



DOC'S MARKETING CORP.

4121 Guardian St., Simi Valley, CA 93063

I-LAG™ Brand Eye Lag Screws Installation Instructions

The I-LAG™ screws and ceiling wire must be installed vertically to ensure that the tension load is applied along the axis of the screw. The screws must be installed perpendicular to the supporting steel deck material, through the upper or lower flute, using a screw driving tool. When using a Lagmaster™, Lagmaster A+™ or Lagmaster Plus™ (Figure 1.), the installation speed must not exceed 200 RPM. The I-LAG™ screws may also be installed with a variable-speed drill with a maximum speed of 1,900 RPM, by using a special I-DRILL DRIVER (Figure 2.) provided by Doc's Marketing. Screws must be spaced a minimum of 3/4" inch (19.1 mm) on center along the length of the deck panel, and must be installed a minimum of 3/4" inch (19.1 mm) from the deck web. After installation, a minimum of three threads must protrude through the steel deck.

I-LAG™ BRAND EYE LAG SCREW DIMENSIONS

I-LAG™ PART #	NOMINAL FASTENER SIZE (dia-tpi)	NOMINAL DIAMETER (in.)	LENGTH FROM UNDERSIDE OF THE COLLAR TO TIP (in.)	FASTENER "HEAD" LENGTH* (in.)	EYE DIAMETER (in.)	COLLAR DIAMETER & THICKNESS (in.)
750 SD	1/4 - 14	0.250	3/4	1 1/4	0.18	0.5 by 0.07
175 SD	1/4 - 14	0.250	1-15/16	1 1/4	0.18	0.5 by 0.07

For SI: 1 inch = 25.4 mm

*Length from underside of the collar to edge of the driving end of the fastener.

I-LAG™ SHEAR AND TENSION STRENGTHS (lbf)^{1,2}

I-LAG™ PART #	NOMINAL FASTENER SIZE	NOMINAL STRENGTH		ALLOWABLE STRENGTH (ASD)		DESIGN STRENGTH (LRFD)	
		Tension, P _{ts}	Shear, P _{ss}	Tension (P _{ts} /?)	Shear (P _{ss} /?)	Tension (? P _{ts})	Shear (? P _{ss})
750 SD	1/4 - 14	1560	2527	520	872	780	1263
175 SD	1/4 - 14	1560	2527	520	842	780	1263

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N.

I-LAG™ PART #	MINIMUM DESIGN BASE METAL THICKNESS (inch)			
	0.030	0.036	0.047	0.062
ALLOWABLE STRENGTH (ASD)				
750 SD 175SD	82	125	176	229
DESIGN STRENGTH (LRFD)				
750 SD 175 SD	131	201	281	366

For SI: 1 inch = 25.4 mm, 1 lbf = 4.4 N, 1 ksi = 6.895 MPa.

¹The tabulated allowable load values are for the screws only, based on fastener strength and pullout capacity. Ceiling wire capacity is outside the scope of the ICC ESR-3135 report.

²Values are based on installation into steel having a minimum tensile strength, F_{u1} of 45 ksi.

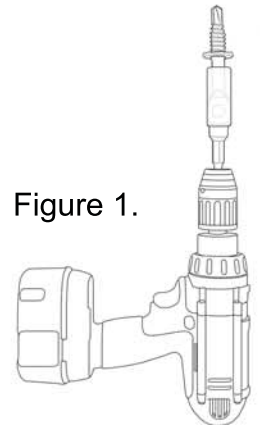


Figure 1.

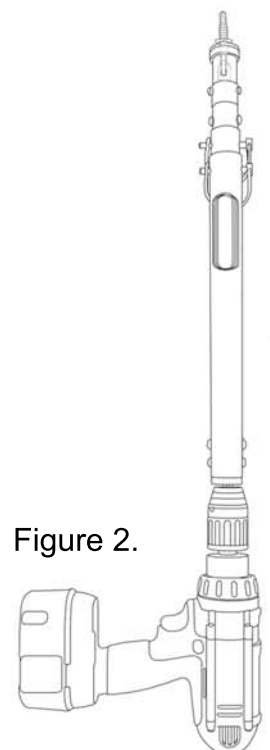


Figure 2.



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1. Adjust the telescoping pole to the proper length.



2. Insert the acoustical I-LAG™ screw into the top slot of the pole.



3. Insert the wire into the side of the slot and through the hole in the I-LAG™ screw. Then bend the wire end down.



4. Raise the tool against the decking, rotate the Lagmaster™ pole tool until the collar of the I-LAG™ screw is flush with the decking.



5. Lower the Lagmaster™ tool as shown.



6. Rotate the Lagmaster™ again to twist the wire, Lower the pole tool to complete the installation.