



Repairing Instruments Training and Education Class

1.5 day Initial Class

Introduction

- Instructor and student welcome and introductions
- Safety review
- MSA overview
- Course administration
- Review of RITE handout

Basic requirements

- Legal and minimum requirements for repairing meters
- Calibration gas requirements
- Sensor date code and software revision code discussion
- ESD (Electro-static Discharge)
- Gas interferences and combustible gas factors.

Sensor Theory

- Electro-chemical
- Catalytic bead with demonstration of exploding gases
- Infrared
- Photo Ionization
- Symptoms of gas poisoning.

Altair

- Overview of current models
- Competitive review
- Operational review with setup mode (MSA Link)
- Zero and calibration review
- Common problems and repair

Altair Pro & 2X

- Overview of models
- Operational review with setup mode (MSA Link)
- Zero and calibration review
- Disassembly, inspection and function of specific parts with reassembly and functional check.
- Common problems and repair

Altair 4 & Altair 4X

- Overview of differences between models
- Operational review with setup mode (MSA Link)
- Zero and calibration review
- Disassembly, inspection and function of specific parts with reassembly and functional check.
- Common problems and repair

Altair 5 and Altair 5X alarm

- Overview of differences between models
- Operational review with setup mode (MSA Link)
- Zero and calibration review
- Disassembly, inspection and function of specific parts with reassembly and functional check.
- Common problems and repair

Galaxy and GX2 Calibration Stations (Day 2)

- Review of previous day
- Overview of differences between models
- Operational review with setup mode (MSA Link Pro)
- Disassembly, inspection and function of specific parts with reassembly and functional check.
- Common problems and repair

Sirius

- Overview of Sirius model

- Operational review with setup mode (MSA Link)
- Zero and calibration review
- Disassembly, inspection and function of specific parts with reassembly and functional check.
- Common problems and repair

Older equipment:

Solaris, Orion, Orion Plus, Five Star, Passport, Pulsar, Titan, Explosimeter, Model 60, Gascope

- Overview of model and replacement unit.
- Limits of repair.

Course Summary

- **Open book/open note evaluation**
- Complete course evaluation final administration and wrap up