

# Chillgard® 5000

Refrigerant Monitor



- New gases added
- Remote display

# ➤ Mechanical Equipment Room Gas Monitoring

Stay in compliance with ASHRAE 15, the Environmental Protection Agency and local building codes with the Chillgard 5000 Refrigerant Gas Monitor.

—ASHRAE 15 states:

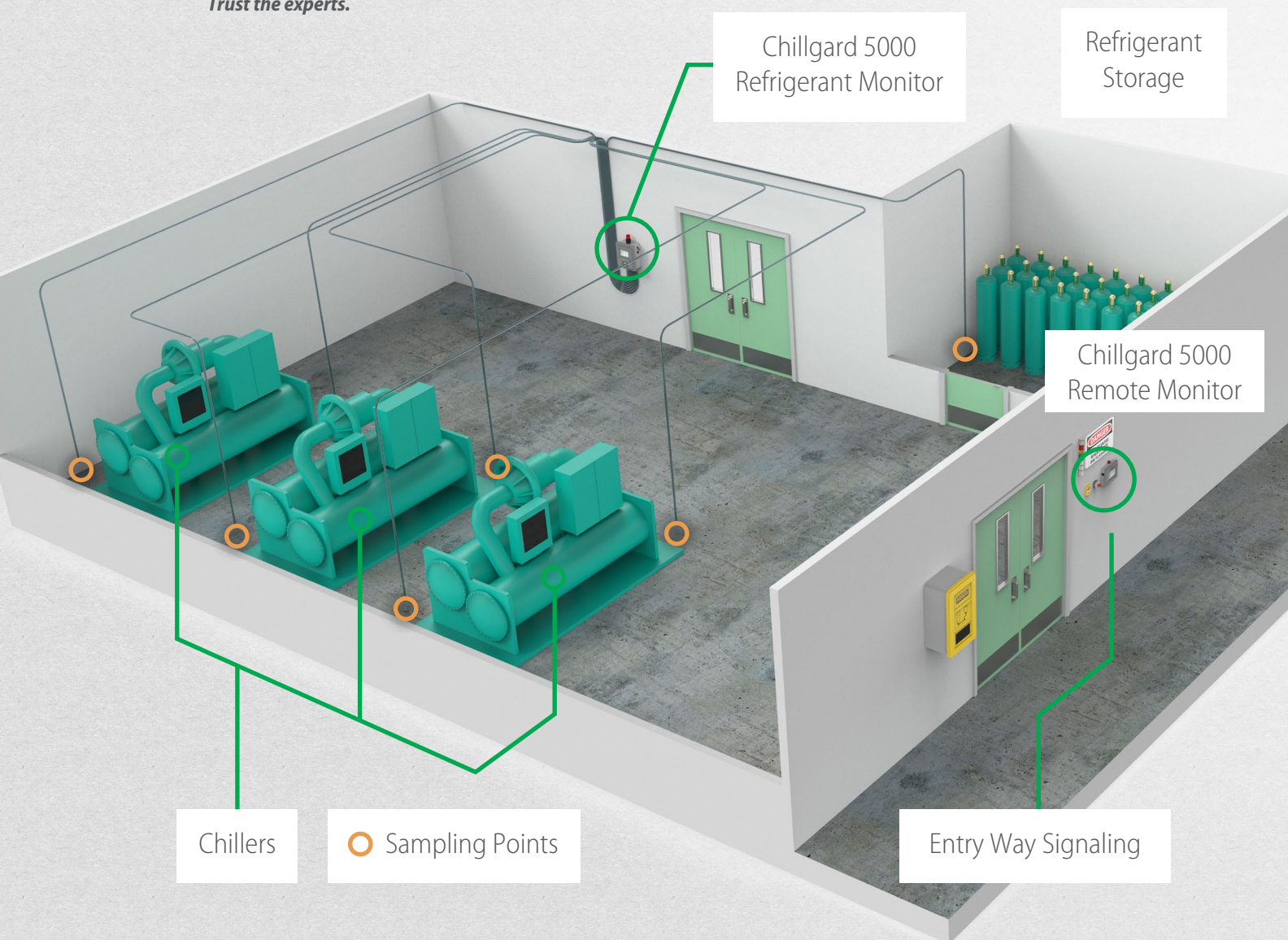
*Each machinery room shall contain a detector located where a refrigerant leak would concentrate.*

*The detector shall trigger an audible and visual alarm both inside and outside the mechanical room and activate mechanical ventilation.*

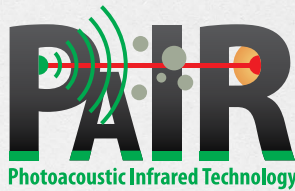
The Chillgard 5000 also assists in compliance with **EN 378** and **ISO 5149**.

MSA refrigerant monitoring solutions ensures local and federal compliance; protect your plant and facility.

**Trust the experts.**



# ➤ Earliest Level of Detection



The Chillgard 5000 provides continuous, real-time monitoring down to 1 ppm with patented Photoacoustic Infrared (PAIR) Technology.



## Stability

Not affected by temperature and humidity swings, minimizing drift



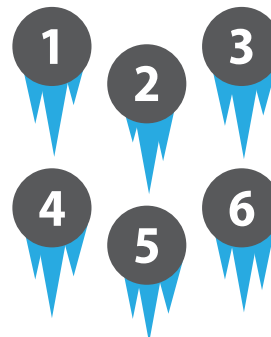
## Sensitivity

1 ppm minimum detection level with our patented PAIR technology. 10 ppm minimum for ammonia



## Reliability

Worry-free operation with advanced sensor diagnostics and predictive maintenance.



## Versatility

Select up to 6 refrigerants to monitor out of our field-selectable refrigerant library

According to the EPA\*, the average leak rate for commercial chillers is

**35%**  
of refrigerant per year.

Due to global restrictive use on refrigerants, prices have increased



...save costs with early detection of leaks.

\* Environmental Protection Agency

# ➤ Intuitive User Interface



### Password Protected

Original password protection can be enabled or disabled



### Multi-Lingual User Interface

Full-text display translated into 6 different languages



### Tech-Friendly Diagnostic Log

Designed for technicians to make important troubleshooting data easily accessible



### Simplified Calibration

Designated calibration port and one-touch calibration mode takes the guess work out of maintaining your monitor

CALIBRATE EVENT LOG SETTINGS DIAGNOSTICS	CHILLER 1 R.	CHILLER 1 L.
	0 ppm POINT 1	0 ppm POINT 2
	CHILLER 2 R.	CHILLER 2 L.
	0 ppm POINT 3	0 ppm POINT 4

7" (178 mm) color touch display

Real-time dashboard view and easy access to settings, event log, diagnostics, and calibration modes

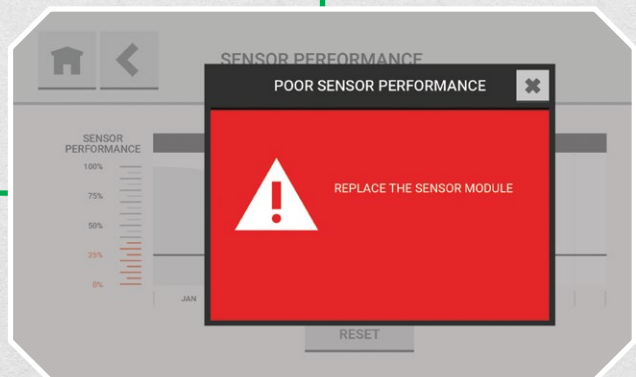
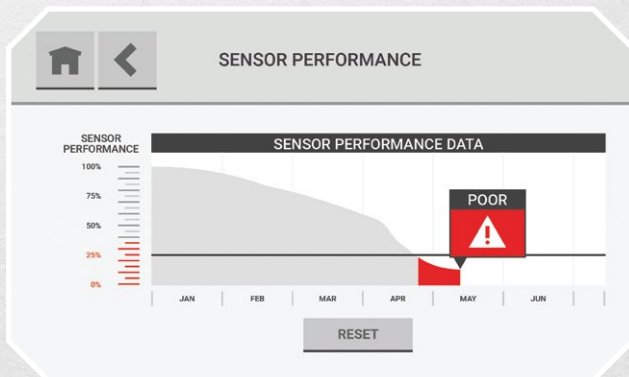
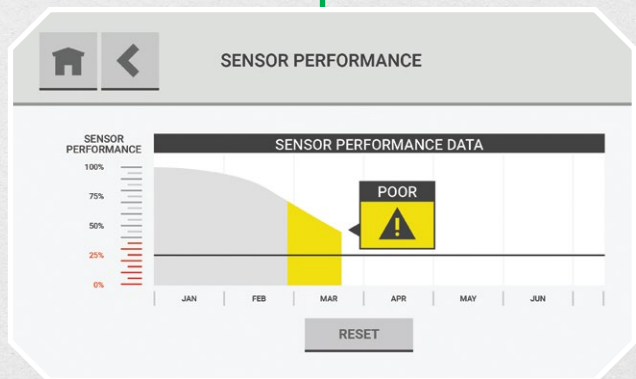
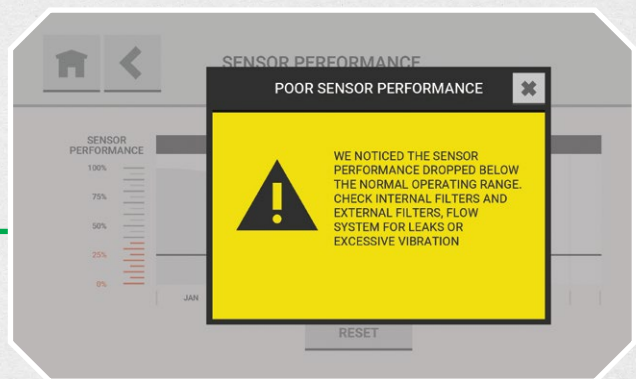
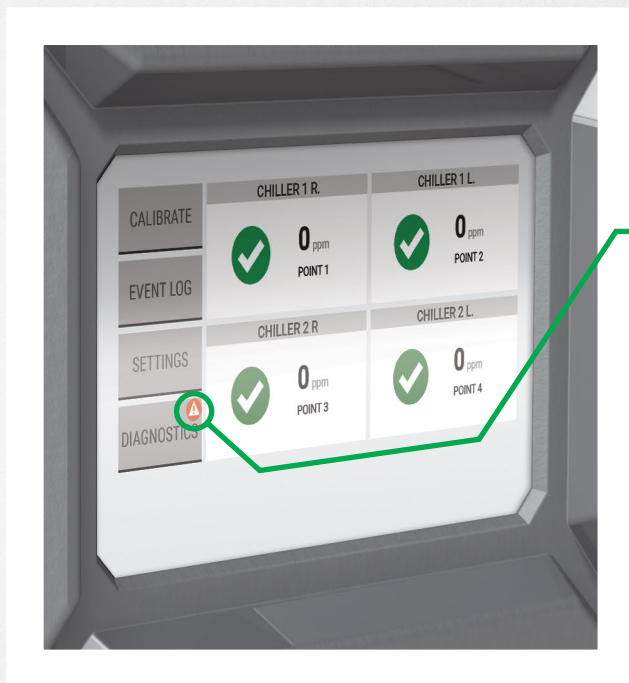


# ➤ Work Smarter

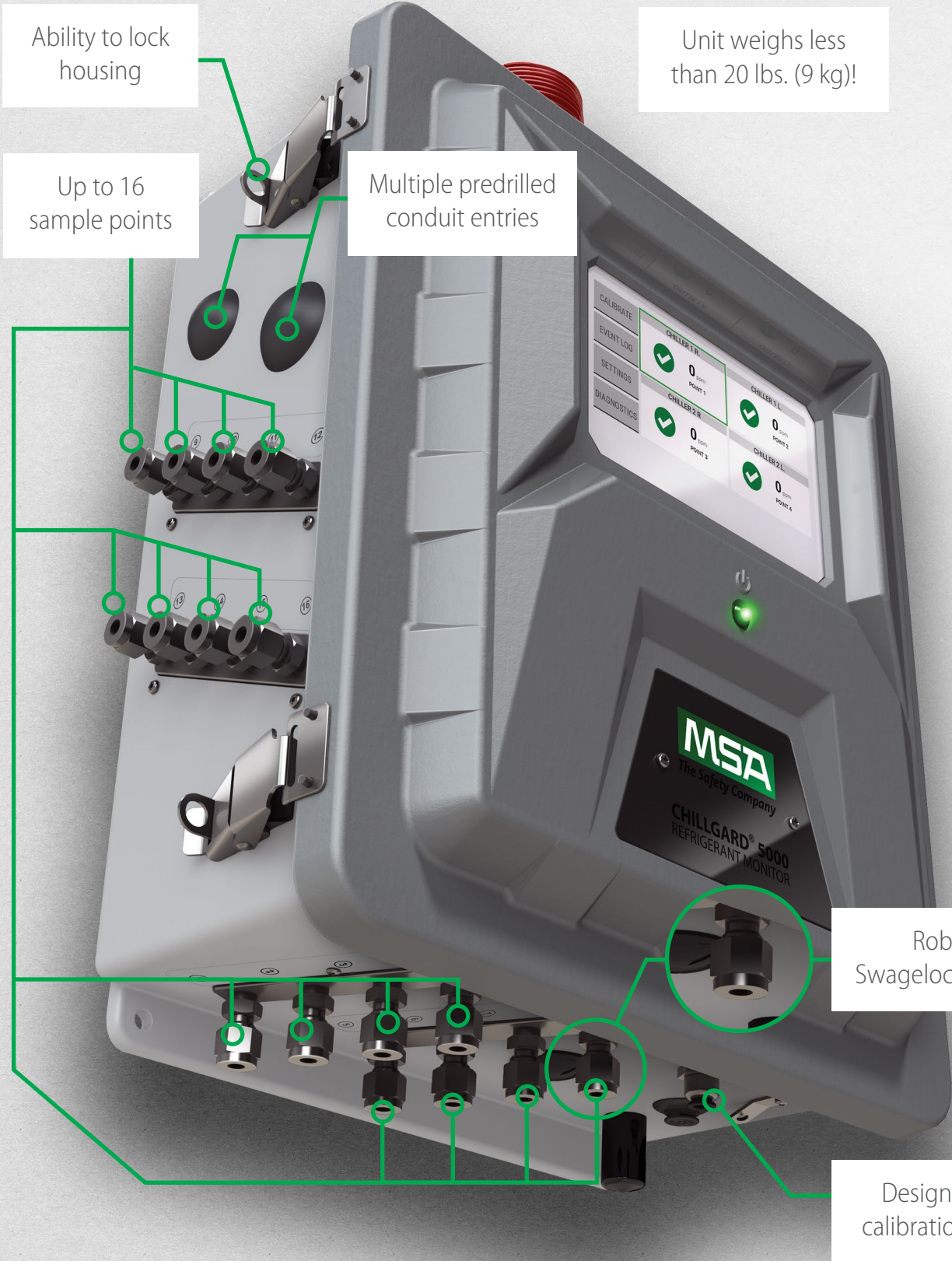
*Expect more from your Refrigerant Monitor*

## Predictive Maintenance and Diagnostics

Early diagnosis can save your facility from potential risks.



# Chillgard 5000



# ➤ Chillgard 5000 Remote Monitor

The Chillgard 5000 Remote Display provides gas monitor information before room entry where potentially hazardous gas levels may exist. This unit is easily installed adjacent to entry ways or walls outside of the monitored area. Workers can easily be alerted by the audible alarm and read the monitor status to know the alarm conditions inside the room prior to entry. The Remote Display provides an additional level of hazardous gas detection and communication.



- Used with Chillgard 5000 Refrigerant Gas Monitor
- Connect up to four remote displays in series
- Water and corrosion-resistant enclosure
- Easy to read: 7" (178 mm) touch display
- 70 dB audible alarm
- 24V or 110/220V input power models
- Strobe as an optional accessory





# Technical Specifications



<b>USAGE</b>	Indoor use only
<b>OVERVOLTAGE</b>	Category II
<b>POLLUTION</b>	Degree 2
<b>AC POWER</b>	100–240 Vac, 50/60 Hz, 200VA
<b>OPERATING TEMPERATURE</b>	32° to 122° F (0° to 50° C)
<b>OPERATING ALTITUDE LIMIT</b>	9762 ft. (2975 m)
<b>OPERATING HUMIDITY</b>	0 to 95%, noncondensing
<b>INGRESS PROTECTION</b>	IP54
<b>SIZE</b>	15.6 in. x 13.6 in. x 7.6 in. (39.6 cm x 34.5 cm x 19.3 cm) H x W x D
<b>WEIGHT</b>	
4-POINT UNIT	14 lbs. (6.4 kg)
8-POINT UNIT	15 lbs. (6.8 kg)
16-POINT UNIT	17 lbs. (7.7 kg)
<b>SENSOR TYPE</b>	Photoacoustic Infrared (PAIR)
<b>SAMPLE LINE TUBING</b>	
POLYURETHANE TUBING	0.25" OD (0.635 cm) x 0.1875" (0.48 cm) or 0.125" ID (0.3175 cm)
METAL TUBING	0.25" OD (0.635)
<b>SAMPLE LINE MONITORING DISTANCE</b>	Up to 400 ft. (121 m) for optimum performance, will support up to 1250 ft. (381 m)
<b>GASES</b>	R11, R12, R21, R22, R23, R32, R123, R125, R134A, R143A, R152A, R218, R227, R236FA, R401A, R404A, R407A, R407C, R407F, R410A, R422A, R422D, R424A, R426A, R427A, R438A, R448A, R449A, R452B, R455A, R507A, R508B, R513A, R514A, R1233zd(E), R1234yf, R1234ze
<b>MEASURING RANGE</b>	0 – 1000 ppm
<b>SENSITIVITY (MIN DETECTION)</b>	1 ppm for all refrigerant gases
<b>ACCURACY (LINEARITY)</b>	0–50 ppm ±1 ppm, 51–1000 ppm ±10% of reading
<b>SENSOR RESPONSE TIME</b>	90% of gas reading <70 sec
<b>RELAYS</b>	5 Form C, 8A 250VAC/24VDC resistive SPDT for Fault, Caution Level, Warning Level, Alarm Level and External Horn
<b>AUDIBLE ALARM</b>	95 ±5 dB(A) at 24 in. (61 cm) maximum
<b>COMMUNICATION OUTPUTS</b>	4–20 mA sourcing, 250 Ohm load; 0 – 10 V , 2 K Ohm minimum load; RS485 Modbus RTU; RS-485 BACnet MS/TP
<b>WARRANTY</b>	2 years
<b>APPROVALS</b>	UL 61010-1 (3rd Edition) CAN/CSA-C22 No. 61010-1-2012 IEC/EN 61010-1:2010 (3rd Edition) EN 14624



Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit [MSAafety.com/offices](https://www.MSAafety.com/offices).