



# HGM-SZ

## Single Zone Halogen Monitor

**Instruction:** 3015-5717  
**Revision:** 0  
**Date:** November 1, 2012

### Instructions for Upgrading to an External Charcoal Filter

#### Overview

During normal operation, the Single Zone Halogen monitor performs a purge cycle during which fresh air is drawn in from the purge line to flush internal components of any residual refrigerants. Purge lines should draw in fresh outside air to perform the purge function. When access to outdoor air is impractical, purge lines may begin indoors, however a charcoal filter must be used on the purge line to ensure that no contaminated air is drawn into the system during purge cycles. The charcoal filter removes refrigerant gas contamination from the purge-air stream during the internal purging process.

The *external* charcoal filter for the Single Zone monitor is superior to the internal filter used in previous generations of the SZ (which included an *internal* charcoal filter). The charcoal filter replacement includes additional components for externally mounting the improved external charcoal filter. The steps required to perform this upgrade are listed below. Note that this upgrade **ONLY** applies to halogen refrigerant monitors (HGM-SZ), and not AGM-SZ (ammonia) or SFM-SZ (SF<sub>6</sub>) monitors.

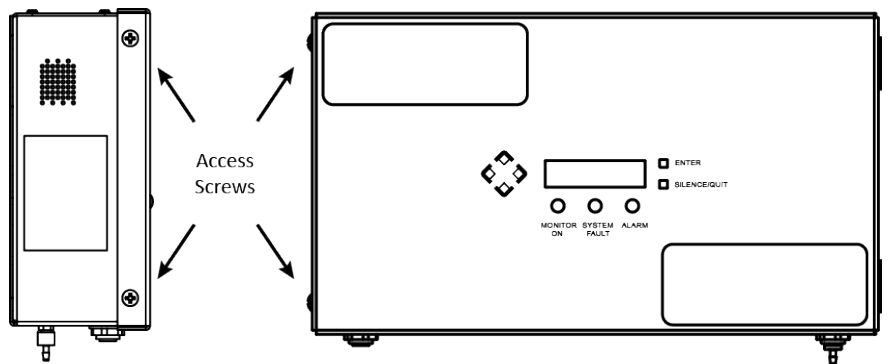
#### Requirements

- Medium sized Phillips' head screwdriver to open the enclosure
- Wire cutters to remove cable ties holding the internal filter
- External Charcoal Filter upgrade kit P/N 3015-5716
  - Upgrade instructions ..... (P/N 3015-5717)
  - Bulkhead fitting ..... (P/N 3015-3220)
  - Elbow fitting ..... (P/N 3015-3234)
  - Tubing..... (P/N 3015-3164)
  - T-Bolt bracket ..... (P/N 3015-2969)
  - Charcoal filter ..... (P/N 3015-3125)
- Enough customer-supplied tubing to connect the new charcoal filter to the newly-installed bulkhead "Purge Air" connector (maximum length = 100 feet; P/N 0304-2743)
- Appropriate approval for system maintenance of the gas leak monitoring equipment

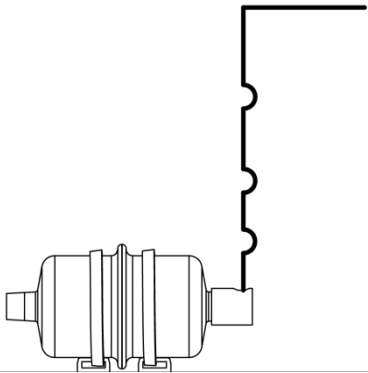
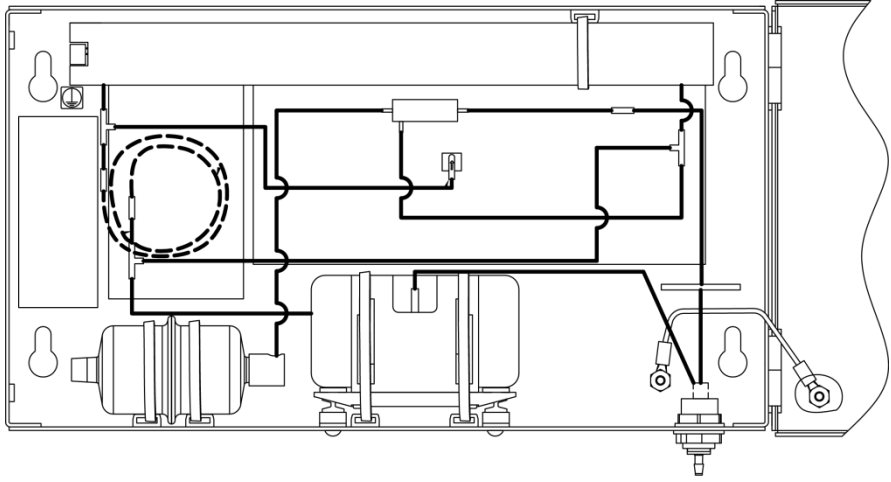
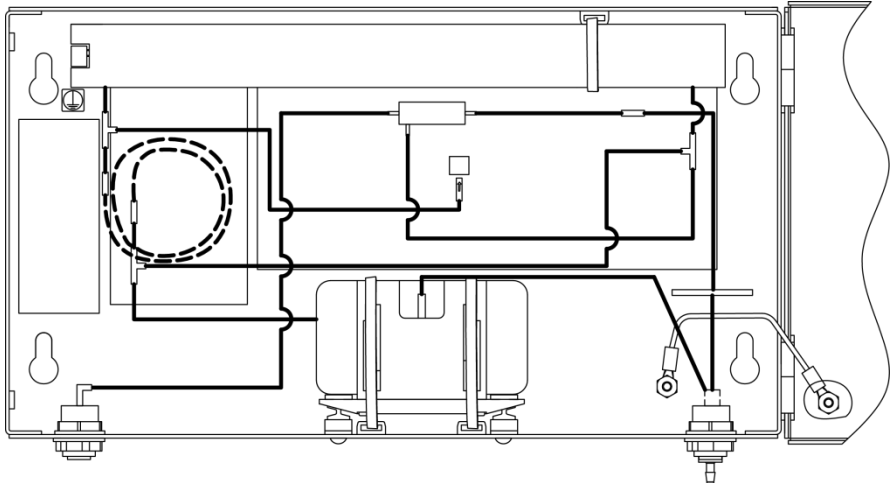


#### Procedure

Step	Description
1.	Get approval from the appropriate building management personnel to shut off the gas leak detection and monitoring equipment and any networked building management controls, alarms, and/or gas leak mitigation equipment.
2.	Remove power from the Single Zone monitor. Verify that the unit is off.
3.	Open the Single Zone (SZ) cabinet by unscrewing the two captive screws located on the left side of the enclosure (see Figure 1).
4.	Swing open the door to provide access to the internal components of the SZ.



**Figure 1: Side and Front Views of Single Zone (SZ) Monitor**

Step	Description	Description
5.	<p>Identify the existing internal charcoal filter and tubing as shown in Figure 2 and Figure 3.</p>  <p><b>Figure 2. Charcoal Filter and Tubing</b></p>	 <p><b>Figure 3: Internal View of Single Zone (SZ) Monitor (Old Internal Filter Intact)</b></p>
6.	<p>Carefully remove the filter and corresponding tubing (as shown in Figure 2). To remove the filter, use a pair of wire cutters to cut the two cable ties holding the filter in place. Remove and appropriately discard the old charcoal filter, the tubing, and the wire tie remnants.</p>	 <p><b>Figure 4: Internal View of Upgraded Single Zone (SZ) Monitor</b></p>
7.	<p>Assemble and install the new bulkhead fitting, including the elbow fitting. See Figure 4.</p>	
8.	<p>Add tubing between elbow fitting and previous connector barb. See Figure 4.</p>	
9.	<p>Close the cabinet door and secure the retaining screws.</p>	
10.	<p>Mount the external filter and bracket within 100 feet of the SZ Monitor. Refer to instruction manual 3015-4256 for mounting information.</p>	
11.	<p>Connect an appropriate length of approved tubing between the charcoal filter and the newly installed PURGE AIR fitting.</p>	
12.	<p>Restore power to the entire system and verify proper operation.</p>	
13.	<p>Replace the external charcoal filter (P/N 3015-3125) about every 6 months, when a zero filter fault occurs (fault code &lt;0100&gt;), or after the monitor itself has been exposed to unusually high levels of gas, such as after an evacuation alarm.</p>	



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