

# ELECTRIC "FUEL" GAGE & BATTERY CONTROLLER

## MODEL 933/3D

# CURTIS



### DESCRIPTION

*Curtis Model 933/3D is a battery "fuel" gage and controller with lift lockout and adjustable reset and discharge settings. These proven instruments, with more than a half-million units installed, feature a rugged aluminum controller for reliable operation, even in the most severe conditions.*

### WARRANTY

Two year limited warranty from time of delivery.

### Application

The Curtis Model 933/3D prolongs battery life and protects vehicle components from the effects of deep discharge in material handling and other battery powered industrial vehicles.

### Features

- Flashing red LED signals "energy reserve" warning at 75% discharge.
- At 80% discharge this instrument locks out the lift coil circuit on industrial lift trucks and provides optional warning signals in other vehicles.

- If 80% discharge is reached during a lift, the lift is completed before the lift circuit is locked out.
- Recognizes improperly charged battery.
- Non-volatile memory (EEPROM) retains "state-of-charge" level memory when external power is removed.
- Adjustable reset level and discharge profile (lockout point). (Factory settings are: Reset level at 2.09VPC. Lockout at 1.73VPC).
- Controller is easy to install and mounts to body of truck with two 1/4" bolts. The gage is installed in the dash in a standard 2-1/16" round cut-out.

### Options

- Dual-voltage models can be used with either of two different system voltages selectable with jumpers.
- Auto ranging, dual-voltage models automatically adjust to the correct system voltage.
- High voltage reset is available for vehicles in which the controller stays connected to the battery during charging.
- 933/3D XX **AV** has an isolated N.C. relay with 150 VA max. resistive load capacity. It can be installed in any portion of the lift coil circuit. **AX** output is similar to model AW except it is N.O. and closes at lockout.
- Model 1156 10-bar LED gage which flashes to signal low "fuel".

### Specifications

- Operating Temperature -20 to +85°C
- Storage Temperature -55 to +85°C
- Discharge Level (standard) 1.56 to 1.82VPC, factory set to 1.73VPC
- Reset Level (standard) 2.00 to 2.18VPC, factory set to 2.09VPC

### System Voltages

- Available in voltages from 24 to 48 volts, and dual voltage models in 24/36 and 36/48.

### Model Encodement

933/3	48	X	X
Model	System Voltage(s)	Non-Standard Reset Option	Non-Standard Output or Discharge Option

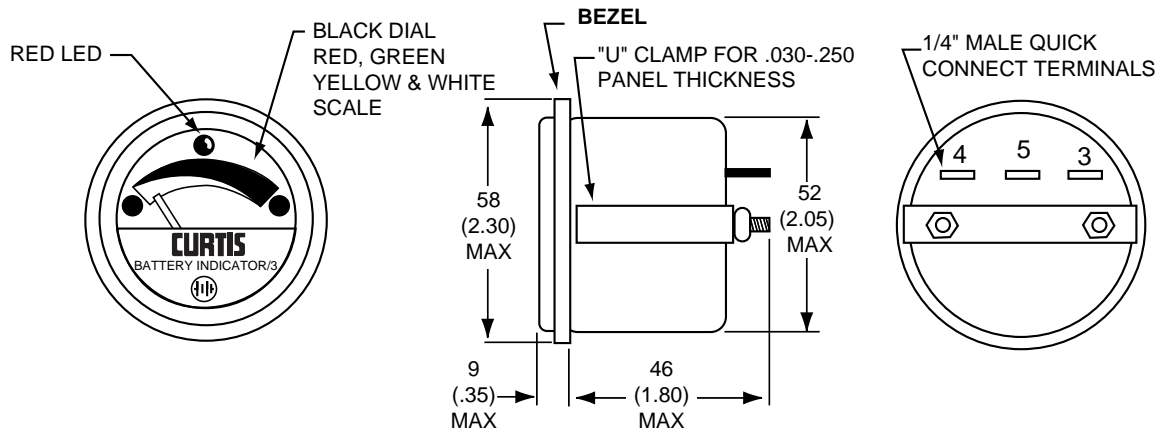
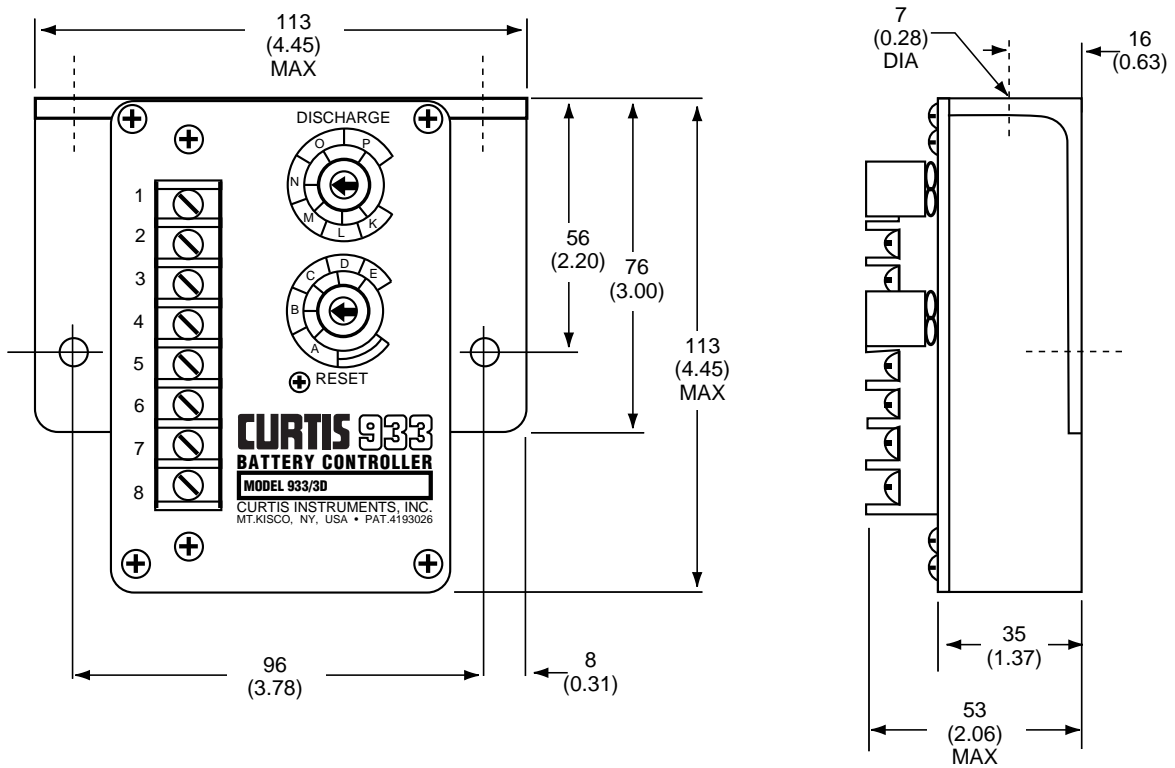
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*Dimensions: mm (inches)*



*Typical Wiring Diagram*

