



The Wine Storage Specialist

USER & INSTALLATION GUIDE

Acrylic Wine Racks Cork Forward

Floor-to-ceiling architectural wine display in acrylic and 304 grade stainless steel, with optional integrated LED lighting. Custom built to your space.

MODEL

WR-ACRYLIC

MARKET

United States

DOCUMENT

KB-MAN-WR-ACRYLIC-2026-02-US

Read the entire installation process before you begin. This system is custom built, so adapt the sequence to your actual site conditions.

Your system, and what installing it involves

The rack is a grid of vertical stainless steel poles fixed between floor and ceiling. Acrylic square strips clamp to the poles at fixed intervals and cradle each bottle. Every unit is cut to the width and height of your space, so the pole spacing and strip count are calculated before assembly begins.

COMPONENTS

Stainless steel pole (rod)	Ø16 mm
Acrylic square strip	30 × 30 mm
Pointed head cap screw	304 s/steel
Floor flange and mount	per pole
Ceiling flange and mount	per pole
Locator bar	per bay
LED strip and 12 V transformer	optional

TOOLS YOU SUPPLY

Hex wrench to suit the cap screws
Drill and fixings suited to your floor and ceiling substrate
Spirit level and laser line
Tape measure and marking pencil
Neutral cure glass glue (silicone)
Vernier caliper, for measuring bottle diameter

SAFETY

- Confirm the floor and ceiling are level, structurally sound and suitable for secure fixing before drilling.
- Check for services in the ceiling and floor on the drilling lines.
- Two people are needed to stand and align full height poles.
- Load bottles from the bottom up. Do not climb or lean on the structure.
- All mains connection work must be carried out by a licensed electrician.

PROFESSIONAL INSTALLATION

Professional installation is recommended for larger or more complex configurations, for any bay above 2400 mm, and for every installation that includes LED lighting.

INSTALLATION VIDEOS



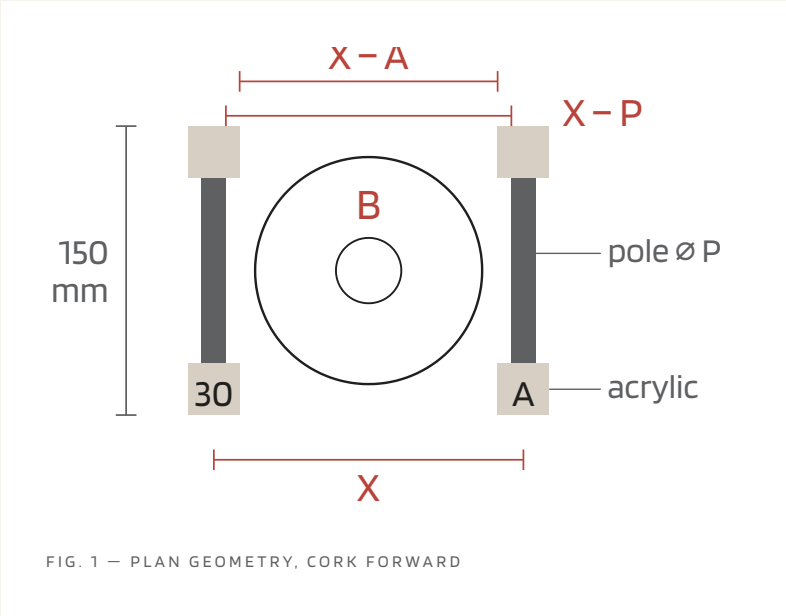
Without top and bottom frame



With top and bottom frame

01 Determine the spacing for your bottles

Horizontal spacing is set by the diameter of the bottles you intend to store. Measure the widest part of the bottle body, then set the distance between pole centres from it. Allow a 1 mm gap between bottle and pole, and 2 mm of support on each side of the bottle.



NOTATION	
P	Diameter of pole — 16 mm
A	Acrylic strip side length — 30 mm
B	Diameter of bottle
X	Distance between two pole centres
Y	Vertical spacing — 120 or 150 mm

THE RULE

$X - 26 < B < X - 18$

$B + 18 < X < B + 26$

Simplified: $X = B + 22 \pm 4$

COMMON SETTINGS

90	100	102	105
Bottle ø 64–72 mm	Bottle ø 74–82 mm	Bottle ø 76–84 mm	Bottle ø 79–87 mm

Horizontal spacing X in millimetres. Vertical spacing Y is optional and set at either 120 mm or 150 mm.

Bottle size and horizontal spacing

Find your bottle diameter in the range columns, then read across to the horizontal spacing. Values are given in both millimetres and inches.

MILLIMETRES

SPACING X	MIN ø	MAX ø
90	64	72
91	65	73
92	66	74
93	67	75
94	68	76
95	69	77
96	70	78
97	71	79
98	72	80
99	73	81
100	74	82
101	75	83
102	76	84
103	77	85
104	78	86
105	79	87
106	80	88
107	81	89
108	82	90
109	83	91
110	84	92

INCHES

SPACING X	MIN ø	MAX ø
3.54	2.52	2.83
3.58	2.56	2.87
3.62	2.60	2.91
3.66	2.64	2.95
3.70	2.68	2.99
3.74	2.72	3.03
3.78	2.76	3.07
3.82	2.80	3.11
3.86	2.83	3.15
3.90	2.87	3.19
3.94	2.91	3.23
3.98	2.95	3.27
4.02	2.99	3.31
4.06	3.03	3.35
4.09	3.07	3.39
4.13	3.11	3.43
4.17	3.15	3.46
4.21	3.19	3.50
4.25	3.23	3.54
4.29	3.27	3.58
4.33	3.31	3.62

02 Calculate poles and acrylic strips

Measure the space, deduct the edge allowances, then divide by the spacing you set in Step 1. Round every division down to a whole number of holes.

A · ADJUST THE SPACE

Allow a minimum of 15 mm at the left and right for the edge of the racks, and a minimum of 20 mm at top and bottom for the rack edge and the post covers.

$W_{adj} = W - 30\text{ mm}$

$H_{adj} = H - 40\text{ mm}$

B · ROWS AND COLUMNS OF HOLES

$Columns = INT(W_{adj} \div X)$

$Rows = INT(H_{adj} \div Y)$

Y is your vertical spacing, either 150 mm or 120 mm.

C · QUANTITY OF POLES

$(INT(W_{adj} \div X) + 1) \times 2$

Two poles per column of holes, front and back.

D · QUANTITY OF ACRYLIC STRIPS

$(INT(W_{adj} \div X) + 1) \times INT(H_{adj} \div Y)$

One strip per pole pair, per row.

WORKED EXAMPLES — A 1000 × 1500 MM SPACE

UNIT	BOTTLE Ø	X	Y	HOLES W	HOLES H	RACK W	RACK H	DEPTH
Unit 1	70	92	120	10	12	950	1500	320
Unit 2	80	102	150	9	9	948	1500	320
Unit 3	86	108	120	8	12	894	1500	320
Unit 4	86	108	150	8	9	894	1500	320

All dimensions in millimetres. Rack width and height are the finished dimensions of the built unit within the measured space.

03 Insert the LED strips and fit the acrylic strips

ON THE VIDEO

LED strips go into the poles first

Align the acrylic strip with the hole in the pole

Fit a 304 cap screw and tighten with a hex wrench

One pole at a time. Level every row

1. If your system includes LED lighting, insert the LED strip into each pole now, before any acrylic is fitted.
2. Position the acrylic strip along the stainless steel post so that it aligns with the hole in the post.
3. Ensure that the holes in the posts are facing the same direction, front to back, as the acrylic strips.
4. Secure the strip to the post by inserting a 304 pointed head cap screw through the pre-drilled hole in the acrylic strip.
5. Using an appropriate hex wrench, tighten the screw until the strip is securely attached to the post.



FIG. 2 — POINTED HEAD CAP SCREW

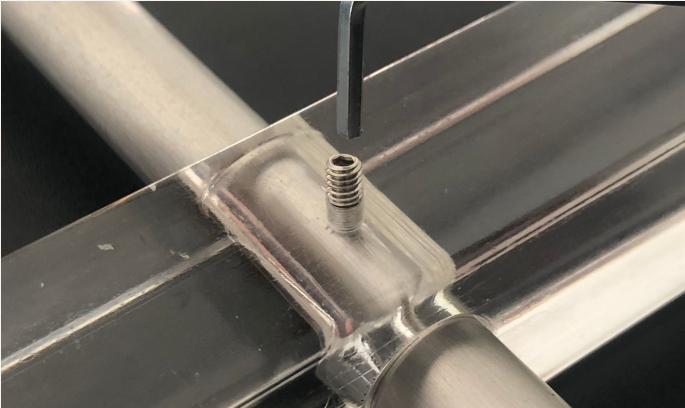


FIG. 3 — TIGHTEN ONTO THE POLE

NOTE

Tighten only until the strip stops moving on the pole. Over-tightening the pointed screw can stress the acrylic. Work along one pole at a time and check each row against a level before moving to the next.

04 Erect the poles – two frame options

ON THE VIDEO

Mark the pole centres, floor and ceiling	Drill only after every position is confirmed	Fit a flange to each end of every pole
Ceiling mounts first, floor mounts second	Check plumb, tighten, then glue the flanges	

A · WITHOUT TOP AND BOTTOM FRAME

Flanges fix directly to the ceiling and floor.

1. Mark the pole centre lines on the floor at the spacing X set in Step 1, transfer each centre to the ceiling with a laser line, and check every position is plumb.
2. Check for services on the drilling lines, then drill the ceiling and floor positions together.
3. Re-measure the drilled positions against the spacing X and confirm each ceiling hole sits directly above its floor hole.
4. Fit a flange to each end of every pole and check it seats square before lifting the pole into place.
5. Fix the ceiling mounts first, then the floor mounts, threading the appropriate screws into each substrate.
6. Check each pole for plumb, tighten all screws, then use glass glue to secure the flanges to the poles.

NOTE

Fixing the ceiling first lets each pole hang true, so the floor mount only has to take up the final position.

B · WITH TOP AND BOTTOM FRAME

Frames fix to the ceiling and floor; the poles seat into their pre-drilled holes.

1. Measure and mark the frame positions on the ceiling and the floor, using a laser line to keep the two plumb to each other.
2. Check for services on the drilling lines and drill the marked positions.
3. Fix the top frame to the ceiling first, then fix the bottom frame to the floor.
4. Check both frames are level end to end and that the pole holes line up one directly above the other, at the spacing X set in Step 1.
5. Stand each pole into its hole in the bottom frame, then guide the upper end into the matching hole in the top frame, keeping the pole plumb.
6. Secure each pole-to-frame junction with glass glue and allow it to cure before the acrylic strips are loaded.

NOTE

Frames are supplied pre-drilled to your project spacing, so no fixing centres need to be set on site. Seat each pole fully into its hole and secure it with glass glue; allow 24 hours to cure before bottles are loaded.

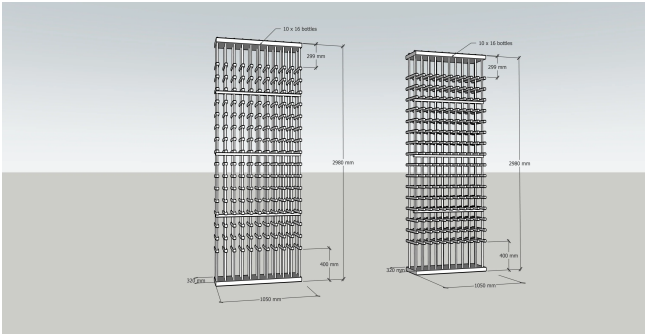


FIG. 4 — TYPICAL BAY ELEVATIONS. DIMENSIONS SHOWN ARE ONE PROJECT CONFIGURATION, NOT A STANDARD SIZE.

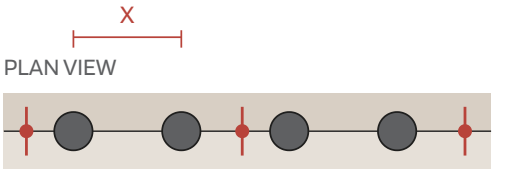
05 Install the locator bar and spacers

ON THE VIDEO

- Close the two rails around the poles
- M4 screws from the back. Nothing shows at the front
- Fit the post covers, top and bottom

The locator bar enhances the stability of the structure and holds an accurate distance between the poles. It is supplied as a front and a back rail. Each pole passes through a Ø16.2 mm hole on the joint line between them. Two or three M4 screws driven from the back pull the two rails together — the count depends on the length of the bar, not on the pole spacing. No adhesive is used.

1. Hold the back rail against the poles so each pole sits in its own half-round recess, then bring the front rail up to meet it.
2. Check the bar is level end to end before final tightening.
3. Drive the M4 screws from the back rail — near each end and, on longer bars, one near the middle — and tighten them evenly until both rails grip the poles. No fixings are visible from the front.
4. Fit the post covers over the completed junctions at top and bottom.



2-3 SCREWS PER BAR, DRIVEN FROM THE BACK

- FRONT RAIL
- BACK RAIL
- M4 SCREW
- Ø16.2 POLE HOLE

FIG. 5 — PLAN: FRONT AND BACK RAILS SCREWED AROUND THE POLES. SCREW POSITIONS ARE INDICATIVE.

BEFORE YOU LOAD THE DISPLAY

01

Check every pole for plumb and every acrylic row for level, end to end.

02

Re-check each cap screw along the poles. Snug, not over-tightened.

03

Re-check the locator bar screws are evenly tightened along the full run.

04

Load bottles from the bottom row upward, spreading weight across the bays.

NOTE

No spacer sleeves are used on this system: the locator bar alone holds the pole spacing. The two-rail bar shown in the installation video is the current method — the M4 screws are supplied with the bar and are driven from the back rail only.

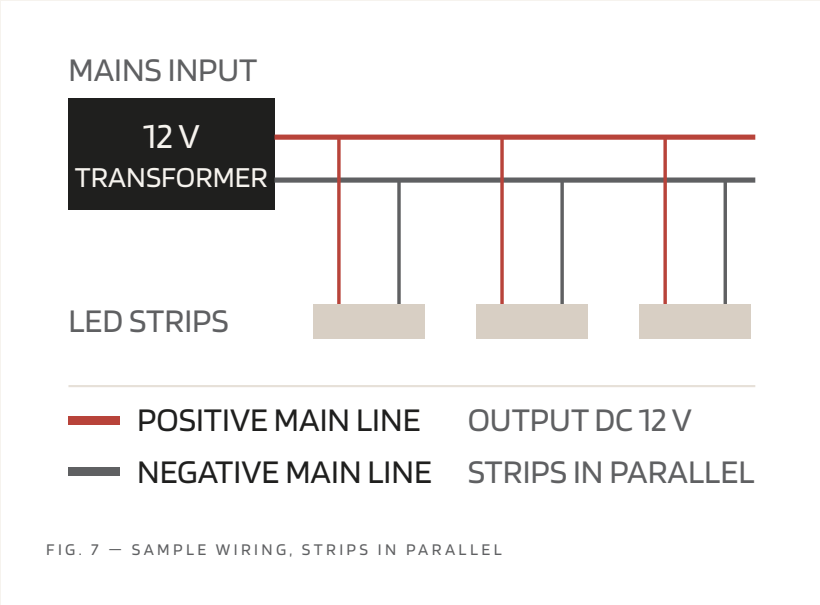
06 Install the LED lighting

ON THE VIDEO

Wire all strips in parallel to the 12 V transformer

Mains work by a licensed electrician only

Pull a positive and a negative output main line from the transformer. All light strips are connected in parallel to the main line. Mains connection must be carried out by a licensed electrician.



SUPPLY	
Mains input	110–120 V AC
Transformer output	DC 12 V
Strip connection	Parallel

WARNING

- Use the 110–120 V transformer supplied with the system. Do not substitute a transformer rated for another market.
- Observe polarity. Reversed connections will not light and may damage the strips.
- Isolate the circuit before working on any connection.

Total transformer wattage depends on the number of strips in your configuration. Confirm the rating supplied with your order.



FIG. 8 — COMPLETED INSTALLATION WITH LED OPTION

CARE & SUPPORT

Keeping the display looking as it did on day one

CLEANING

- Dust the acrylic with a dry microfibre cloth. For marks, use a damp cloth and a mild detergent.
- Never use solvent, alcohol, ammonia or abrasive cleaners on acrylic. They will craze the surface.
- Wipe stainless steel along the grain with a soft cloth, then dry.

ROUTINE CHECKS

- Check the cap screws and floor and ceiling fixings annually and after any building movement.
- Load from the bottom up and distribute weight evenly across the bays.
- Keep the display out of direct sunlight to protect both wine and acrylic.

UNITED STATES

BTO America Limited
2108 N St #6212, Sacramento, CA 95816
800-419-8183
support@kingsbottle.com
kingsbottle.com



US SUPPORT