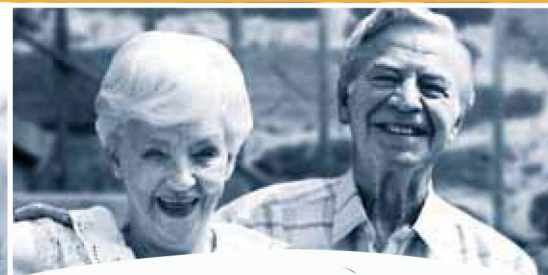
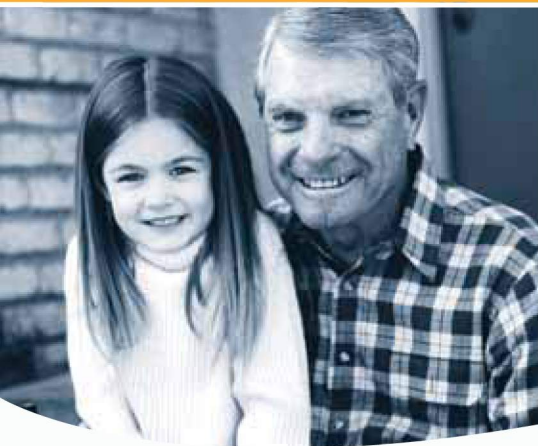


Apex

Apex Stair Lift



Installation and Service Manual



mobileramps
AND LIFTS

WARNING! STRICT ADHERENCE TO THESE INSTALLATIONS INSTRUCTIONS IS REQUIRED to promote the safety of those installing this product, as well as that of those ultimately using the lift for its intended purpose. Any deviation from these instructions will void the **LIMITED WARRANTY** that accompanies the product. Additionally, any party installing the product who deviates from the **INSTALLATION INSTRUCTIONS** shall be taken to agree to **INDEMNIFY, SAVE AND HOLD HARMLESS** the manufacturer from any and all loss, liability or damage, including attorney fees, that might arise out of, or in connection with, such deviation.

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Important! Installers must read and understand this Manual prior to attempting installation of the stair lift.
Please observe all cautions and warnings in this Manual, as well as on labels on the equipment.

Preliminary Checks/Site Preparation

I. PRELIMINARY CHECKS/SITE PREPARATION

A. INCLUDED PARTS

Inspect and check the contents of each box before proceeding. Report any damage to the shipping company and to Harmar.

The following is a list of items in a typical Stair Lift installation:

- Chassis Box,
Includes Chassis, Footrest, Hardware pack, Wire harnesses and End Plates
- Rail Box
Includes two (or more) Rail segments
- Chair Box
Includes Chair and Rail Mounting Bracket Box

B. TOOLS REQUIRED

- ☒ Cordless drill
- ☐ Allen wrench (5/64", 9/64", 5/32", 3/16", 5/16")
- ☐ Phillips screwdriver (#3)
- ☐ Nut driver (5/16")
- ☐ 8-10" driver extension
- ☒ Torx Bit - T30 (provided)
- ☐ Mirror (Helpful, not required)
- ☐ Long-handled (min. 6") Magnet (Helpful, not required)
- ☐ 9/64" Ball End Allen Wrench (Provided)

C. SITE PREPARATION

- Carry Chassis Box to the landing at the top of the Stairs
- Identify where power supply will be located.
 - A standard power outlet must be located within 10 feet of the upper or lower end of the stairwell.

Installation Procedures

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II. INSTALLATION PROCEDURES

Most residential installations (1st floor to 2nd floor or Basement to 1st floor) will use the 'triple rail' method described below. If you are utilizing this stair lift on a short flight of stairs (less than 8 ft. of travel) or an extended flight of stairs (greater than 19.5 ft. of travel) please refer to the procedures in the Alternative Installation Methods appendix.

A. Lower Rail Assembly and Installation

a. Lower Rail Assembly

Open the RAIL BOX and remove the contents.

In most residential installations there will be three rail segments.

(The BOTTOM RAIL, the UPPER RAIL and the CHASSIS RAIL.)

- The CHASSIS RAIL is shipped already attached to the Chassis assembly.
- The BOTTOM RAIL segment can be identified by having a Charging Strip, Limit Cam and Base Plate installed.

IMPORTANT: The Gear Rack and the Charging Strip will always be on the 'right side' of the Rail Assembly and the Limit Cam will always be on the 'left side' of the Rail Assembly as you look at the assembly from the lower landing. This does NOT change from a right-handed to a left-handed installation.

Step 1: Locate and Position the BOTTOM RAIL

Position the BOTTOM RAIL directly on the stairs with the end plate towards the bottom of the stairs.

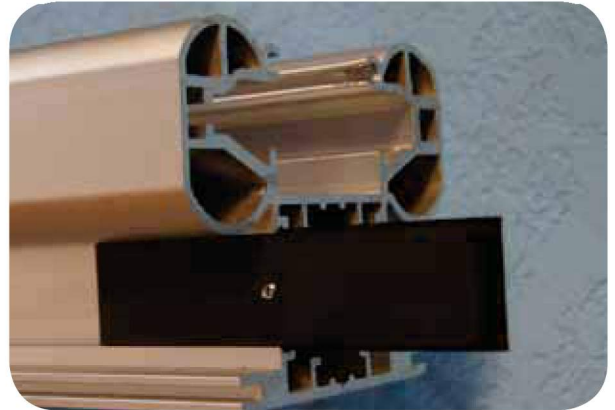
Tip: Use the Chair box or toolbox at the bottom to prevent the rail from sliding away from stairs.



Step 2: Prepare Chassis Rail

Carefully lift the CHASSIS out of the Chassis Box by grasping both edges of the unit.

IMPORTANT: Do NOT use the support brace as a handle as it is free swinging and will not provide enough support for this task. Position the Chassis either on the right or left side of the landing at the TOP of the stairwell (with the RED ON/OFF Switch facing down the stairs).



Locate 2nd Charging Harness from Hardware Pack:

On the CHASSIS RAIL, insert the charger strip into the keyed slot at the lower side of the rail. Choose the slot on the left side of the rail as you look from behind the chassis down the stairwell. You will need to bend the red and black wire tabs towards the center. Insert and feed the long Charging Harness Wire down through the center of the track. Do not, at this time, attach the END PLATE or 2nd END LIMIT CAM to the CHASSIS RAIL.

Locate the UPPER Rail. (Identified as usually being shorter than the Bottom Rail) Position the Upper Rail between the Chassis and Bottom Rail with the two ends of the track close together. Verify and if necessary, install the alignment pins and joint fasteners to the lower edge of the UPPER RAIL. Locate and pass through the excess wire harness from the CHASSIS RAIL through the UPPER RAIL and connect the plugs on the ends of the two wire harnesses between the Upper and Bottom rail segments.

Step 3: Assemble Lower Rail

Slide the UPPER RAIL into the BOTTOM RAIL together using the alignment pins and joint fasteners as a guide. Gently tap the top rail if necessary to get them close together. Be careful to not pinch the wire harness.



Installation Procedures

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Secure the two rail segments with the 2 joint fasteners and firmly tighten with the 3/16" Allen wrench (Both top and bottom sides).

Install the Rail Mounting Brackets on the Rail assembly by placing one bracket edge into the rail slot and snapping the other bracket edge into the other slot. Place two brackets on each of the UPPER and BOTTOM RAIL segments within 6 inches of the upper and lower edges of each rail segment.

The brackets are tightened from one side only. It is important that the bracket be installed with the nuts facing the stringer (or wall) that is behind the unit. When the rail is turned over to its correct orientation, the nuts will be accessible for fine tuning and adjustment.

Important: The Rail Mounting Brackets are slightly angled at 3% for comfort and safety. If the brackets are incorrectly attached to the rail, a rider may perceive a slight 'forward lean' to the unit.

b. Installing Lower Rail Assembly

Once the Gear Rack has been adjusted on the LOWER RAIL ASSEMBLY, we can begin to mount the rail to the stairs.

Step 1: Position Rail and Adjust Brackets

Flip the Rail Assembly (Brackets down) and Position the upper most Rail Mounting Bracket of the RAIL ASSEMBLY onto the 1st step from the top landing.

This will allow an appropriate amount of room for the 19" CHASSIS RAIL to be mounted onto the Rail Assembly. Adjust the Rail Mounting Brackets to meet the stair treads.

Important: The underside of the rail must be at least 2" above the stair tread nose to provide clearance for the footrest. To achieve this 2"



clearance, move the rail and bracket forward towards the nose of the tread. Once the clearance is 2", tighten all bracket nuts to hold the rail in position.

Critical Distances: With a tape measure, verify...

- That the 19" CHASSIS RAIL when attached to the RAIL ASSEMBLY will extend 15" past the nose of the top landing to ensure safe loading and unloading onto the stair lift from that location (Approximately 4 inches from the toe of the landing.)
- The lower rail should extend to within an inch of the lower landing.
- The edge of the bracket should be placed 5" from the stringer/wall. (Allows an adequate amount of space for the rotation of the chair during loading and unloading.)

Step 2: Secure Brackets to Stair Treads

Continue adjusting the remaining Rail Mounting Brackets on the assembly to ensure that they are flush with stair tread/step and a two inch clearance is achieved. Install and fully tighten the rail bracket mounting screws (4 screws per bracket.)

Installation Tips:

- Securing the highest or lowest bracket to the step/tread with two screws after determining underside rail height and distance from wall can assist with the adjustment of the remaining brackets.
- For hardwood stair, drill a pilot hole first.
- For plywood or particle board stairs, take care to prevent stripping.
- For Marble or tile, loosen lower bracket bolts to prevent chipping or cracking.
- Use proper tools, bits and techniques for the installation material in your environment.
- Position the rail so that the edges of the mounting brackets are clear of the outermost projection of the wall. Fixtures such as doors, windows, pictures and other obstructions must be taken into account.
- Do not attempt to mount a bracket to the riser of the stair as insufficient support is provided.

Step 3: Lubricate Gear Rack

When the gear rack is timed, use the 9/64" Allen wrench to tighten the gear into place. Continue this process working up the rail assembly until all joints are timed.

Installation Procedures

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Lightly lubricate the entire length of the gear rack.
Lubricant is provided in the small parts kit.

B. TEST STAIR LIFT (WITHOUT RIDING)

IMPORTANT: DO NOT RIDE THE STAIR LIFT UNTIL YOU VERIFY THAT THE END LIMIT CAMS ARE PROPERLY POSITIONED. INCORRECTLY POSITIONED CAMS COULD RESULT IN INJURY TO THE RIDER AND POTENTIAL DAMAGE TO THE UNIT.

Test Press and hold the switch on the arm rest until the chair stops itself at the bottom of the track. Run it back up the track until it stops itself at the top landing. If necessary, adjust the upper and lower END LIMIT CAMS to ensure that the CHASSIS does not contact the END PLATES or there is too great a step from the footrest to the Loading/Unloading areas. Raise the seat release handle and swivel the seat toward the landing. The seat should lock at 90 degrees when the handle is released. Verify that the footrest safety switches stop the lift in the proper direction.

C. Chassis, Footrest, Seat and Chassis Rail Installation

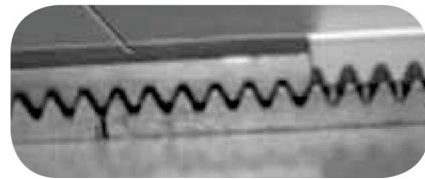
Step 1: Chassis and Chassis Rail

The chassis comes with 19" of the rail already installed. This is to prevent damage to the internal switches and mechanism of the chassis during the installation process. The CHASSIS RAIL should already have mating brackets installed; however you may need to add the alignment pins which will act as a guide.

Slide the Chassis and CHASSIS RAIL assembly onto the LOWER RAIL ASSEMBLY, taking care to ensure that the charging harness does not get caught or crimped by the joint.

Step 2: Footrest Frame Installation

Remove the 2 seat-leveling bolts from the side of the chassis.



A short piece of gear rack is provided in the small parts kit to properly space the gear rack spaces.

Do not tighten gear rack until the proper space has been achieved.

Step 2.1: Attaching the Footrest Frame Cover

Remove the footrest using the 2 seat-leveling bolts by inserting them through the holes in the footrest frame.

(The frame has 4 bolt holes to accommodate a 'right side' or 'left side' stairwell installation. Use the 'upstairs side' bolt holes for your installation.)

Note: It is common that the part of the chassis receiving the lower bolt will shift when the bolt is removed; please ensure that the holes are properly aligned when tightening the lower bolt.

Remove the bolt from the stabilizing bracket and connect the bracket to the Footrest Frame using the bolt hole on the 'downstairs side of the Footrest Frame.



Step 2.2: Level the Footrest

Level the footrest by aligning the frame to a vertical position using a level. Firmly tighten the 4 seat-leveling bolts (2 on each side of chassis) and the Stabilizing Bracket bolt to secure the footrest frame assembly in the vertical position.

On the upstairs side of the CHASSIS, remove the round black plug.



Step 2.3: Reattach Footrest Cover

Reattach the FOOTREST FRAME COVER cover, ensuring that the wire harness is centered and will not be pinched by the cover.



Step 3: Seat Installation

Installation Procedures

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Step 3.1: Seat Assembly

Place the seat assembly onto the seat shaft.

IMPORTANT: DO NOT YET SIT ON THE SEAT AS THE CHASSIS RAIL IS NOT YET SECURELY MOUNTED TO THE STAIR AND TO THE LOWER RAIL ASSEMBLY.

Raise the swivel seat handle and slide the seat fully onto the shaft. Release the handle and make sure the seat locks into position.

Rotate the swivel seat handle and check that the seat locks in the loading, riding and unloading positions.

Note: The lift will not operate unless the seat is locked in the riding position.

Step 3.2: Connect Cables

Connect the seat cable to the 8-pin connector on the CHASSIS farthest away from the wall.

Connect the footrest cable to the 6-pin connector on the CHASSIS furthest away from the wall.

Step 4: Final Chassis Rail Installation

CAUTION: TAKE CARE WHEN WORKING ON STAIRS AND OTHER STEEP INCLINES TO AVOID FALLS AND OTHER INJURIES.

Step 4.1: Move Chassis to Lower Rail Assembly

Turn on the unit and drive the unit down to the Lower Rail Assembly by standing on the steps above the unit and pressing and holding the switch on the chair handle.

IMPORTANT: DO NOT SIT IN THE CHAIR AND DRIVE THE CHAIR DOWN THE TRACK!



IMPORTANT: Be aware that the GEAR RACK of the CHASSIS RAIL is not yet timed with the GEAR RACK of the LOWER RAIL ASSEMBLY. THE UNIT WILL 'FREE WHEEL' TO THE LOWER ASSEMBLY WHEN IT IS DRIVEN OFF THE TOP GEAR RACK.

Once the Chassis assembly has reached the lower assembly, continue to drive the unit at least two feet down the rail assembly.

Step 4.2: Secure Chassis Rail

Secure the CHASSIS RAIL to the LOWER RAIL ASSEMBLY by firmly tightening the 4 hex bolts on the 2 joint fasteners with 3/16" Allen wrench (top and bottom sides).

Time the CHASSIS RAIL GEAR RACK to the LOWER RAIL ASSEMBLY GEAR RACK.
Lubricate CHASSIS RAIL GEAR RACK.

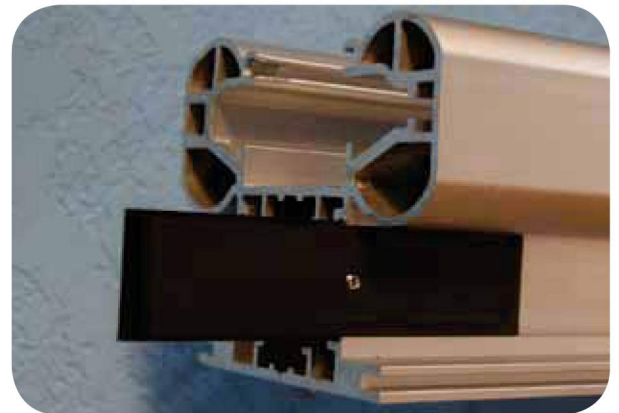
Locate final Rail Mounting Bracket and attach it to the CHASSIS RAIL within 6" of the lower edge of the rail segment. Mount the Bracket to the Stair tread.

Step 4.3: Complete Chassis Rail Assembly

Locate and Install the END LIMIT CAM and tighten with a 5/64" Allen wrench. This will be used to set the final upper limits for the top of the stair lift and will prevent the unit from driving off the rail assembly. This Limit should be placed close to the upper edge of the CHASSIS RAIL.

Locate and Install the 2nd END PLATE with the 4 self-cutting Torx screws to the CHASSIS RAIL. Too much torque applied to these screws may result in damage. Take your time. You may apply grease or light oil to threads.

Plug in the Battery Charger at either end of the rail depending on the closest or most convenient location of a wall power supply. Minimize wire length and intrusion.



Installation Procedures/Completion Checklist

D. Adjust Seat Height (if Desired)

Remove the FOOTREST FRAME COVER

Remove the two center allen screws that mount the seat post to the chassis. Position the seat up or down as desired and replace and tighten the screws.

Reinstall the FOOTREST FRAME COVER into position.

Completion Checklist

III. COMPLETION CHECKLIST

Important: Verify that the following features are operational before you release the stair lift for use:

Upper and lower limits: The lift must stop automatically at the top and bottom of the track before contacting the track end plates.

Running Clearance: Ensure the lift clears all obstructions.

Track Mounting Brackets: Check that all track mounting brackets are securely attached to the stair treads and the track.

Track Splice: Verify track joints are smooth and free of burrs and gaps.

Gear Rack: The gear rack must be tight and sufficiently lubricated.

Track End Covers: Track end covers must be securely fastened to the track.

Track: Inside of the track must be free of foreign objects.

Footrest: Verify that:

Footrest clears all stair treads.



Lift stops in both directions when the footrest runs into an obstruction. Footrest folds up and stays in the up position.

Unit does not beep when it stops at the upper and lower limits. The unit will beep if stopped and not on the charging strip.

Seat: Verify that: Seat is level.

Seat swivels 70° towards the top landing and locks into position.

Lift will not operate when the seat is not locked in the riding position. Seat will fold up and stay in the up position.

Seat belt works properly.

IV. Appendixes: Alternative Installations

A. Short Flight Installation

Most residential installations (1st floor to 2nd floor or Basement to 1st floor) will use the 'triple rail' method described in the main document. Use these comments and alternative procedures to amend those procedures to install a stair lift on a short flight of stairs (less than 8 ft. of travel)

A short flight of stairs requires only two rails, the CHASSIS RAIL AND THE BOTTOM RAIL. For these installations, only three Rail Mounting brackets are required and should be placed (1) on the first step, the 2nd step closest to the landing attached to the BOTTOM RAIL, and the 1st step from the landing attached to the CHASSIS RAIL.

The primary deviation from the normal installation procedures is that there is no "UPPER RAIL," this introduces a situation where there may be a significant amount of extra wire in the charging harness. WE do not recommend cutting or shortening the wire, but instead simply coiling and inserting the excess wire into the RAIL ASSEMBLY.

B. Extended Flight installation

Most residential installations (1st floor to 2nd floor or Basement to 1st floor) will use the 'triple rail' method described in the main document. Use these comments and alternative procedures to amend those procedures

Appendixes: Alternative Installations

to install a stair lift on a extended flight of stairs (greater than 19.5 ft. of travel).

An Extended flight of stairs requires four (or more) rails, the CHASSIS RAIL AND THE BOTTOM RAIL as well as MULTIPLE UPPER RAILS. For these installations, Two Rail Mounting brackets are still required and each rail segment and should be placed in a manner similar to the primary documentation.

The primary deviation is that you will be provided at least one additional CHARGING HARNESS EXTENDER. This extender is attached between the Upper and Lower CHARGING HARNESS. As always care should be taken to ensure that the harness does not crimp or otherwise get caught within the joint between the rail segments. WE also do not recommend cutting or shortening the harness, but instead simply coiling and inserting the excess wire into the RAIL ASSEMBLY.