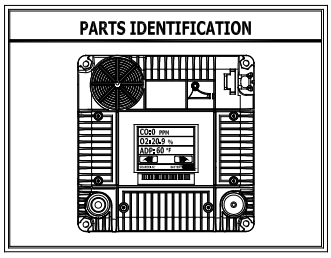
*REFERENCE GUIDE AND REPLACEMENT PARTS*

# Model: AQM
## Air Quality Monitor


**AIR SYSTEMS INTERNATIONAL, INC.**
829 Juniper Crescent, Chesapeake, Va, 23320
Telephone (757) 424-3967
Toll Free 1(800)-866-8100
Fax No. (757) 424-5348
http://www.airsystems.com
e-mail: sales@airsystems.com

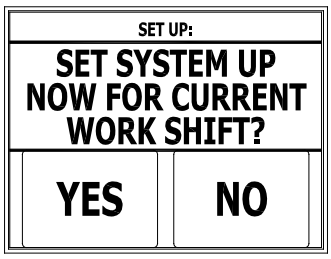
# AQM Table Of Contents



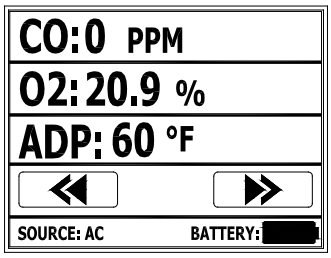




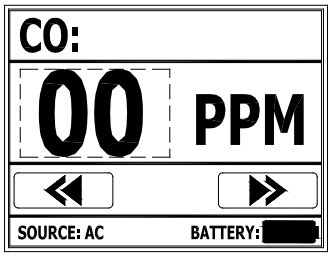




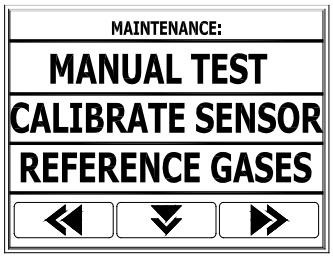


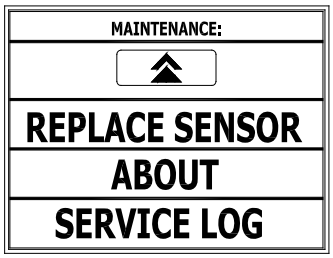


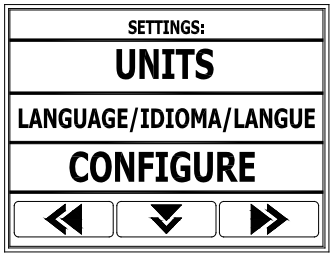
# AQM Table Of Contents



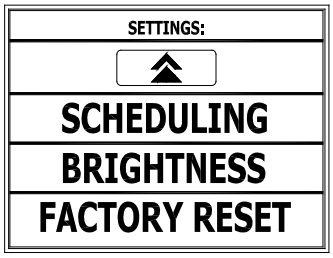


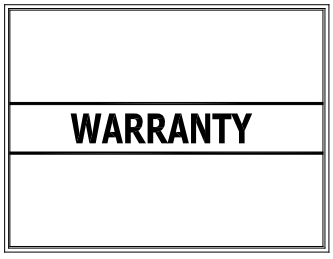


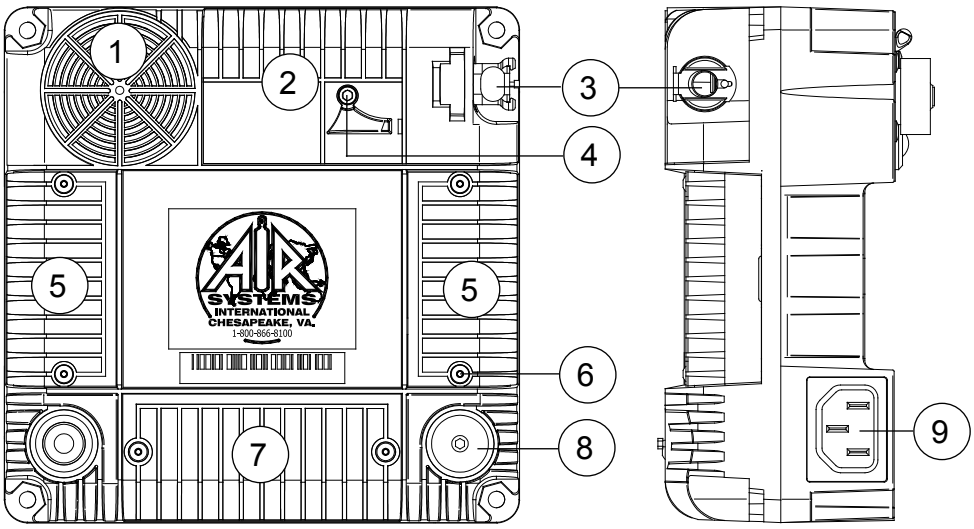


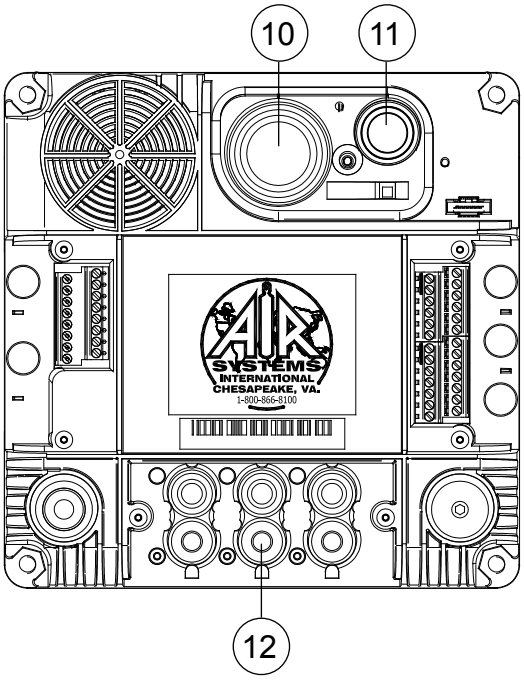



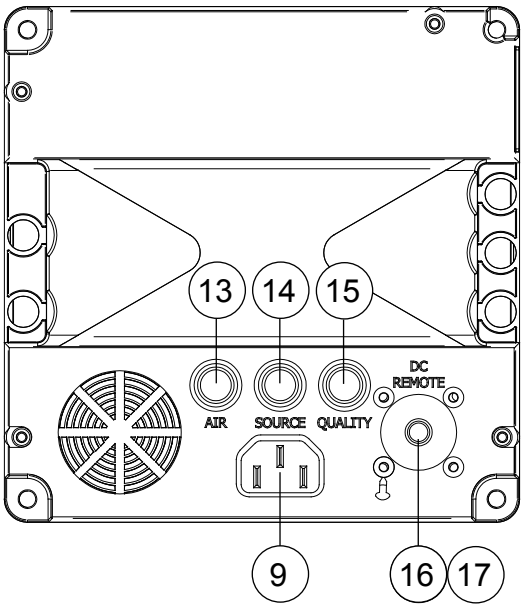


## AQM Parts Identification



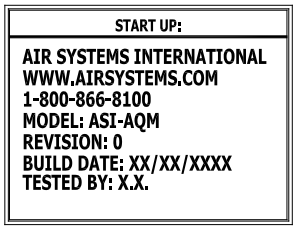



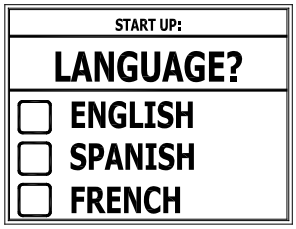

| Item # | Description | Part # |
|---|---|---|
| 1 | Audible Alarm | AQMAUDALRM |
| 2 | Sensor Cover | AQMSENSCVR |
| 3 | Air Sample Inlet | AQMASQD |
| 4 | S.S. Allen Head Screw, 6-32 x 1” | AQM632X100 |
| 5 | Terminal Block Cover, Left Or Right | AQMTBCVR |
| 6 | S.S. Allen Head Screw, 6-32 x 2-1/2” | AQM632X250 |
| 7 | Battery Cover | AQMBTRCVR |
| 8 | Allen Tool | AQM-TOOL |
| 9 | 115 VAC Receptacle | N/A |
| 10 | Carbon Monoxide Sensor | CO-91NS |
| 11 | Oxygen Sensor | O2-NS |
| 12 | “AA” Batteries (6 Required) | ELB-AA |
| 13 | Air Quality Acceptable - Green LED | AQMGRNLED |
| 14 | Back-Up Air or Low Press. Red LED | AQMREDLED |
| 15 | Air Quality Out Of Range - Red LED | AQMREDLED |
| 16 | DC Remote Alarm Jack | N/A |
| 17 | DC Remote Alarm Jack Cover | N/A |

# AQM Start-Up

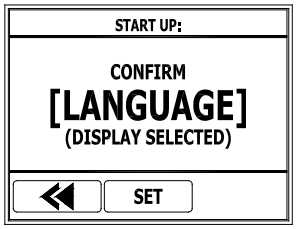
Press the black On/Off button located in the lower left hand corner of the air quality monitor. You will be greeted by the Air Systems logo followed by the Air Quality Monitor (AQM) info screen which then leads to the language selection screen.

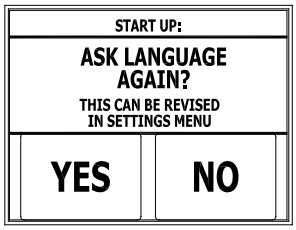

Select the preferred language by selecting the box next to the language you wish the monitor to display during use. Language can be changed later in Settings-Language.



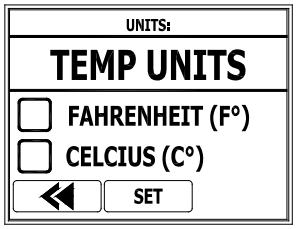

Confirm the language selection by pressing SET. SAVED will be displayed confirming the language. Press ◀◀ to change your selection.



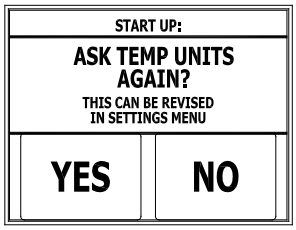

If this will be the only language used with the AQM press NO . If users with different language preferences will be using the AQM press YES. This will cause the monitor to prompt the user for language preference before each use.




Set the temperature units by selecting the box next to the preferred temperature units and press SET. SAVED will be displayed confirming selection. Units can be changed later in Settings-Units.




If this will be the only temperature unit used with the AQM press NO. If Fahrenheit and Celcius may both be used depending on AQM location or user preference press YES. This will cause the monitor to prompt the user for temperature unit before each use.




Start-up is complete. Continue to system set-up.

# AQM System Set-Up

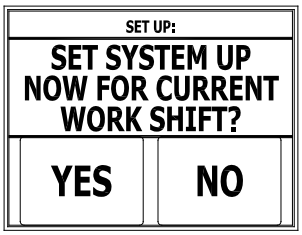
To set the system up for the current workshift press YES. This is a step by step set-up for the AQM as well as the filtration box/panel. An experienced user may select YES, set the temperature, and exit out of the following steps. Pressing NO will display the System Status screen.

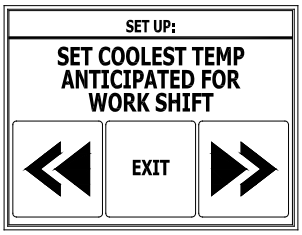
By pressing YES, the user will begin the set-up procedure by setting the coolest temperature anticipated for the work shift. Press ⏩ to advance to the next screen to set the temperature by pressing the (-/+) tabs. Confirm the temperature by pressing SET . ✓ SAVED will be displayed confirming temperature. Press ⏪ to go back to the previous screen, or press EXIT to bypass the system set-up and display system status.

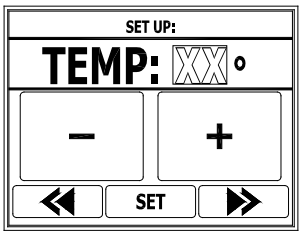
If the AQM is installed in a filtration box or on a filtration panel, connect the primary breathing air source to the inlet fitting and press ⏩ to continue.

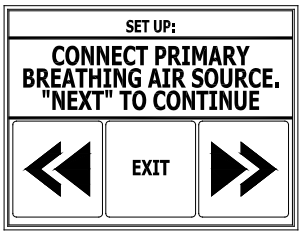
If the AQM is installed in a filtration box or on a filtration panel equipped with a reserve breathing air source, connect the reserve breathing air source to the reserve air inlet fitting and press ⏩ to continue.

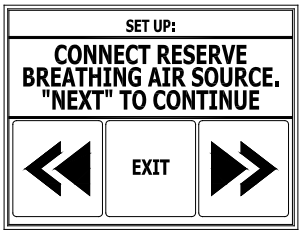
Set the pressure regulator to the recommended respirator pressure. Press ⏩ to continue.

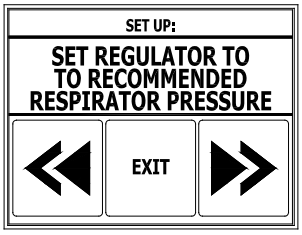


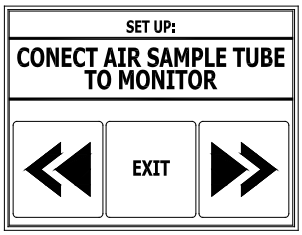



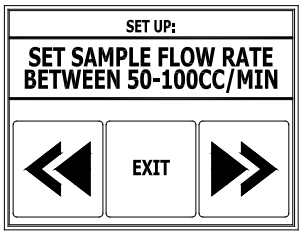



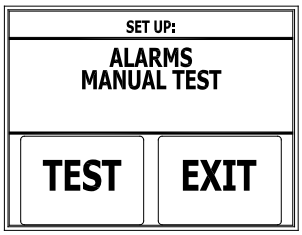




Connect the air sample tube from the flowmeter to the AQM and press ⏩ to continue.

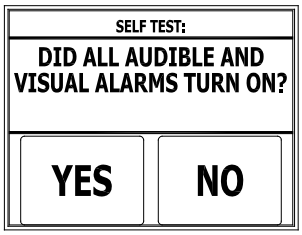



Adjust the flowmeter so the flow ball hovers between 50 and 100 CC/Min. Press ⏩ to continue.

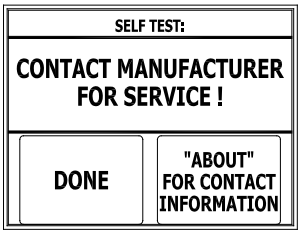



Press the Alarms Manual Test button to test all local and remote alarms. Press EXIT to bypass the alarm test and go to the system status screen.

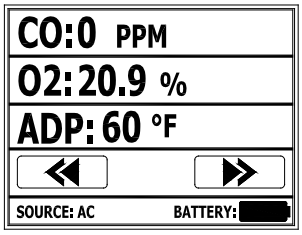
**Note:** Audible alarm is very loud. User may wish to cover the audible alarm during this test.




Press YES if all audible/visual alarms turned on. Pressing NO will advance you to the next screen with information to contact the manufacturer for assistance.



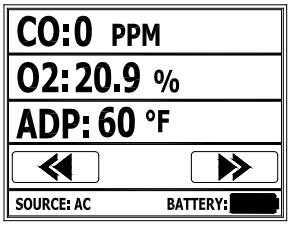

Press DONE will advance to system status. Press “ABOUT” for Contact Information for assistance.




**System Status Screen**

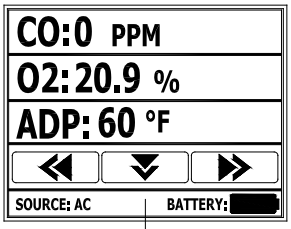

**See Page 16**

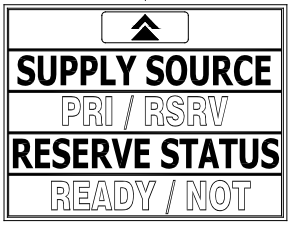
# AQM Fixed Display



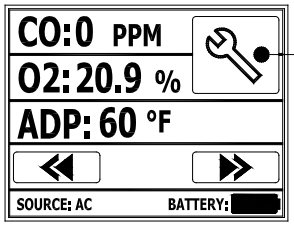

The fixed display option displays CO, O2, and ADP (atmospheric dew point) on one fixed screen. If the O2 sensor and/or ADP is disabled, they will NOT be displayed on the screen. See pages 22 - 23 for instructions on enabling and disabling sensors.

**Fixed Display For Units With Auto-Air Or Low Pressure Alarm Active**

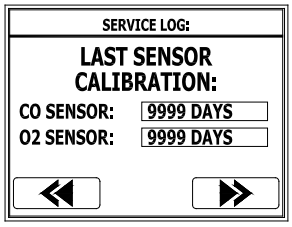


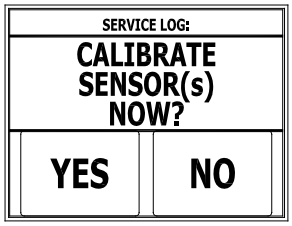



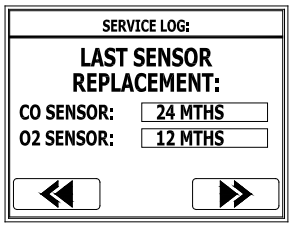

**If Any Service Or Reminder Event Required**

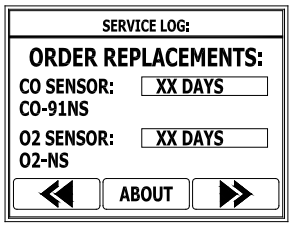


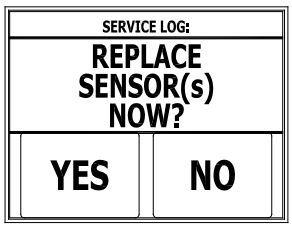

Press the service wrench to advance to the service log screen.



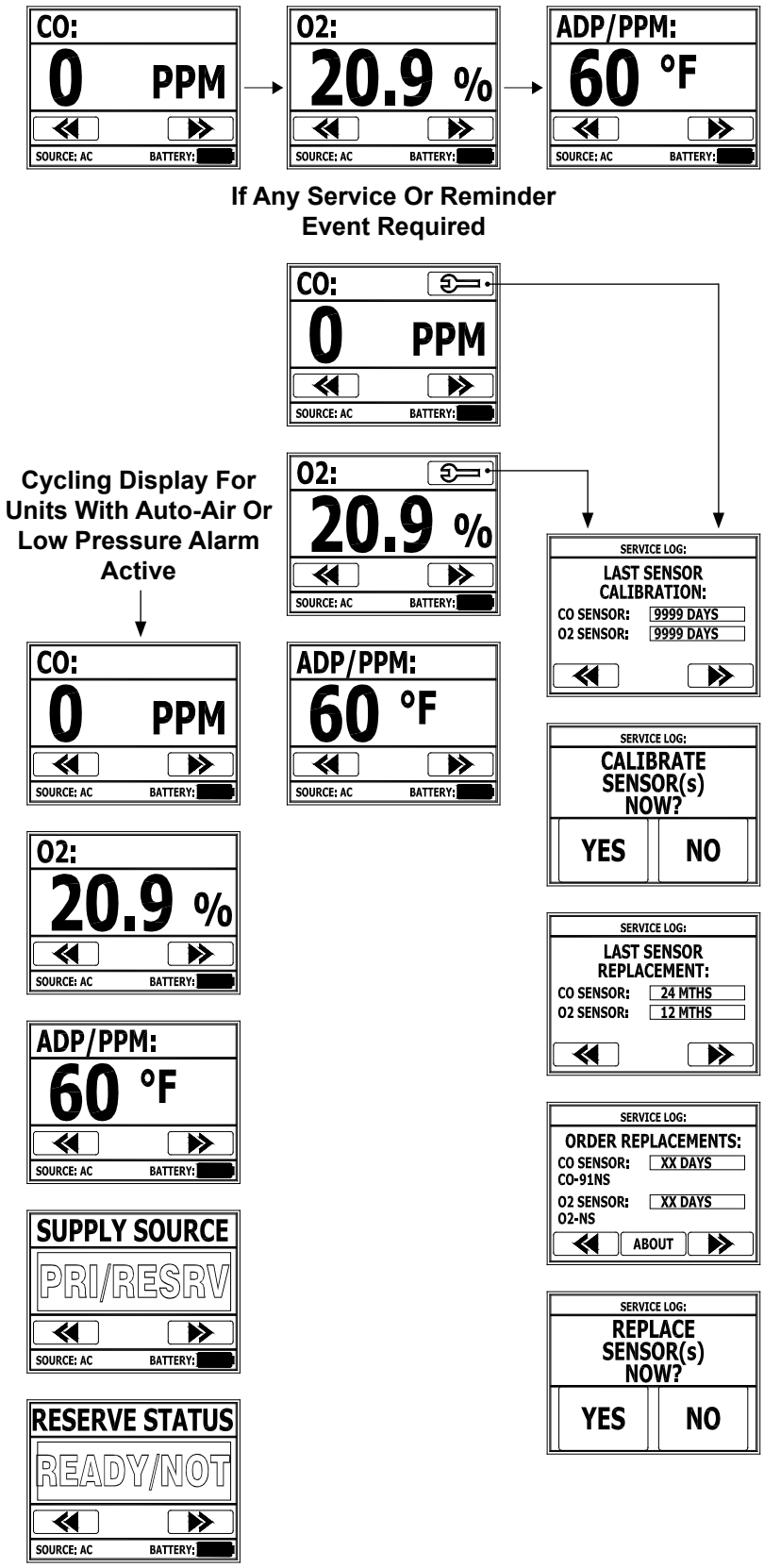



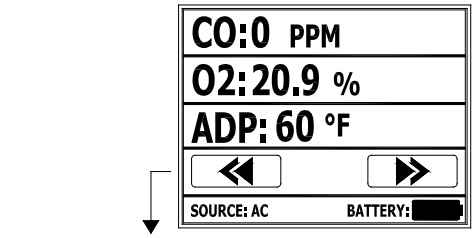



## AQM Cycling Display

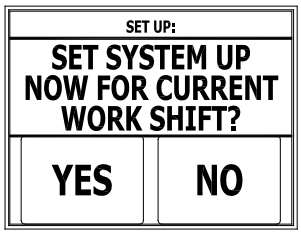


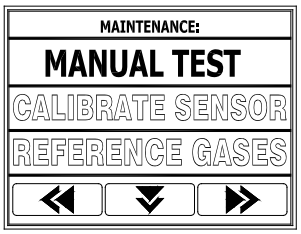

The cyling display option displays CO, O2, and ADP (atmospheric dew point) on separate, cycling screens. If the O2 sensor and/or ADP is disabled, those screens will NOT be displayed. See page 20 for instructions on enabling and disabling sensors.

# AQM Maintenance - Manual Test



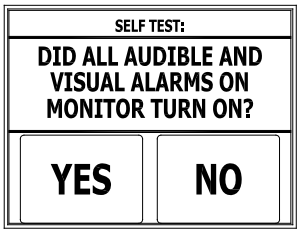

With the system status screen visible, press ⏪ to go to set-up which was covered on page 6 or press ⏩ to go to the maintenance screen.



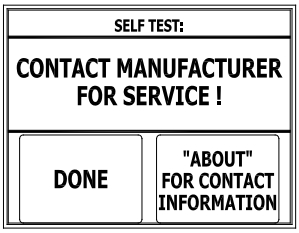




To test the function of the audible and visual indicators press the manual test tab.

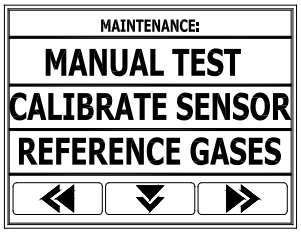
**Note:** Audible alarm is very loud. User may wish to cover the audible alarm during this test.

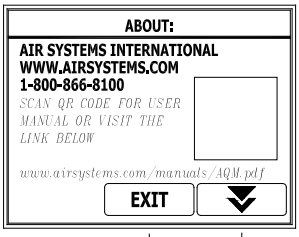


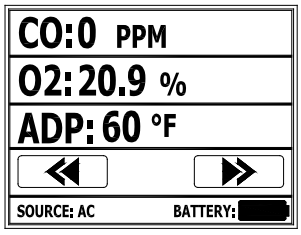

Press YES if all audible/visual alarms turned on. Pressing NO will advance you to the next screen with information to contact the manufacturer for assistance.




Press DONE will advance to maintenance. Press “ABOUT” for contact information for assistance.



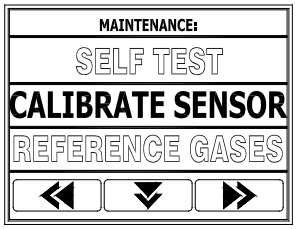



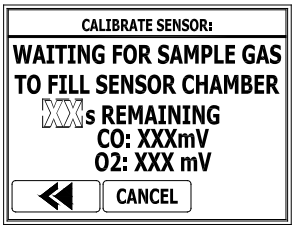




**See Page 16**

# AQM Maintenance - Calibrate Sensors

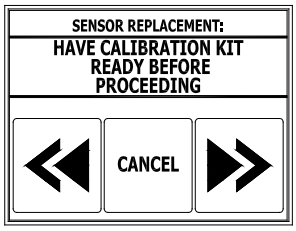
To calibrate the CO and/or O2 sensors press the calibrate sensor tab.

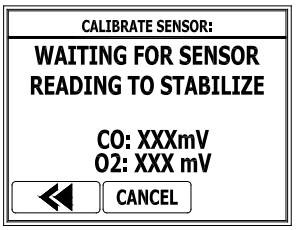



Monitor is self adjusting and will advance to next step when complete. If an error displays see page 12 for trouble-shooting.

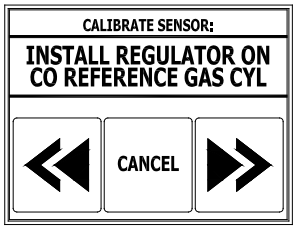
If the calibration kit is readily available press ⏩, otherwise press cancel.

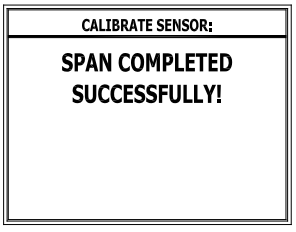


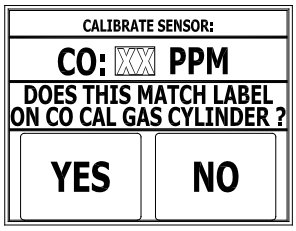

When this step is complete the screen will advance automatically and display SPAN COMPLETED SUCCESSFULLY! During the countdown; pressing ⏪ will take the user to the previous screen while pressing CANCEL will display CALIBRATION INCOMPLETE! If an error displays; see page 12 for trouble-shooting.

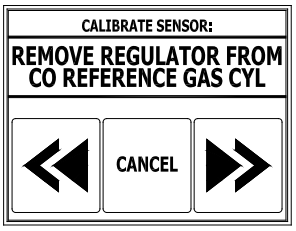
Install the reference gas regulator on the CO reference gas cylinder and press ⏩.



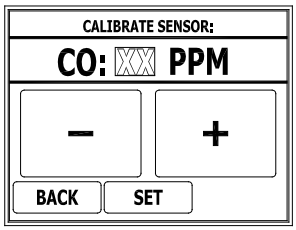

If the label on the CO reference gas cylinder matches the XX PPM on the AQM screen press YES. If not, press NO to adjust the PPM on the next screen.

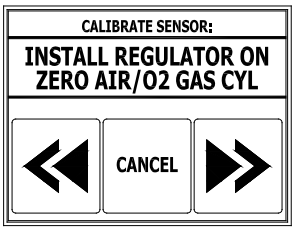



Remove the regulator from the CO reference gas and press ⏩.

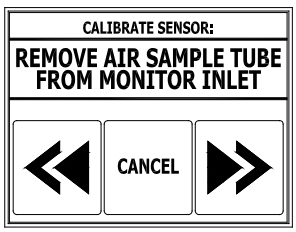
Press (+/-) to match the PPM on the label of the CO reference gas cylinder. After adjusting, press SET. SAVED will be displayed confirming selection and advance to next screen.

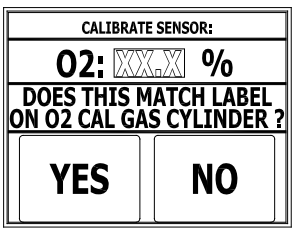



Install the regulator on the zero air/O2 reference gas cylinder and press ⏩ to continue.

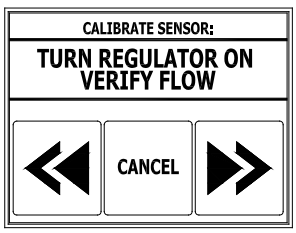
Remove the air sample tube from the monitor inlet. Press ⏩ to continue.

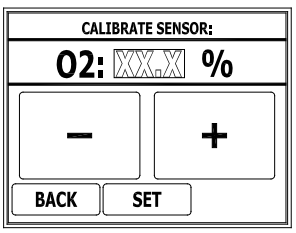



If the label on the O2 reference gas cylinder matches the O2 % on the AQM screen; press YES. If not, press NO to adjust the O2% on the next screen.

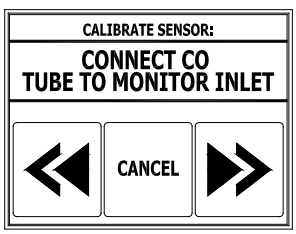
Turn the reference gas regulator on and verify flow. Press ⏩ to continue.

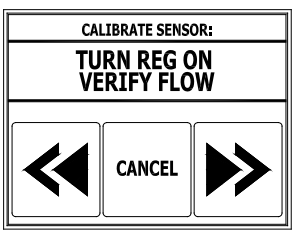



Press (+/-) to match the O2% on the label of the zero reference gas cylinder. After adjusting, press SET. SAVED will be displayed confirming selection and advance to the next screen.

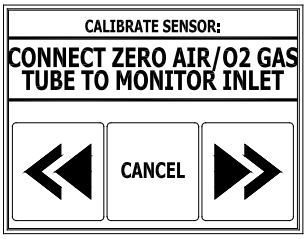
Connect the CO tube from the reference gas regulator to the monitor inlet. Press ⏩ to continue.



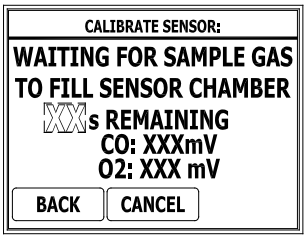




Turn the reference gas regulator on and verify flow. Press ⏩ to continue. See next page.

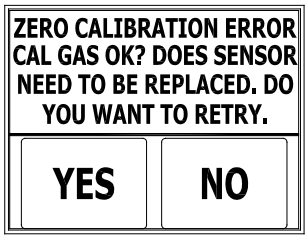
# AQM Maintenance - Calibrate Sensors

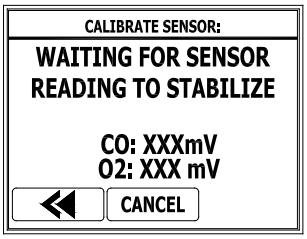



Connect the tube from the zero air/O2 gas regulator to the monitor inlet. Press ⏩ to continue.



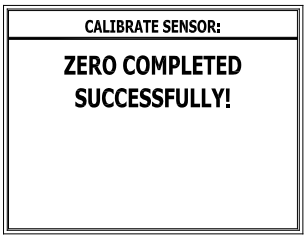

Monitor is self adjusting and will advance to next step when complete. If an error displays see page 12 for trouble-shooting.

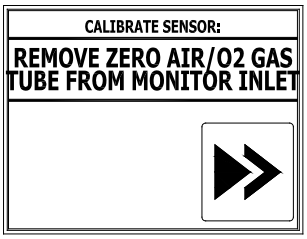


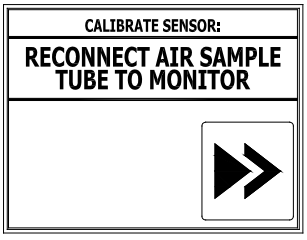

When this step is complete the screen will advance automatically and display ZERO COMPLETED SUCCESSFULLY! During the countdown pressing ⏪ will take the user to the previous screen while pressing CANCEL will display CALIBRATION INCOMPLETE!

See Page 12 To Continue With Zero Calibration Error.

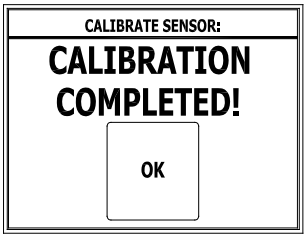



Remove the regulator from the zero air/O2 gas and press ⏩ to continue.

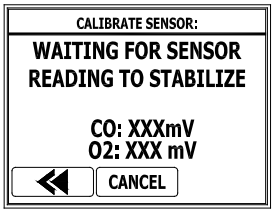


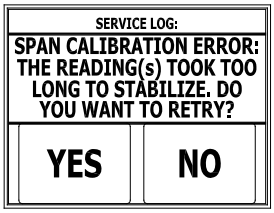

Reconnect the air sample tube from the flowmeter to the monitor inlet. Press ⏩ to continue.




Press OK. The screen will advance to the system status screen.

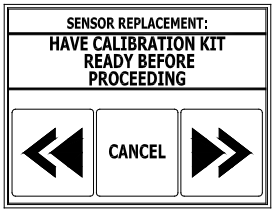
# AQM Maintenance - Calibration Error

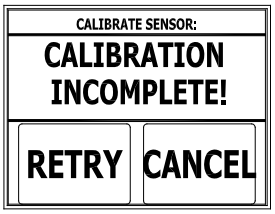


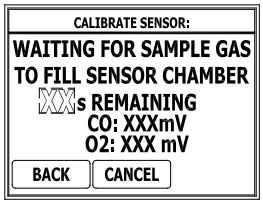

If this error appears; it's possible the reference gas cylinder is empty or not flowing. Check cylinder and press YES to retry or NO to cancel the calibration.

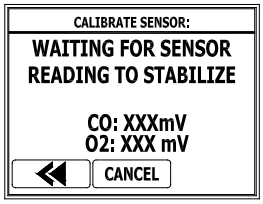
If you pressed YES the calibration procedure will restart from step 1.



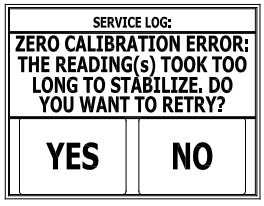




If NO was pressed, CALIBRATION INCOMPLETE! will be displayed. Press RETRY to start the calibration procedure over from step 1 or press CANCEL to cancel the calibration and return to the maintenance menu.

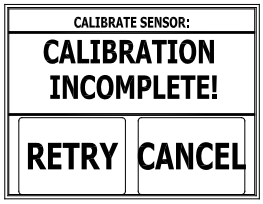


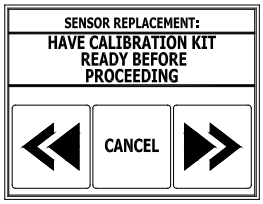

If this error appears the CO sensor's span to zero value is not large enough indicating the calibration gas may not match the value set on page 13 under reference gases or the reference gas cylinder is empty or not flowing or the CO sensor's life is expired. Check cylinder and press YES to retry or NO to cancel the calibration.


If this error appears it's possible the reference gas cylinder is empty or not flowing. Check cylinder and press YES to retry or NO to cancel the calibration.

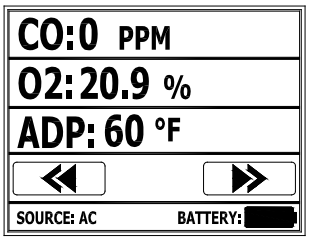



If NO was pressed, CALIBRATION INCOMPLETE! will be displayed. Press RETRY to start the calibration procedure over from step 1 or press CANCEL to cancel the calibration and return to the maintenance menu.

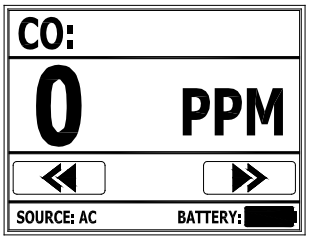



If YES was pressed the calibration procedure will restart from step 1.

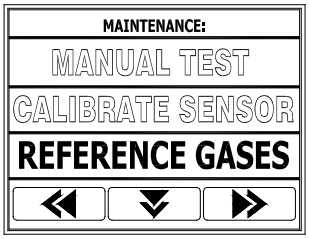
# AQM Maintenance - Reference Gases



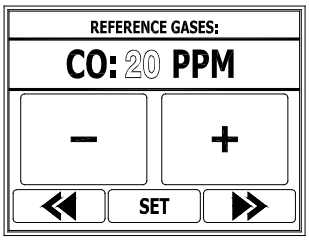

From the system status screen- press ⏩ to advance to the next screen.



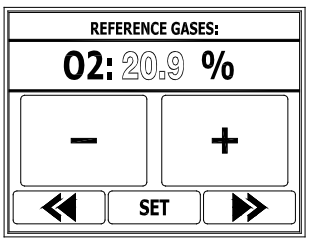

From the cycling display screen- press ⏩ to advance to the maintenance screen.



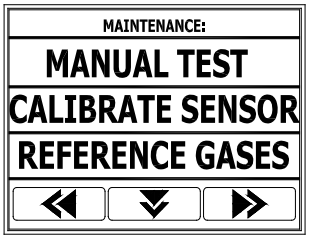

Press the REFERENCE GASES tab. This will advance the user to the next screen.



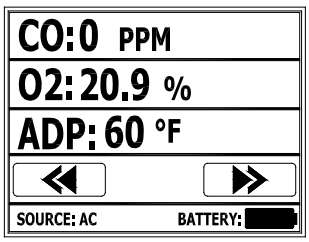

Air System CO reference gas is 20 PPM. Other manufacturers PPM may vary. If the PPM displayed is correct; press the ⏩ to advance to the next screen. If not, adjust using the (+/-) tabs and press SET when complete. ✓ SAVED will be displayed and advance to the next screen. Pressing the ⏩ advances to the next screen **WITHOUT** saving the change.

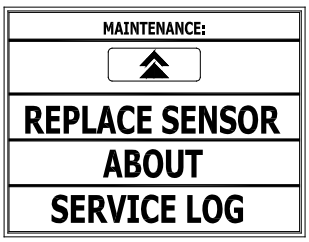


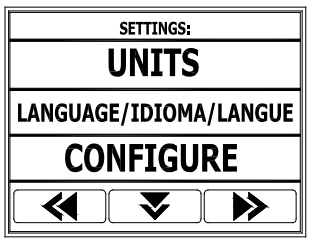

Repeat the above process for the O2 reference gas.



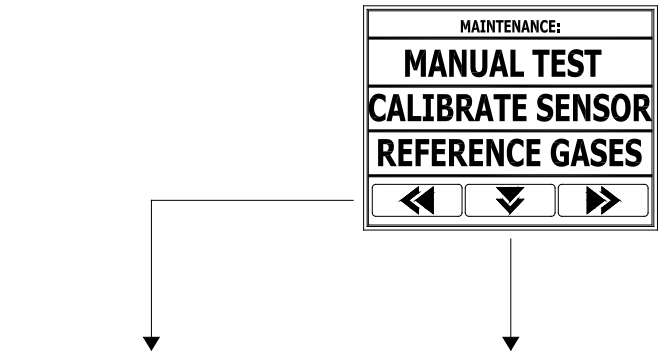

These settings will now be the default settings in the calibration routine.

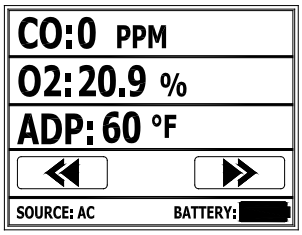


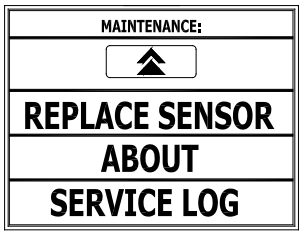



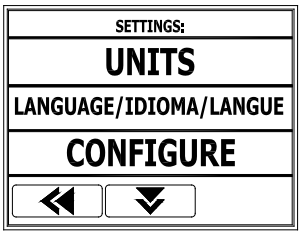
# AQM Maintenance - Maintenance

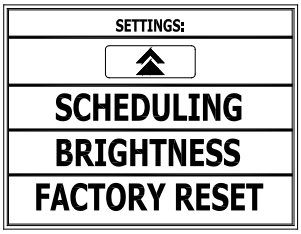



**System Status Screen**




See page 15 to replace the CO and O2 sensors

See page 16 for contact information and regulations associated with the use of an air quality monitor.

See page 17 for information on service log

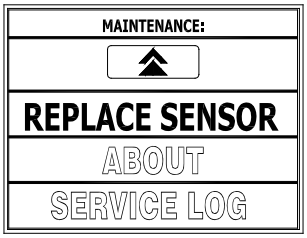
Go to page 18 to select the preferred units to be displayed on the monitor.

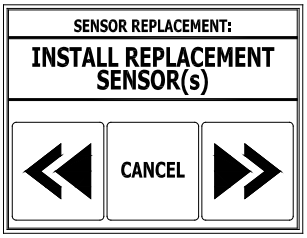
Go to page 19 to select the preferred language to be displayed on the monitor.

Go to page 22 for
scheduling
brightness
factory reset

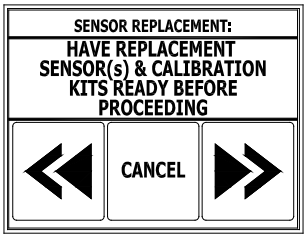
# AQM Maintenance - Replace Sensors

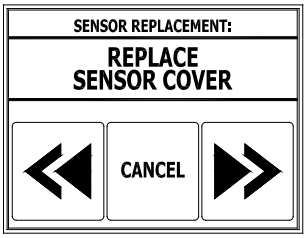
Press REPLACE SENSOR.



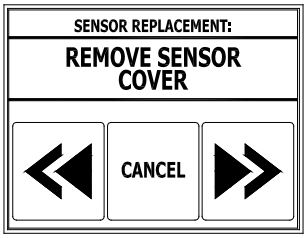

Install the replacement sensor(s) and and press ⏩. Align sensor pins with sockets and push straight in.

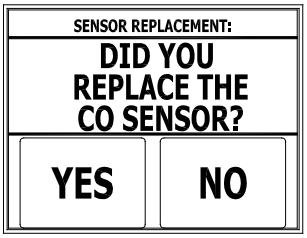



Replace the sensor cover and tighten the allen head screw. Press ⏩. Pressing CANCEL takes the user back to Step 1.

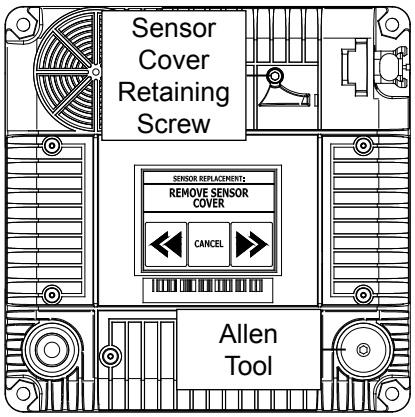
Remove the allen head screw from the sensor cover using the included tool or a 7/64” allen key. Remove the sensor cover to reveal the CO sensor and the O2 sensor (if used) and press ⏩.

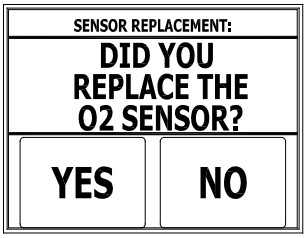


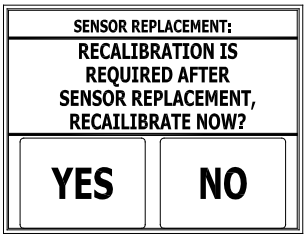

Pressing YES or NO to “Did You Replace The CO Sensor” advances the user to the next screen.

Pressing YES or NO to “Did You Replace The O2 Sensor” advances the user to “Recalibration Is Required”screen.



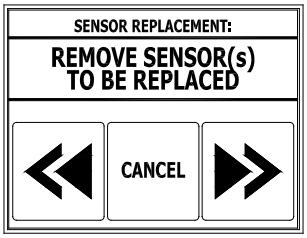



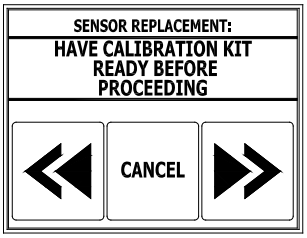

Pressing YES on the replacement of either or both sensors logs the install date of the sensor(s) and resets the calibration schedule and calibration reminder. See page 22 for instructions on scheduling.

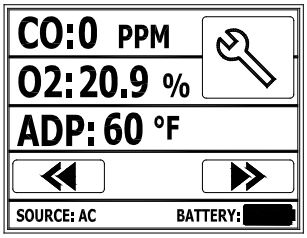


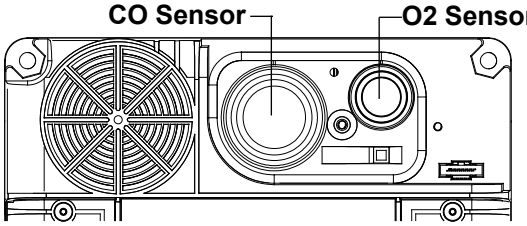

Pressing NO takes the user to the SYSTEM STATUS screen. Pressing YES takes the user to the sensor calibration procedure found on pages 10 and 11.

Remove the sensor(s) to be replaced and press ⏩. Pull sensor(s) staight out of sockets. Do **NOT** twist when removing.



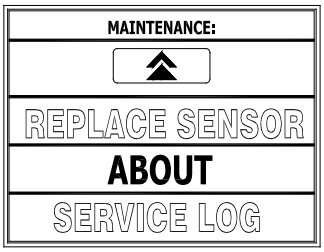



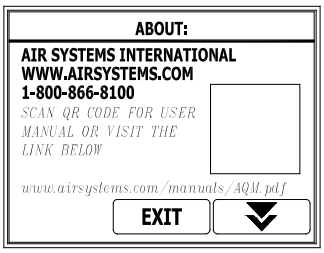



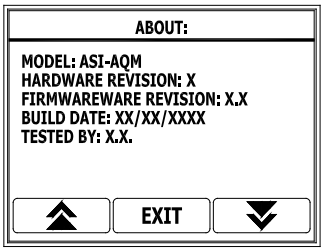

**Shown With Sensor Cover Removed**

# AQM Maintenance - About

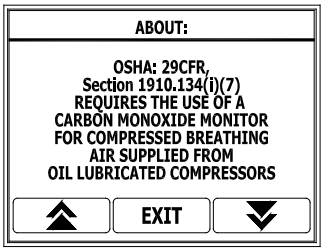


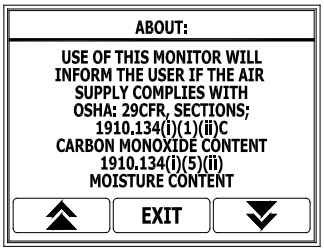

Company contact information and QR code for link to instruction manual.



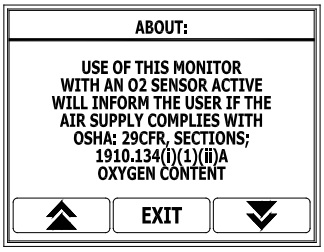

Air quality monitor information.



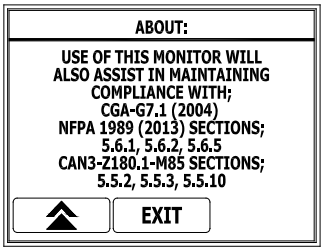

U.S. regulatory information regarding location where air quality monitor is required for breathing air.




U.S. regulatory information regarding carbon monoxide and moisture levels for breathing air.



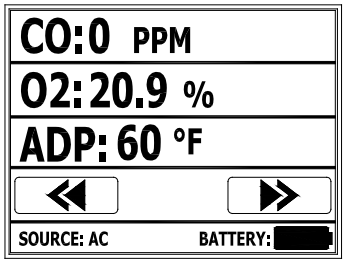

U.S. regulatory information regarding oxygen levels for breathing air.

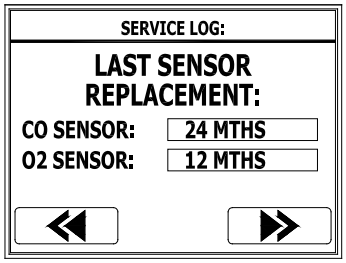



Additional U.S. and Canadian regulatory information for breathing air.

# AQM Maintenance - Service Log

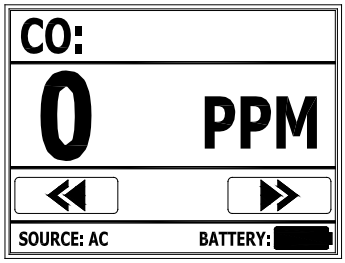
From the fixed system status display press the ⏩ to advance to the next screen.

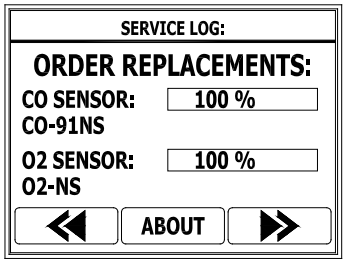



This screen give the user the last time of sensor replacement in months. Press the ⏩ to advance to the maintenance screen.

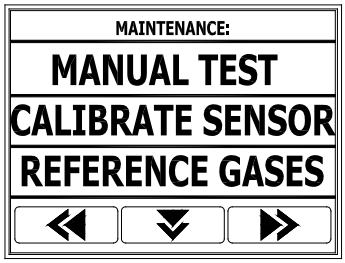
From the cycling system status display press the ⏩ to advance to the maintenance screen.

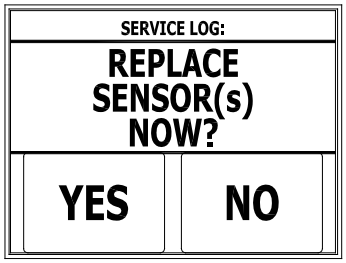


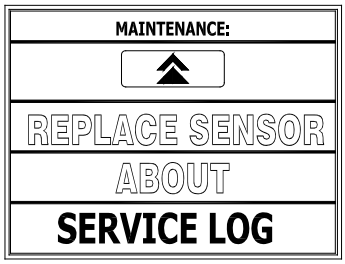

This screen give the user an idea of the useable capacity left for each sensor in % to help the user determine if replacement is necessary. Press the ⏩ to advance to the next screen.

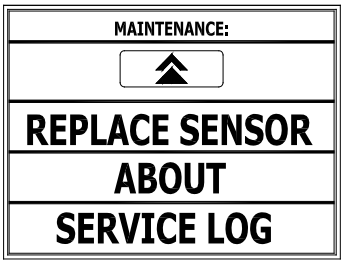
Press the ⏬ to advance to the next screen.



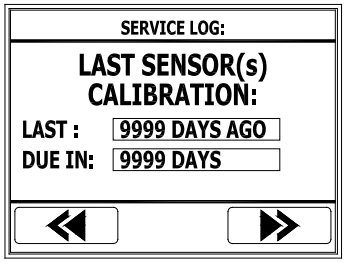

Press the SERVICE LOG tab.

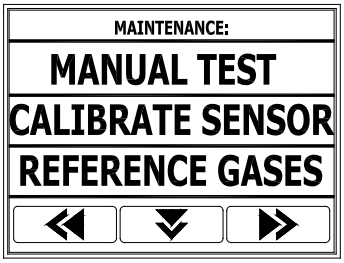



Press the ⏫ to advance to the top maintenance screen.

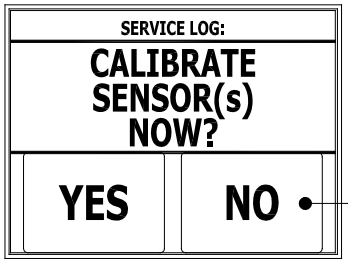
This screen give the user the last time of calibration in days and when the next calibration is due. Press the ⏩ to advance to the next screen.

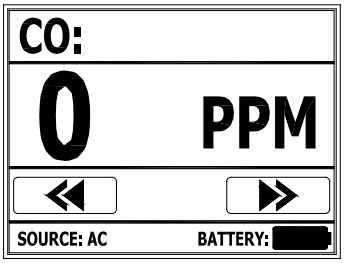



Press the ⏪ to advance to the cycling system status screen.

Press YES to calibrate the sensors. See pages 10 - 11 for calibration instructions. Press NO to continue to next screen.

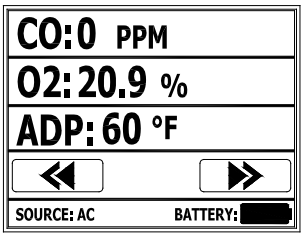


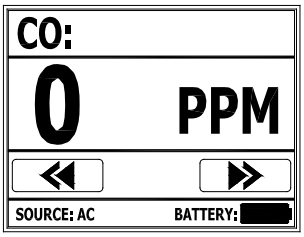

Press the ⏪ to advance to the fixed system status screen.

Press YES to replace the sensors. See page 15 for sensor replacement instructions.

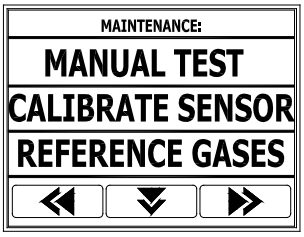
# AQM Settings - Units



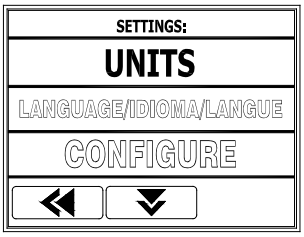

From the system status screen- press ⏩ to advance to the next screen.



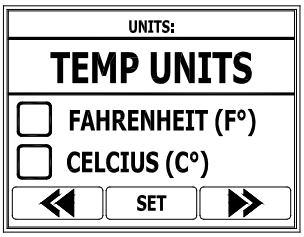

From the cycling display screen- press ⏩ to advance to the maintenance screen.



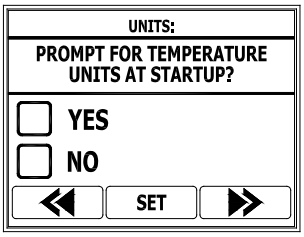

From the maintenance screen- press ⏩ to advance to the settings screen.



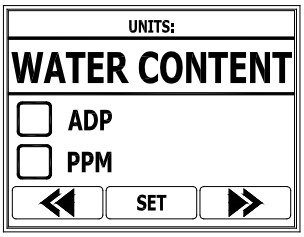

Press the UNITS tab.




If the temperature unit currently selected is correct press the ⏩ to advance to the next screen. If not, select the box next to the preferred temperature units and press **SET** . ✓ SAVED will be displayed confirming your selection. Changing the selection and pressing the ⏩ advances to the next screen **WITHOUT** saving the selection. You must press **SET** to save selection.

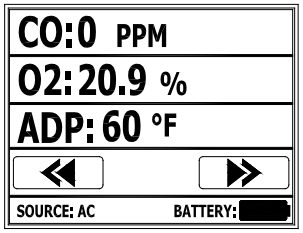



If the box currently selected is correct, press the ⏩ to advance to the next screen. If you wish for a prompt for temperature units upon start-up, select **YES**. Select **NO** if you do not. Press **SET** and ✓ SAVED will be displayed; confrming your selection.

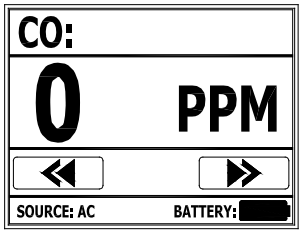



If the unit currently selected is correct, press the ⏩ to advance to the next screen. If not, select the box next to the preferred unit and press **SET**. ✓ SAVED will be displayed confrming your selection.

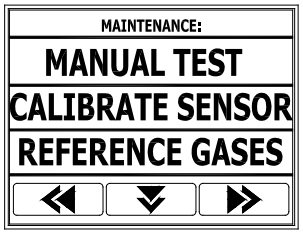
# AQM Settings - Language



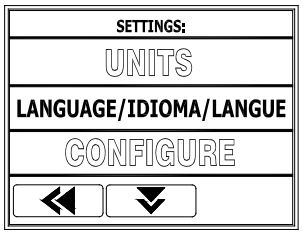

From the system status screen- press ⏩ to advance to the next screen.



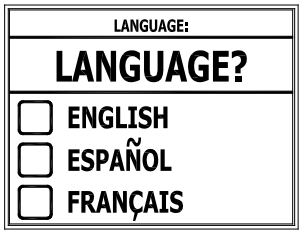

From the cycling display screen- press ⏩ to advance to the maintenance screen.




From the maintenance screen- press ⏩ to advance to the settings screen.

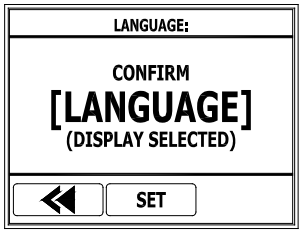



Press the LANGUAGE tab.

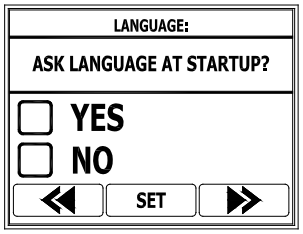



Select the box next to the preferred language and the screen will advance.

**NOTE:** Whichever language is selected; the monitor will display that language from this point forward.



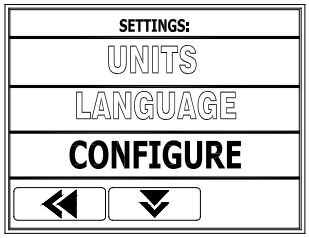

Press SET and ✓ SAVED will be displayed confrming your selection and advancing to the next screen. Press ⏪ to go back one screen and change your selection.



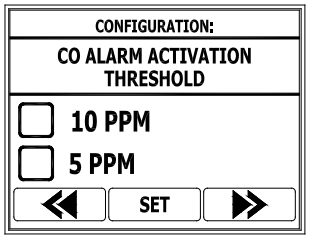

If you wish for a prompt for language upon start-up, select YES. Select NO if you do not. Press SET and ✓ SAVED will be displayed confrming your selection. Changing the selection and pressing the ⏩ advances to the next screen **WITHOUT** saving the selection. You must press SET to save selection.

# AQM Settings - Configure

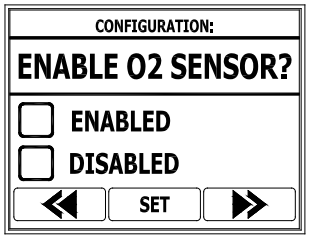
Select the CONFIGURE tab.



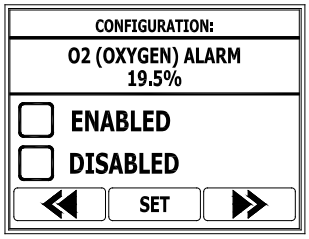

If the box currently selected is correct press the ⏩ to advance to the next screen. If not, select the box next to the preferred PPM and press SET. ✓ SAVED will be displayed confrming your selection. Changing the selection and pressing the ⏩ advances to the next screen **WITHOUT** saving the selection. You must press SET to save selection.

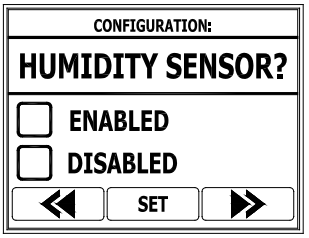



Select the ENABLED box to enable the O2 sensor. If the user does not wish to use the O2 sensor, or there is not an O2 sensor installed, select DISABLED. Once selection has been made; press SET. ✓ SAVED will be displayed and screen will advance.

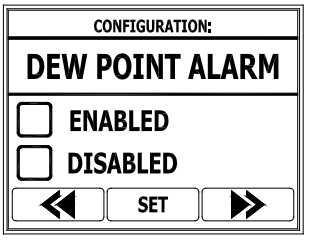



Select the ENABLED box to enable the O2 alarms. If the user does not wish to use the O2 alarms select DISABLED . O2 levels will be displayed but the monitor will not activate local and remote alarms. After selection has been made; press SET. ✓ SAVED will be displayed and screen will advance.

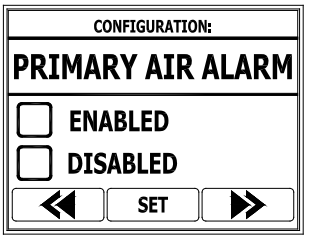


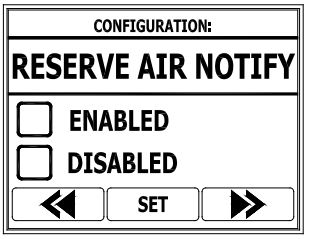

Select the ENABLED box to enable the humidity sensor. If the user does not wish to use the humidity sensor; press the DISABLED tab. Once selection has been made; press SET. ✓ SAVED will be displayed and screen will advance.




Select the ENABLED box to enable the dew point alarm. If the user does not wish to have a dew point alarm; select the DISABLED box. Dew point levels will be displayed but the monitor will not activate local and remote alarms. Once selection has been made; press SET. ✓ SAVED will be displayed and screen will advance.



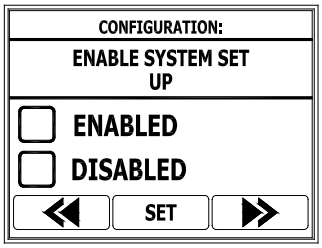

If the filtration unit is equipped with automatic back-up air; select the ENABLED. If not, select DISABLED. Once selection has been made; press SET. ✓ SAVED will be displayed and screen will advance.



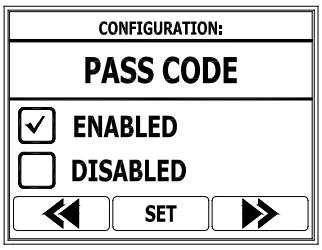

If the filtration unit is equipped with a secondary pressure switch for reserve air supply; press the ENABLED tab. If not, press the DISABLED tab. Once selection has been made; press SET. ✓ SAVED will be displayed and screen will advance.

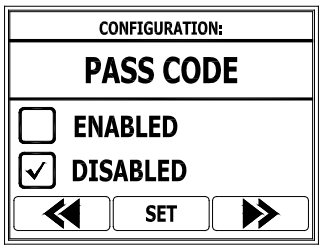
# AQM Settings - Configure

If using the AQM in a high CO shutdown application, press the DISABLED tab. All other applications, select the ENABLED tab. After selection has been made press SET. SAVED will be displayed and screen will advance.



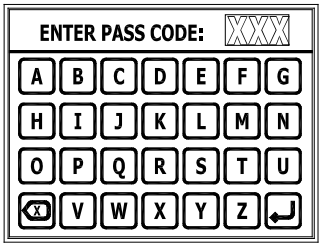

Enabling a PASS CODE denies unauthorized access to the maintenance and settings screens. Select the ENABLED box and press SET. SAVED will be displayed and screen will advance.

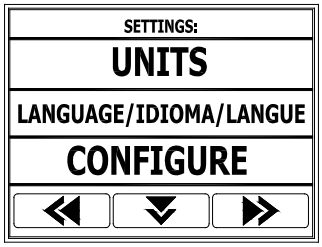



Select the DISABLED box for no pass code. Press SET. SAVED will be displayed and screen will return to the settings menu.

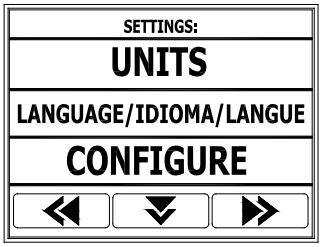
Select a 3 (must be 3) digit pass code. When finished, press the enter tab. SAVED will be displayed and screen will advance.
Note:
Pass codes must be 3 characters. “DISABLED” will erase previously set pass codes. If the pass code is forgotten; the master pass code is ASI.



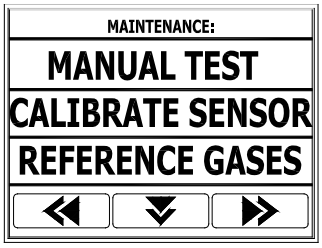




Press the to return to the maintenance menu.

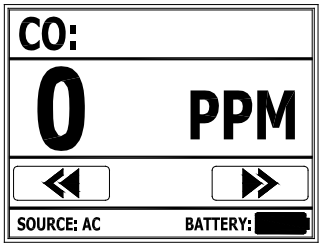
Press the to return to the maintenance menu.



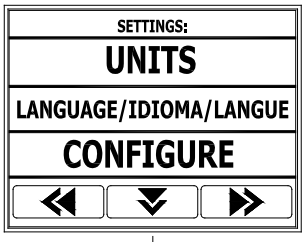

Press the to return to the cycling system status display screen.

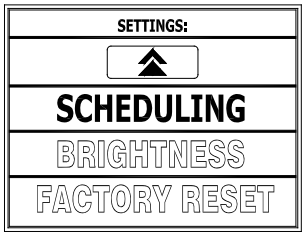



Press the to return to the fixed system status display screen.

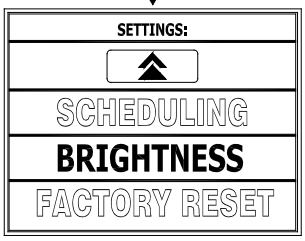


# AQM - Settings

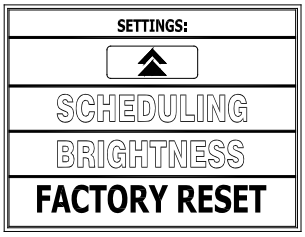


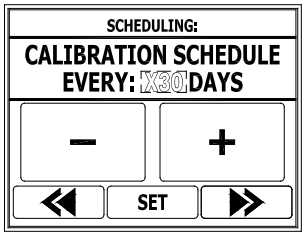

Press the scheduling tab.



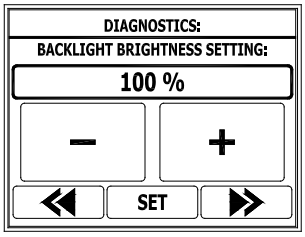

Press the brightness tab.



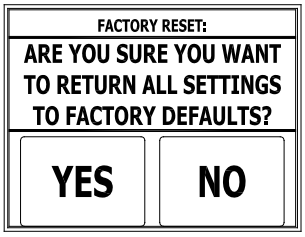

Press the factory reset tab.

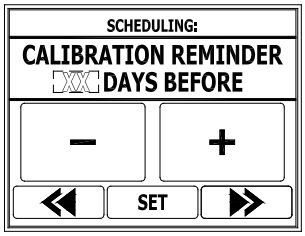



Press (+/-) to set the calibration schedule. Air Systems recommends every 30 days. Press SET to save and press ⏩ to continue.

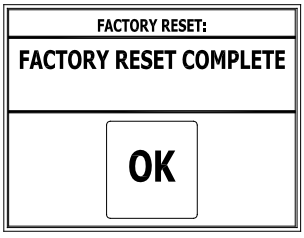


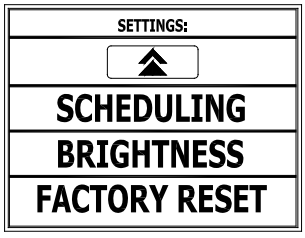

Press (+/-) to set the desired brightness level. Press SET to save and press ⏩ to display the settings page.

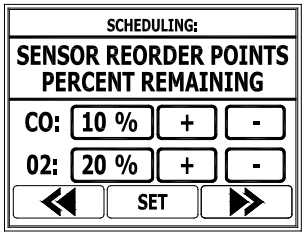



Press (+/-) to set a reminder.Press SET to save and ⏩ to continue.

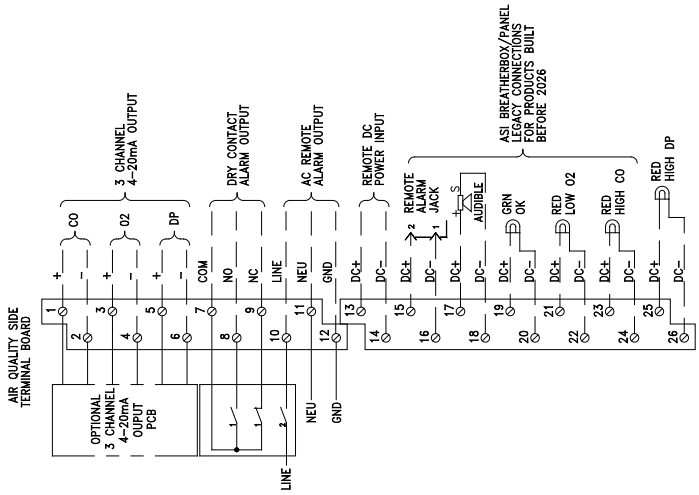


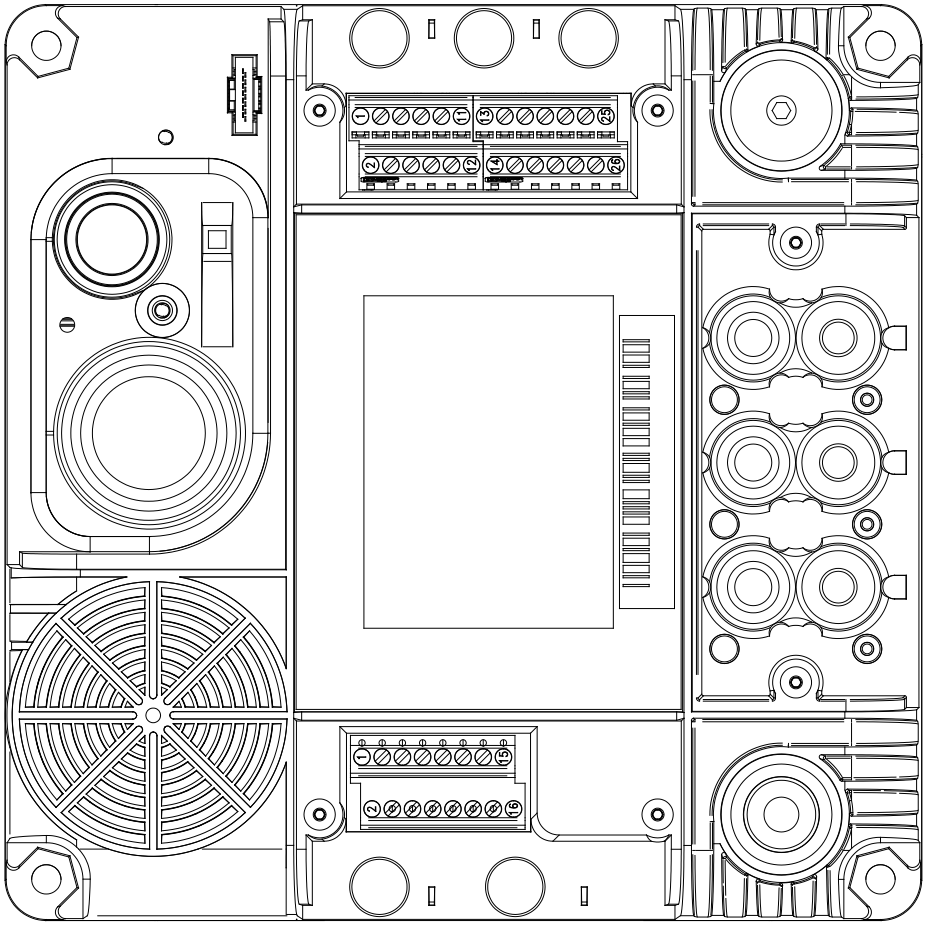



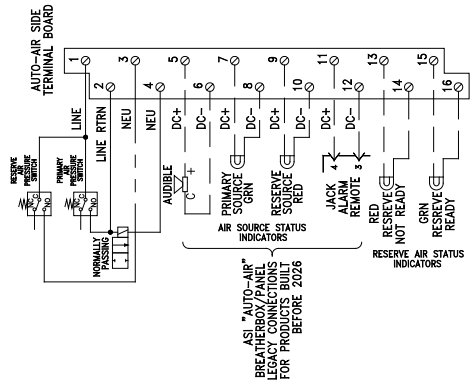




Press (+/-) to set a sensor reorder point. Default is 10% for the CO sensor and 20% for the O2 sensor. Press SET to save and press ⏩ to display the settings page. On average, the 10% / 20% settings provide 75 days of service before sensor(s) are depleted. This time may vary based on quality of supplied air.

# AQM - Terminal Board Connections





# AQM - Specifications

| | | | | |
|---|---|---|---|---|
| **DIMS** | **HEIGHT** | **WIDTH** | **DEPTH** | **WEIGHT** |
| | 6.25 in (159mm) | 6.25in (159mm) | 2.75 in (70mm) | 1.8 lbs. (0.82 kgs) |
| **HOUSING** | **MATERIAL** | **COLOR** | **DIELECTRIC STRENGTH** | **FLAMMABILITY** |
| | ABS/PC BLEND | GRAY / BLACK | 5VB (UL 94) | 5VB (UL 94) |
| **GENERAL** | **OPERATING TEMP RANGE** | **RECOMMENDED STORAGE** | **ORIENTATION SENSITIVITY** | **NEMA** |
| | 4-122°F (0-50°C) | 32-68°F (0-20°C) | NONE | NON-RATED |
| **POWER** | **INPUT** | **CONNECTION** | **SOURCE** | **PRIORITY** |
| | UNIVERSAL 85~264 Vac | IEC320 C14 (10 A) | NEMA 5-15R / IEC320 C13 POWER CORD (US) | PRIMARY MOMENTARY PUSH BUTTON |
| | 9 VDC | INTERNAL BATTERY BAY | (6) AA ALKALINE BATTERIES 1.5V 3100mAh NON-RECHARGEABLE | BACK-UP (APPROXIMATELY 40 hrs) |
| | 12~24 VDC | PCB TERMINAL (T 13+, T 14-) | SOLID OR STRANDED CONDUCTORS (26-16AWG) | PRIMARY OR BACK-UP (HRS SOURCE DEPENDENT) |
| **CONTROLS** | **POWER ON/OFF** | **USER INTERFACE** | **LANGUAGE** | **SAMPLE PORT** |
| | MOMENTARY PUSH BUTTON | COLOR TOUCH SCREEN | TRI-LINGUAL ENGLISH/SPANISH/FRENCH | QUICK CONNECT COUPLING AIRLINE & CALIBRATION GAS |
| **DISPLAY** | **SIZE** | **TECHNOOGY** | **ACTIVATION FORCE** | **DURABILITY** |
| | 2.8in (2.27in W X 1.7in H) 71mm (57.6mm W X 43.2mm H) | RESISTIVE TOUCH (BARE OR GLOVED HAND) | 10~100 grams | 1,000,000 TOUCHES |

| **SENSORS** | | **CO** | **O2** | **TEMP/MOISTURE** |
|---|---|---|---|---|
| | **TECHNOLOGY** | ELECTROCHEMICAL | ELECTROCHEMICAL | DIGITAL |
| | **ELECTRODES** | 3 | 2 | SMT |
| | **MEASUREMENT RANGE** | 0-200ppm | 1-25% vol. O2 | 0-100% RH |
| | **ACCUARCY** | ± 1 % OF SPAN | <0.6 % OF SPAN | ±1% RH, ΔT±33°F(0.1C°) |
| | **MAXIMUM OVERLOAD** | 2000ppm | 30% vol. O2 | N/A |
| | **RESPONSE TIME (T90)** | <25 SECONDS | <15 SECONDS | 4 SECONDS |
| | **OPERATING PRESSURE** | ATMOSPHERIC ± 10% | ATMOSPHERIC ± 20% | ATMOSPHERIC ± 20% |
| | **OPERATING FLOW RATE** | 50-100CC/MIN | 50-100CC/MIN | 50-100CC/MIN |
| | **RELATIVE HUMIDITY RANGE** | 5 TO 95%RH NON-CONDENSING | 5 TO 95%RH NON-CONDENSING | 0-100% RH |
| | **WARRANTY LIFE** | 2 YEARS | 1 YEAR | 2 YEAR |

| **AIR QUALITY ALARMS** | | **CO** | **O2** | **MOISTURE** |
|---|---|---|---|---|
| | **SET POINT** | 10ppm US (5ppm CAN) MAXIMUM | 19.5% O2 MINIMUM | ATMOSPHERIC DEW POINT (ADP) 10°F BELOW AMBIENT |
| | **REQUIREMENT** | STANDARD PER OSHA: 29 CFR 1910.134(i)(1)(ii)C | USER ARMED PER OSHA: 29CFR 1910.134(i)(1)(ii)A | USER ARMED PER OSHA: 29CFR 1910.134(i)(5)(ii) |
| | **DISPLAY** | BACKGROUND BLUE "NORMAL" RED "OUT OF RANGE" | BACKGROUND BLUE "NORMAL" RED "OUT OF RANGE" | BACKGROUND BLUE "NORMAL" RED "OUT OF RANGE" |
| | **AUDIBLE** | 120dBA PULSING TONE SIREN | 120dBA PULSING TONE SIREN | 120dBA PULSING TONE SIREN |
| | **LED NORMAL STATE INDICATOR** | GREEN LED "AIR" 12VDC 1,200mcd | GREEN LED "AIR" 12VDC 1,200mcd | GREEN LED "AIR" 12VDC 1,200mcd |
| | **LED ALARM STATE INDICATOR** | RED LED "QUALITY" 12VDC 1,200mcd | RED LED "QUALITY" 12VDC 1,200mcd | RED LED "QUALITY" 12VDC 1,200mcd |
| | **DC REMOTE** | DC REMOTE JACK PINS 1- & 2+ PCB TERMINALS (T 15+, T 16-) | DC REMOTE JACK PINS 1- & 2+ PCB TERMINALS (T 15+, T 16-) | DC REMOTE JACK PINS 1- & 2+ PCB TERMINALS (T 15+, T 16-) |
| | **AC REMOTE** | PCB TERMINAL (T 10 L, T 11 N, T 12 GND) | PCB TERMINAL (T 10 L, T 11 N, T 12 GND) | PCB TERMINAL (T 10 L, T 11 N, T 12 GND) |
| | **DRY CONTACT** | PCB TERMINAL (T 7 C, T 8 NO, T 9 NC) | PCB TERMINAL (T 7 C, T 8 NO, T 9 NC) | PCB TERMINAL (T 7 C, T 8 NO, T 9 NC) |
| | **RETROFIT ADAPTABLITY** | PCB TERMINALS T15 THRU T24 FOR LEGACY CONNECTION | PCB TERMINALS T15 THRU T24 FOR LEGACY CONNECTION | N/A |
| | **4-20ma OUTPUT** | OTIONAL CONSULT MANUFACTURER | OTIONAL CONSULT MANUFACTURER | OTIONAL CONSULT MANUFACTURER |
| | **TEST FUNCTION** | MAUAL TEST MENU DRIVEN | MAUAL TEST MENU DRIVEN | MAUAL TEST MENU DRIVEN |

# AQM - Specifications

| AIR SOURCE ALARMS | | PRIMARY/RESERVE STATUS | RESERVE AVAILABILITY |
|---|---|---|---|
| | **SET POINT** | PSI FACTORY SET FOR USER | PSI FACTORY SET FOR USER |
| | **REQUIREMENT** | INDICATE AIR SOURCE IN USE | INDICATE RESERVE AIR AVAILABILITY |
| | **DISPLAY** | BACKGROUND BLUE "NORMAL" RED "OUT OF RANGE" | BACKGROUND BLUE "NORMAL" RED "OUT OF RANGE" |
| | **AUDIBLE** | 120dBA CONSTANT SIREN | 120dBA CONSTANT SIREN |
| | **LED NORMAL STATE INDICATOR** | GREEN LED "AIR" 12VDC 1,200mcd | GREEN LED "AIR" 12VDC 1,200mcd |
| | **LED ALARM STATE INDICATOR** | RED LED "SOURCE" 12VDC 1,200mcd | RED LED "SOURCE" 12VDC 1,200mcd |
| | **DC REMOTE** | PCB TERMINALS AA-T11+, AA-T12- | N/A |
| | **AC REMOTE** | PCB TERMINAL (T 10 L, T 11 N, T 12 GND) | PCB TERMINAL (T 10 L, T 11 N, T 12 GND) |
| | **DRY CONTACT** | N/A | N/A |
| | **RETROFIT ADAPTABLITY** | PCB TERMINALS AA-T1 THRU AA-T16 FOR LEGACY CONNECTION | PCB TERMINALS AA-T1 THRU AA-T16 FOR LEGACY CONNECTION |
| | **TEST FUNCTION** | MAUAL TEST MENU DRIVEN | MAUAL TEST MENU DRIVEN |

| MENU | | PURPOSE (WHY) | FUNCTION (HOW/WHAT) | STEP BY STEP MENU DRIVEN ROUTINE TO GUIDE USER |
|---|---|---|---|---|
| | **START-UP** | SELECT PREFRENCES FOR OPERATION | SET LANGUAGE & UNITS PREFERNCES | ✓ |
| | **SYSTEM SETUP** | SET UP OF GRADE -D BREATHING AIR SYSTEM | GUIDE USER THRU SET-UP FOR SYSTEM USE | ✓ |
| | **DISPLAYS:** | | | |
| | **STATIC** | ALL PERTINENT INFORMATION VIEWABLE ON ONE SCREEN | SINGULAR SCREEN TO DISPLAY ALL MONITORED CONDITIONS | AUTOMATIC |
| | **CYCLING** | USES LARGER FONTS FOR INCREASED VIEWING DISTANCE | DISPLAYS MONITORED CONDITIONS ONE AT A TIME | ✓ |
| | **MAINTENANCE:** | | | |
| | **MANUAL TEST** | VERIFY PROPER FUNCTION OF LOCAL &REMOTE INDICATORS | ACTIVATES ALL VISUAL/AUDIBLE INDICATORS & OUTPUTS | ✓ |
| | **CALIBRATION** | INSURE INSTRUMENT'S GAS READING ACCURACY | CALIBRATES ALL INSTALLED SENSORS, UPDATE SERVICE LOG | ✓ |
| | **REFRENCE GASES** | PRESETS REFRENCE GAS VALUES FOR USE IN CALIBRATION | ADJUST GAS VALUES TO MATCH CALIBRATION CYLINDERS IN USE | ✓ |
| | **SENSOR REPLACEMENT** | REPLACE OUT OF SERVICABLE RANGE SENSORS | CO AND/OR O2 SENSOR REPLACE, UPDATE SERVICE LOG | ✓ |
| | **ABOUT** | UNIT & COMPANY INFO, QR FOR MANUAL, REGULATORY INFO | SCROLLABLE INFORMATION SCREENS | ✓ |
| | **SERVICE LOG** | TRACK SERVICE/MAINTENANCE AND SCHEDULING EVENTS | UPDATE SERVICE/MAINTENACE EVENTS UPON COMPLETION | AUTOMATIC |
| | **SETTINGS:** | | | |
| | **UNITS** | CONFORM TO ORGANIZATIONS UNIT OF MEASURE PREFERENCE | SET TEMPERATURE UNIT (°F, °C) MOISTURE UNIT (ADP, PPM) | ✓ |
| | **LANGUAGE** | CONFORM TO ORGANIZATIONS LANGUAGE NEEDS | SELECT LANGUAGE MONITOR DISPLAYS | ✓ |
| | **CONFIGURATION** | CONFORM TO ORGANIZATIONS USAGE REQUIREMENTS | ACTIVATE / DEACTIVATE MONITOR FEATURES | ✓ |
| | **SCHEDULING** | CONFORM TO ORGANIZATIONS MAINTENANCE REQUIREMENTS | SET MAINTENANCE AND REMINDER SCHEDULES | ✓ |
| | **BRIGHTNESS** | POWER CONSERVATION WHEN RUNNING ON AA BATTERIES | ADJUSTS DISPLAY BRIGHTNESS 10-100% | ✓ |
| | **FACTORY RESET** | CANCELS ALL "USER SETTINGS" RETURN TO "ORIGINAL" SETTING | RESETS MONITOR TO ORIGINAL FACTORY SETTINGS | ✓ |

# AQM - Specifications

# Warranty

Air Systems' manufactured equipment is warranted to the original user against defects in workmanship or materials under normal use for one year from the date of purchase. Any part which is determined by Air Systems to be defective in material or workmanship will be, as the exclusive remedy, repaired or replaced at Air Systems' option. This warranty does not apply to electrical systems or electronic components. Electrical parts are warranted, to the original user, for 90 days from the date of sale. During the warranty period, electrical components will be repaired or replaced at Air Systems' option.

**NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER IS GIVEN BY AIR SYSTEMS IN CONNECTION HEREWITH. UNDER NO CIRCUMSTANCES SHALL THE SELLER BE LIABLE FOR LOSS OF PROFITS, ANY OTHER DIRECT OR INDIRECT COSTS, EXPENSES, LOSSES, OR DAMAGES ARISING OUT OF DEFECTS IN, OR FAILURE OF THE PRODUCT OR ANY PART THEREOF.**

The purchaser shall be solely responsible for compliance with all applicable Federal, State and Local OSHA and/or MSHA requirements. Although Air Systems International believes that its products, if operated and maintained as shipped from the factory and in accordance with our "Operations Manual", conform to OSHA and/or MSHA requirements, there are no implied or expressed warranties of such compliance extending beyond the limited warranty described herein. Product designs and specifications are subject to change without notice. Rev. 2, 12/98

Air leaks are not covered under warranty except when they result from a defective system component, i.e. an on/off valve or regulator or upon initial delivery due to poor workmanship. Air leaks due to poor delivery or damage will be covered under delivery claims. Minor air leaks are part of routine service and maintenance and are the responsibility of the customer just as are filters and oil changes.

Manual No. AQM001
Rev. 0 January 2026