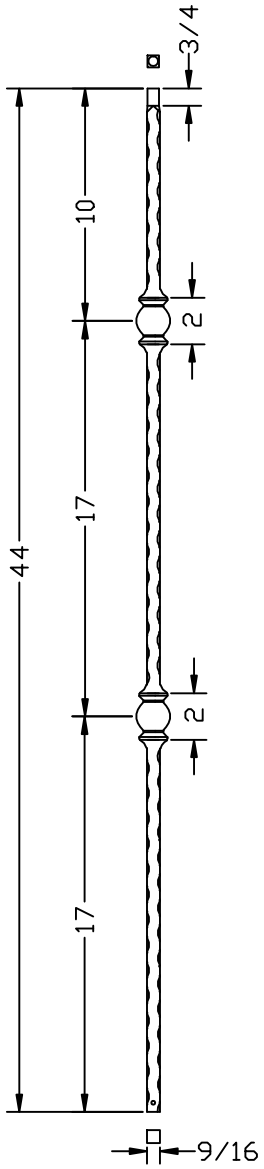

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Drawing Name			
LI-30844			
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File Name	DESTROY PREVIOUS PRINTS		
LI30844		SALES	

Iron Collection
Installation Instructions

IMPORTANT: Please read instructions thoroughly before beginning.

The following instructions are designed to be used for the installation of our Iron Line Collection. Before proceeding with the following steps, the handrail height should already be determined, the baluster locations should already be marked on the handrail, treads and balcony, and the newel posts should already be installed. If using our IronPro Iron Baluster Fasteners, utilize our IronPro Installation Instructions. If using our Base Collar with Threaded Disc, refer to those instructions. If using our iron newel posts, our LI-3760 Newel Mounting Kit and instructions should be utilized for a secure installation.

KEY for Drilling Handrail & Treads to Install Iron Balusters

Baluster Size	Handrail Hole Size	Tread Hole Size
1/2" Square	9/16"	11/16"
1/2" Round	9/16"	11/16"
9/16" Square	9/16"	3/4"
5/8" Round	11/16"	11/16"
3/4" Square	11/16"	1"

Step 1 — Drill The Handrail and Treads: *(refer to Key above)*

1. Refer to the Key above and drill a hole 1" deep on the bottom of the handrail at each pre-marked baluster location (Photo 1a). Our LI-40144/40244/41144 balusters require a 11/16" diameter hole since they do not have a top round pin.
   Note: Our LI-40840 balusters include hardware for mounting to the handrail, therefore, holes are not needed in the handrail for these balusters.

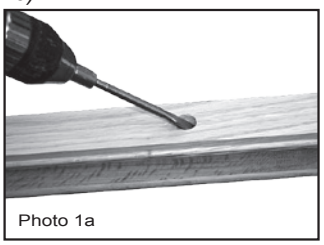


Photo 1a

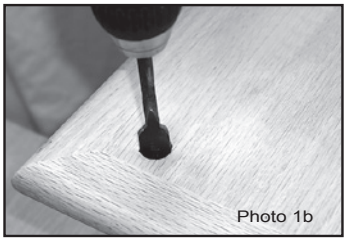
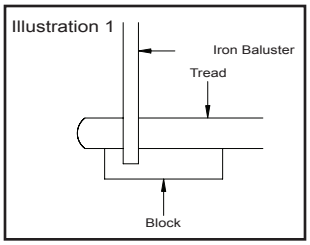


Photo 1b

2. Refer to the Key above and drill a hole 3/4" deep on each tread at each marked baluster location. (Photo 1b)

   Alternate method: A stronger method is to place a 2x4" block beneath the tread. Drill the hole 2" deep through the tread and partially through the block to accept the baluster (Illustration 1). This method will change the takeoff by requiring the addition of about 2" to the normal required baluster length.



Step 2 — Trim The Balusters:

1. Temporarily attach the handrail to the newel posts in order to determine the required length for each baluster.

2. At each baluster location, measure the length between the tread and the lower side of the respective drilled hole in the handrail (Photo 2a). Add 1" to the measurement for insertion into the handrail and 3/4" to the measurement for insertion into the tread (If using the alternate tread drilling method in Step 1, add 2" to the measurement for insertion into the tread). Transfer the measurements to each respective baluster. Remove the handrail from the newels.

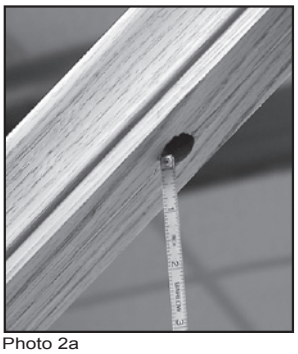


Photo 2a

3. Trim each baluster from the bottom using a metal cutting chop saw with a 14" abrasive blade or a portable band saw. (Photo 2b). Be sure to seclude your work area as hot sparks from a metal cutting chop saw can damage nearby windows, flooring, walls, etc.....

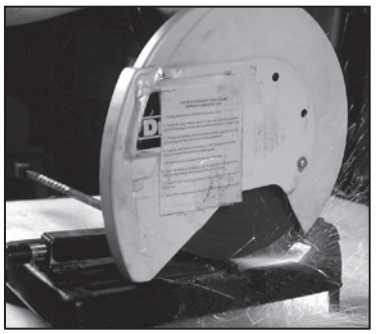


Photo 2b

Step 3 — Drill The Balusters:

1. It is recommended that every 6th baluster be screwed to the tread and handrail, for a more secure stairway. Determine which balusters will be installed with screws for #2 below. (We recommend 1 1/2" trim screws)

2. For rake balusters, drill a hole perpendicular through the top pin on each baluster to accept a trim screw. For balcony balusters, drill the hole at an angle to accept a trim screw. (Photos 3a) Drill a second hole at an angle through the bottom of the balusters to accept a trim screw.

Photos 3a

3. Countersink each hole to accept the screw head. (Photo 3b)

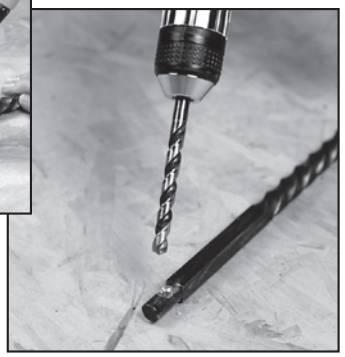


Photo 3b

Step 4 — Secure The Balusters To The Treads:

1. Fill the drilled tread holes half full with our two-part epoxy adhesive (LI-3701, LI-3704 or LI-3705). **When using two-part epoxy, be aware of cure times.** Construction adhesive may also be used. (Photo 4a)
2. With a bottom base on each baluster, place all balusters in position on the treads. Fill any void around the bottom of the balusters with our two-part epoxy or construction adhesive. Rotate each baluster slightly to even the adhesive coverage. Use a combination square to straighten each baluster. (Photo 4b)
3. Secure every 6th baluster with a trim screw. (Photo 4c)

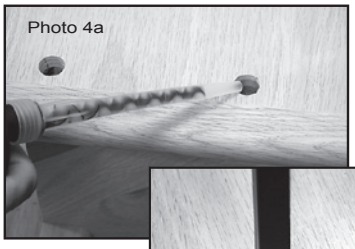


Photo 4a

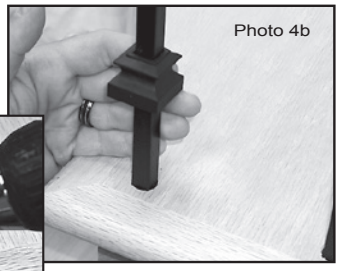


Photo 4b

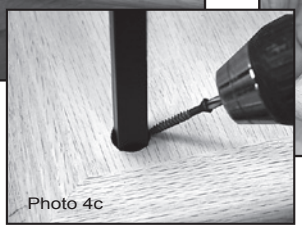


Photo 4c

Step 5 — Secure The Balusters To The Handrail:

1. If top baluster collars are being used, place one on each baluster. (Photo 5a) (Note: The angle of the rake top baluster collars can be adjusted to the proper angle by using a hand held grinder or by clamping each collar on a chop saw and cutting the proper angle.)
2. Fill the holes in the handrail half full with construction adhesive. (Photo 5b) Note: masking tape may be applied over the holes if the construction adhesive has a runny consistency.
3. Position the handrail on top of the balusters and permanently secure the handrail to the newel posts. If masking tape was used over the holes in the handrail, the balusters will push through the tape when the handrail is installed. Then, remove the remainder of the tape on the bottom of the handrail. (Photo 5c)
4. Secure every 6th baluster to the handrail with a trim screw. (Photo 5d)

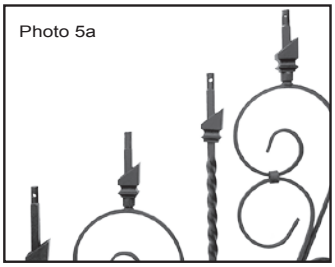


Photo 5a

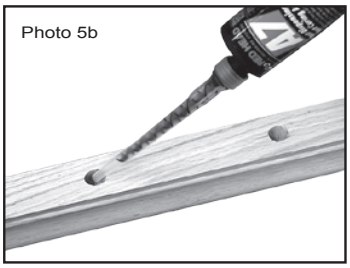


Photo 5b

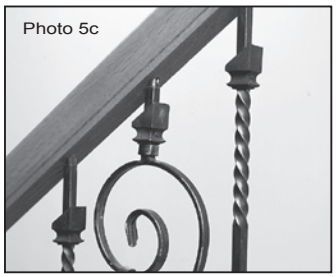


Photo 5c

Photo 5d

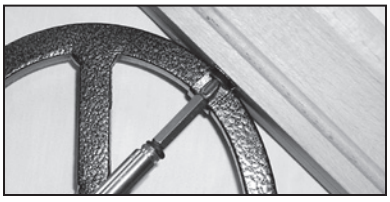
Step 6 — Tighten The Baluster Collars:

1. Any protruding epoxy or adhesive should be left to dry (about 24 hours) and can then be removed with a utility knife.
2. For collars with a set screw, use an allen wrench to secure each top collar against the handrail and each bottom collar against the tread. (Photo 6a)

Photo 6a

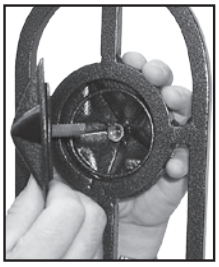
LI-40840 Baluster Hardware

1. Place the hardware bracket around the baluster and position it where the baluster meets the wood handrail. Using the screw holes in the bracket as a template, mark and predrill two holes into the handrail to accept the hardware screws.
2. Permanently secure the bracket to the handrail using the included screws.



Installing Medallions

1. Open the medallion by twisting the two halves in opposite directions to separate the two halves.
2. Screw the halves together tightly against the round opening of our medallion iron balusters.



Installing Adjustable Knuckles

Our Adjustable Knuckles are typically used on our LI-PLA44 and LIH-HOLPLA44 balusters to create a unique baluster design.

1. After installing the balusters into the tread, but before placing the handrail on top of the balusters, slide the desired number of Adjustable Knuckles over each baluster.
2. After placing the handrail on top of the balusters, slide each adjustable knuckle to the desired location and tighten the set screw using an allen wrench.

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