

# GLI Theory of Operation

## Cooling By Evaporation

Anyone who has applied rubbing alcohol or after-shave on themselves knows the cooling effect of an evaporating liquid. The gas level indicator (**GLI**) works by measuring this cooling effect. When your grill is in use, the propane or butane evaporates to replenish the gas you are burning. This evaporation cools the liquid inside the tank and after a few minutes, the liquid cools the outside of the tank as well.

## Showing the Gas Level

The **GLI** is actually a highly sensitive thermometer that measures the temperature change on the outside of the tank caused by the evaporation. The temperature difference causes one or more of the columns on the GLI to change color right where the tank changes temperature. **Therefore, the liquid level is shown precisely where the column on the GLI changes color.** Specific colors are not important, just the point of **change** in color.

## Automatic Temperature Compensation

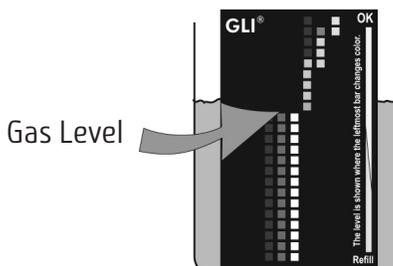
There are 11 columns, or bars on the GLI. These columns are each calibrated for different ambient conditions. This feature, called automatic temperature compensation, will indicate the proper tank level at any temperature between 32 - 115°F for the model 100.

## Limitations

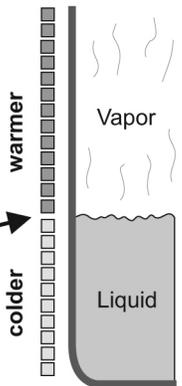
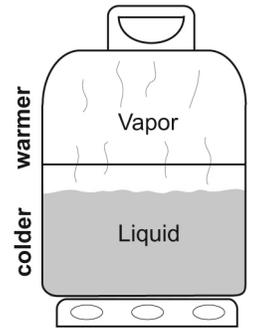
The GLI only works when the grill is in use. When the level is above or below the GLI, no level will be shown (you can move the GLI up or down to detect the level if desired). **The GLI should be kept out of direct sunlight or the life will be shortened.**

## Unique Conditions

Certain conditions (extremely high rates of usage), may cause more than one column to change color. In this case, the level is indicated where the left most bar changes color as shown below.



The columns, or bars in the GLI are made of thermochromic liquid crystals. this unique material changes color with temperature, similar to a mood ring.



Model 100  
(Actual Size)

