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*Customization Options Defined:
A **Trans-Tech** White Paper*

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Customization Defined

When customers think about the customization of a sign, they often think first of the modification of its message. And although the message can be altered to *say* whatever the customer wants, there are a myriad of other pieces of the sign that can be changed and custom-built.

Customization of the sign extends beyond message to include things like color, spacing and angle of LEDs, various illumination sources, font styles, logos and graphics, and even languages. Essentially, every aspect of a sign, physical and functional can be made-to-order.

What does this mean for you? It means that even if you need something extremely specific, Trans-Tech will commission a sign or signs constructed specifically for your needs, and to your exact specifications.

Customization of Functional Components

LED Color

Trans-Tech provides LEDs in red, green, Portland orange, amber, white and blue. However, if a customer requires a specific color that Trans-Tech does not carry in stock, a custom color can be provided on request.



Kerning

Trans-Tech pays careful attention the kerning, or spacing of the sign characters, which allows for maximum visibility of the message. Graphic designers carefully draw each sign and space the LEDs so that the sign is easy to see.

If a sign's LEDs are too close together a "light bloom" can occur, which gives the message glow, making it difficult to read. When a sign is intended to be viewed from a far distance, graphic designers kern the letters out, placing more space between characters so the message is legible as traffic is approaching it.

Viewing Angles

Trans-Tech offers varying degrees of viewing angles for LEDs. The application of the sign dictates the viewing angle of the LED, and Trans-Tech can help determine what the best LED angle is for a customer's specific need. In addition to narrow angle LEDs, which are ideal for [highway](#) applications, Trans-Tech also offers standard oval LEDs, which offer a wide viewing angle for improved off-access viewing.

Alternative Illuminations



Trans-Tech offers alternative illuminations to LED, including incandescent and neon, if a sign requires. And, Trans-Tech is capable of combining different types of lighting technology into one sign.

For example, combining LED direct-view to illuminate a message or messages (like [open/closed](#)) with LED backlit to illuminate a symbol or symbols, into a single sign, like the sign pictured to the left.

Logos and Graphics

Trans-Tech can provide custom fonts and character sizes, and is capable of making upper and lowercase letters. Signs can be made in any language needed, and the company is able to reproduce any type of logo or graphic that a customer may need.

For example, Trans-Tech designed the LED version of the [eGo logo](#), a symbol used for Puerto Rico's electronic toll collection system, pictured to the right.



Cabinet

Often customers require various components of a sign's cabinet to be customized. From a particular color of paint for the cabinet, to the addition of a hood, to the [mounting](#), Trans-Tech can alter any part of a sign cabinet to fit a customer's specifications.

Trans-Tech cabinets can include a din rail, can be designed to integrate with standard transportation mounting, and can include a door stop/ positive stop. Most importantly, Trans-Tech cabinets are weather rated, which makes them ideal for holding up against the elements or being located in high-vibratory conditions, such as a toll plaza on a highway.

Customization of Functional Components

Not only can Trans-Tech customize what a sign looks like, it can also customize how the sign operates. From the number of messages, to how those messages are controlled, to integration with existing systems, Trans-Tech is able to modify how the sign functions so that it meets a customer's exact specifications and needs.

Overlaid Messages

The need for a sign to display multiple messages in one sign cabinet does not necessitate the need for a programmable message sign. Depending on the size of the sign and the message needed, Trans-Tech is able to overlay – or combine – several different messages into a single sign cabinet. This greatly reduces cost when compared to a dynamic message sign and accomplishes the same goals.

For example, the following four symbols were combined into one sign cabinet:



In this case, the customer needed a multiple Lane Use sign (LUS) for a bridge. The bridge's lanes changed direction depending on the time of day and needed to include a Right Turn Only signal, so Trans-Tech designed a sign that could accommodate all of the varying lane changes needed.

Message Control

Trans-Tech provides a multitude of ways to control messages, including hardwiring the sign with a 1-9 gang [switch](#); using wireless communications with a [remote](#), receiver or keypad; and using serial communications, i.e. RS232, RS485 and RS422.

All of Trans-Tech signs are easily integrated into existing relays, and we have the ability to customize audible and visible components of the sign, such as flashing [beacon strobes](#), photo dimming, and audible [alarms](#).

Quality Control

Each one of Trans-Tech's signs is tested and inspected for quality purposes, including its solder joints, electrical condition, LED color matching, and conformal coating. All of Trans-Tech's LED signs are UL approved and backed by a 5-year unlimited [warranty](#) on workmanship.

Contact

For more information regarding custom signage, please call Trans-Tech toll free at 888-811-7010 or e-mail sales@transportation-tech.com.