Bullard

Clean Air Box Usage & Care



CABs

RAMs

Monitors

WARNING

The following is supplemental information only. The user should read, understand and follow all instructions and warnings in the product user manual. Failure to read, understand and follow all instructions and warnings could cause death or serious injury or life-threatening delayed lung disease including but not limited to silicosis, pneumoconiosis or asbestosis.

CAB Usage & Care

- CAB Set Up
- Calibration
- Remote Alarm
- Shut Down
- Monitor Battery Replacement
- CO Sensor Replacement
- Filters
- AA Battery Backup

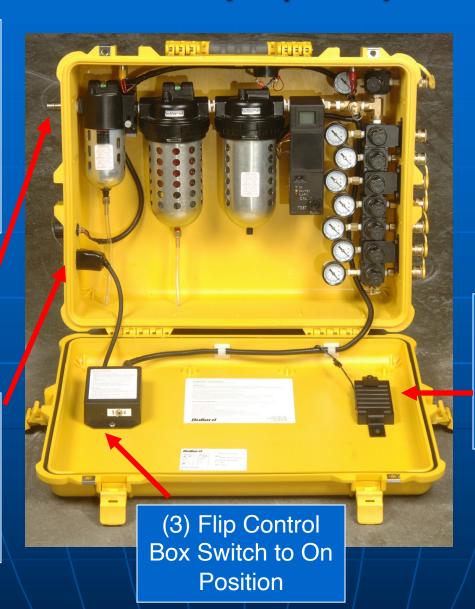
CAB Set Up (Steps 1-3)

(1) Locate CAB
in a clear air
environment
containing at least
Grade D
breathable air at
all times.

(2) Attach to Incoming Air Source (Do not exceed 150 psi)

(2a) Connect to AC Power Source

(Fixed Panels may be hard wired)



(2b) Unit may be operated on (8)
AA batteries if no AC power source is available

CAB Set Up (Steps 4-6)

(4) Remove the CO Monitor cover and press the On Button



(5) Wait for 60 second countdown / boot up

(6) If unit has been recently calibrated then set monitor to Run mode, otherwise proceed to calibration steps

Zero-Point Calibration (Steps 1-5)

(1) Zero with impurity free test gas

(2) With cover off and Monitor On, rotate knob to Cal position

(3) AC will appear on LCD screen



(4) Press and hold On/Off button until beep sounds

(5) AO will appear on LCD screen

Zero-Point Calibration (Steps 6-12)

(6) Attach regulator to the impurity free test gas cylinder

(7) Insert
calibration
connector fitting
into the center hole
of the CO Monitor
knob

(8) Open the cylinder valve fully



(9) The Red LED will blink for approximately 90 seconds while the zero process is completed

(10) Green LED will blink to indicate successful zero-point calibration

(11) Close the gas cylinder and remove the connector fitting from the monitor

(12) Rotate CO Monitor knob to Run

CO Gas Calibration (Steps 1-3)

(1) Select 10 ppm CO test gas

(2) With Cover off and Monitor On, rotate knob to Cal position



(3) AC will appear on LCD screen

CO Gas Calibration (Steps 4-10)

(4) Attach regulator to the CO test gas cylinder

(5) Insert
calibration
connector fitting
into the center hole
of the CO monitor
knob

(6) Open the cylinder valve fully



(7) The Red LED will blink for approximately 90 seconds while the CO calibration process is completed

(8) Green LED will blink to indicate successful calibration

(9) Close the gas cylinder and remove the connector fitting from the monitor

(10) Rotate CO Monitor knob to Run

Remote Alarm

The Remote Alarm duplicates the alarm functions on the CAB unit to signal workers in a remote location that there is an alarm condition with the system.

Connect the CAB unit to the Remote Alarm using the provided cable. (Up to six (6) cables can be connected in series to allow for a Max. of 300 ft. of cable between the CAB unit and the Remote Alarm unit).

Test by turning the air supply off (with CO Monitor On and in Run position).

The low flow (LF) status will show on the monitor LCD and the visual and audible alarms will activate.

Turning the air supply back on will deactivate the alarm condition





CAB Shutdown (Steps 1-3)

(1) Make sure all personnel have left the work area

(2) Shut off the incoming air to the CAB unit

(3) Release air pressure by pulling out the relief valve ring





CAB Shutdown (Steps 4-5)

(4) Turn off the CO Monitor by holding the on/off button for 3 seconds



(5) You will hear 3 short beeps to indicate the CO Monitor is shutting off

CAB Shutdown (Steps 6-8)

(6) Turn the control box switch to the off position.

(7) Disconnect the air supply hoses at the outlet of the CAB unit.



(8) Install dust caps over the outlet fittings



CO Monitor Battery Replacement

If the 9V battery is being used to power the monitor and the battery power gets low the LCD will display LB indicating the battery needs to be changed.

(1) Remove the CO monitor cover

(2) Remove the 9V battery

(3) Install new 9V battery





CO Monitor Sensor Replacement

- (1) Remove the 4 screws on the front of the CO monitor
- (2) Gently pry off the cover from the **bottom** of the housing
- (3) Gently pull on the old sensor
- (4) Remove the shorting clip from the new sensor







- (5) Align pins and gently push the new sensor into the sockets
- (6) Replace the front cover of the monitor when sensor replacement is complete. Ensure LEDs are aligned with housing before securing front cover with screws.
 - (7) Allow instrument to warm up at least 30 minutes. Zero-Point Adjustment and CO Gas Calibrate the new CO sensor before the next use.

Filter Usage & Care

Auto Drains

They are installed on two of the filter stages only and automatically drain bulk liquid contaminants after the level has reach 1/3 of the bowl capacity. Clean periodically with mild soap and water. Make sure the tubing is securely placed in the holes at the bottom of the unit.



Filter Housings / Bowls

Periodically remove the auto drains and clean with a mild soapy solution. Re-install into the filter housing.

Filter Change Indicators

The change indicators will gradually change from green to orange when filter life is spent.

Air must be flowing through the CAB unit before the indicators will function.

AA Battery Back Up

Optional DC Power Supply

CAB units may be operated using (8) AA batteries to provide power to the external lights, CO alarm and the CO monitor.

The AA battery compartment is located on the interior surface of the CAB Box.



When operating on DC power the amber light on the top of the CAB unit will burn steadily.

If the battery power for the CAB unit falls below the required voltage then the amber light will begin to flash and an audible alert in the form of short intermittent beeps will notify the user it is time to change the batteries.

Support

- Call 877-BULLARD
- Visit <u>www.bullard.com</u>