

# Quick Guide to Troubleshooting Minuteman© "New" 957760 and 957761 24V Chargers

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LED			
Charging State	(RED)	(YELLOW)	(GREEN)
Under 80% charged	On	Off	Off
Over 80% charged	Off	On	Off
Charging is finished	Off	Off	On

## 1. No LED when plugged-in (no LEDs at all)

- Problem no AC voltage at charger are charger and extension cord plugged-in?
- Plug a light or something into same outlet to make sure there is power if no power, check building wiring, circuit breakers, extension cord, etc.
- Check the charger's AC cord and AC plug for damage bent plug, cut wires, etc.
- If AC power is getting to charger then charger is bad replace.

## 2. Red, yellow, or green LED is on - Normal

• Normal – charging is taking place

#### 3. Green LED on – Normal

• Normal – charging completed and charger is in maintenance (float) mode keeping batteries fully charged. Charger may be left plugged-in to keep batteries charged

# 4. Batteries gas (bubble) during charging – Normal

• The batteries will gas vigorously during charging – this is normal and required to mix the electrolyte. Some old style chargers did not do this and are not an example of correct operation.

#### 5. The red LED blinks once and repeats – charger is working but can not charge batteries

- Problem bad connection from the charger to the batteries, or between the batteries (within battery pack), or reverse polarity (+ or red wire of charger to of battery), or shorted.
- Solution Check polarity + (red wire) to +, (black wire) to -. Take connection from charger to batteries and cables between each battery apart, clean to shiny, re-install. Even when these connections look good they are often the problem.
- Look for a cut or a short in the red and black wires going from the charger to the batteries
- Charger is for 24V battery packs is it connected to a higher voltage battery pack?

#### 6. Red LED blinks twice, pauses, and repeats two blink - battery problem

- Problem batteries bad the charge cycle did not progress as it should have and charger timed out. Since different parts of the cycle are checked this could occur after 11, 15, 20 or 24 hours of charging.
- Batteries may have been severely over-discharged. Un-plug charger from AC for 30 seconds to reset, let batteries cool if needed, and plug back in for another charge cycle.
- Check batteries and replace complete packs should be replaced for best performance.