

# CABINET DESIGNS

## THE EVOLUTION OF LED SIGN CABINETS

The first LED signs were built for use indoors. The challenge in bringing LED signs outdoors was providing protection from the environment. The first outdoor LED signs were built with water-tight cabinets. The LEDs tiles were behind a protective layer of lexan or other polycarbonate plastic. The cabinet and cover provided protection from all kinds of weather. All the electronic components, ribbon cables and electrical wires were inside that cabinet. The power supplies providing power to those components generated a lot of heat so fans were added to pull air through the cabinet for ventilation.

The cabinet borders framed the LEDs on all four sides. The signs opened from the front and were hinged at the top or bottom. The cabinet borders were typically 3" to 6" on each side of the cabinet -- but some signs had frames as wide as 10". The cabinet border reduced the viewing area of the LED sign face. Depending on the size of the cabinet border, the viewable message space was reduced by 6" to 12" or more in height and width.

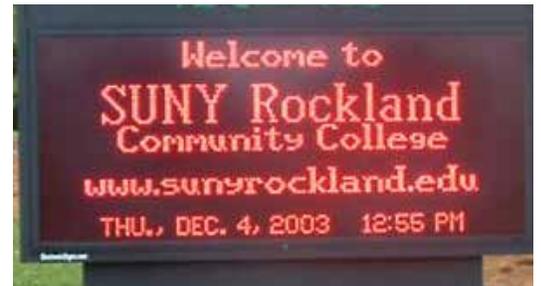
The cabinet cover did a great job of protecting the LED tiles, but it greatly reduced the viewing angle of the signs. It could be difficult for viewers to read the sign message unless they were facing the sign head-on. And the water-tight enclosure could hold in humidity which allowed moisture to "fog up" the protective cover.

The introduction of exposed pixel design offered a lot of improvements to LED signs including better viewing angles, contrast and brightness. The LED tiles were sealed against the environment so they could be placed on the exterior of the cabinet. This eliminated the need for a hinged cabinet frame with a protective cover.

This borderless design increases the viewable message space by using the entire surface area of the sign face -- with LED pixels from edge-to-edge.



Top Hinged Cabinet



Protective Cover



Borderless Cabinet



Edge-to-edge pixels

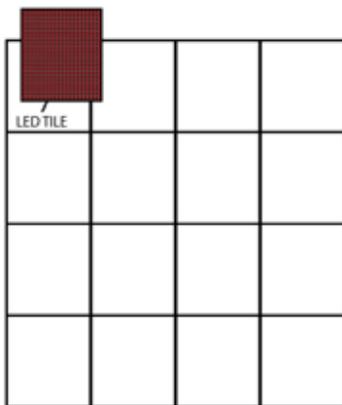
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## CABINET OPTIONS

Today you can choose LED sign cabinets with or without borders. The borderless design is by far the most popular and widely used LED sign build. But there are times when a bordered sign may be a better fit for your location.

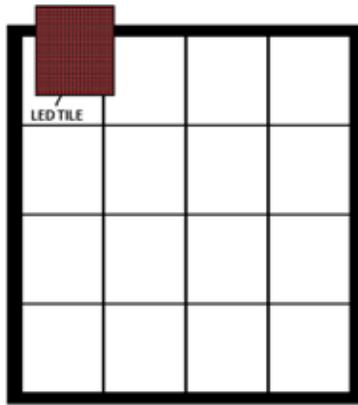
### CHOOSE A BORDERLESS SIGN WHEN...

You want the most sign for your dollar. Built with edge-to-edge pixels, the entire surface of the sign face is viewable message display area. The borderless cabinet is the best cabinet option for most types of installation.



### CHOOSE A BORDERED SIGN WHEN...

You need a protective vandal cover. If you're concerned about vandalism - especially spray painting/graffiti... a bordered cabinet may be the right fit for you because it is the ONLY option that will allow you to add a protective vandal cover.



### CHOOSE A FRONT-VENTILATED SIGN WHEN...

You need to fit your LED sign inside a tight space like an enclosed area inside a monument-style sign. The front ventilated cabinet has a bordered frame with air vents at the bottom and top of the cabinet that draw air through the sign.

