



CLEANPAK[®]
FAN FILTER UNIT

Installation & Operation Manual

MODEL CPFFU-AC1

READ THESE INSTRUCTIONS PRIOR TO USE KEEP FOR FUTURE REFERENCE

Observe the following to reduce the risk of fire, shock or injury:

In accordance with all applicable standards and codes, only qualified personnel shall perform this work. Check for hidden utilities, particularly electrical lines, with building owner and other contractors prior to cutting or drilling into walls, floors or ceilings.

Use this unit only in the manner that the manufacturer intended it to be used.

Switch power off at electrical service panel and lock out/tag out electrical panel prior to servicing or working on unit.

Unit contains rotating parts. Unit should not be serviced at installation site even if electrical power is turned off. Fan may continue to rotate without electrical power due to back pressure within the building system.

WARNING - ELECTRICAL SHOCK HAZARD. CAN CAUSE INJURY OR DEATH. DISCONNECT ALL REMOTE ELECTRIC POWER SUPPLIES BEFORE SERVICING.

Ensure that fan has completely stopped running before conducting internal inspection. Unit contains rotating parts. Fan may continue to rotate without electrical power due to back pressure. Do not put fingers into the unit or touch fan wheel during operation to avoid serious injury.

Power wiring must be connected by qualified personnel. USE COPPER SUPPLY WIRES. EXTERNAL WIRING SHALL COMPLY WITH THE REQUIREMENTS FOR A CLASS 1 CIRCUIT.

Avoid electrical shocks to power cable and cable connector. Ensure power cable and cable connectors are not damaged. Ensure that wiring is properly connected. Do not attempt to reconstruct this unit. Contact factory for information and service. Do not obstruct air intake or stand on the pre-filter rack or fan intake.

SERVICE

Replace parts only with factory approved parts of like duty.

WARRANTY

Manufacturer warrants products to be free of defects in material and workmanship if properly installed, cared for and operated under normal conditions with competent supervision.

The warranty period is one year from date of start-up or 18 months from date of shipment, whichever occurs first.

All material or equipment found to be defective within this period shall be replaced or repaired to like-new condition, including all parts (excluding final filters) and labor at no cost. Manufacturer assumes no liability for expenses or repairs made by unauthorized personnel. This warranty shall be considered void if equipment failure is the result of mishandling, abuse, operation beyond capacities, or from other external sources. All components including miscellaneous ship-loose items must be stored in a dry, climate-controlled indoor area. Manufacturer assumes no liability for damage to equipment caused by outside storage. Equipment must be stored in dry, indoor storage. Refer to purchase agreement for further warranty terms.

COMPONENTS

Fan housings in boxes and/or palettes.

Final filters (ULPA or HEPA) from original filter manufacturer in separate boxes (optional). Follow filter manufacturer's instructions for handling.

Final filter frames (for bottom loaded filter option) on separate palettes.

HANDLING

Prior to any assembly or installation work, perform a physical count of all items on the master ship list. Report any shortages to the factory immediately.

Handle all parts with care to prevent damage during installation. Parts are cleaned and wrapped to factory standards at the factory. FROM RECEIPT THROUGH COMPLETE INSTALLATION, THE INSTALLER IS RESPONSIBLE FOR HANDLING ALL PRODUCTS ON THE JOB SITE.

After receiving the parts from the shipper, do not store them outside. Do not store them in high-traffic or unprotected areas.

All parts should be stored in a controlled environment, especially when delivered to job sites with variable (hot or cold) or humid climates. The optimal storage temperature is 70° F (21° C).

It is the responsibility of the installer to protect the parts from damage at all times. Manufacturer does not take responsibility for damage to packaging that may result in damage to the parts.

All parts should be unpackaged in a manner consistent with site/project specific protocol requirements.

Avoid double handling of parts.

Unpack all parts in protocol-approved area prior to moving parts into staging area to be installed.

Wipe down parts as required by protocol taking care not to scratch painted surfaces.

WHEN UNPACKAGING FILTER MEDIA, TAKE CARE IN REMOVING THE PLASTIC BAG SO THAT THE MEDIA IS NOT SCRATCHED IN ANY WAY. DO NOT PUT ANY TYPE OF FORCE, EVEN BY HAND, ON FILTER MEDIA INCLUDING FACE SCREEN DURING HANDLING AND INSTALLATION SINCE IT WILL DAMAGE THE FILTER.

JERKING THE FFU WHEN IN A SIDEWAYS ORIENTATION OR DROPPING IT CAN DAMAGE INTERNAL COMPONENTS.

INSTALLATION

Bottom-load final filter frames

If the bottom load final filter frames are provided as an option, install these frames into the grid system with the appropriate gel or gasket seal pre-applied to the grid members. Place FFU atop filter frame.

Prior to installing the final filter, check that the clip is at a height just below the bottom of the final filter when fully seated. With the clips against the side of the frame, install final filter into the frame and then rotate out the clips in the frame to hold the final filters. Turn the bolt so as to raise the clip to hold the final filter in place. Note that the bolt is to be turned counter-clockwise to raise the clip when looking up from the bottom. The bolt to raise the clip should not be over-tightened – it should be turned just enough for the filter to seat completely against the bottom surface of the top ledge of the frame. Use a miniature ratcheting box-end wrench to turn the bolt – this is available by contacting the factory or at automotive stores.

Place FFU atop cartridge.

FFU-ON-FILTER

For the FFU-on-filter option, place filter onto grid with the appropriate gel or gasket seal pre-applied to the grid members. Place FFU atop filter. If latches are provided on the side of the FFU, clip those on to the side of the filter extrusion.

POWER WIRING

120VAC units are provided with a power cord with plug. 277VAC single-phase units are not provided with a cord and power will need to be wired into the junction box on top of each FFU. Check the label for the correct voltage of the specific unit. This should be performed by a qualified electrician with all appropriate safety measures.

The input power wiring into the junction box will be as follows:

black = hot

white = neutral

green = ground.

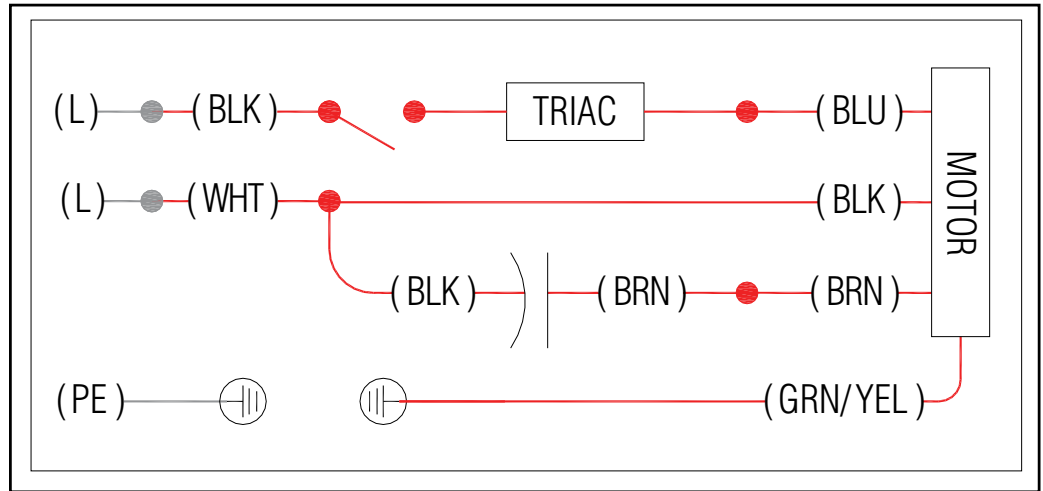


Figure 1. Wiring Schematic. Capacitor is 16 microFarad for 120VAC units and 4 microFarad for 277VAC units.

MISALIGNMENT OF CONE

If you hear a ticking noise it may be the wheel rubbing against the cone due to misalignment during handling or installation. Flip the switch off and lockout at the disconnect switch and at all appropriate points based on the site safety requirements. Remove the inlet finger guard. Be extremely cautious as the wheel may be back-spinning due to air pressure from other fans even with power off. If the wheel is back-spinning place plastic on the lower portion of the FFU to stop airflow—this should stop the wheel from back-spinning. Loosen the screws on the inlet cone and readjust the cone ensuring that there is uniform gap all round between wheel and cone. Tighten the cone screws. Replace the inlet guard.

MAJOR INTERNAL ELECTRICAL COMPONENTS

- A. Switch
- B. Speed Controller Triac Capacitor
- C. Motor

OPERATION

1. Turn switch on top of FFU on.
2. Rotate round knob on top of FFU for speed adjustment.

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