Construction Specifications

Hidden Leading Edge

AWARNING

FOR YOUR SAFETY—This product must be installed and serviced by a contractor who is licensed and qualified in pool equipment by the jurisdiction in which the product will be installed where such state or local requirements exists. In the event no such state or local requirement exists, the installer or maintainer must be a professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in this manual can be followed exactly. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation may void the warranty.

A hidden leading edge is an aesthetically pleasing way to extend or retract the leading edge out of view. To hide the leading edge, the walls are adjusted so that the leading edge is hidden by the deck or lids. The beam wall can either be sloped or notched on the mechanism end; the far end can either be notched or cantilevered to create a recess for the leading edge.

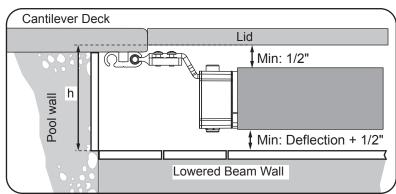
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Construction Requirements

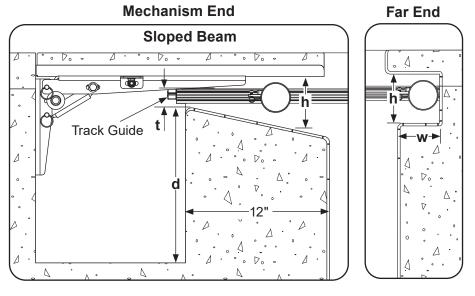
Special construction tolerances for finished measurement (h) are critical and must be calculated accurately for hiding the leading edge.

- Maintain a minimum ½" clearance above and ½" clearance with deflection below the leading edge when in resting position.
- Water level and skimmers must be adjusted so normal operating water level is maintained 2"-4" below the bottom of the leading edge in the resting position.
- Increasing the deck thickness rather than lowering the beam will reduce the need to adjust the water level.
- Vanishing Lid™ Trays supplied by Cover-Pools (optional) must not extend more than 6" past the end of the brackets (see instruction 601779 Instruction Vanishing Lid Bracket for details).
- Longer pool track spaces require larger openings due to deflection of the leading edge. Refer to the "Leading Edge Deflection Chart" on page ⁷ for advanced instructions.
- The leading edge is hidden by creating an opening (h) large enough for the leading edge to rest completely under the lids.

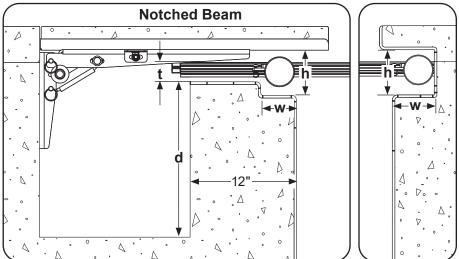


Finished Dimension Requirements

A sloped beam wall provides a ramp for the leading edge to ride up to minimize the impact if the leading edge hits the beam wall. In addition, the slope will drain water away from mechanism box.



Creating a notch in the beam wall is another way to hide the leading edge. The beam wall is notched allowing the leading edge space to stop under the lids. Make sure that the water level does not exceed the notch.



Minimum Finished Dimension Requirements to Hide the Leading Edge														
Diameter of leading edge	Size A or Rect = 13/4"			Size B or Square = 2½"				Size C = 4"						
Track Space	6'–10'	11'– 13'	14'–17'	16'– 18'	19'– 22'	23'– 24'	25'– 26'	16'– 18'	19'– 20'	21'– 24'	25'– 28'	28'– 31'	32'– 33'	34'– 35'
h =Height of notch minimum (Bottom of lid to bottom of notch)	2-7/8"	3"	3-3/8"	4"	4- 5/8"	5- 1/8"	5- 1/2"	5- 1/8"	5- 1/4"	5- 1/2"	6"	6- 1/2"	7"	7- 1/2"
t=Track opening minimum	2" finished			2" finished				2" finished			2" finished			
w =Width of beam notch minimum	2-1/2"			3-1/2"			4-1/2"			4-1/2"				
d =Depth (Top of beam to bottom of recessed housing)	12-1/2"		12-1/2"			12-1/2"			14-1/2" (8" drum)					

Note: If using Rectangular Leading Edge, use same charts as Size A LE. If using Square leading edge, use same charts as Size B LE.

Caution: This chart assumes no load on the leading edge. We strongly recommend additional clearance under the leading edge to accommodate loaded covers (e.g. rainwater, etc.). As little as $\frac{1}{4}$ " of water can easily result in hundreds of pounds of load.

Leading Edge Configurations

Adjustable Glider with Leading Edge B or Square Leading Edge

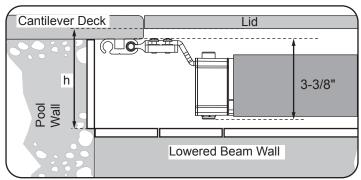
The adjustable glider allows you to incrementally adjust the glider. In addition, you can reverse the glider arm to lower the leading edge further. Note: the reverse dowel sets the leading edge at the same minimum standard height. The measurements show the minimum and maximum distance from the top of the track to determine the needed beam wall opening (h) size.

Note: Add deflection clearance (see "Leading Edge Deflection Chart" on page 7).

Configuration with 170192 1" Arm

Maximum Standard Height Minimum Standard Height Cantilever Deck Lid Cantilever Deck Lid 3-1/8" h _eading Edge B 1-5/16" 1-9/16" Pool Pool Wall: Lowered Beam Wall Lowered Beam Wall

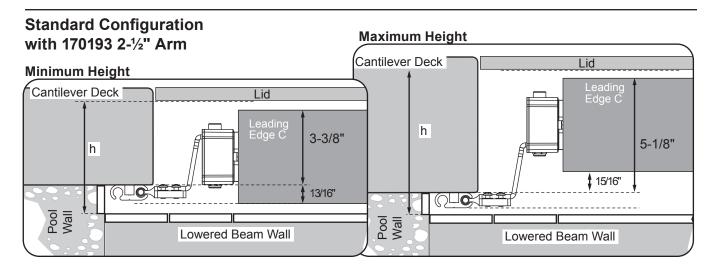
Minimum Reversed Glider Height



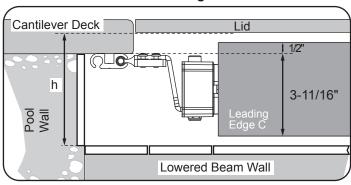
Configuration with 170193 2-1/2" Arm **Maximum Standard Height** Minimum Standard Height Cantilever Deck Lid Cantilever Deck 4-9/16" 2-3/4" h h 1-13/16" - 13/16" $\bigcirc \Box \mathbf{c}$ Pool Pool Lowered Beam Wall Lowered Beam Wall

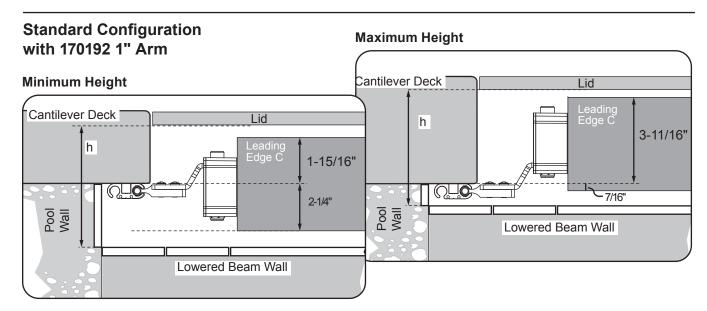
Adjustable Glider with Leading Edge C

Note: Add deflection clearance (see "Leading Edge Deflection Chart" on page 7).



Maximum Reversed Glider Height



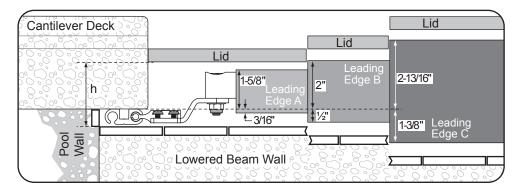


Standard Glider with Leading Edge Rect, A, B, Square, or C

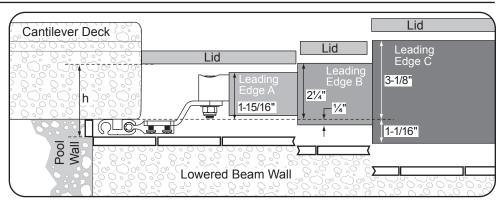
The standard leading edge kit provides eight configurations or height options for each size of leading edge. These are achieved by changing the orientation of the glider base, glider arm, and glider dowel. The measurements show the distance from the top of the track to determine the needed beam wall opening (h) size. You can add an additional 1/2" by installing 110345 Leading Edge Dowel Spacer between the dowel and the arm.

Note: Add deflection clearance (see "Leading Edge Deflection Chart" on page 7).

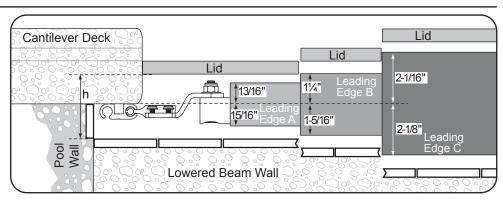
Standard Configuration Left Hand Arm Base Normal Dowel Normal



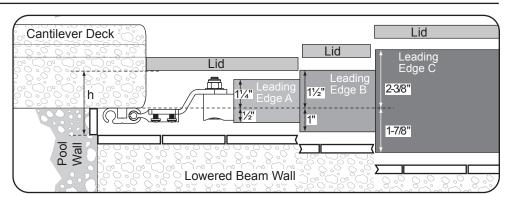
Alt. Configuration #1 Left Hand Arm Base Inverted Dowel Normal



Alt. Configuration #2 Left Hand Arm Base Normal Dowel Inverted



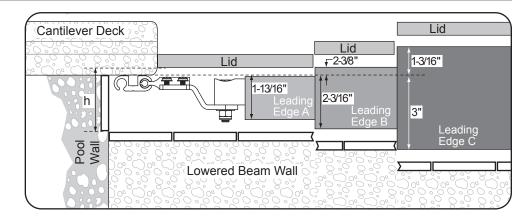
Alt. Configuration #3 Left Hand Arm Base Inverted Dowel Inverted



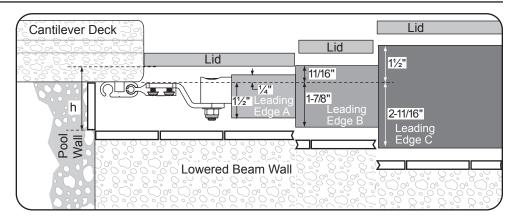
Note: Add deflection clearance (see "Leading Edge Deflection Chart" on page 7).

Alt. Configuration #4 Right Hand Arm Base Normal Dowel Normal Note: Add deflection clearance (see chart on

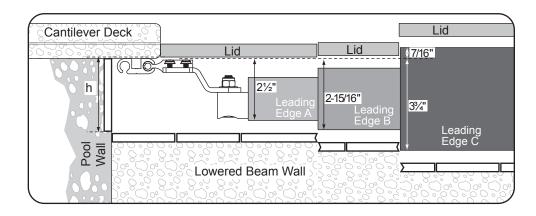
page ⁵).



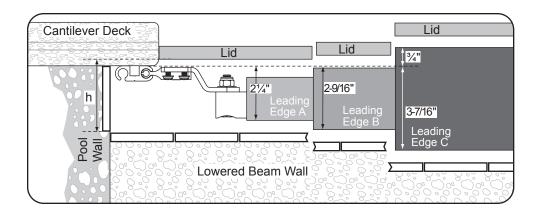
Alt. Configuration #5
Right Hand Arm
Base Inverted
Dowel Normal
Note: Add deflection
clearance (see chart on
page 5).



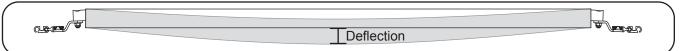
Alt. Configuration #6
Right Hand Arm
Base Normal
Dowel Inverted
Note: Add deflection
clearance (see chart on
page 5).



Alt. Configuration #7
Right Hand Arm
Base Inverted
Dowel Inverted
Note: Add deflection
clearance (see chart on
page 5).



Leading Edge Deflection Chart



The leading edge will deflect (bend) slightly depending on the track space and the amount of load on the pool cover. The table below shows the expected deflection without a load and with a typical water load of 50 pounds (6 gallons of water).

The dimensions for the finished notched depth (b) given on page 2 use a "no load" deflection and each dimension adds about an inch in order to provide ½" clearance on the top and bottom of the leading edge.

Use the conversion chart to determine a fraction found on most tape measures.

Decimal to Fraction Conversion						
Decimal	Fraction					
0.0625	1/16"					
0.125	1/8"					
0.1875	3/16"					
0.25	1/4"					
0.3125	5/16"					
0.375	3/8"					
0.4375	7/16"					
0.5	1/2"					
0.5625	9/16"					
0.625	5/8"					
0.6875	11/16"					
0.75	3/4"					
0.8125	13/16"					
0.875	7/8"					
0.9375	15/16"					

Track Space (Feet)	Leading Edge Rect 1.5"x3.5" (inch)		Leading Edge A 1-3/4" dia. (Inch)		Leadir B 2-1/2 (Inch)	ng Edge 2" dia.	Leading Square (inch)		Leading Edge C 4" dia. (Inch)	
	No Load	Water Load	No Load	Water Load (50Lbs.)	No Load	Water Load	No Load	Water Load (50Lbs.)	No Load	Water Load
6	0.010	0.134	0.014	0.267		_		_		_
7	0.019	0.215	0.027	0.428		_		_		_
8	0.032	0.325	0.046	0.644		_		_		_
9	0.052	0.469	0.073	0.925		_		_		_
10	0.079	0.651	0.112	1.280	0.048	0.438	0.038	0.273		_
11	0.116	0.877	0.164	1.719	0.071	0.590	0.055	0.368		_
12	0.165	1.152	0.232	2.251	0.100	0.774	0.078	0.484		_
13	0.227	1.482	0.32	2.886	0.138	0.995	0.108	0.624		_
14	0.305	1.873	0.430	3.635	0.186	1.256	0.145	0.790		_
15	0.402	2.330	0.566	4.509	0.245	1.561	0.191	0.984		_
16	0.520	2.861	0.733	5.518	0.317	1.914	0.247	1.210	0.113	0.416
17		_	0.934	6.674	0.404	2.320	0.315	1.469	0.144	0.507
18		_		_	0.508	2.782	0.396	1.766	0.181	0.612
19		_		_	0.630	3.305	0.491	2.103	0.225	0.732
20		_		_	0.774	3.894	0.603	2.483	0.276	0.868
21		_		_	0.941	4.552	0.733	2.910	0.335	1.020
22		_		_	1.133	5.285	0.833	3.386	0.404	1.191
23		_		_	1.354	6.098	1.055	3.914	0.482	1.382
24		_		_	1.605	6.995	1.251	4.500	0.572	1.594
25		_		_	1.889	7.982	1.473	5.145	0.673	1.829
26		_		_		_		_	0.787	2.088
27		_		_		_		_	0.916	2.372
28		_		_		_		_	1.059	2.683
29		_		_		_		_	1.219	3.023
30		_		_		_		_	1.396	3.393
31		_		_		_		_	1.591	3.795
32		_		_		_		_	1.807	4.231
33		_		_		_		_	2.043	4.702
34		_		_		_		_	2.303	5.211
35		_		_		_		_	2.586	5.758