

Operation and Maintenance Instructions

for Types CRBCA, CRDA, CUBA, CUDA, UDCA, CWBA, CWDA Centrifugal Ventilators

Installation Instructions—Other Side

Cleaning and Adjustments. The entire fan should be cleaned as necessary to remove accumulated grease, dirt and other debris which may collect on the blades and other parts. For grease extraction units, the wheel should be thoroughly cleaned every two to three months, and the grease trough, drain and container should be checked and emptied as required to prevent grease overflow, as often as every two weeks for heavy grease applications. Belts should be inspected and tension adjusted (see below). Check for belt misalignment which will cause excessive wear and premature failure. This same inspection of belts and adjustment of tension should be made frequently during the first 24-48 hours of operation after installation. If rust or corrosion is found anywhere on the fan, the affected areas should be thoroughly cleaned and refinished.

Belt Replacement and Tensioning.

Applicable for Belt Drive units only

- a) For convenient access to the unit, remove the roof section.
- b) Loosen the belt tension bolt and nut. Hold the fan motor securely and remove the swivel pin from the motor and swivel brackets. Set motor safely aside. While supporting the wheel assembly, loosen and remove the two (2) bolts/nuts holding the shaft to the support frame. Remove the old belt from the wheel assembly by slipping it off and over the shaft.
- c) Slip the new belt over the shaft and reattach the shaft to the support frame. Position the motor with its shaft near the wheel assembly disc and thread the belt around the motor pulley. Return the motor to its original position so that the holes in the motor and swivel brackets are aligned and replace the swivel pin. Thread the new belt into the V-groove of the disc on the wheel assembly.

CAUTION: Do Not thread the new belt onto the pulleys under tension. This may cause damage to the belt.

- d) Adjust the belt tension and re-tighten the tension bolt/nut (see step 'e'). Check the belt alignment between the motor pulley and the fan pulley.
- e) To check the belt tension, push belt inward about 1/8" to 1/4" at approximately 5 lb. force for proper tension. Ideal tension is the lowest tension at which the belt will not slip under peak load conditions. Keep belts free from foreign material which may cause slippage. Make periodic belt and drive inspection and re-tension when slippage occurs.

CAUTION: Use of a tension adjustment bolt makes it easy to over tighten the belt. If this occurs, belts or bearings can fail in a short period of time. DO NOT OVER TENSION.

Lubrication. On the belt drive models, fan bearings are permanently lubricated. Re-lubrication as a part of normal maintenance is not necessary. For lubrication the of electric motor, see instructions by motor manufacturer.

Repair Parts.

Belts. Belts are standard V-Belts used on industrial machines and replacements can be obtained through local industrial supply houses. Make sure the replacement belts are the same section (3L, 4L, A, AX) and length as the original belts. If more than one belt is used on the fan, be sure to purchase a matching set of replacement belts. To install belts, see instructions above for belt replacement.

Blades. If one or more of the blades on the wheel is damaged, the entire wheel assembly will need to be replaced.

Bearings. Field replacement of bearings is not recommended. If bearings are damaged, the entire wheel assembly will need to be replaced.

Motor. Repairs should only be performed by an authorized motor repair facility. Contact either the motor manufacturer or American Coolair for locations.

Notice: Do not return damaged or defective parts to American Coolair Corp without prior authorization. If repairs under warranty are claimed, see warranty terms. Claims for warranty repairs regarding the motor should be made directly with the motor manufacturer.



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Operation & Maintenance Instructions — Other Side

Pre-Installation Check. Before installing, carefully check for shipping damage which may affect operation of the unit. If damage is found, file a claim immediately with the delivering carrier. On belt drive units, check for proper pulley alignment and belt tension (as described on the reverse page), and adjust as necessary. Before connecting to power source, make sure the propeller turns freely without striking or rubbing anything. Check the motor nameplate to be sure that the correct phase and voltage are being used. Also, check the wiring diagram to make sure that proper connections are made for the electrical service being applied. Note the directional arrow make sure rotation is correct when power is applied. If a backdraft damper is being used, ensure that it is properly installed with sufficient clearance and that it functions properly when the unit is energized.

Installation Checks.

- For Roof Ventilators.** Be sure that the fan is being mounted on a rigid, level foundation, preferably a prefabricated roof curb.
- For Wall Ventilators.** Be sure that the fan is mounted with the cooling tube pointing down. The fan should be mounted to a flat, smooth surface. Caulk the perimeter of the fan/wall meeting point for weather-tight operation.
- Preparation.** Turn the fan wheel by hand to ensure that it turns freely.
- Belt Drive Units.** Make sure the shaft bolts are secure and the sheaves are at right angles to the shaft.
- Secure.** Make certain that all motor mounting bolts are secure.
- Test.** Give a short, supervised running test after tightening down all foundation bolts. Ensure the wheel rotates in the correct direction.

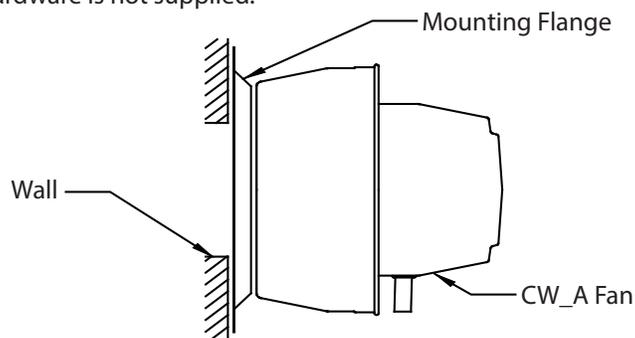
Wheels. All wheels are electronically balanced at the factory. Under particularly dirty conditions, materials may adhere to the fan wheel. The wheel should be checked and cleaned periodically, as built-up debris could cause the wheel to become unbalanced.

Aluminum wheels are limited to 300° F. Motors may have lower limits. Check with your American Coolair representative before exposing these fans to elevated temperatures.

Mounting Backdraft Damper. If a backdraft damper is being used, check all dimensions to be sure that the damper will fit into the proposed location. All dampers must be installed so that the blades open in the same direction as air flow.

Mounting Flange Option (CWBA & CWDA only).

If a mounting flange is being supplied, first mount the flange to the bottom of the fan housing, shown below, using the hardware included. Then attach the flange to the wall. Hardware is not supplied.



Limited Warranty.

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during a period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

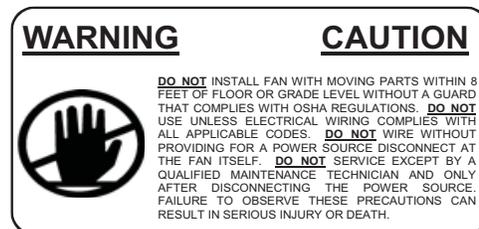
Deterioration due to wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

This Limited Warranty stated herein is in lieu of all other warranties, express, statutory or implied, including without limitation that of merchantability and fitness. No liability for reinstallation cost or any special, indirect or consequential damages of any nature is assumed or shall be imposed upon American Coolair Corp.



Note: All local, state and federal codes should be checked to make sure all wiring, guarding and intended usage of the PRV unit(s) comply with all applicable codes. The proper type and class of PRV and motor should be used for air being handled such as explosive or other hazardous air mixtures.