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Haloguard® III or IR Refrigerant Monitor

AUTHORIZED FACTORY REPRESENTATIVE

START-UP/FINAL INSPECTION CHECKLIST

Model# _____

Serial# _____

PRIOR TO START-UP

INSTALLATION INSPECTION

1. Ensure that the monitor is securely mounted to the wall or support approximately five feet off the floor using the four (4) mounting holes.

Findings and any Corrective action taken:

2. Ensure that sample pick-up tubes are located near potential leaks in a quiet area or downstream from leak source in area with air movement and that there are no kinks in the tubing.

Findings and any Corrective action taken:

3. Ensure sample tube is located 18" - 24" above the finished floor and that the area is not subject to flooding, potential impact, or severe ambient temperature or humidity changes.

Findings and any Corrective action taken:

4. Ensure end-of-line filter assemblies are in place and that the white porous filter has not been painted over, damaged or clogged in any way.

Findings and any Corrective action taken:

CONNECTIONS INSPECTION

5. Perform the following tests with power off.

Remove outside cover (4 screws), then remove metal power cover in lower left hand corner of unit (3 screws). Visually inspect that the line cord has been wired correctly, Black to L, Green to G and White to N. Visually inspect the fuse.

Findings and any Corrective action taken:

6. Inspect for loose (clipped) wire strands that could cause the system to short. Gently blow out construction debris from instrument with compressed air if available. Check all screw terminals for tightness.

Findings and any Corrective action taken:

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CONNECTIONS INSPECTION (cont'd)

7. Ensure that black Molex connectors for pump, strobe, audible, heater, phase, chopper, Manual and Reset are secure. Check the screw terminals for the lamp connector.

Findings and any Corrective action taken:

8. Verify that all external accessories (horns, strobes, etc.) have been connected to the unit properly. Document devices and Alarm Relays connected to below.

Findings and any Corrective action taken:

9. Ensure that the nylon sample-draw tubes are properly seated in their one-touch fittings.

Findings and any Corrective action taken:

POWER UP UNIT - AFTER 1 HOUR WARM-UP PERIOD;

PROGRAMMING TEST PROCEDURES

10. Verify that all channels (if scanner unit) with current PPM readings are displayed on the LCD screen. The displayed channel should change every three to ten seconds – if they don't change at the correct pace – press “**Up/Down**” buttons while in **Run** mode to set the scan rate. Press “**Next**” button to manually scan through gas type and PPM reading.

Findings and any Corrective action taken:

11. Move the “**RUN**” jumper to “**ALARM**” mode. Using the “**Up/Down**” buttons to advance, record the alarm setting (in ppm) below. Compare to factory settings on last page of O&M manual (add those not included) and confirm alarm settings with end-user.

Findings and any Corrective action taken:

HARDWARE TEST PROCEDURES

12. Move the “**RUN**” jumper to “**TEST**” mode. Select each alarm setting by moving the cursor with the “**Up/Down**” buttons. Press Enter after each one is reached. The following should happen:

- the corresponding relay should energize (Caution: there may be power on relays if connected to external devices). Use ohmmeter to confirm that unused relays are energized,
- the local strobe should engage for alarms 1, 2 & 3,
- the audible alarm will beep for fault and alarms 1, 2 & 3. The beep rate will be slow for Fault, faster for alarms 1&2 and continuous for alarm 3,
- the on board LED will flash the appropriate alarm,

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-*Optional Analog Output:* Verify voltage or current at the “Channel” and “PPM” terminal outputs. When fault alarm is active, current should be 4mA and voltage should be 0 VDC. When alarms 1, 2 & 3, are active current should be 20mA and voltage should be 5 or 10 VDC depending on settings.

Findings and any Corrective action taken:

13. Move the jumper to “JP5”. Record the information given re: zero, span & date code.

ZERO _____ SPAN _____ DATE CODE _____

OPTIONS INSPECTION

Oxygen Sensor: Ensure proper connection to appropriate *Ext. Input* terminal connection.

Remote Sensor Module: Ensure proper connection to appropriate *Ext.Mod Input* terminal connection.

Return jumper on “JP5” to “RUN”.

14. If required, perform calibrated gas sensor test & demonstration using instructions provided with the test kit. Alternatively, refrigerant released into plastic (garbage) bag can be used for demo purposes.

Description of Gas Demonstration, Findings and any Corrective action taken:

15. To be filled in by person performing final inspection

Inspection Performed By: _____

Signature: _____ **Date:** _____

Company Name: _____

Please distribute as follows:

Original to End-User

Copy to Authorized Service Representative

Copy to Thermal Gas Systems

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APPENDIX A	
Alarm Set Points	
Alarm Relay	PPM Level Setting
Alarm Relay 1	
Alarm Relay 2	
Alarm Relay 3	
Alarm Relay 4	
Alarm Relay 5	
Alarm Relay 6	

Appendix B	Output Device			Vac/Vdc	Test Result
	First	Second	Third		
Alarm Relay 1					
Alarm Relay 2					
Alarm Relay 3					
Alarm Relay 4					
Alarm Relay 5					
Alarm Relay 6					