintek Bunk Lift requires a minimum of a 30-amp fuse. Check the 12-volt fuse box for blown fuses, and replace any if necessary. Consult the RV manufacturer's documentation for the location of the 12-volt fuse box, and the location of the Schwintek Bunk Lift Controller's fuse. If the fuse blows immediately upon replacement, there is a problem with the wiring to the Schwintek Bunk Lift Controller. Have qualified service personnel check and repair.

Motors and Harnesses

1. Check for proper connections between the motors and harnesses (Fig. 4).
2. Visually inspect the exposed harnesses to ensure they are not pinched or damaged.

NOTE: Ribs on motor connector line up with notch inside of male connector on wiring harness. Color codes on wires also match (black to black, red to red, etc.)



Resynchronizing the Slide-Out Motors

1. Fully raise the bunk lift using the switch. Keep the switch engaged until the motors shut down on their own.
2. Lower the bunk lift 1-2 inches.
3. Repeat steps 1 and 2 until both motors shut down at the same time. In many cases, two or three repetitions are necessary to re-sync the system.
4. Fully raise and then lower the bunk lift. Again, always let the motors shut down on their own before releasing the switch.

SLIMRACK® BED LIFT

POWER AND MOTION

System Information

The SlimRack® Bed Lift Platform is a rack and pinion design operated by a 12V DC gear motor. The Bed Lift Platform was engineered to provide years of trouble-free service. Changes to weight, stroke, rail position, controller, power supply, etc. all have an effect on the performance of the system.

Features

- Rocker switch that mounts to the wall allows bed movement and provides end user feedback.
- The control box has programmable stops that can detect faults and control the bed lift movement.
- Horizontal channel with 12V DC gear motor and gear rack arms that mounts onto the top and bottom of the bed platform.
- Provided wiring harnesses to connect the touch pad, motors and control box.

Additional information about this product can be obtained from lci1.com/support or by downloading the free myLClapp. The app is available on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users. iTunes®, iPhone® and iPad® are registered trademarks of Apple Inc. Google Play™ and Android™ are trademarks of Google Inc.

Operation

⚠ WARNING

Always make sure that the SlimRack Bed Lift path is clear of people and objects before and during operation of the SlimRack Bed Lift. Always keep away from the slide rails when the bed is being operated. The gear assembly may pinch or catch on loose clothing causing personal injury.

Prior to Operating the SlimRack Bed Lift System

1. The engine or generator must be running or the unit must be plugged into shore power to ensure ample voltage is being supplied to the SlimRack Bed Lift control box. If installed in a non-motorized unit, make sure batteries are charged to 12V or greater.
2. Transmission must be in park or neutral (if applicable).
3. Parking brake must be set (if applicable).
4. Unit must be level.

Raising the Bed

1. Press and hold the "UP" button on the wall rocker switch (Fig. 1A). There will be a slight delay before the bed will begin to move. This is normal.
2. Release the button when the bed is fully raised (Fig. 2) and stops moving.

Lowering the Bed

1. Press and hold the "DOWN" button on the wall rocker switch (Fig. 1B). There will be a slight delay before the bed will begin to move, which is normal.
2. Release the button when the bed is fully lowered (Fig. 3) and stops moving.

NOTE: When lowering the SlimRack Bed Lift, make sure the garage area is clear of people and objects.

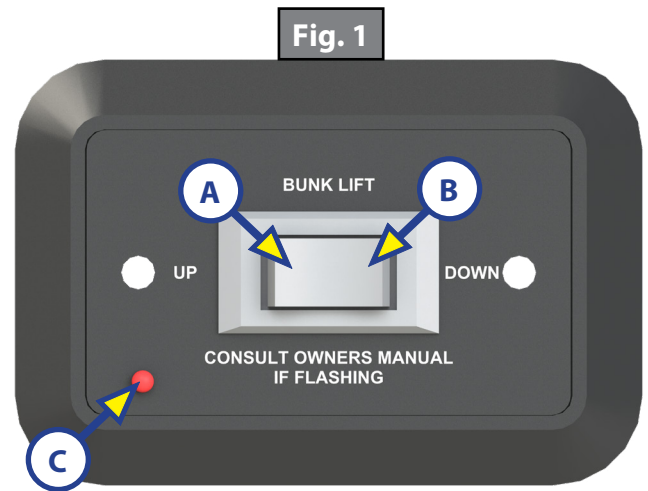


Fig. 2

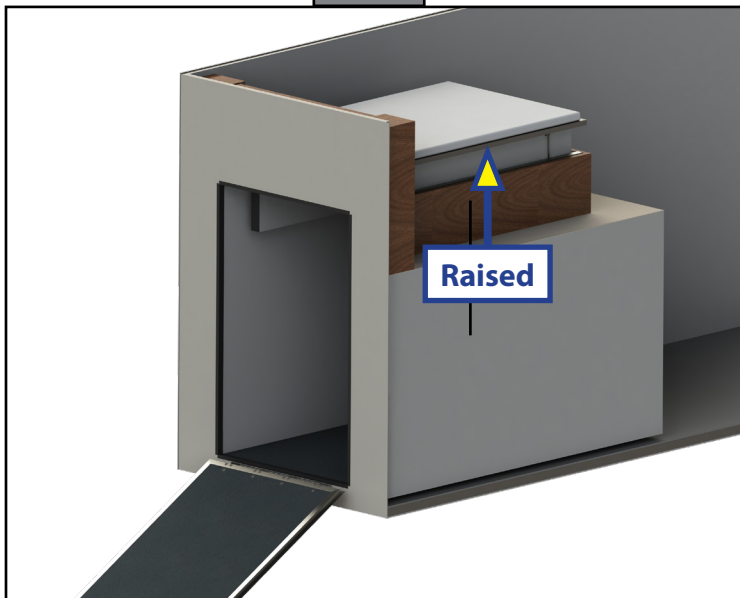
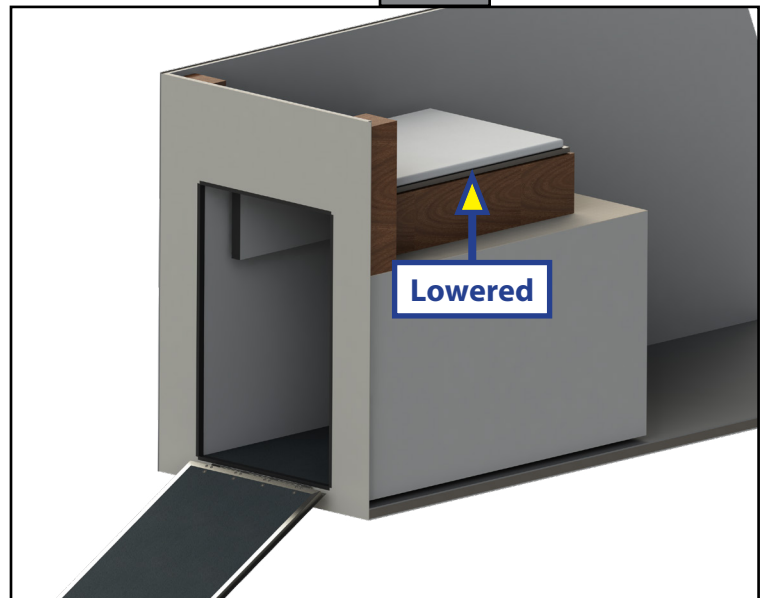
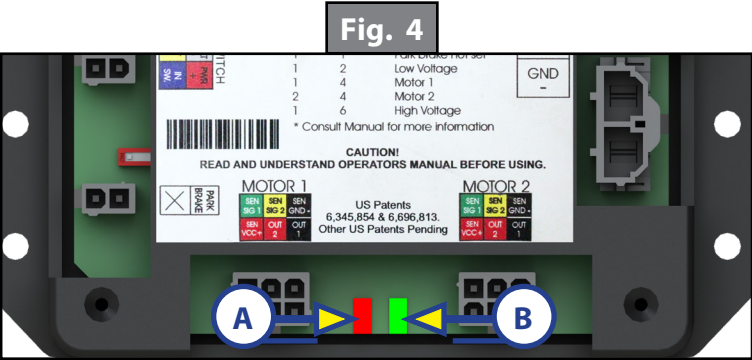


Fig. 3



Troubleshooting

- The control box has the ability to detect and display several faults. When a fault is detected, the room movement may stop and two different LEDs on the control box will flash in a pattern.
- The Fault Code LED (Fig. 1C) on the wall rocker switch will flash RED a number of times corresponding to the number of red flashes on the control box (Fig. 4A). Refer to the troubleshooting chart below to best determine what caused the fault.
 - The Motor LED (Fig. 4B) on the control box will flash GREEN a number of times corresponding to which motor had the associated fault. For example: Two GREEN flashes and four RED flashes means there is a motor fault on Motor 2.
- NOTE:** For major faults, the control will automatically enter "Emergency Jog" mode when motor movement is not detected by the control box in either direction during bed actuation. When in "Emergency Jog" mode, the control will jog both motors in the direction the rocker switch is pressed ("UP" or "DOWN"). The rocker switch may need to be pressed multiple times to fully raise or lower the bed. Take the unit to an OEM-authorized dealer for service.
- NOTE:** The control box will return to normal operation mode after five minutes of inactivity or by cycling power to the control box.



Fault Code Flashes		Fault Type	Description	Why?	What Should Be Done?
Green Flash	Red Flash				
1	1	Minor	Parking Brake Not Set	Parking brake not set (if applicable).	Set parking brake (if applicable).
				Ground signal lost at park brake receptacle at control box.	Check for continuity to ground on wire plugged into park brake receptacle at control box.
1	2	Minor	Low Voltage	Incoming voltage to control is below 12V DC. The room will NOT move if the voltage is 10.5V DC or below.	Start vehicle or generator or make sure coach is plugged into shore power. Check 2-pin power connector at control box at BATT + and GND. Consult manufacturer of unit charging system for troubleshooting assistance.
1	4	Major	Motor 1 Fault	Bad wire connection Bad motor	Take unit to an OEM-authorized dealer for service.
2	4	Major	Motor 2 Fault	Bad wire connection Bad motor	
1	6	Minor	High Voltage	Supply voltage to control box is 17V DC or greater.	Consult manufacturer of unit charging system for troubleshooting assistance.

Override Mode

In the event of component failure or loss of system power, the SlimRack Bed Lift can be manually overridden and lowered for travel.

NOTE: At any time during the override procedure, the unit will exit this mode if the bed has not been moved for five minutes.

NOTE: For major faults, the control will automatically enter "Emergency Jog" mode when motor movement is not detected by the control box in either direction during bed actuation. When in "Emergency Jog" mode, the control will jog both motors in the direction the rocker switch is pressed ("UP" or "DOWN"). The rocker switch may need to be pressed multiple times to fully raise or lower the bed. Take the unit to an OEM-authorized dealer for service.

NOTE: The control box will return to normal operation mode after five minutes of inactivity or by cycling power to the control box.

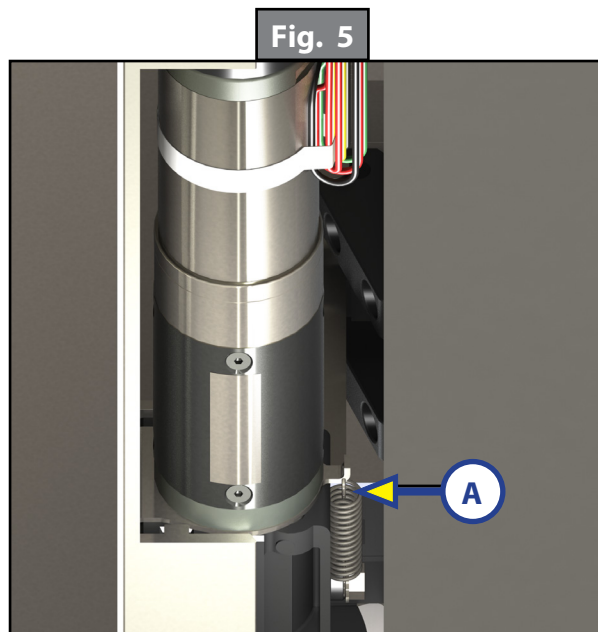
Manual Emergency Lowering Mode

⚠ WARNING

Before removing the motors make sure the SlimRack Bed Lift platform is supported with a T-block and a floor jack. Failure to act in accordance with the following may result in death or serious personal injury.

In the event that power is lost to the SlimRack Bed Lift motors, the bed can be manually lowered by following these steps:

1. Support the bed lift platform with a T-block and a floor jack in the inside middle of the bed platform.
2. Gain access to the motors from the bottom sides of the bed lift platform to the horizontal channel assembly. The motor in the channel is currently located toward the exit end of the trailer.
3. Remove the end of the retaining spring from the motor spring clip (Fig. 5A).
4. Unplug the motor from the harness and remove the motor by lifting it up and out.
5. Repeat steps 1-4 for the opposite side.
6. Carefully lower the bed lift platform with the floor jack and T-block until the bed lift is in the lowered position.



7. Secure the bed in place by re-installing the motors. Make sure the end of the retaining spring is re-hooked to the motor spring clip (Fig. 5A).
8. Have the SlimRack Bed Lift serviced by the OEM-authorized dealer as soon as possible. Do not operate bed until service is complete as damage to the bed may result.

Preventative Maintenance

- The SlimRack Bed Lift system has been designed to require very little maintenance. To ensure the long life of the SlimRack Bed Lift system, read and follow these few simple procedures:
- When the bed is raised, visually inspect the slide rail assemblies. Check for excess buildup of dirt or other foreign material. Remove any debris that may be present.
- If the system squeaks or makes any noises, blow out any debris from the gear rack arms and apply a dry lubricant to prevent and/or stop squeaking.

EUROLOFT™ BED LIFT

POWER AND MOTION

System Information

The EuroLoft™ Bed Lift distributed by Lippert Components, utilizes a unique nylon strap-based system, adaptable to a broad range of RV and heavy truck applications including cabs, living rooms, slide-out rooms and master bedrooms. The straps retract into the bed base, concealing the lifting system in the retracted position, permitting OEMs more floor plan design freedom. The nearly silent EuroLoft system is operated by a single motor that controls four support mounts to raise and lower the bed at 2.3 inches per second. The 800-pound capacity system can be customized in both size and configuration to maximize space in any motorhome, towable RV or truck cab floor plan design. The system can even “bend” to conform to wall curvatures found in some motorhome cabs.

Safety Information

WARNING

Failure to act in accordance with the following instructions may result in death, serious injury or property damage.

CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution during assembly.

Important Safety Information

- Safety devices shall not be tampered with for any reason.
- It is strictly forbidden to be on the bed lifting system while it is being operated.
- Do not interfere with the bed lifting system while operated, neither with any objects or with hands.
- Before starting the vehicle engine and driving, always make sure the bed lifting system is in its highest position and the safety belts are fastened (excluding garage bed).
- Do not operate the system improperly (e.g. with people on it).
- The bed lifting system shall only be used by adults and responsible staff.
- It is forbidden to use the bed lifting system while the vehicle is running.
- Do not move the bed lifting system if people or animals or items are around, under or on it.
- The bed lifting system must never be used while the vehicle is running.
- It is forbidden to start the bed lift system manually with disconnected wires from motor unit to control unit.
- Should the mechanism not work, do not use the bed and ask for assistance at the next service center.

NOTE: Always install the bed lifting system taking into account the system maximum load. THE BED UNIT, AS A WHOLE-INCLUDING BED LIFTING SYSTEM, MATTRESS, PILLOW, BLANKETS, ETC., MUST NOT WEIGH MORE THAN 132 lbs.

NOTE: The bed lifting system can bear a total maximum weight of 800 lbs.

Operation

⚠ WARNING

Always make sure that the EuroLoft Bed Lift path is clear of people, pets and objects before and during operation. Always keep away from the slide rails when the bed is being operated.

Prior to Operating the EuroLoft Bed Lift System

⚠ WARNING

The bed lifting system must never be used while the vehicle is in motion.

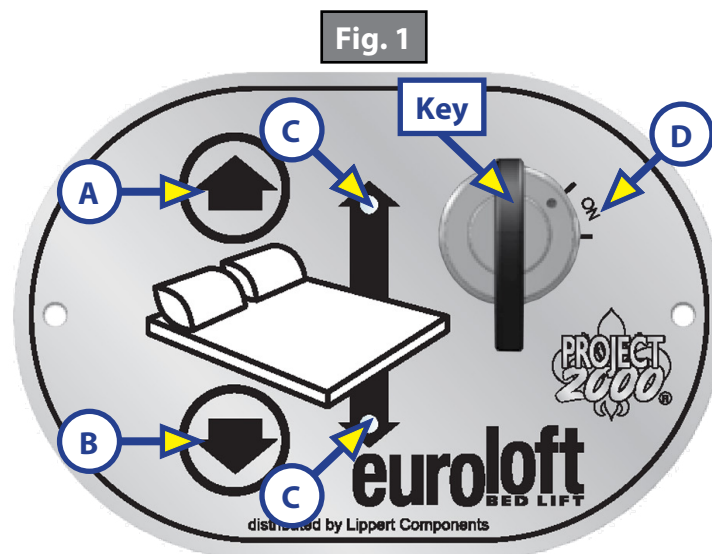
1. Make sure the vehicle is parked, secured and stabilized before starting bed lift operations.
2. Set the parking brake, if applicable.

Lowering the Bed Lift

1. Make sure the safety belts are unfastened.
2. Turn the key switch to the ON position (Fig. 1D) located on the key pad.
3. Press and hold the DOWN arrow-shaped button (Fig. 1B) on the key pad. A green LED light (Fig. 1C) on the key pad will turn on in the direction the bed is moving. The bed will keep moving until it reaches the pre-set stop position.

NOTE: The bed will stop moving when the button is released. Continue to press and hold the button until the stop position has been reached.

4. Release the DOWN arrow-shaped button.
5. Turn the key to the OFF position.



Raising the Bed Lift

1. Turn the key switch to the ON position (Fig. 1D) located on the key pad.
2. Press and hold the UP arrow-shaped switch (Fig. 1A) on the key pad. A green LED light (Fig. 1C) on the key pad will turn on in the direction the bed is moving. The bed lift will keep moving until it reaches the pre-set stop position.

NOTE: The bed will stop moving when the button is released. Continue to press and hold the button until the stop position has been reached.

3. Release the UP arrow-shaped button.
4. Make sure safety belts are fastened.
5. Turn the key to the OFF position.

Troubleshooting

⚠ WARNING

Bed lifting systems may cause death, serious injury or property damage if improperly used. When operating the bed lifting system, clear operation area of obstructions. Do not reach into the bed lifting system components while the system is being operated.

Advanced Control System (ACS) Stop Setting Procedure

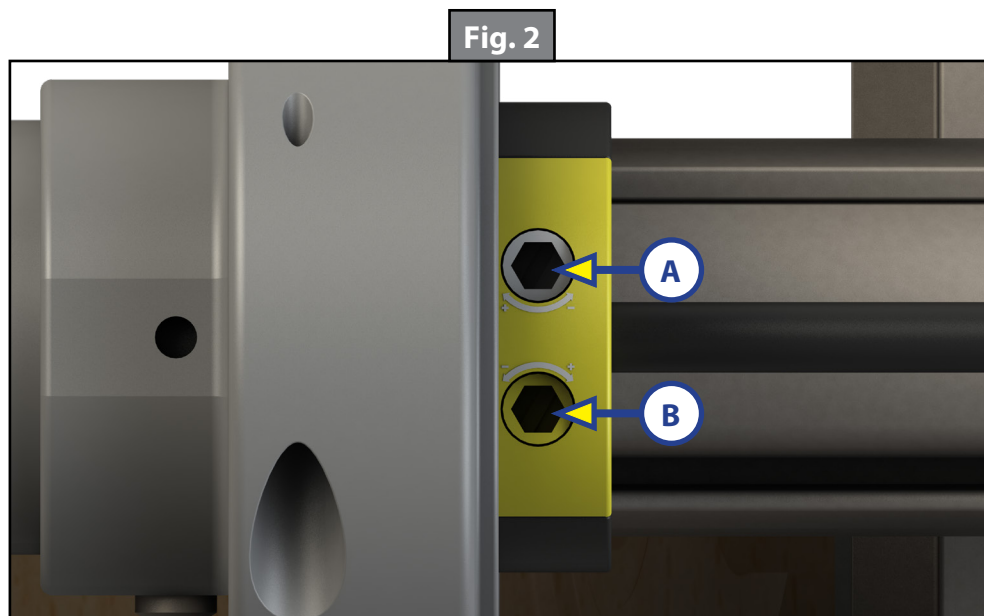
The bed lift pre-set stops for the Up and Down positions are determined at the OEM Installation. If for any reason the bed lift's up or down position needs adjusting, do the following procedures:

Setting the UP Position

1. Make sure the safety belts are unfastened.
2. Turn the key switch to the ON position (Fig. 1D) located on the key pad.
3. Press and hold the UP arrow-shaped switch (Fig. 1A) on the key pad. A green LED light (Fig. 1C) on the key pad will turn on in the direction the bed is moving. The bed will keep moving until you reach the pre-set stop position.
4. If the bed lift stops too low, turn the white screw (Fig. 2A) in the ACS module counterclockwise. This will allow the bed lift to move higher. If the bed lift stops too high, turn the white screw (Fig. 2A) clockwise until the bed lift stops lower.

NOTE: One full rotation of the screw is approximately one inch of movement up or down.

5. Press the UP arrow (Fig. 1A) and DOWN arrow (Fig. 1B) to run the bed lift system after each adjustment of the screw. If necessary, repeat this procedure until desired stop location is obtained.



Setting the DOWN Position

1. Make sure the safety belts are unfastened.
2. Turn the key switch to the ON position (Fig. 1D) located on the key pad.
3. Press and hold the DOWN arrow-shaped switch (Fig. 1B) on the key pad. A green LED light (Fig. 1C) on the key pad will turn on in the direction the bed is moving. The bed will keep moving until you reach the pre-set stop position.
4. If the bed lift stops too high, turn the yellow screw (Fig. 2B) counterclockwise. This will allow the bed lift to move lower. If the bed lift stops too low, turn the yellow screw (Fig. 2B) clockwise until the bed lift stops higher.

NOTE: One full rotation of the screw is approximately one inch of movement up or down.

5. Press the UP arrow (Fig. 1A) and DOWN arrow (Fig. 1B) to run the bed lift system after each adjustment of the screw. If necessary, repeat this procedure until desired stop location is obtained.

Manual Override

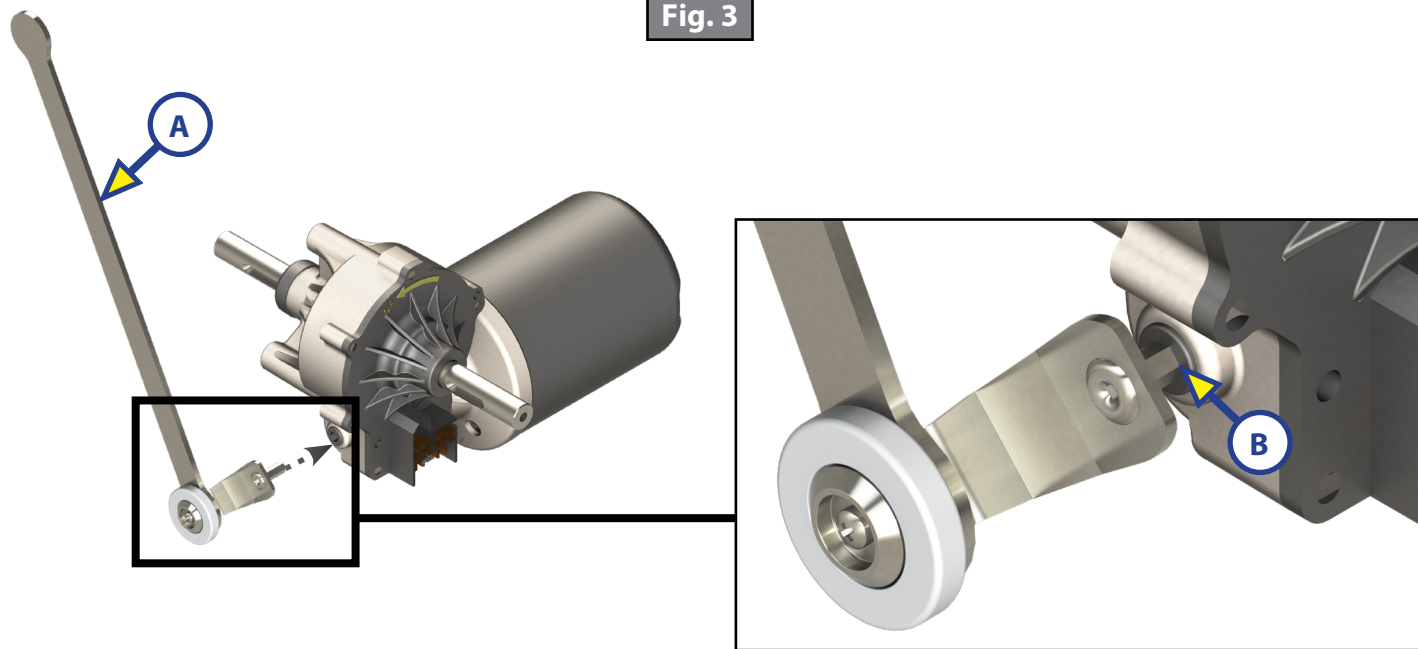
⚠ WARNING

Always disconnect from power source before performing any operation on the bed lifting system.

To raise or lower the bed lift In case of emergency, it is possible to operate the system manually.

1. Insert the provided crank device (Fig. 3A) into the motor (Fig. 3B).
2. Turn clockwise to raise or counterclockwise to lower the bed.
3. Have the bed lift serviced by an OEM-authorized dealer as soon as possible. Do not operate the bed lift until service is complete, as damage to the bed lift system may result.

Fig. 3



Maintenance

The EuroLoft Bed Lift system has been designed to require very little maintenance. To ensure the long life of your EuroLoft Bed Lift system, read and follow these few simple procedures:

- When the bed is raised, visually inspect the slide rail assemblies. Check for excess buildup of dirt or other foreign material. Remove any debris that may be present.
- If the system squeaks or makes any noises, blow out any debris from the drive shaft and apply a dry lubricant to prevent and/or stop squeaking.

HAPPIJAC® BED LIFT

POWER AND MOTION

Introduction

The HappiJac® Bed Lift System is a chain-driven two trolley lift system operated by a 12V DC motor, which can be installed in most toy hauler trailers. It can accommodate one or two beds, or an alternate of a bed and a dinette/sofa configuration.

This product is designed and intended to be used only as a bed lift mechanism. Any other use of this system will void any and all written or expressed warranties.

NOTE: These ratings are for the lifting mechanism only. HappiJac does not manufacture and therefore does not rate any attachments, such as bed platforms, sofas, etc. Load ratings for these items would be the responsibility of the manufacturer.

Voltage = 12V DC

Nominal Current Draw = 8 amps (1 bed going up)

12 amps (2 beds or 1 bed and 1 sofa/dinette configuration going up)

Load Limit = 450 pounds dynamic (moving) load

500 pounds static (stationary) load

Safety

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

WARNING

The "WARNING" symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

WARNING

Failure to follow instructions provided in this manual may result in death, serious personal injury and/or severe product and property damage, including voiding of the component warranty.

CAUTION

The "CAUTION" symbol above is a sign that a procedure has a safety risk involved that may cause personal injury and/or product damage, including voiding of warranty, if not performed safely and in accordance with the safety procedures stated herein.

CAUTION

Always wear eye protection when performing service, maintenance procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

Product Component Descriptions

Frame

The lift system frame has four vertical c-channel rails (Fig. 1A). Each c-channel rail encases a chain drive and two trolleys (Fig. 2) with attached brackets that travel between upper and lower limit switches.

Fig. 1

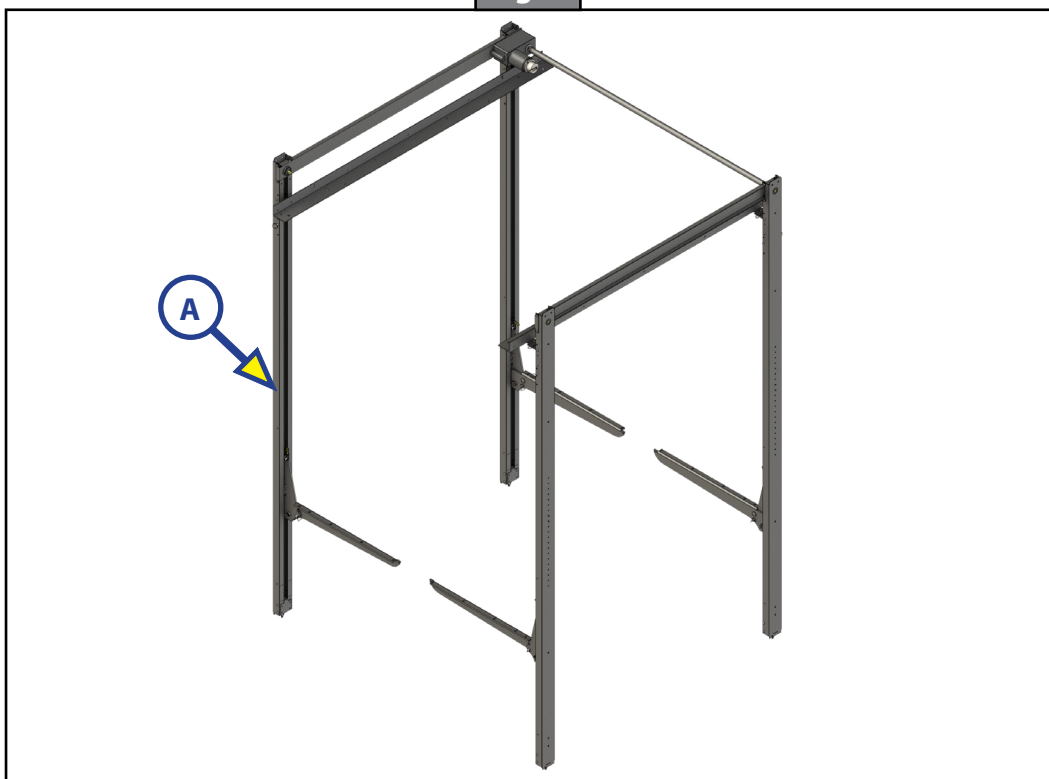
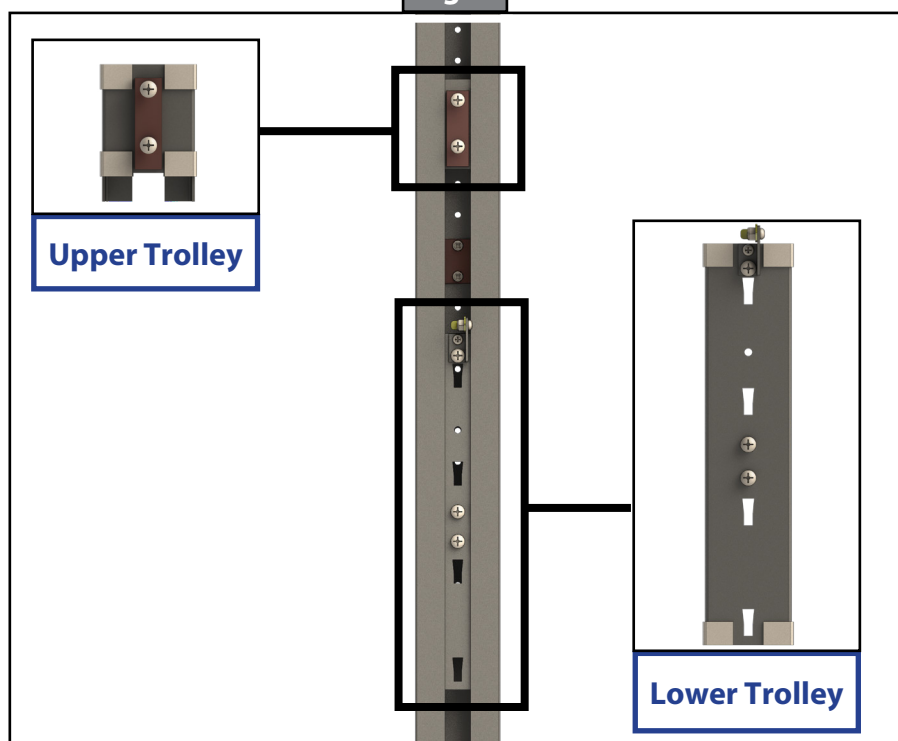


Fig. 2



Brackets

The HappiJac Bedlift system comes installed with screw-in tab brackets (Fig. 3) affixed to the upper trolleys. The lower trolleys can be fitted with hooked tab brackets (Fig. 4) for a lower bed platform, or hooked brackets with moveable arms (Fig. 5) that can accommodate a sofa/dinette configuration.

Fig. 3



Fig. 4



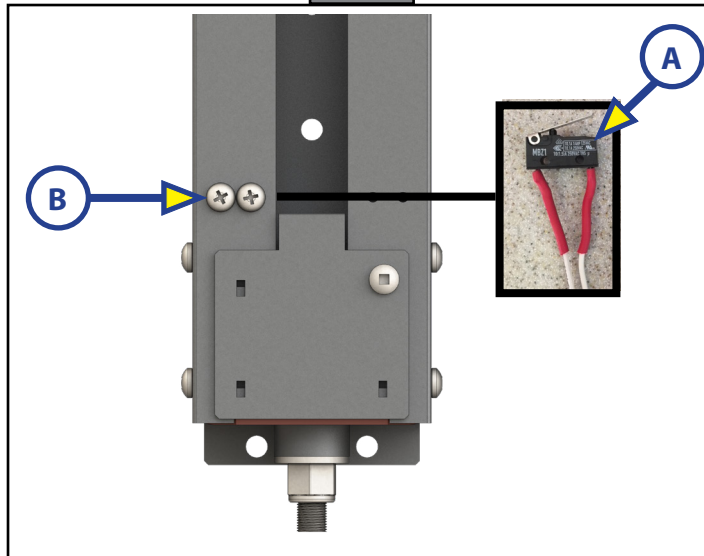
Fig. 5



Limit Switches

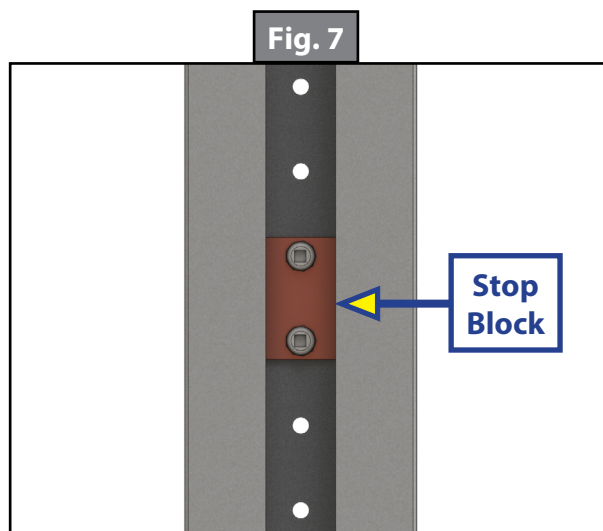
Upper and lower limit switches (Fig. 6A) are located behind the C-channel and secured by two small screws (Fig. 5B). The limit switches are used to stop the bed(s) at their maximum travel range. However, the bed(s) can be stopped and used at any desired height. After the control switch is released, the electric brake is set — securing the bed(s) in the current position.

Fig. 6



Bunk Stop Settings

The upper bunk trolley is free-floating and is carried by the lower trolley. The height at which this trolley stops is set by "stop blocks" which sit inside the trolley rails. To change this stop, remove the two screws holding the bed in place, and move it to the desired height (Fig. 7). Repeat for all four corners.



Operating Precautions

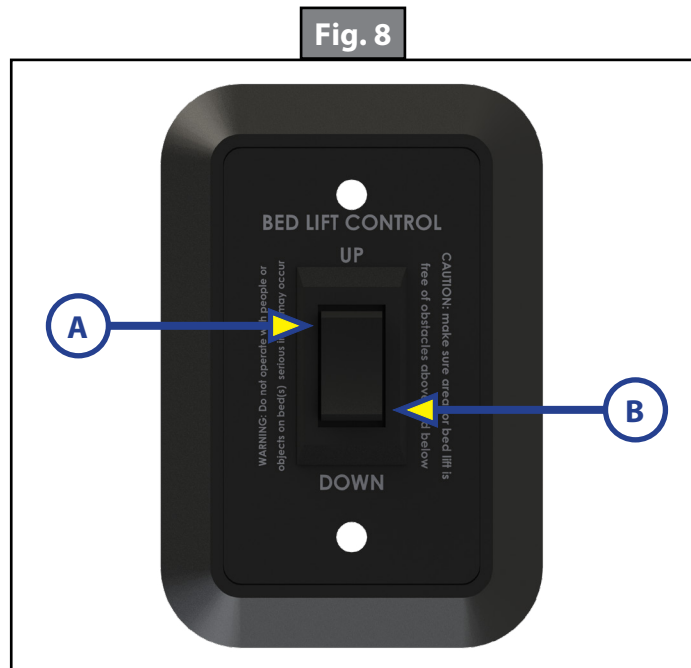
- **CHECK** to make sure the attaching pins are securely fastened to all four corners of the bed platform before towing the trailer, or using the bed(s).
- **ALWAYS** raise the bed(s) to the full up position when the trailer is being towed to avoid damage to the bed lift system as a result of bouncing.
- **ALWAYS** make sure that the areas above, below and adjacent to the bed(s) are free from obstructions before operating the bed(s).
- **ALWAYS** check before operating bed(s) to ensure that there is nothing interfering with the travel of the chain mechanism inside the c-channel.
- **ALWAYS** use care when loading cargo/vehicles in the bed area. This is to avoid damage to the bed mechanism.
- **ALWAYS** properly secure loads in the bed area to avoid damage to the bed mechanism from shifting or falling loads.
- **NEVER** operate the bed(s) with any items other than bedding on the bed platform(s).
- **NEVER** travel with any items other than bedding on the bed(s). Loose items can become projectiles.
- **NEVER** operate the bed(s) when persons or pets are on the bed platform.
- **NEVER** hang from, or hang more than 20 pounds, on the cross-connecting shaft.

Operation

Control Switch

NOTE: Upper and lower trolleys move together, unless one trolley set has been locked into place.

The upper and lower trolleys are operated from the control switch (Fig 8). Pressing and holding the switch in the UP position (Fig. 7A) moves the trolleys upward. Pressing and holding the switch in the DOWN position (Fig. 7B) moves the trolleys downward.



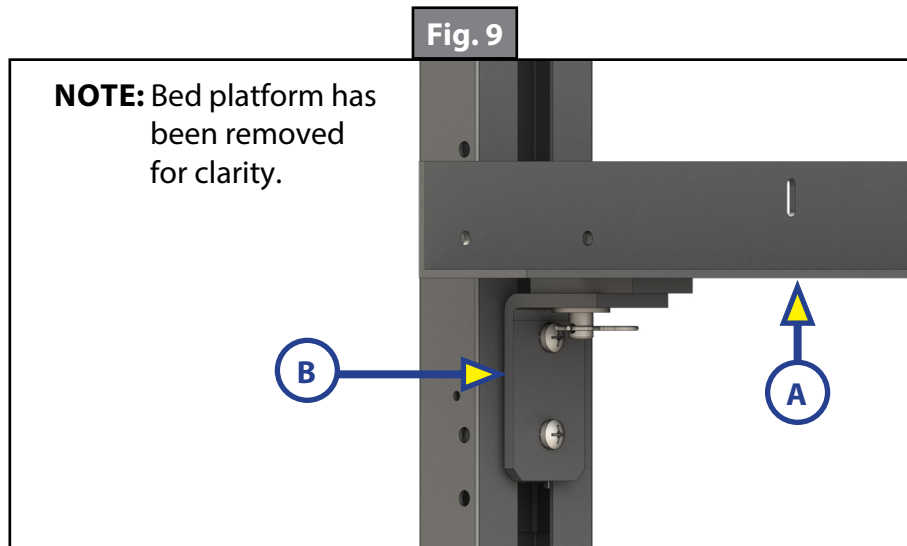
⚠ CAUTION

The upper trolleys can drift down if not properly secured. Make sure that the securing pins are in place after adjusting the upper trolleys.

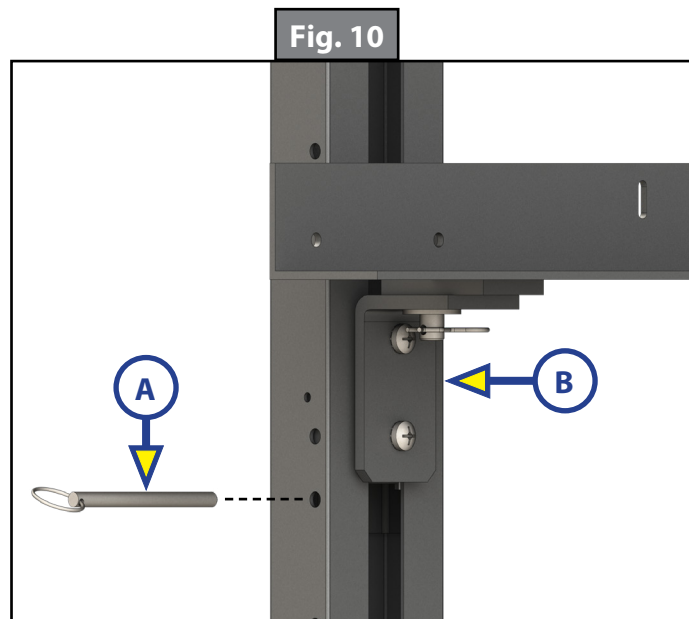
The upper trolleys are only used to support a bed platform. Bed platform rails (Fig. 9A) are secured to the tab brackets (Fig 9B) and the bed platform rests on the platform rails.

Lowering

1. Put the sofa or dinette seats, if equipped, in the up (stowed) position. (See Lower Trolley: Sofa or Dinette Configuration.)



2. Pull the all four pins (Fig. 10A) securing the upper trolleys (Fig. 10B) to the C-channel rails (Fig. 10C).



3. Press the DOWN switch and the upper and lower trolleys will come down together. The upper trolleys will stop at the first stop bunk stop block.
4. The the lower trolleys can continue to lower.
5. Replace the pins securing the top bunk.

Stowing

The HappiJac Bed Lift system has a stow feature for the upper trolley, where the upper limit switches stop the upper trolleys in uppermost position to provide maximum space underneath the bed platform attached to the upper trolleys.

NOTE: Lower trolleys can still move up and down when the upper trolleys are in the stowed position.

1. Press the UP switch to run the upper trolleys until they are stopped by the upper limit switches.
2. Insert all four locking pins (Fig. 10A) through the C-channel rails.
3. Lower bottom bunk to desired operational height.

To Un-stow

1. Retract the beds up to the up and retracted position.
2. Remove all four locking pins (Fig. 10A) from the C-channel rails.
3. Lower both platforms until the top bunk rests on the bunk stops, and the lower platform continues to extend and lower to the desired operational height.

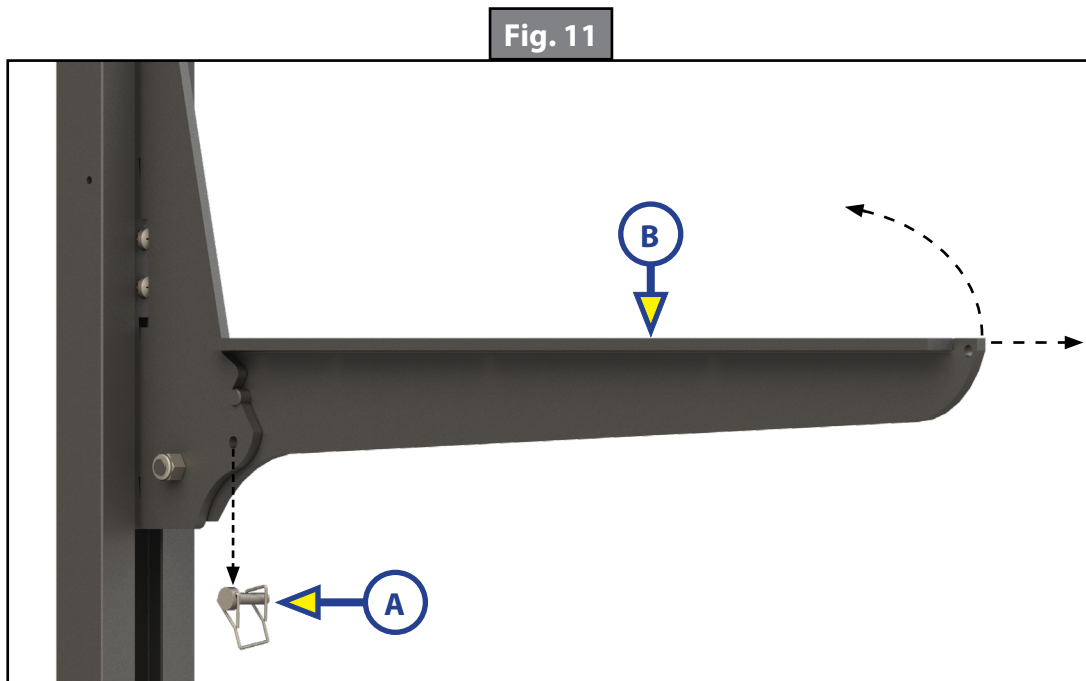
Lower Trolley: Sofa or Dinette Configuration

The lift system can be configured to accommodate a bed on the upper trolley and a sofa or dinette on the lower trolleys. The sofa or dinette will need extra brackets that will lock into the lower trolleys.

NOTE: Bracket shown without sofa or dinette attached. Consult the manufacturer's instructions for bracket installation on sofa or dinette units.

Lowering the Arm

1. Remove the lockpins securing both bracket arms (Fig. 11A).
2. Pull up slightly on the bracket arm (sofa or dinette seat base) (Fig. 11B), then pull out.
3. Gently lower the arm (sofa or dinette seat base).



Lower Trolley Stop Lock

Each of the lower trolleys has a stop lock to keep the lower trolleys from travelling upwards. To engage the stop lock, flip the long end of stop lock lever (Fig. 12A) towards the inside of the C-channel rail. This lever will now catch on the bottom edge of the stop blocks in the C-channel rail, stopping the upward progress.

To disengage: pull the short end (Fig. 13) of the stop lock lever down to flip the long end out of the C-channel rail.

Fig. 12

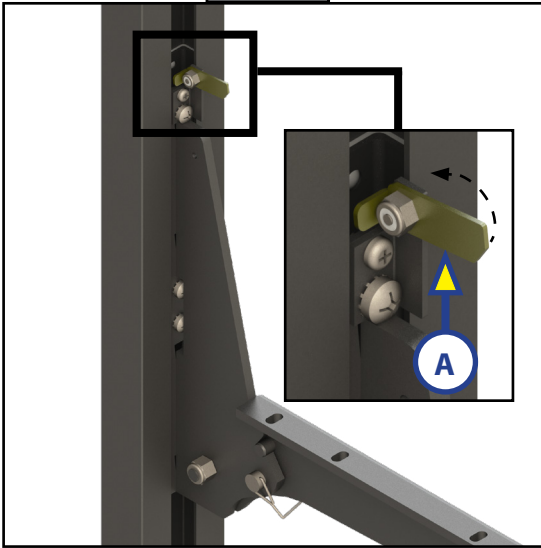
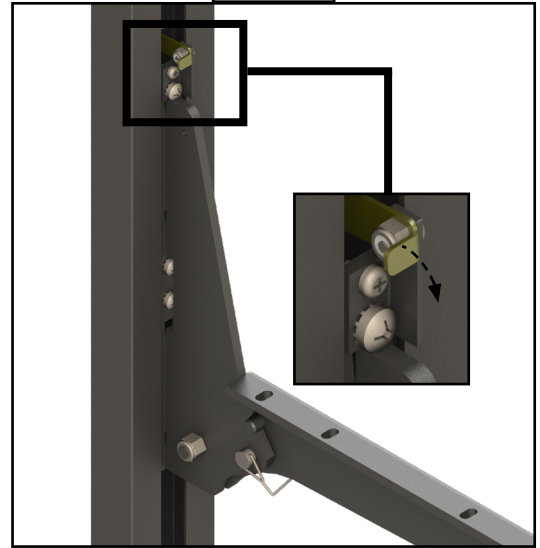


Fig. 13



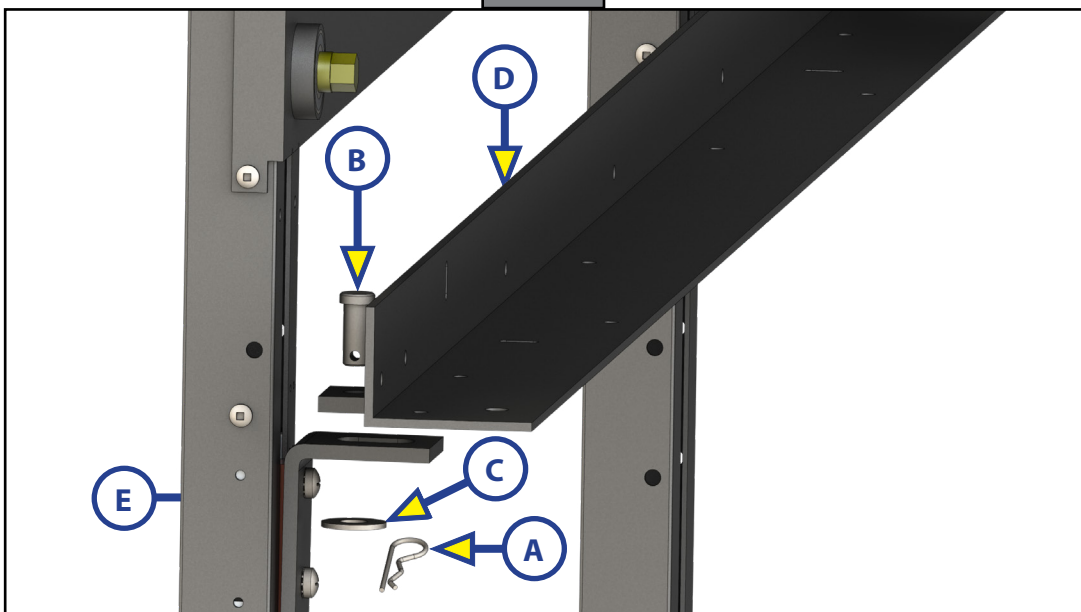
Adjustments

Upper Trolley Tab Rotation

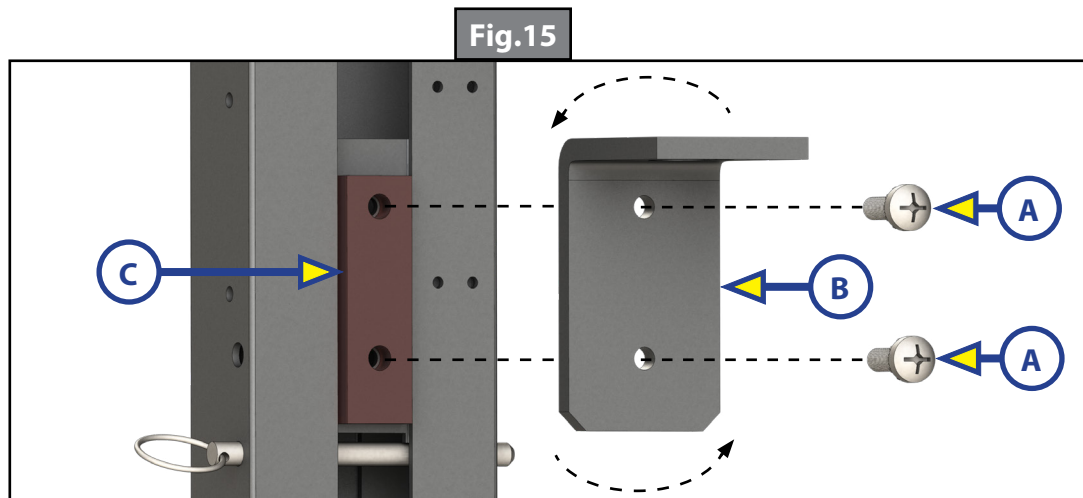
The upper trolley tabs can be rotated to change the amount of space between the bed platform and the upper bunk stop.

1. Remove the bed platform.
2. Remove the adjustment pins and lower the bedlift so there is enough clearance to remove the bedrail rail without hitting the motor
3. Replace the adjustment pin.
4. Remove the hairpin (Fig. 14A) securing the clevis pin (Fig. 14B) and washer (Fig. 14C).
5. Remove the clevis pin holding the bedlift rail (Fig. 14D) to the tab bracket (Fig. 14E).

Fig. 14



6. Repeat for the other side.
7. Lift the bedrail rail off of the tab brackets and set aside.
8. Remove the screws (Fig. 15A) securing the tab bracket (Fig. 15B) to travel block (Fig. 15C), then flip the tab bracket 180 degrees.

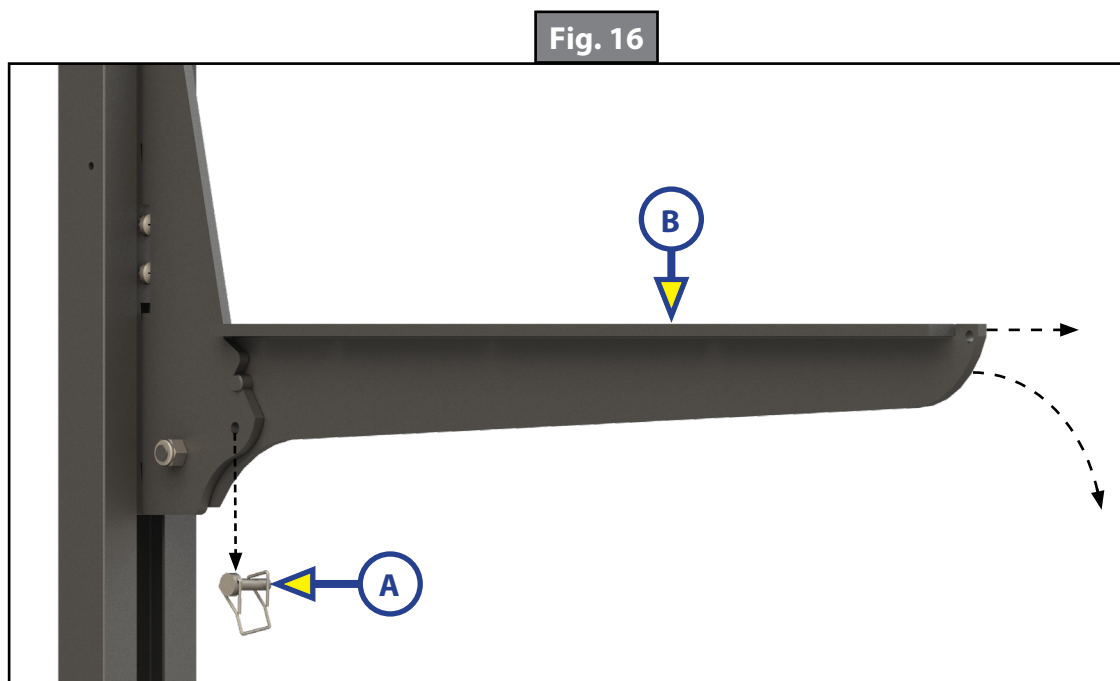


9. Re-attach the tab to the travel block.
10. Repeat for the other tab brackets.
11. Place the bedlift rail on the trolley tabs.
12. Secure the bedlift rail to the trolley tabs with the clevis pins and cotter (hair) pins.
13. Repeat steps 11 and 12 for the other side.
14. Replace the bed platform.

Lower Trolley Sofa/Dinette Bracket Removal

The sofa/dinette brackets can be removed from the lower trolleys and trolley tabs can be added to accommodate a second bed platform. See Lower Bunk Trolley Tab Installation for instructions on adding trolley tabs.

1. Remove the sofa/dinette configuration or bed platform from the support brackets.
2. Remove the locking pin (Fig. 16A) from the bracket, then lower the bracket arm (Fig 16B).



3. Remove the stop screw (Fig. 17A) from securing the support bracket, then remove the screw (Fig 17B) securing the trolley stop lock bracket (Fig. 17C) and remove the bracket.
4. Grasp the base of the sofa bracket (Fig. 18A) and pull up until the hooks are even with travel trolley slots (Fig. 18B), then pull the sofa bracket away from the travel trolley.
5. Repeat for other brackets.

Fig. 17

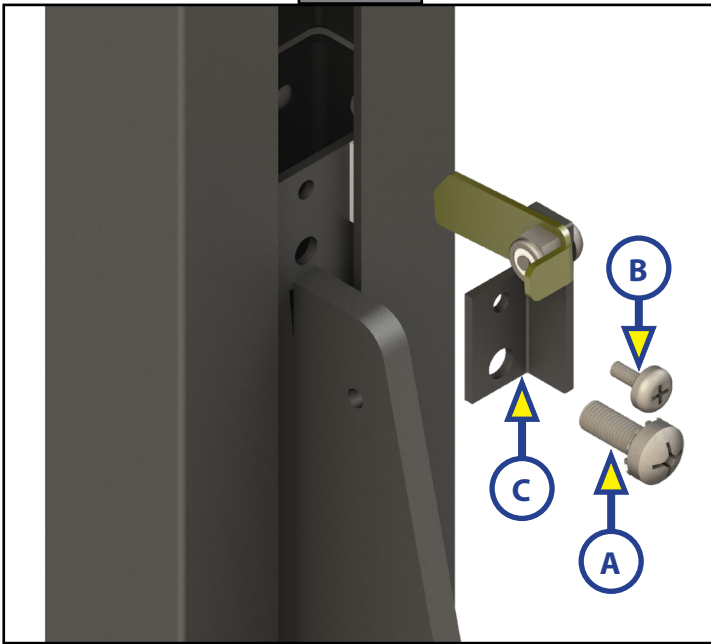
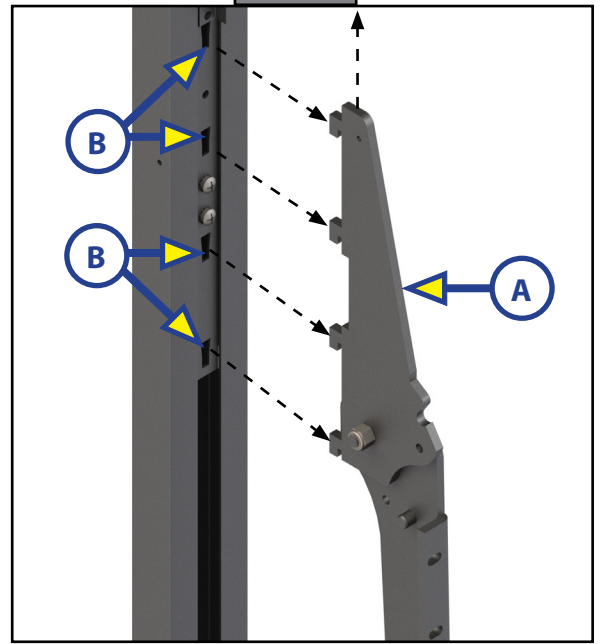


Fig. 18



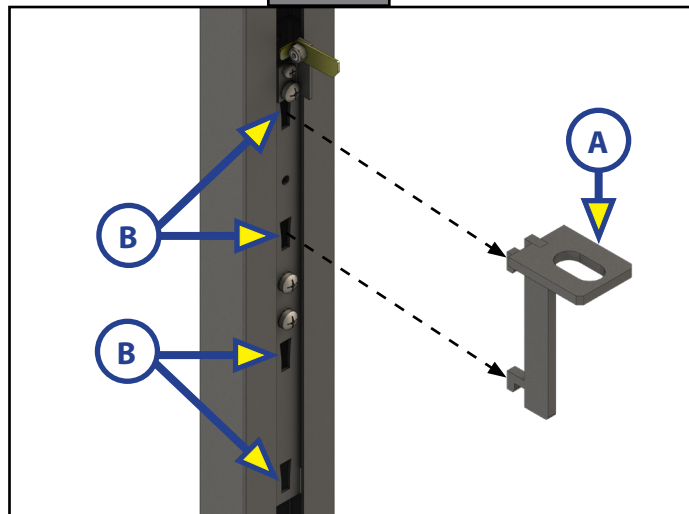
Lower Bunk Trolley Tab Installation

Trolley tabs can be added to the lower trolleys to accommodate a bed platform, after the sofa/dinette brackets have been removed.

NOTE: There are four slots in the lower trolley. This trolley tab can go in either the top two or bottom two slots. The bracket can only be installed with the trolley tab at the top.

1. Remove the sofa brackets from the lower travel trolley. See Lower Trolley Sofa/Dinette Bracket Removal.
2. Line up the hooks on the edge of the trolley tab bracket (Fig. 19A) with the channels (Fig. 19B) in the travel trolley, then push the brackets into the channels.

Fig. 19



3. Push the bracket down so it locks into the trolley tab channels.
4. Repeat for other trolley tabs.

Maintenance

The bed lift system requires very little maintenance. The chains are pre-lubricated and nickel-plated to prevent corrosion. All bearings are sealed and all parts are either plated or finished with a durable powder-coat finish.

The only required maintenance involves keeping the mechanisms clean and free of debris. When cleaning the trailer after use, inspect the vertical trolley channels for dirt or debris and clean as necessary. After cleaning, a light application of dry silicone spray on the inner sides of the trolley channels will improve performance and reduce noise and required amperage draw.

Troubleshooting

What Is Happening?	Why?	What Should Be Done?
Bed(s) will not move either up or down when switch is pressed.	No or insufficient power to operate the bed(s).	Make certain trailer batteries are adequately charged, connect to shore power or a generator.
	Faulty control module.	Replace module.
	Faulty UP/DOWN switch.	Replace switch.
	Defective motor.	Contact LCI Customer Service.
Bed travels in only one direction.	Defective limit switch.	Replace switch.
	Faulty control module.	Replace module.
	Faulty UP/DOWN switch.	Replace switch.
	Faulty brake.	Set manual brake release lever on motor to the "OFF" position. If the bed(s) move, replace the faulty brake.
Bed lowers, but stops part way going up.	Insufficient power to bed.	Make certain trailer batteries are adequately charged, connect to shore power or a generator.
	Defective motor/brake assembly.	Contact LCI Customer Service.
Bed does not stay level; side-to-side or front-to-back.	Broken or loose timing shaft.	Contact LCI Customer Service.
	Broken chain sprocket.	Contact LCI Customer Service.
When lowered, bed fails to stop at preset stop point.	Motor brake not engaging.	Contact LCI Customer Service.
	Defective limit switch.	Replace switch.
When raised, bed fails to stop at preset stop point.	Defect or damaged limit switch.	Replace switch.
Upper bunk (two-bed system) does not lower smoothly.	Sticky bed carrier.	Spray a small amount of dry silicone lubricant into the rails.

Motor failures are extremely rare and motors are expensive. If uncertain of failure, contact LCI customer service at customerservice@lci1.com or (574) 547-8900 before replacing the motor.

Emergency Manual Operation

Before releasing the brake in manual mode, make sure there are no obstacles below the bed(s), sofa or dinette. Be prepared to apply the brake, if necessary, and make sure to move the brake back into the ON position once the desired height is reached.

⚠ CAUTION

When bed(s)/are not being manually raised or lowered, the brake **MUST** be set or the bed(s) will drift down, causing possible personal injury, product or property damage.

Manually Raise the Bed(s)/Sofa or Dinettes

Do the following in the order listed:

1. Unplug the motor harness from the motor port (Fig. 20A) on the PnP control module.

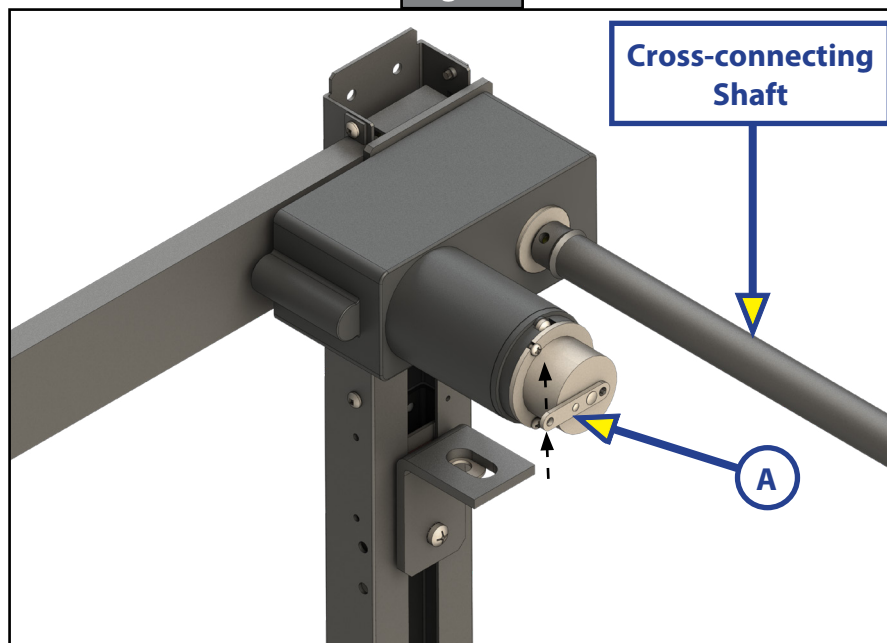
NOTE: The PnP control module could be mounted in other locations close to the motor.

Fig. 20



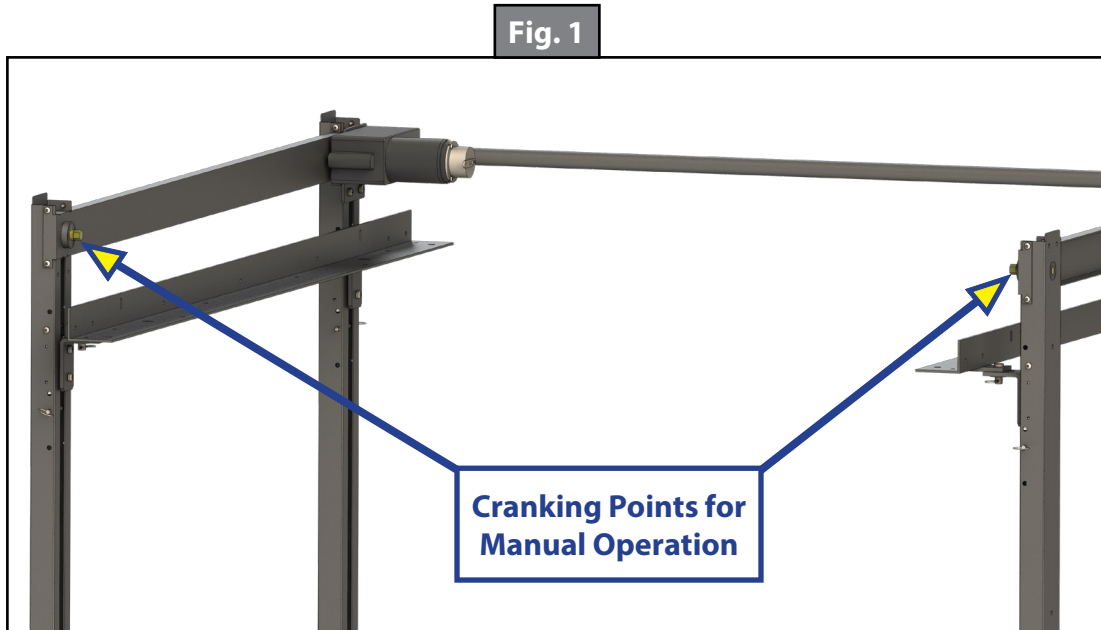
2. Release the brake by pushing up on the brake release (Fig. 21A).

Fig. 21



3. Remove the caps from the cranking points, which are located at the top of the front c-channels (opposite of the c-channels where the motor and cross-connecting shaft are installed).
4. Using a 1/2" socket and ratchet, manually crank the bed lift (Fig. 22).

NOTE: Cranking is easier if two people crank simultaneously, one on each side of the bed lift.



5. Apply brake at the desired bed height, then raise the brake release handle.
6. Reconnect the motor harness.

Manually Lowering the Bed(s)

Do as follows:

1. Unplug the motor harness from the PnP control module (Fig. 20).

⚠ CAUTION

Before releasing the brake in manual mode, make sure there are no people, pets or obstacles below the bed platforms. Keep hold of the brake lever as the bed(s) extends. Be prepared to apply the brake if necessary.

2. Push up on the brake release (Fig. 21A). Bed will drift downward.
3. Re-apply the brake by lowering the brake release handle when the desired bed height is reached.
4. Reconnect the motor harness.



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