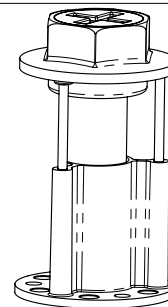


# CADDY ROD LOCK Plywood Pre-set Anchor

## 3/8 inch, 1/2 inch, M10 and M12



Part Number	Article Number	Rod Size	Max. FM@ 1951 pipe size	Max UL203 pipe size. The hex nut must be on threaded rod (see steps 5B & 6B)
CRLW37EG	N/A	3/8"	4" or DN100	4" (NPS 4)
CRLWM10EG	390019	M10		N/A
CRLW50EG	N/A	1/2"	8" or DN200	8" (NPS 8)
CRLWM12EG	390020	M12		N/A

### Allowable Tension & Shear Loads for Threaded Rod\*

Steel Type	ASTM@/ISO@ Steel designation	Threaded rod size	Minimum Yield strength	Minimum Tensile strength	Threaded rod itself	
					Allowable Tension Load Lbs [kN]	Allowable Shear Load Lbs [kN]
Standard Carbon Steel Rod	A307, Grade C	3/8"	36.0 ksi	58.0 ksi	2,115 [9.5]	1,090 [4.9]
		1/2"			3,755 [16.9]	1,940 [8.7]
	A36	3/8"	36.0 ksi	58.0 ksi	2,115 [9.5]	1,090 [4.9]
		1/2"			3,755 [16.9]	1,940 [8.7]
High Strength Carbon Steel Rod	A193, Grade B7	3/8"	105.0 ksi	120.0 ksi	4,375 [19.7]	2,255 [10.1]
		1/2"			7,775 [35.0]	4,050 [18.2]
Stainless Steel Rod (SS304/ SS316)	A193, Grade B8/B8M, Class 1	3/8"	30.0 ksi	75.0 ksi	2,720 [12.1]	1,400 [6.2]
		1/2"			4,850 [21.6]	2,500 [11.1]
Europe Steel Rod	ISO 898-1, Class 4.6	M10	240 MPa	400 MPa	2,350 [10.5]	1,210 [5.4]
		M12			3,390 [15.1]	1,745 [7.8]

\* Do not use a hot dip galvanized threaded rod.

\* For in-door applications only.

### Product Allowable Tension & Shear Loads with Normal-Weight Concrete (See Notes 1, 2, 3, 4 & 5)

Normal-Weight Concrete having 3,000 psi [20.7 Mpa] minimum compression strength

Threaded Rod Steel Type	Threaded rod size	Minimum Concrete slab Thickness Inch [mm]	Minimum Edge Distance Inch [mm]	Minimum Spacing Inch [mm]	Ultimate Tension Load Lbs [kN]	Ultimate Shear Load Lbs [kN]	Allowable Tension Load Lbs [kN]	Allowable Shear Load Lbs [kN]
A307, Grade C	3/8"	3-1/4" [83mm]	6" [152mm]	8" [203mm]	4,220 [18.8]	3,270 [14.6]	1,407 [6.3]	1,090 [4.9]
	1/2"				4,820 [21.7]	5,820 [25.9]	1,605 [7.2]	1,940 [8.7]
A36	3/8"				4,220 [18.8]	3,270 [14.6]	1,407 [6.3]	1,090 [4.9]
	1/2"				4,820 [21.7]	5,820 [25.9]	1,605 [7.2]	1,940 [8.7]
A193, Grade B7	3/8"				4,220 [18.8]	5,330 [24.0]	1,407 [6.3]	1,775 [8.0]
	1/2"				4,820 [21.7]	7,400 [33.3]	1,605 [7.2]	2,465 [11.1]
A193, Grade B8/B8M, Class 1 (SS304/ SS316)	3/8"				4,220 [18.8]	4,210 [18.7]	1,407 [6.3]	1,405 [6.2]
	1/2"				4,820 [21.7]	7,400 [33.3]	1,605 [7.2]	2,465 [11.1]
Europe ISO Class 4.6	M10				4,220 [18.8]	3,630 [16.2]	1,407 [6.3]	1,210 [5.4]
	M12				4,820 [21.7]	5,235 [23.3]	1,605 [7.2]	1,745 [7.8]

#### Notes:

1. Allowable tension & shear load capacities are calculated using an applied safety factor of 3.0
2. Allowable working load must be the lesser of product allowable tension & shear loads showing above table.
3. NFPA@ 13 design requirements are 5 times the weight of the water filled pipe plus 250 lbs.
4. MSS requires the safety factor of 3.5
5. Allowable loads for anchors to resist short term loads such as earthquake or wind may be increased by 33.33% for the duration of the load where permitted by code.

#### WARNING:

1. Pentair products shall be installed and used only as indicated in Pentair product instruction sheets and training materials. Instruction sheets are available at [www.ericopentair.com](http://www.ericopentair.com) and from your Pentair customer service representative.
2. PENTAIR products must never be used for a purpose other than the purpose for which they were designed or in a manner that exceeds specified load ratings.
3. All instructions must be **completely** followed to ensure proper and safe installation and performance.
4. Improper installation, misuse, misapplication or other failure to completely follow Pentair's instructions and warnings may cause product malfunction, property damage, serious bodily injury and/or death, and void your warranty.
5. Products that are manufactured using spring steel components shall be used only in a non-corrosive indoor environment.
6. All pipe supports, hangers, intermediate components and structural attachments must **ONLY** be used as described herein and are **NEVER** to be used for any other purpose.

NOTE: All load ratings are for static conditions and do not account for dynamic loading such as wind, water or seismic loads, unless otherwise noted.

The customer is responsible for:

- a. Conformance to all governing codes.
- b. The integrity of structures to which the products are attached, including their capability of safely accepting the loads imposed, as evaluated by a qualified engineer.
- c. Using appropriate industry standard hardware as noted above.

#### SAFETY INSTRUCTIONS:

All governing codes and regulations and those required by the job site must be observed. Always use appropriate safety equipment such as eye protection, hard hat, and gloves as appropriate to the application.

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TECHNICAL SUPPORT:  
[www.ericopentair.com](http://www.ericopentair.com)

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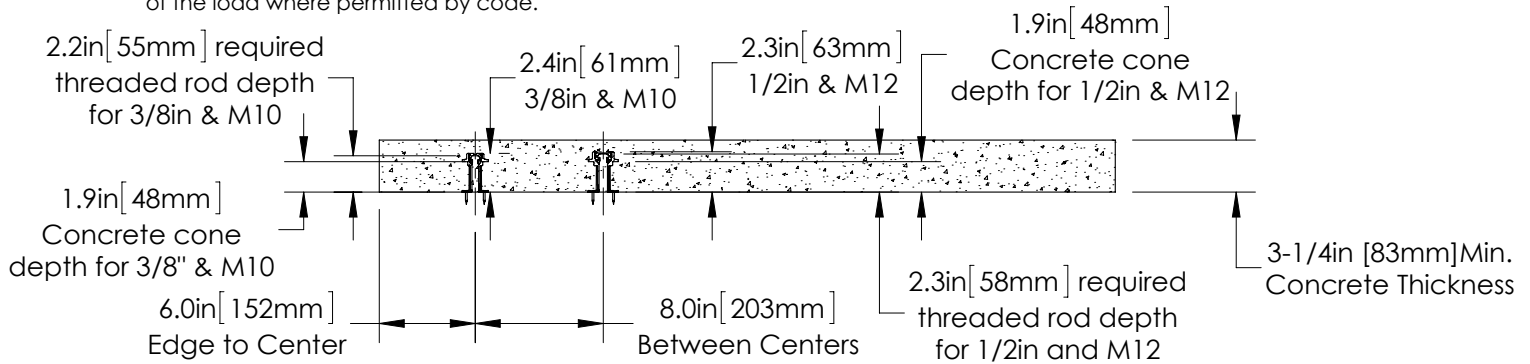


# INSTRUCTION SHEET

Product Allowable Tension & Shear Loads with Light-Weight Concrete (See Notes 1, 2, 3, 4 & 5)								
Light-Weight Concrete having 3,000 psi [20.7 Mpa] minimum compression strength								
Threaded Rod Steel Type	Threaded rod size	Minimum Concrete slab Thickness Inch [mm]	Minimum Edge Distance Inch [mm]	Minimum Spacing Inch [mm]	Ultimate Tension Load Lbs [kN]	Ultimate Shear Load Lbs [kN]	Allowable Tension Load Lbs [kN]	Allowable Shear Load Lbs [kN]
A307, Grade C	3/8"	3 1/4" [83mm]	6" [152mm]	8" [203mm]	3,710 [16.5]	3,270 [14.6]	1,237 [5.5]	1,090 [4.9]
	1/2"				4,270 [19.2]	5,820 [25.9]	1,425 [6.4]	1,940 [8.7]
A36	3/8"				3,710 [16.5]	3,270 [14.6]	1,237 [5.5]	1,090 [4.9]
	1/2"				4,270 [19.2]	5,820 [25.9]	1,425 [6.4]	1,940 [8.7]
A193, Grade B7	3/8"				3,710 [16.5]	5,280 [23.8]	1,237 [5.5]	1,760 [7.9]
	1/2"				4,270 [19.2]	7,180 [32.3]	1,425 [6.4]	2,395 [10.8]
B193, Grade B8/B8M, Class 1 (SS304/ SS316)	3/8"				3,710 [16.5]	4,210 [18.7]	1,237 [5.5]	1,405 [6.2]
	1/2"				4,270 [19.2]	7,180 [32.3]	1,425 [6.4]	2,395 [10.8]
Europe ISO Class 4.6	M10				3,710 [16.5]	3,630 [16.2]	1,237 [5.5]	1,210 [5.4]
	M12				4,270 [19.2]	5,235 [23.3]	1,425 [6.4]	1,745 [7.8]

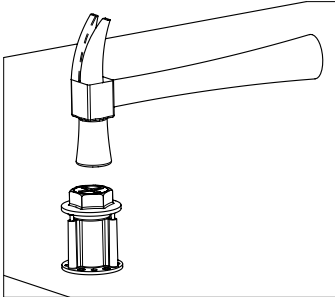
**Notes:**

1. Allowable tension & shear load capacities are calculated using an applied safety factor of 3.0
2. Allowable working load must be the lesser of product allowable tension & shear loads showing above table.
3. NFPA® 13 design requirements are 5 times the weight of the water filled pipe plus 250 lbs.
4. MSS requires the safety factor of 3.5
5. Allowable loads for anchors to resist short term loads such as earthquake or wind may be increased by 33.33% for the duration of the load where permitted by code.

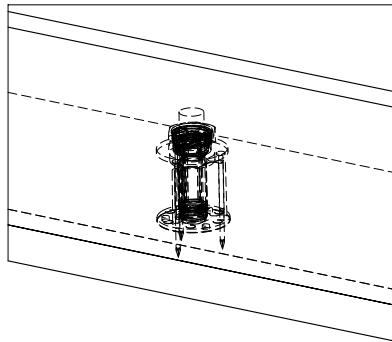


**Assembly Instructions:**

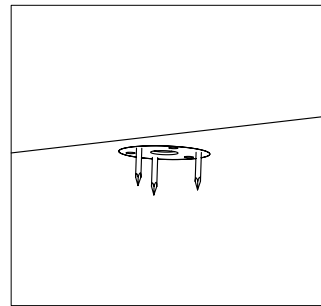
Step 1 - Assemble anchor to wood form using a hammer.



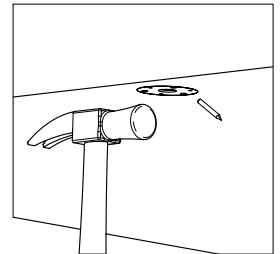
Step 2 - Pour concrete into wood form.



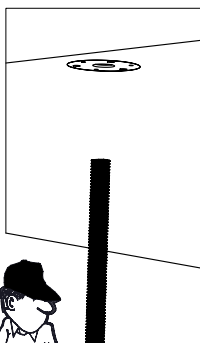
Step 3 - After concrete is cured, remove wood form.



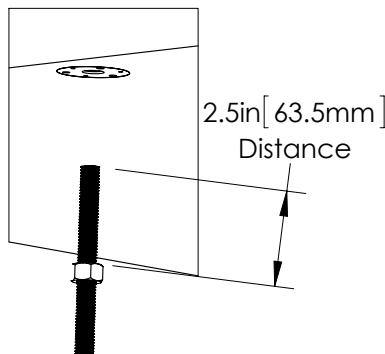
Step 4 - Remove protruding nails by shearing off with a hammer.



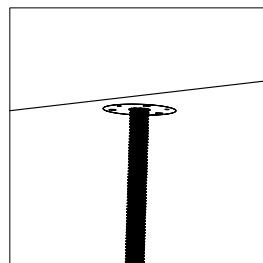
Step 5A



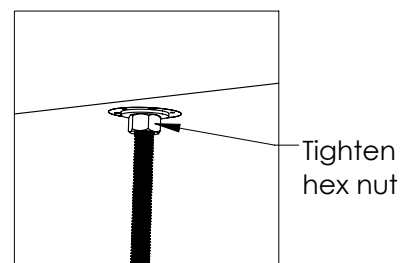
Step 5B - Install the hex nut on threaded rod. (UL203 only)



Step 6A - Push-in threaded rod.



Step 6B - Push in threaded rod assembly. (UL203 only)



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