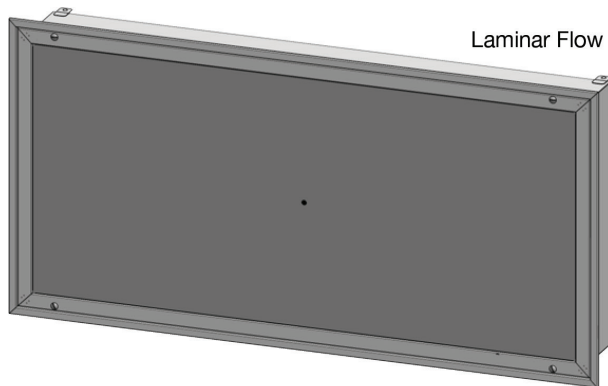
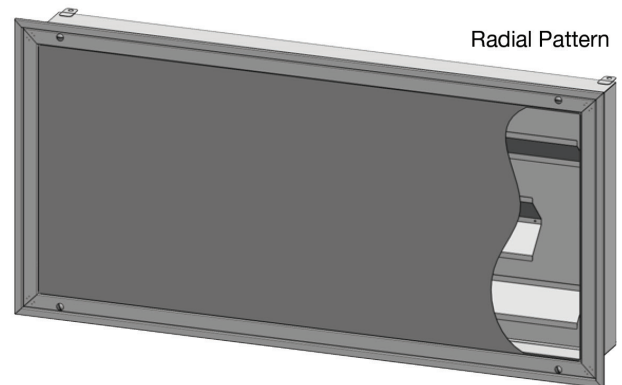


Installation, Operation and Maintenance Manual

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions will result in voiding of the product warranty and may result in personal injury and/or property damage.



HLC-GSL



HLC-GFR

READ COMPLETELY AND SAVE THESE INSTRUCTIONS

- **DO NOT TOUCH** the filter media. Damage to filter media may void the filter warranty. The screen is to protect against accidental touching of the filter. Never place objects on the filter. Always transport or lift the filter by its frame.

WARNING

Installation work must be completed by qualified persons in accordance with all applicable codes and standards, to include fire-rated constructions.

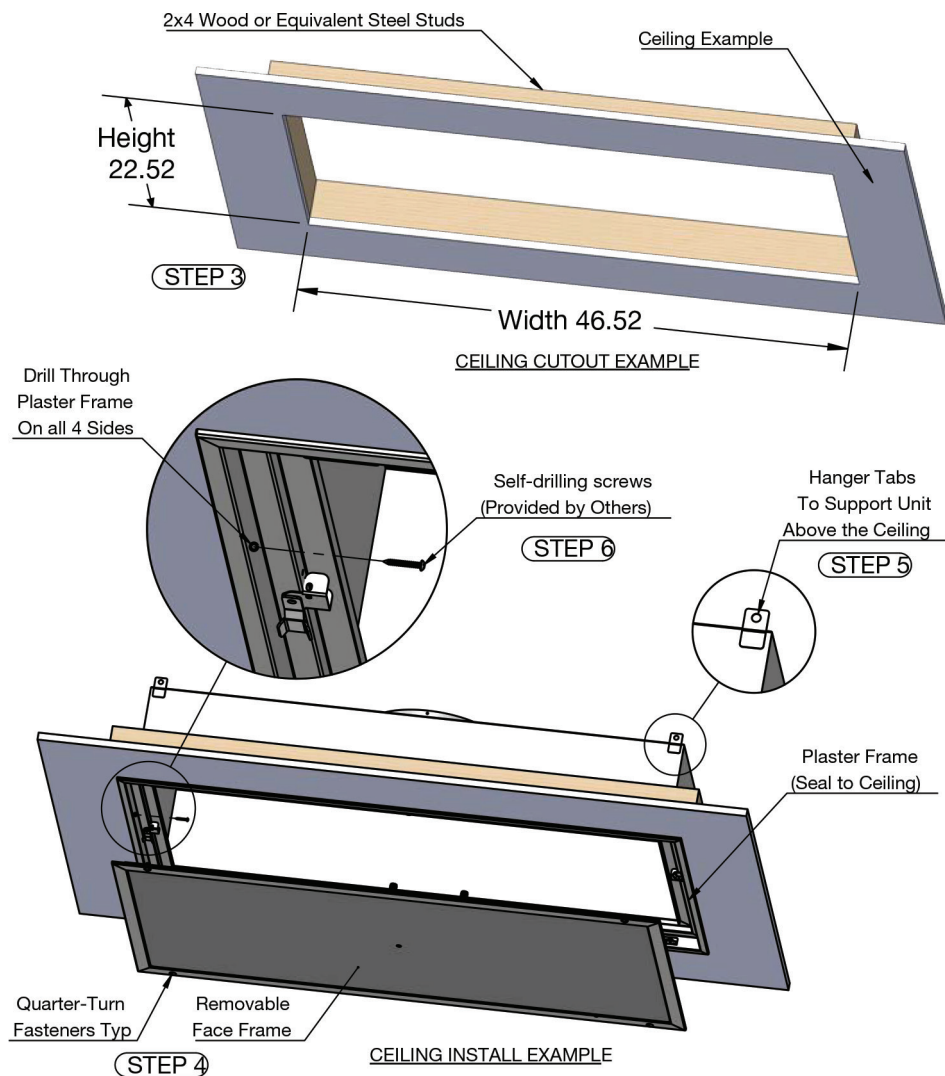
- When cutting or drilling into walls and ceilings, be careful not to damage electrical wiring and other hidden utilities.
- If this unit is to be installed within close proximity to water, mark the unit as according to applicable codes and standards.
- This unit is to be used only as intended by the manufacturer. If you have any questions regarding the use, installation or operation of this unit, contact the manufacturer.

Surface Mount Installation

The diffuser is fully assembled from the factory, with the exception of the filter option. The filter is shipped separately.

NOTE: These instructions are for surface mounting to a sealed ceiling. Some installations require custom mounting and/or custom diffusers. In those cases be sure to seal the unit to the ceiling and seal all penetrations through the plenum walls.

1. Carefully remove the unit from the shipping carton and inspect for damage that may have occurred during shipping. If shipping damage is found, **do not install**. Call the rep, salesperson, or manufacturer to report damage.
2. Wipe down unit to remove shipping dust and debris.
3. Prepare the ceiling: Cut a rectangular hole in the desired location 1.48 in. smaller than the nominal size of the diffuser. Frame the hole with 2x4 wood or equivalent steel studs. Always measure the units to verify dimensions before making cuts.
4. Using a flat screwdriver, release the face frame by rotating the quarter-turn fasteners counterclockwise. Unhook the safety cables from the unit. Set the frame aside.



5. Raise the unit into the framed opening until the unit is tight against the ceiling. It is recommended to further support the unit from above using the tabs welded to the plenum.
6. Secure the unit in the ceiling by installing self-drilling screws through the plaster frame into the opening frame. Alternately, pre-drill holes and install wood or sheet metal screws.
7. Install ductwork as required. Clean installation debris from the unit and surrounding ceiling.
8. Using approved caulk, seal the outer perimeter of the diffuser to the ceiling. Also seal around the mounting screws and any other holes made in the diffuser.
9. If applicable, install the filter per the “Removal and Replacement of the Filter with Gel Seal” section.
10. Wait at least 30 minutes after filter install and ensure there is a positive pressure in the room before performing any challenge leak testing.
11. Raise the face frame back into place, reattach the safety chains, and secure the quarter-turn fasteners.

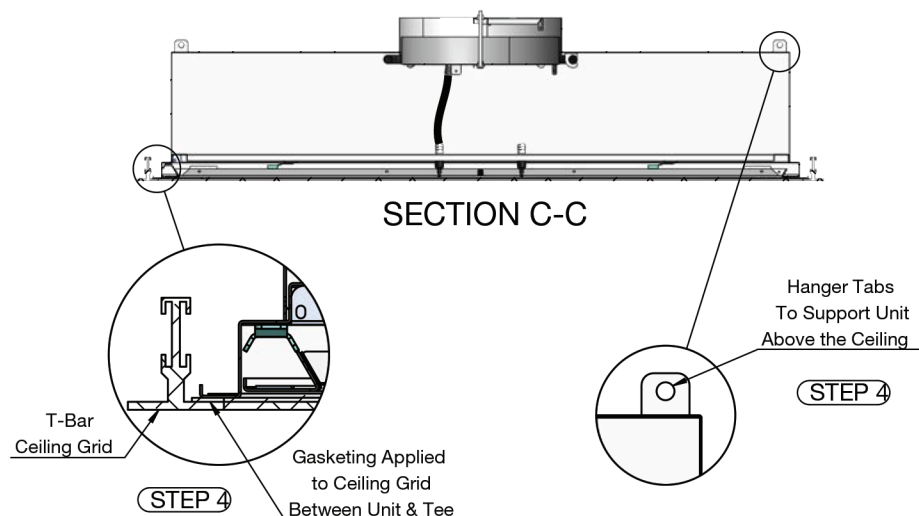
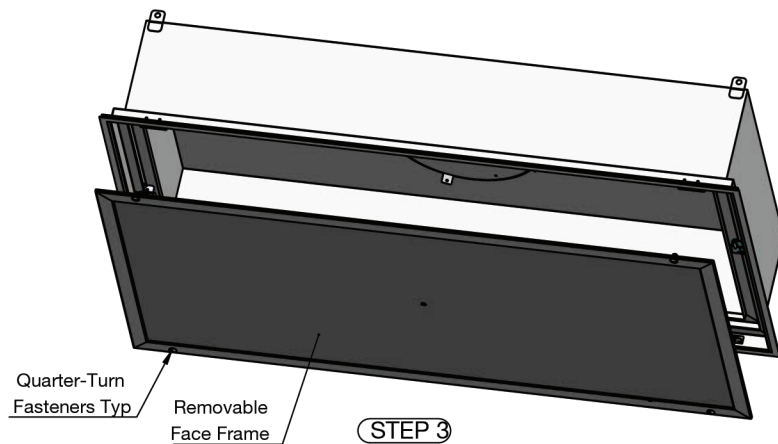
Standard Unit Sizes		
Nominal Unit	Cutout Width	Cutout Height
24 x 24	22.52	22.52
36 x 24	34.52	22.52
48 x 24	48.52	22.52
60 x 24	58.52	22.52
72 x 24	70.52	22.52

Lay-in Ceiling Installation

The diffuser is fully assembled from the factory, with the exception of the gel seal filter option. The gel seal filter is shipped separately.

NOTE: These instructions are for a T-bar lay-in ceiling. Some installations require custom mounting and/or custom diffusers. In those cases be sure to seal the unit to the ceiling and seal all penetrations through the plenum walls.

1. Carefully remove the unit from the shipping carton and inspect for damage that may have occurred during shipping. If shipping damage is found, **do not install**. Call the rep, salesperson, or manufacturer to report damage.
2. Wipe down unit to remove shipping dust and debris.
3. Using a flat screwdriver, release the face frame by rotating the quarter-turn fasteners counterclockwise. Unhook the safety cables from the unit. Set the frame aside.
4. Raise unit into T-bar ceiling and lower onto gasket opening. Gasket should be a closed-cell material approved for the environmental conditions. It is recommended to further support the unit from above using the hanger tabs welded to the plenum.
5. Install ductwork as required. Clean installation debris from the unit and surrounding ceiling.
6. If needed, using approved caulk, seal the outer perimeter of the diffuser to the ceiling grid on the room side of the unit.
7. If applicable, install the filter per the “Removal and Replacement of Gel Seal Filters” section.
8. Wait at least 30 minutes after filter install and ensure there is a positive pressure in the room before performing any challenge leak testing.
9. Raise the face frame back into place, reattach the safety chains, and secure the quarter-turn fasteners.



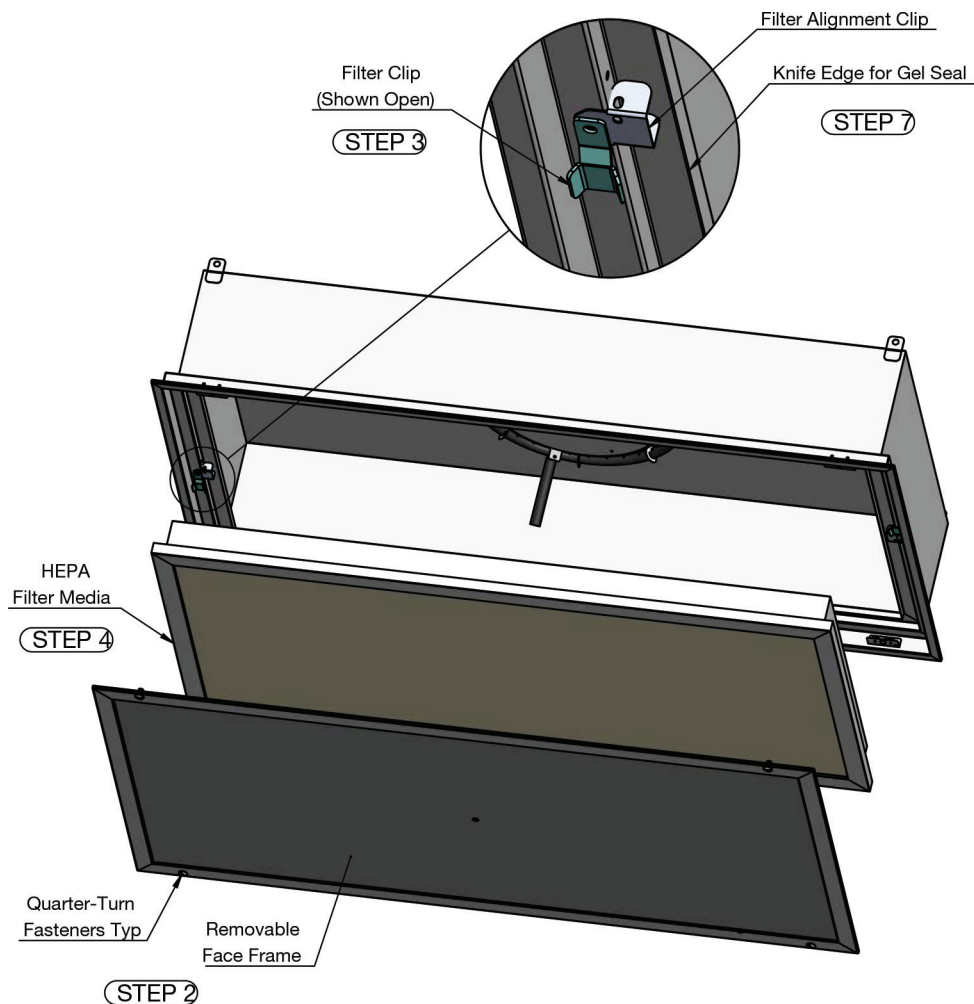
Removal and Replacement of Gel Seal Filters

Tools required: Flat Screwdriver

1. Shut off airflow to the diffuser.
2. Using a flat screwdriver, release the face frame by rotating the quarter-turn fasteners counterclockwise. Unhook the safety cables from the unit. Set the frame aside.
3. **USE TWO PEOPLE TO SUPPORT THE FILTER** and rotate the filter clips until the clip is clear of the filter.
4. Allow gravity to pull the filter away from the unit. If installing a new filter discard the filter in an appropriate manner.
5. If the unit is equipped with the HEPA Alert battery powered LED system, replace the battery at this time.
6. Unpack the new filter and inspect for shipping damage. If damage is found, do not install in unit; call the rep, salesperson, or manufacturer for replacement arrangements.
7. Using two people, raise the filter into place ensuring the seal edge is approximately in the center of the gel channel. The spacers beneath the filter clips will help align the filter.
8. While supporting the filter by its frame, rotate the filter clips so that the clips are supporting the filter frame. Wait at least 30 minutes before performing any challenge testing to allow the gel to fully adhere to the unit.
9. Raise the face frame back into place, reattach the safety chains, and secure quarter-turn fasteners.

WARNING

The filter may be protected by an expanded metal screen. This is to prevent accidental touching of the filter media. It is not meant to allow handling of the filter in these areas. Handle the filter **ONLY** by the frame.

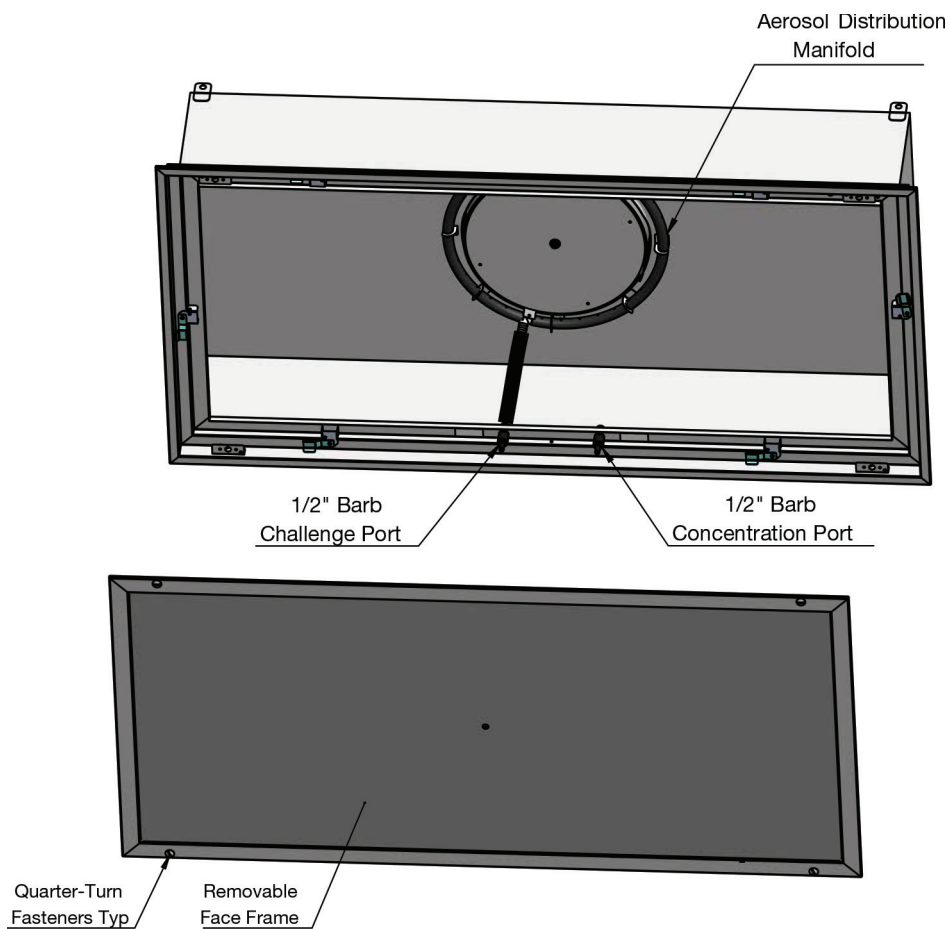


Aerosol Distribution Manifold (ADM) Optional Accessory

The ADM is an available option to provide a reliable, convenient method of performing an aerosol challenge/leak test of the diffuser at the face.

***These instructions are to assist a qualified technician in testing the leakage of the diffuser. Filter should be installed for a minimum of 30 minutes before test is performed.*

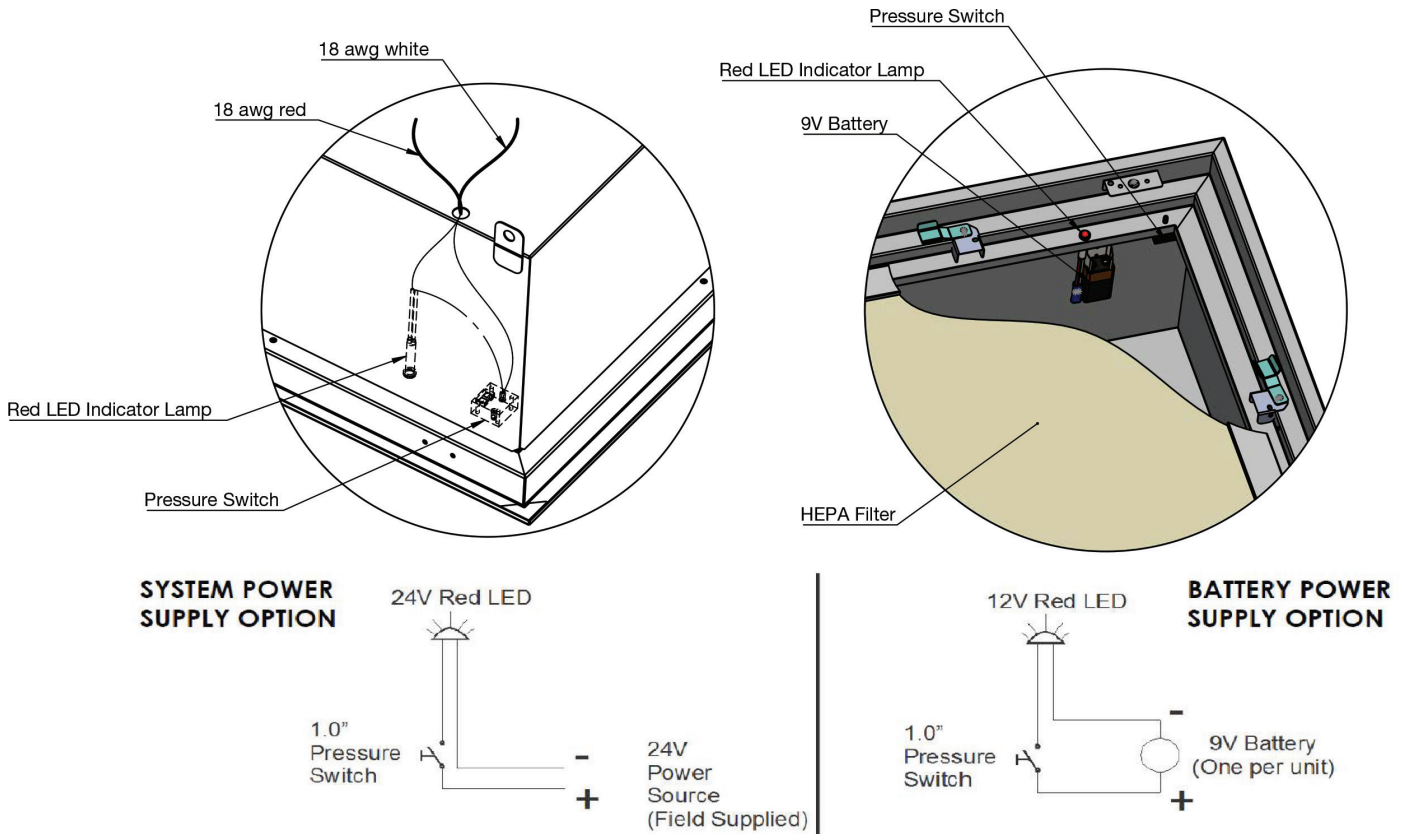
1. Using a flat screwdriver, release the face frame by rotating the quarter-turn fasteners counterclockwise. Unhook the safety cables from the unit. Set the frame aside.
2. Remove the cap from the concentration test port (labeled "Concentration"). Attach UPSTREAM hose (1/2" ID; Thin Wall) from photometer to concentration port.
3. Remove the cap from the ADM challenge supply port (labeled "Challenge"). Attach DOWNSTREAM hose (1/2" ID; Thin Wall) from aerosol generator to ADM supply port.
4. Conduct the challenge test per the site requirements. Equipment is designed to pass IEST-RP-CC034 current revision standards.
5. Disconnect hoses from ports and securely replace caps.
6. Raise the face frame back into place, reattach the safety chains, and secure quarter-turn fasteners.



HEPA Alert Optional Accessory

A HEPA Alert is an available option to provide a reliable, convenient method of indicating the diffuser has a dirty filter. The pressure switch closes when a dirty filter causes the pressure inside the unit to rise above a predetermined setpoint. (Standard set point is 1 in. wg)

- Powered By:
 - Field Supplied 24VDC Power (Standard)
 - Field Supplied 24VDC Power with leads for BAS signal
 - Factory Supplied 9V Battery
- HEPA Alert LED power drawing is 0.5 watts



Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Product warranties can be found online at Greenheck.com, either on the specific product page or in the literature section of the website at Greenheck.com/Resources/Library/Literature.

