



*Unparalleled Protection*

# Absence of Voltage Tester

*Streamlining the Zero- Energy Check as per the NFPA 70E*

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# Agenda

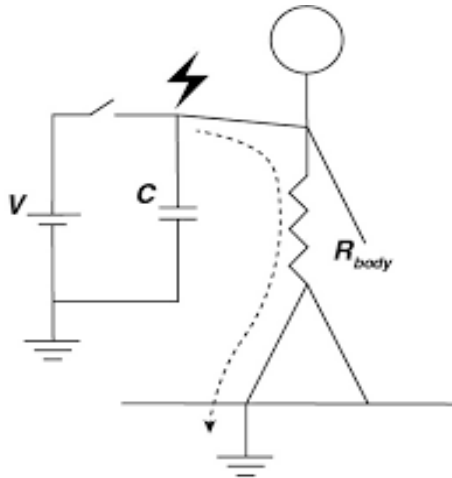
- Defining the need
- How AVT solves the problem
- How does it work?
- Closing Summary

# Shock Hazard Introduction

**Electric Shock:** Human body acts as a path for the electric current.

**Electric Shock Hazard:** The severity of the electric shock depends on the magnitude of the current

A severe electric shock sending current through the heart can arrest it or send it into a state known as fibrillation. DC current generally has a less severe affect as compared to AC.



where:  
 $V$  = voltage  
 $C$  = capacitance  
 $R$  = resistance



## Test Before Touch

- Consider all circuits as energized until tested
- Test every conductor to be touched
- Test instrument must be verified
- Test circuit again if job continuity is broken
- Testing must be done at each location where the conductors are going to be touched



Studies on common practices with voltage testers showed that over the period of five year [1]

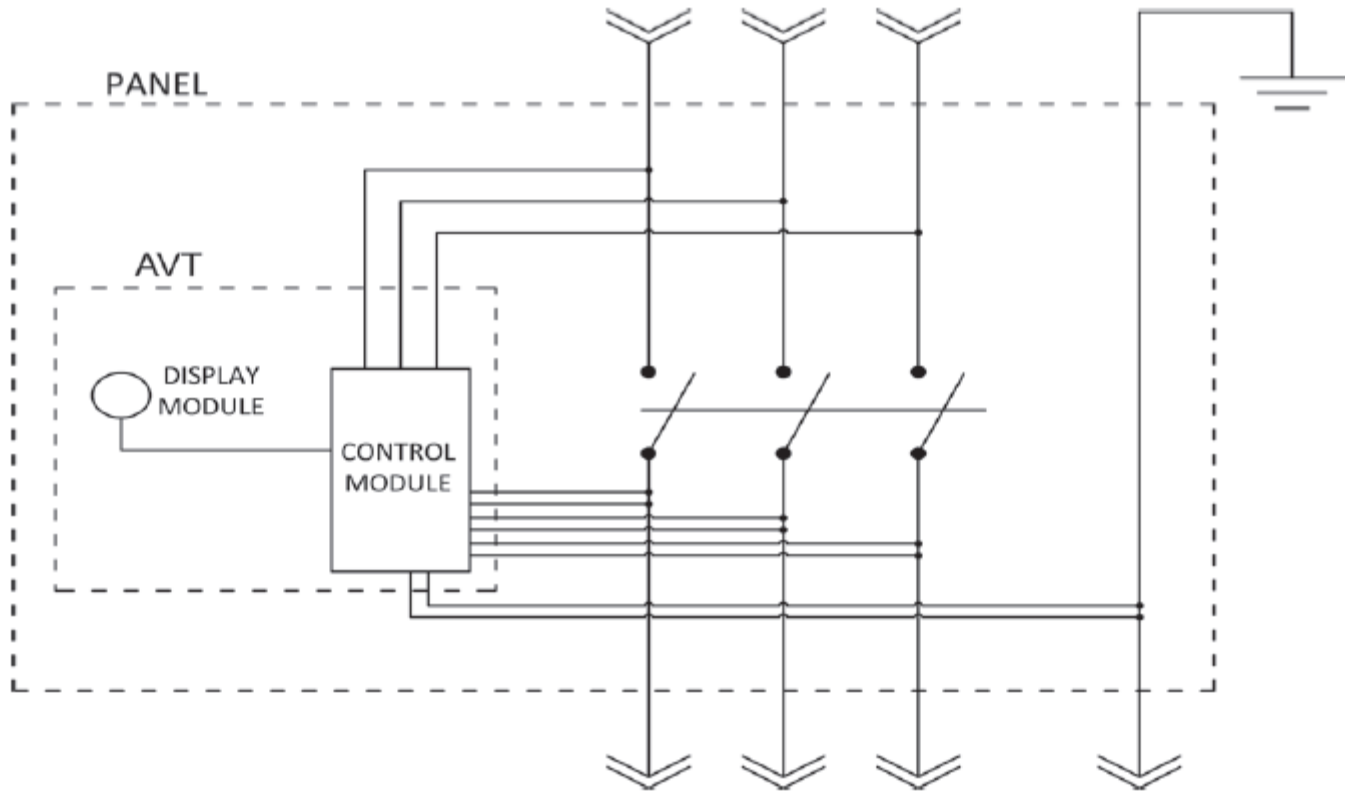
- **18%** facilities had a personal injury claim when using *handheld* voltage test instruments
- **37 %** reported near misses of personal injury
- **12%** of facilities experienced interruptions to plant operations

**Solution:** Permanently mounted **ZERO ENERGY CHECK DEVICE** used to verify a circuit is de-energized prior to opening an electrical enclosure



[1]Personnel Safety and Plant Reliability Considerations in the Selection and Use of Voltage Test Instruments,” (*IEEE Transactions on Industry Applications*, Vol. 33, No. 2, March/April 1997), written by H. Landis Floyd II and Brian J. Nenninger.

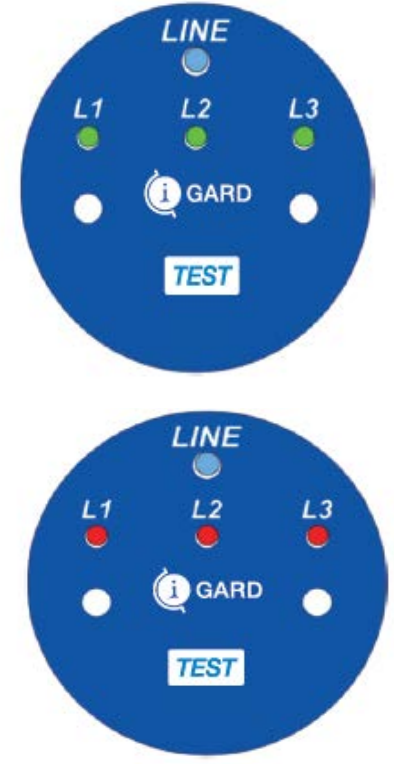
# Absence of Voltage Tester





# Absence of Voltage Tester

- ❖ Provides **positive** indication of Absence of Voltage
- ❖ Automates the voltage verification process
- ❖ Allows the qualified personnel to verify the absence of voltage *before* entering the panel
- ❖ Streamlines the zero-energy check process
- ❖ Provides Ground fault indication and loss of phase indication  
 >> *Functionality Unique to I-Gard*





# Questions?





## Contact Us

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