If the height of the seat needs to be adjusted, loosen and remove the four (4) bolts on the sides of the seat base using a 7/16" socket. Adjust the seat base up or down relative to the footrest structure until the holes align, then replace and securely tighten the four (4) bolts. ***See Figure 4-25.***

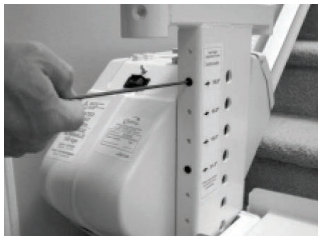

Figure 4-25

6. Connect the footrest cable to the 6-pin connector on the chassis. ***See Figure 4-26.***

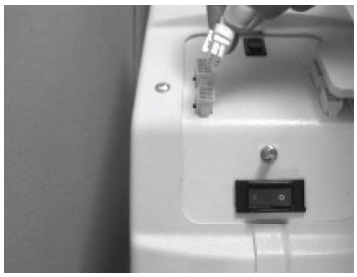

Figure 4-26

7. Position the keyed seat swivel post in the seat base hole closest to the top of the stairs. Securely tighten the two (2) bolts on the sides of the post housing using a 5⁄32" Allen wrench. ***See Figure 4-27.***

Figure 4-27

8. Use the supplied white plastic plugs to secure the vertical footrest shroud to the main footrest cover plate.

9. Position the seat directly aligned over the chassis and place onto the seat swivel post. Press the swivel lever until the seat is fully engaged with the swivel post. Check the swivel lever to test the locking mechanism. The system will not function if proper engagement is not achieved. ***See Figure 4-28.***

Figure 4-28

10. Connect the seat cable to the 8-pin connector on the chassis that is opposite the foot plate and closest to the wall. ***See Figure 4-29.***

Figure 4-29

NOTICE

If the wrong set of connectors are used, the unit will work backwards.

NOTICE

When the 6-pin footrest and/or the 8-pin chair cables are connected to the chassis, the black installation switch on the chassis is disabled and will not function.

FOLDING RAIL INSTALLATION

NOTE: The photos in this section shows a left folding rail, assembled to be installed on the left side of the stairway. Contact Harmar Technical Support at 800-833-0478 for instructions on how to switch a folding rail from the left side to the right side.

1. Orient the two(2) rail brackets onto the folding rail, with the nuts on the same side as the folding mechanism. ***See Figures 4-35 and 4-36.***

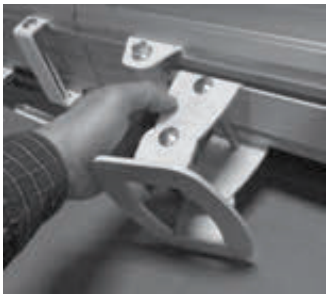

Figure 4-35

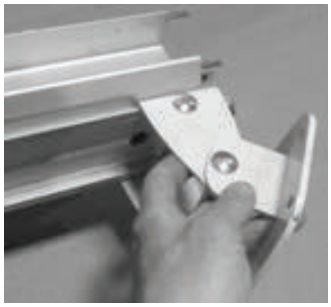

Figure 4-36

2. Expand and snap the two (2) brackets over the rail, so the top is in the bracket-groove. ***See Figures 4-37.***

Figure 4-37

3. Partially tighten the two nuts that position these on the rail, using ½" wrench (deep socket preferred), so they won't slide when you're test-fitting the position. ***See Figure 4-38.***

Figure 4-38

4. Place the rail onto the stairway with the bottom bracket on the second step, as shown. *NOTE: The bottom feet should approximately rest on the floor with the rail straight, but they will be adjusted later.* ***See Figure 4-39.***

Figure 4-39

5. Measure to verify that the underside of the rail is more than 3" from the stair nose, both at the second step bracket and at the upper bracket. If not, reposition the brackets as needed. This clearance is required for the stair lift footrest. In some installations, you may not be able to get 3" or more with the standard stair-bracket. Contact Harmar to get tall brackets. ***See Figures 4-40 and 4-41.***

Figure 4-40

Figure 4-41

6. Measure from the side of the rail to the wall. The minimum clearance that will work with a folding stair lift rail is 3". Set the folding section of the stair lift rails to a distance of 3" from the wall or more. This will leave about ½" of clearance at the ball of the gas-spring. ***See Figure 4-42.***

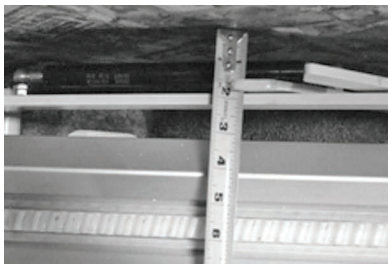

Figure 4-42

7. Fasten down the near corner of the lower bracket using a drill that has extensions at least 10" and a 3/8" socket. ***See Figures 4-43 and 4-44.***

Figure 4-43

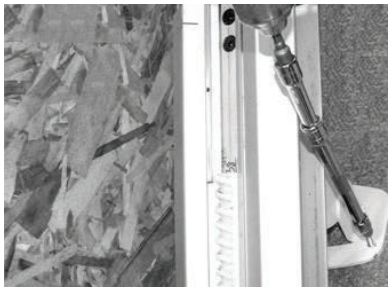

Figure 4-44

8. Measure from the side of the rail at the upper bracket of the folding rail.

   Set this at 3" or more. Screw down one corner of the bracket.

9. Connect to upper rail, following regular procedures (see page 5). This procedure includes plugging the battery charging wire harness for the folding rail into the charging harness from the upper rail. The power supply itself can be plugged into either the top rail (for the top of the stairs), or to the charge plug from the folding rail, which comes out just higher than the folding mechanism for the bottom of the stairway.

10. Fasten the other screws of both rail brackets using the power drill and long extension with the ⅜" socket. ***See Figure 4-45.***

Figure 4-45

11. Adjust the height of the two feet using a 9/16" open end wrench. Set them so that both rest on the floor with the rail fully straight. The foot furthest from the wall should be set a little taller than the inside one to get it to sit flat on the floor, since the Pinnacle rail brackets intentionally lean the rail toward the wall. ***See Figure 4-46.***

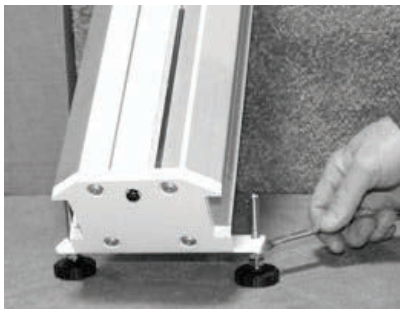

Figure 4-46

12. Reinstall the two (2) plastic caps on the feet to cover the threads. ***See Figure 4-47.***

Figure 4-47

13. Carefully move the fork with your hand to make sure it operates smoothly. Allow it to go all the way to the floor. Confirm that both feet sit level on the floor and the hinge-joint is fully straight. ***See Figure 4-48.***

Figure 4-48

⚠ WARNING

Be careful not to pinch your fingers when moving the fork.

14. Follow the normal procedure for installing the rail brackets and tighten them.
See page 9, step 8.

15. Test ride the unit a couple of times to verify that the folding rail is operating properly.

SECTION 5

COMPLETION PROCEDURES

REMOTE CONTROL RE-PROGRAMMING

All call/send controls are factory programmed. In the event that the remote call/send controls need to be re-programmed, it is essential to program both controls in one programming cycle.

1. Start with the red "On/Off" switch in the "Off" position.
2. Disconnect the 6-pin and 8-pin chair wire harness from the chassis.
3. Press and hold the install switch (located on the top of the chassis) in either direction.
4. Turn the red "On/Off" switch to the "On" position. Wait for the circuit board to beep and then release the install switch.
5. The lift will begin to beep rapidly, advising that the first remote is ready to be programmed.
6. Making sure that the remote is pointed at one of the IR sensors on the chassis, press and release the "Up" or "Down" button of the first remote. The first remote is now programmed.
7. Press and release the "Up" or "Down" button on the second remote. The second remote is now programmed.
8. Upon completion, two beeps will indicate that both remotes have been successfully programmed.
9. Turn the "On/Off" switch to the "Off" position.
10. Connect the 6-pin and 8-pin chair wire harness to the chassis and then turn the red "On/Off" switch back to the "On" position.
11. Test each remote in both the up and down directions.

TEST ARMREST CONTROL SWITCH

1. Ensure that the stair lift travels correctly by operating the armrest control switch while standing in front of it.
2. Press the switch in the upstairs direction to move up. The lift will begin to smoothly accelerate upward. The lift will continue to move upward as long as the switch is pressed.
3. Release the switch and the lift will come to an immediate stop.
4. Press the switch in the downstairs direction to move downward. The lift will begin to smoothly accelerate downwards.
5. Release the switch and the lift will come to an immediate stop.
6. Run the lift all the way up and down the rail to ensure that the top of the seat back has at least a ½" in clearance from the wall and any obstructions.

⚠ WARNING

Do not ride on the chassis or lift until the installation is complete.

COMPLETION PROCEDURES

TIGHTEN BRACKETS

Install and fully tighten the rail bracket mounting screws (four (4) screws per bracket). For hardwood stairs, a pilot hole should be drilled first. For plywood or particle board stairs, care must be taken to prevent stripping.

SET UPPER AND LOWER TRAVEL LIMITS

1. Test the lower travel limit by operating the lift downward, keeping the switch pressed. The unit should begin to decelerate about 3" from its final resting position and stop clear of the floor.
2. The final stopped position can be adjusted to accommodate the height of the user by repositioning the limit cam located in a slot in the rail.
3. Use a 5⁄64" Allen wrench to loosen the set screw in the limit cam. Adjust the limit cam up or down and re-tighten the set screws. Repeat above steps until the lift stops in the desired position.
4. Repeat the above steps to set the upper limit. For safety, the footrest should be set at least level with the upper landing.
5. The optimum position is met when the seat height above the floor is the same at the top and bottom of the stairs.

TEST SAFETY STOP SWITCHES

1. Safety stop switches are located in both the upward and the downward ends of the chassis providing protection from obstructions on the rail. *(Folding rail model)*
2. Safety stop is located in the footrest providing protection from obstructions and trapping hazards on the stairs.
3. A safety stop switch is part of the swivel seat mechanism and prevents the lift from operating when the swivel is in use.
4. Test all safety stop switches by driving the lift down and touching the downward end of the chassis, the lower edge of the footrest, and the underside of the footrest in both its folded and unfolded positions. *(Folding rail model)*
5. In each of the above cases the unit should come to an immediate halt and should beep intermittently.
6. When the control switch is released, the unit should not be able to be driven in the direction that the lift initially engaged the obstacle. Test this condition.
7. Repeat the above tests while driving the lift in the opposite direction.
8. If any safety condition does not function properly, carefully review all installation instructions, reset the "On/Off" switch. Repeat the above tests.
9. If any safety stop switch fails to immediately stop the lift, immediately call Harmar for assistance in diagnosing and repairing the problem. Do not use the lift.

ADDITIONAL SYSTEM CHECK

1. After the successful testing of all safety switches, sit on the lift and operate to the top of the stairs. Keeping the control switch pressed continuously, the lift should gently decelerate and then stop at the top of the rail.

2. As a final adjustment, sit on the lift and do two (2) complete up trips and stop with the chair at the bottom. Then tighten the compression screw in the top end plate, then run the chair to the top and again tighten the compression screw. Run the chair to the middle and do a final tightening of the compression screw.

3. Drive the lift to the bottom, keeping the control switch pressed all the time, and check that the lift gently decelerates and stop so the footrest pan is clear of the floor. If necessary adjust the limit cams with a 5⁄64" Allen wrench.

4. Move the lift about 3' from either the top of bottom of the rail. After 30-seconds the beep indicating that the lift is not positioned on a charge point. The beep will stop after 30-seconds.

5. Test the seat swivel at the top using the levers and swiveling the seat towards the landing and stop the seat at 35˚ and 85˚. The seat swivel levers will release into a locked position at each of these angles. The lift will not operate in any of these positions if the control switch is pressed. Return the seat to its normal position and the lift will now operate normally.

SECTION 6

TROUBLESHOOTING

SAFETY SENSORS

If the LED indicator light is not green, check the safety sensors.

- Seat swivel sensor: Seat should be in the locked position.
- Footrest lower sensor: Check by pushing in on the safety pan on the footrest.
- Upper foot pan safety sensor: Check by pushing on the safety pan on the footrest.
- Front foot pan safety sensor: Check by pushing on the safety pan on the footrest.
- Uphill safety sensor: Ensure that nothing is blocking upward passage.
- Downhill safety sensor: Ensure nothing is blocking the downward passage.

If the LED indicator light is still not green after testing the sensors, turn the unit off and re-check all the wire plugs. Turn the unit on again and re-check the LED indicator light cycle. When the LED indicator light remains green, the lift is ready to operate. ***See Figure 6-1.***

Figure 6-1

MAJOR FAULTS

	Number of Beeps
Runaway	1
No Power	2
Conflicting switches FOOTREST UP and FOOTREST DOWN	3
Conflicting switches OBSTRUCTION UP and OBSTRUCTION DOWN	4
Conflicting switches FOOTREST DOWN and OBSTRUCTION UP	5
Conflicting switches FOOTREST UP and OBSTRUCTION DOWN	6
Conflicting switches STOP UP and STOP DOWN switches both detected	7
Conflicting switches STOP UP and STOP DOWN switches both NOT detected	8

MINOR FAULTS

Single long beep. Will reset once the fault is cleared.

- Seat swiveled out of position
- Edge safety detected *(SL600FR only)*
- Footrest
- Current overload condition
- A low battery voltage condition

PULSING BEEP

An intermittent beep for 30-seconds indicates that the lift has been stopped off the charge station. This repeats every 5 minutes until the lift is returned to the charge station. It is recommended that the lift be immediately moved to a charge strip station located at either end of the rail.

MANUAL OVERRIDE OPERATION

If your lift fails to operate and the operator is unable to exit the lift on the stairway, another person may use the optional manual override tool to lower or raise the lift to a landing. However, please follow the instructions on the bottom safety flap of the lift and turn the on/off switch to “Off”. Insert the manual override tool into the hole in the lower safety flap until it engages the motor shaft, then turn in the direction desired.

⚠ WARNING

Do not operate the lift with the manual lowering tool engaged.

NOTE: A 7mm nut driver or 7mm socket can be used if a manual lowering tool is not available.

HARMAR®
we lift lives

2075 47th Street | Sarasota, FL 34234
800.833.0478
Harmar.com