CLEMCO
The Performance System

TECHNICAL DATA SHEET

Note: For safe, efficient blasting, read and follow the owner's manual and seek training for everyone who will use this equipment.

Purpose

The CMS-2 monitor detects carbon monoxide (CO) and hydrocarbons in a compressed air supply. The alarm trip-point is preset at 10 parts per million (PPM) which is the maximum permissible exposure limit (PEL) of CO for grade-D breathing air in the USA and triggers visual and audible alarms when the CO is detected in concentrations of 10 PPM. The alarm trip-point is set a 10-PPM and cannot be changed.

NOTE: CMS-2 monitor does not remove CO or convert CO to CO2.

Requirements for Operation

• Compressed-air source (55 to 145 psi) of Grade-D breathing air as defined by the Compressed Gas Association commodity specification: G-7.1 (www.cganet.net). The purpose of the CMS-2 monitor is to alert the operator(s) when the respirable air exceeds the CO PEL of 10-PPM.

• Air flow of 0.5 to 0.8 scfh at 55 psi or more to operate and maintain adequate sampling.

• Power – the CMS-2 monitor has dual voltage, 115/220, the only difference between the two is the power cord plug. To change from 115V to 220V just remove the 120-volt plug and replace it with one tht is compatible with the grounded 220-volt receptacle. The CMS-2 may be conduit wired.

Description of Operation

Connect the CMS-2 to the air supply and to an electric power source. It will warm up and stabilize in about five minutes.

Once stabilized, the unit continuously monitors the incoming air. The indicator light glows green to indicate adequate air pressure and flow, and that the CO concentration is below 10 ppm. The alarm light glows yellow and a loud, intermittent alarm sounds due either to low flow or high flow of air.
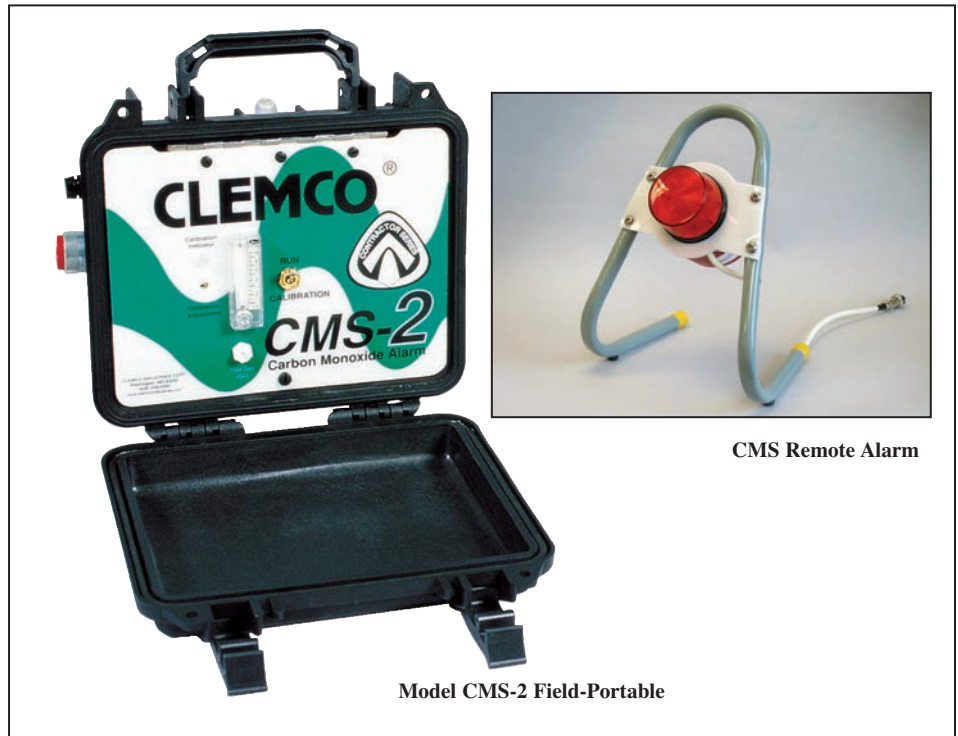
The air quality light turns red and the CMS-2 sounds a loud, constant alarm if CO reaches 10 ppm. To prevent CO poisoning, the operator(s) must immediately remove their respirators and exit the blast environment. Once the source of CO has been corrected, the CMS-2 will continue to monitor the air and the indicator light will glow green when the CO has passed out of the air supply.

Description

Carbon monoxide monitor and alarm for breathing air supplied from a compressed air source. Features warning lights, high-decibel audible alarm, particulate/oil filter, and connections for optional remote alarm and shutdown devices. Unit monitors air supply; can serve multiple respirators.

CMS Remote Alarm

Model CMS-2 Field-Portable

CMS Remote Alarm:

The 12-volt DC remote alarm is a high-intensity, red lens strobe light and high-decibel horn. Unlike external alarms, this alarm does not require an external power source. Installation instructions are provided with the alarm.

Advantages

• One CMS can serve multiple respirators
• Microprocessor circuit and digital readout provide accurate readings
• Simple, rugged construction for field use with integral carrying case
• Manual calibration accomplished in minutes
• Long-lasting replaceable sensor
• May be used with 220 volt AC, 120 volt AC or 12 volt DC power source
• Accommodates optional remote alarm kit
• A dry relay contact enables a licensed electrician to install external alarms and shutdown devices

Approvals and Certifications

• Meets OSHA requirement for CO monitoring

CMS-2 Carbon Monoxide Alarm

Model CMS-2 Field-Portable, with Calibration Kit:

Stock No. 22894

Specifications

• Shielded to reject radio frequency interference

• Includes 10 feet of 1/8-inch tubing and connector fittings

• Electrochemical sensor responds instantly

• CMS-2 has polyethylene case with dual hinges, dual latches, and dust-tight, weather-resistant rubber seal

• Nominal noise rating of 98 dB at distance of one foot for the standard alarm; and 100 dB at distance of 3.1 feet for the optional remote alarm.

Options and Accessories

Humidifier ....Stock No. 03600

Remote alarm kit includes: remote alarm, stand, wiring connector, and 50-ft. cord............Stock No. 22909

Remote alarm extension cord ....Stock No. 22910

Replacement Parts

Item	Description	Stock No.
(-)	CMS-2 CO monitor/alarm package, includes: monitor, calibration connector, and 10 PPM test gas.	
	120 V AC	22894
	12 V DC	25024
1.	CMS-2 CO monitor/alarm (instrument only)	22892
	120 V AC	22892
	12 V DC	25072
	220 V AC	25532
2.	Calibration connector assembly	22893
3.	Test gas 10 PPM	22865
	Test gas, impurity free	11132
4.	Flowmeter	21376
5.	Horn w/ wire, 12 Volt DC	22922
6.	Alarm light, exterior w/ wire	22923
7.	Fitting, 1/4" OD, quick fit	22924
8.	Tubing, urethane, per foot	12475

The following items are not shown

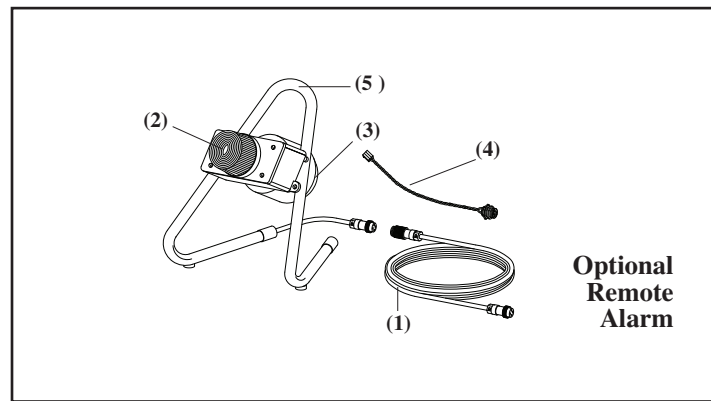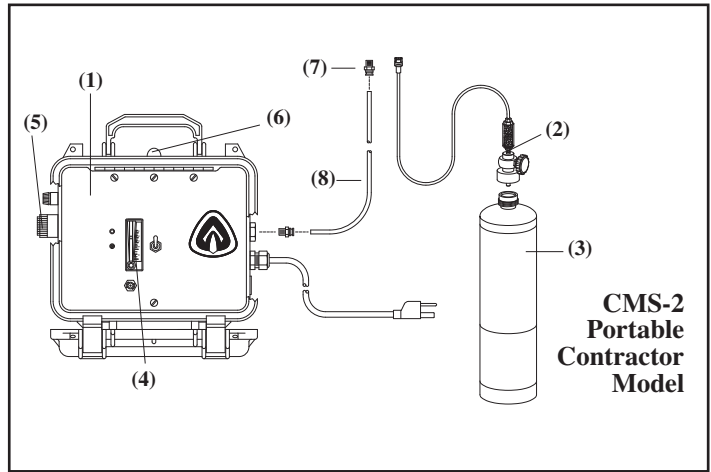|		
(-)	Sensor	22919
(-)	Regulator/filter	22920
(-)	Filter element	22921
(-)	Air-line humidifier	03600
(-)	Power supply, 120/220-V AC to 12-V DC	28011
(-)	Orifice, .004 purple restrictor	24423
(-)	Orifice, .006 red restrictor	24424

Optional Remote Alarm

(-)	Remote Alarm: includes: alarm, stand, wiring connector and 50 ft. cord	22909
1.	Cable, remote alarm extension 50 feet	22910
2.	Strobe light	22984
3.	Horn	22985
4.	Wiring adaptor	22986
5.	Stand assembly with internal wiring	22987

Related Clemco Literature

Description	Stock No.
Operator Safety Equipment	07764
CMS-1 Owners Manual	23301
CMS-2 Owners Manual	22925

Color:

CMS-2: black case w/white graphic front

CMS-2 Portable Contractor Model

Optional Remote Alarm

Packaging: Ships in one carton with owner's manual.

Stock No.	Dimensions	Shipping Wt.
22894	9-1/4" H x 10 3/8" W x 5" D	9 lb
22892	9-1/4" H x 10 3/8" W x 5" D	7 lb

Authorized Distributor: