L Series Battery Fuel Gauge & Volt Meter by GDI
Added features for charger communications, LED Flash Alert™, and more!
Available for 12, 24, 36, or 48 volt DC systems

GDi
GLOBAL DIGITAL INSTRUMENTS

Features:
- NEW FEATURE: FULLY LIT DISPLAY. New gauges are able to light all ten LED's at once for a bright display that is easy to read in any environment.
- Available as Battery Fuel Gauge, or Volt Meter
- LED Flash Alert ™ for low charge & high charge warning, or over voltage & under voltage
- Power up configurable for instant charge level display or traditional count down algorithm
- Memory option to recall last charge level
- Keyswitch Display enable option
- Equipment lockout option
- Communications with equipment charger to display battery level during charging, error codes, and more

Operation of the Battery Fuel Gauge:
Battery Charge capacity is indicated using a 10 segment LED bar graph display from full (right LED segment lit) to empty (Left LED segment lit).
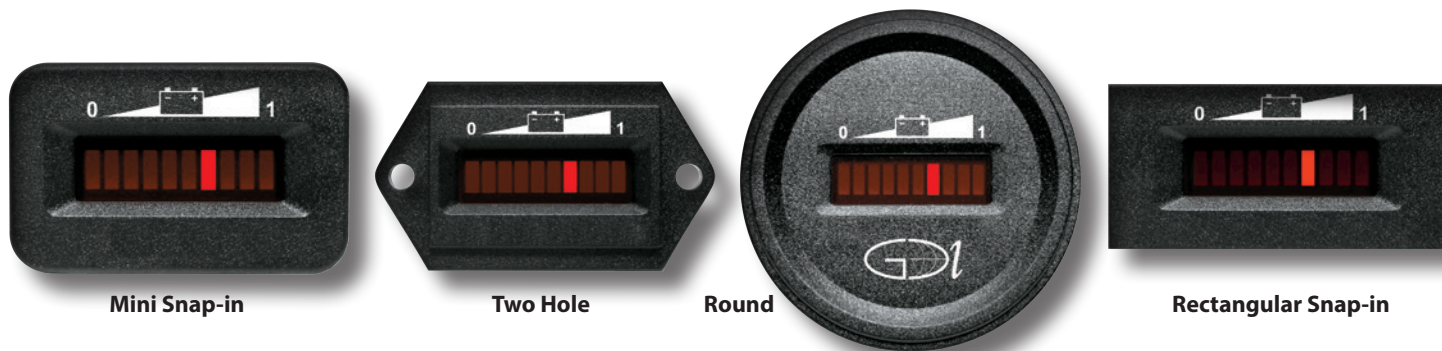- LED Flash Alert™ flashes the 2nd LED from the left as a warning that the battery has discharged 70%.
- At 80% discharge, LED Flash Alert™ alternate flashes the left 2 LEDs to indicate very low capacity is remaining.
- The LED Flash Alert™ can be OEM customized.
- OEM options include external LED light enable, and charger communication protocol.

Operation of the LED Volt Meter:
The appropriate system voltage is displayed using a 10 segment LED bar graph display.
- The LED Flash Alert™ can be OEM specified.
- The LED Flash Alert™ warns the user that the equipment voltage is approaching a critical voltage range (high or low).

All Battery Fuel Gages and Volt Meters are 100% epoxy encapsulated for superb environmental durability. Four panel mount case styles are available and are designed to fit industry standard cutouts.

Mini Snap-in   **Two Hole**   **Round**   **Rectangular Snap-in**

Fuel Gauge Features
- Available in 12, 24, 36, and 48 volt or custom DC ranges
- 10 segment LED Bar Graph display
- Resolution: 10% per LED segment.
- Current Draw: 3.2 mA LED Display off, 15 mA with LED Display ON
- Reverse Polarity Protected
- 0.187" faston tabs for easy hookup
- LED enable input to save battery current
- 70% discharge indicated by the 2nd LED segment flashing
- 80% discharge indicated by the 2 left LED segments flashing
- 3 Discharge profiles available, plus Custom profiles
- Power up to instant charge level, or traditional countdown
- Overcharge protected (50% over nominal voltage)
- Full charge badicated when the Top LED bar is lit (specified full charge voltage per cell is reached for a minimum of 6 minutes continuously).

Volt Meter
- Available in 12, 24, 36, and 48 volt or custom DC ranges
- 10 segment LED Bar Graph display
- Resolution: 1 Volt per Bar (or OEM specified).
- Accuracy: +/- 0.12 volts DC
- Current Draw: 15mA
- Reverse Polarity Protected

Environmental Specifications
- Operating temperature: -40F to 160F (-40C to 71C)
- Shock: SAE J1378 55g's
- Vibration: SAE J1378 20g's
- Humidity: SAE J1378 95% RH
- 100% Epoxy encapsulated
- Case Material: ABS, black or white
- Weight 1 oz.
- Warranty: Two years for OE

Model	Bezel Style	Input	Termination	BDI Discharge Code	Battery Voltage	SenDEC Code
L1	I = Rectangular	1 BDI or Volt	2 = (2) 0.187 faston tabs	197 *	A = 12vdc Internal	Factory Assigned
	J = Mini (snap in)		3 = (3) 0.187 faston tabs	204 *	B = 24vdc	
	K = Two Hole		4 = (4) 0.187 faston tabs	202 *	C = 36vdc	
	L = Round			Custom *	D = 48vdc	

Part number example:

L1J-13-197B   L1 = Battery meter, J = Mini bezel, -1 = Battery Discharge Indicator, 3 = (3) 0.187 fastons, - 197 = a 1.97 volts p/cell full charge curve, B = 24vdc fuel gage per cell empty

* BDI Standard Discharge profiles: (Custom profiles available)
197 = (1.97 vpc at full charge, 1.75 vpc at empty)
204 = (2.04 vpc at full charge, 1.73 vpc at empty)
202 = (2.02 vpc at full charge, 1.85 vpc at empty)
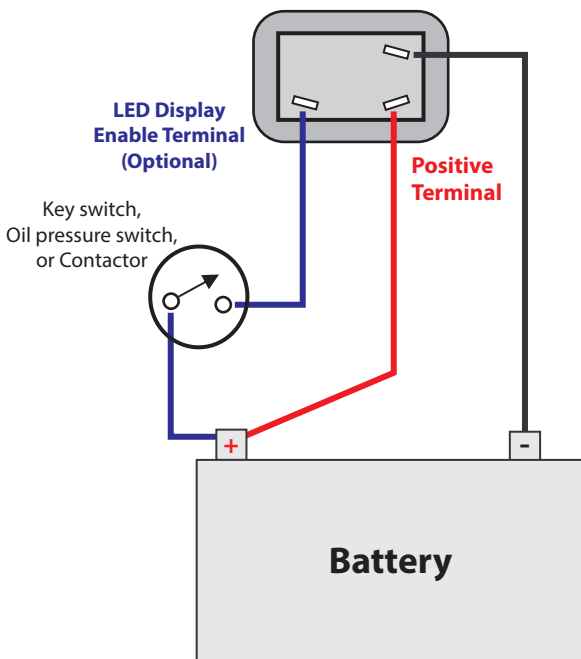Custom
* Volt Meter
Customer High or Low warnings available
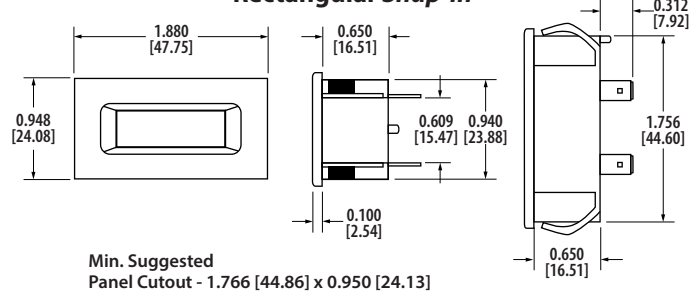**Volt Meter is selected at the Factory

OEM Options

- Lockout function to disable vehicle operation when the battery is dangerously low.
- Other battery voltages available
- Custom discharge curves available
- Custom Logos
- Packaging: Individual box, bulk in trays, poly-bagged or special kits.
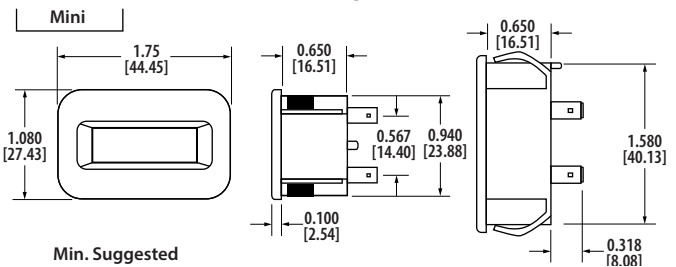
Display Enable Hookup:
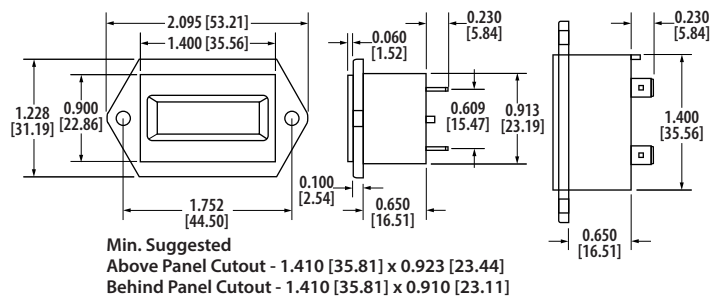
Note: Other hookups available depending on options
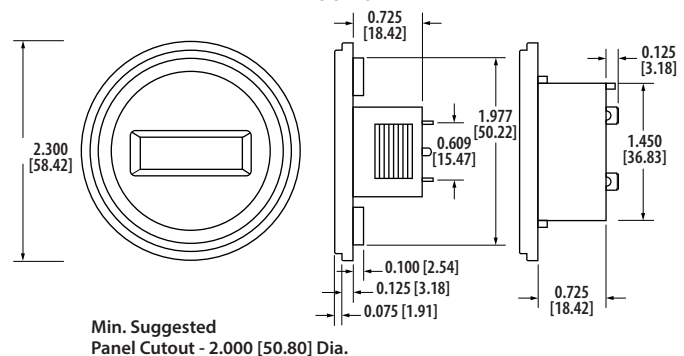
Rectangular *Snap-In*

1.880 [47.75]
0.650 [16.51]
0.312 [7.92]
0.948 [24.08]
0.609 [15.47]
0.940 [23.88]
1.756 [44.60]
0.100 [2.54]
0.650 [16.51]

Min. Suggested
Panel Cutout - 1.766 [44.86] x 0.950 [24.13]

Mini *Snap-In*

Mini
1.75 [44.45]
0.650 [16.51]
0.650 [16.51]
1.080 [27.43]
0.567 [14.40]
0.940 [23.88]
1.580 [40.13]
0.100 [2.54]
0.318 [8.08]

Min. Suggested

Two Hole

2.095 [53.21]
1.400 [35.56]
0.230 [5.84]
0.230 [5.84]
0.060 [1.52]
1.228 [31.19]
0.900 [22.86]
0.609 [15.47]
0.913 [23.19]
1.400 [35.56]
1.752 [44.50]
0.100 [2.54]
0.650 [16.51]
0.650 [16.51]

Min. Suggested
Above Panel Cutout - 1.410 [35.81] x 0.923 [23.44]
Behind Panel Cutout - 1.410 [35.81] x 0.910 [23.11]

Round

0.725 [18.42]
0.125 [3.18]
2.300 [58.42]
1.977 [50.22]
0.609 [15.47]
1.450 [36.83]
0.100 [2.54]
0.125 [3.18]
0.075 [1.91]
0.725 [18.42]

Min. Suggested
Panel Cutout - 2.000 [50.80] Dia.

LED Display Enable Terminal (Optional)

Positive Terminal

Key switch, Oil pressure switch, or Contactor

+
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Battery