

SOLID STATE BATTERY "FUEL" GAUGE



MODEL 908R



DESCRIPTION

Curtis Model 908R is a completely solid state battery discharge indicator and lift lockout, housed in a 52mm case. Void of moving parts, this combination instrument is exceptionally reliable even in severe operating environments.

APPLICATION

Model 908R is a battery state-of-charge gauge ideally suited for electrically powered vehicles.

FEATURES

"Fuel" Gauge Features

- Multi-color 10-bar LED displays state-of-charge (5 green, 3 yellow, 2 red LEDs. Single red LED also available).
- Flashing red LED signals "energy reserve" alarm at 70% discharged.
- Double flashing red LEDs signal "empty" alarm at 80% discharged.
- Normally closed relay opens at 80% discharge for lift lockout. Holding relay option also available.
- Recognizes improperly charged battery.
- Keyswitch activated LED display (Fuel gauge electronics are energized as long as they remain connected to the battery).
- Wide range of factory programmable discharge profiles available.
- Dual reset methods in each gauge: Open Circuit Reset for vehicles that exchange batteries and Charge Tracking Reset for vehicles whose batteries remain connected to the gauge during recharge.

System Voltages

Available in single voltages from 12 VDC to 80 VDC, or in dual voltage of 24/36, 36/48, 24/48 or 72/80 VDC. Operating range is $\pm 25\%$ of nominal voltage.

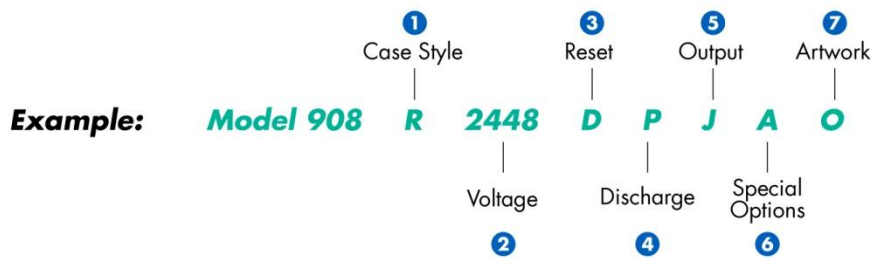
SPECIFICATIONS

- Operating Temperature: -40°C to $+85^{\circ}\text{C}$.
- Shock & Vibration: Meets SAE J 1378.
- Humidity: 95% RH (non-condensing) at $+38^{\circ}\text{C}$.
- Mating Connector: Molex 8 pin, 39-01-2085.
- Available Discharge Profiles are Factory Set (non-adjustable), see sheet 2 for various profiles.
- Reset Levels: Open Circuit Reset (OCR) at 2.09 volts/cell. Charge Tracking Reset (CTR) tracks battery recharge.

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MODEL NUMBER ENCODING

Determine your model number by selecting the correct attribute for each item from the charts provided. Choose the appropriate letter that corresponds to the proper specification. Enter the code sequentially per the example below.



1 Case Style
R = Round (52mm)

2 Voltage Options

Single	Dual
12	24/36
24	24/48
36	36/48
48	72/80
72	
80	

3 Reset Profile Options

Letter Code	Volts per Cell			
	Open Circuit Reset	High Voltage Reset	Charge Tracking Reset Full	Charge Tracking Reset Empty
B	2.090	2.350	2.35	2.10
C	2.135	2.400	2.400	2.10
D	2.060	2.320	2.32	2.10
K	1.928	2.167	2.167	2.10
N	1.980	2.230	2.230	2.10
T	2.028	2.280	2.28	2.10
Y	2.083	2.167	2.167	2.10

4 Discharge Profile Options

Letter Code	Volts per Cell	
	Full	Empty
G	1.97	1.75
H	1.97	1.70
J	1.97	1.63
K	2.01	1.65
L	2.10	1.92
M	2.00	1.83
N	2.04	1.73
P	2.08	1.98
R	2.02	1.90
T	2.03	1.90
V	1.98	1.85
W	2.02	1.85
X	1.95	1.75
Y	2.00	1.90

5 Output Options

Letter Code	Relay	Contact Rating
J	Holding	3 Amps when continuously closed, 1 Amp when opening
K	N.C.	1 Amp
Y	N.O.	1 Amp

6 Special Options

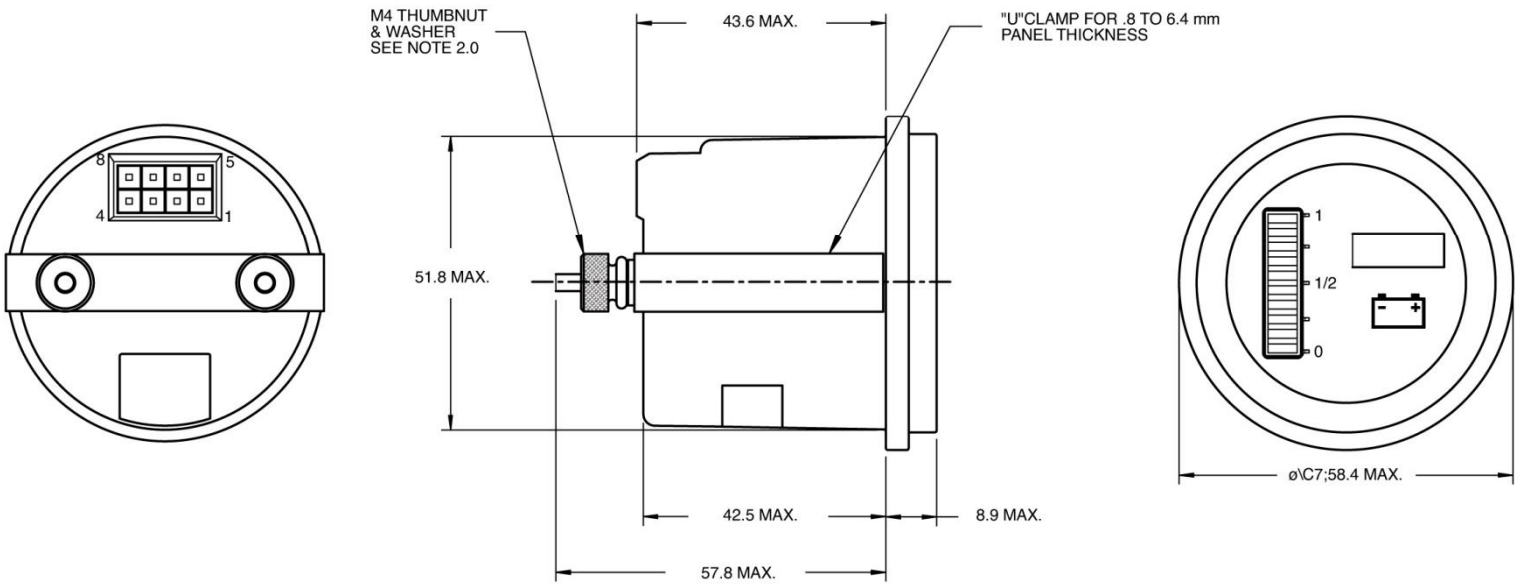
A = (TBD)

7 Artwork Options

Letter Code	Logo
O	Curtis
N	None

MODEL 908R

DIMENSIONS mm



CONNECTOR PINOUT

Pin No.	Relay Option J
1	N/C
2*	Keyswitch
3	Relay ARM (+)
4	Relay N.C. (-)
5	Common (B-)
6	N/C
7**	B+ Low
8**	B+ High

* Keyswitch turns on "fuel gauge" display and enables the hour meter.

** Single voltage units: apply B+ to pin 7;
Dual voltage units: apply lower B+ voltage to pin 7 or the higher B+ voltage to pin 8.

Note: In addition to a "U" clamp and thumbnuts/washers shown in the drawing, individually packed units are provided with a mating connector and female pins. Bulk packed units are provided with a "U" clamp and hex nuts/washers only.

WARRANTY Two year limited warranty from time of delivery.