Installation Instructions for Type JT Power Roof Ventilators

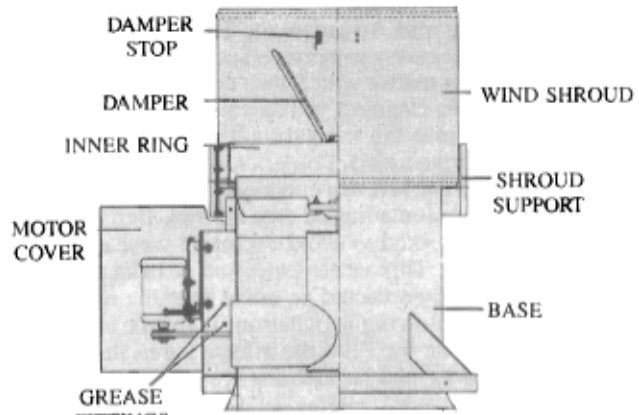
OPERATION AND MAINTENANCE INSTRUCTIONS—OTHER SIDE

1. **Pre-Installation Check of PRV.** Before installation of an American Coolair PRV, a careful check should be made for shipping damage which may affect operation of the unit. Concealed damage to the wind shroud damper assembly is a possibility. If damage is found, file a claim immediately with delivering carrier. On belt drive units, pulley alignment and belt tension should be checked (see paragraph 2 under Operation and Maintenance). Before connecting to power source, make sure propeller turns freely without striking frame or any foreign object. Check motor nameplate to be sure correct phase and voltage are being used. Note direction arrow adjacent to propeller and make sure rotation is correct when power is connected.

2. **Installation Procedures.** The Type JT PRV is shipped in two packages for quick assembly and installation on roof curb.

(a) **Installation of Base of PRV.** The major component of the Type JT PRV is the base section made up of curb cap, fan and motor. Verify curb dimensions and securely attach base to curb.

(b) **Installation of Wind Shroud Assembly.**
The wind shroud assembly consists of wind shroud and counterbalanced dampers. Wind shroud assembly should be attached to shroud supports on base of PRV. Bolts for this purpose are in a bag tied to the damper stop inside the wind shroud. Metal clips holding dampers in closed position for shipment should be removed and discarded. Manually operate dampers to be sure they open freely and close snugly over inner ring of shroud.



TYPE JTB
(Cutaway View)

(c) **Magnetic Latches (Optional Accessory).**
If magnetic latches are provided, check adjustment of latches to insure proper contact with dampers when closed.

(d) **Automatic Heat and Smoke Venting (Optional Accessory).** If a heat and smoke venting device is included, actuator arms are held in horizontal position by fusible links. This mechanism is factory set and should require no adjustment.

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.*

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FORM 310-41-3 (3-88) PRINTED IN U.S.A.
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Operation and Maintenance Instructions for Type JT Power Roof Ventilators

INSTALLATION INSTRUCTIONS—OTHER SIDE

1. **Cleaning and Adjustment.** The entire PRV should be cleaned as necessary to remove accumulated dust, dirt and other foreign matter which may collect on the blades or other parts. When cleaning and servicing unit, it is necessary to remove the wind shroud assembly and motor cover (on belt drive units). Propeller, motor and belts are then accessible. On belt drive models, belts should be inspected and tension adjusted (see below). Belt alignment should also be checked to avoid excessive wear and premature failure. This same inspection of belts and adjustment of tension should be made after the first 8–10 hours of usage following installation. If rust or corrosion are found anywhere on the PRV, the affected area should be thoroughly cleaned and refinished.

2. **PRV Style.** Type JT PRVs are divided into two "styles" (style C and style Y). It may be important for you to know which style you have. Check the model number on the fan. The letter preceding the size number is the style of that fan. Example: Model JTBC42N6 is a Style C, 42" fan.

3. **Belt Replacement, Tension and Adjustment (Belt drive only).**

(a) To change belt(s), loosen motor bracket bolts and tension adjustment bolts and remove belt(s) from motor and fan pulleys. Install new belt(s) and adjust as indicated below. When replacing belts, do not roll new belts over pulleys under tension. This practice can damage belts severely.

(b) To tension belt(s), place a finger midway between the motor pulley and fan pulley and push belt(s) inward about ½" (at approximately 5 lb. force) for proper tension. To adjust tension, loosen motor bracket bolts and use tension adjustment bolts to obtain correct belt tension. Be sure to retighten motor bracket bolts to maintain proper belt tension. Recheck alignment of belts between motor pulley and fan pulley. *CAUTION:* Use of tension adjustment bolts makes it easy to overtighten belts. When this occurs, belts will soon fail. Do not overtension.

4. **Blade Pitch Adjustment.** AMERICAN COOLAIR DOES NOT RECOMMEND FIELD ADJUSTMENT OF BLADE PITCH ON TYPE JT PROPELLERS. On Style C models (both direct and belt drive), blade pitch is factory set for specified performance with standard motor fully loaded. Any change in blade pitch will affect motor load. Contact your American Coolair representative before making any field adjustment of blade pitch on these propellers.

5. **Adjustment of Fan Speed and Air Volume.** Any reduction in air volume will reduce air velocity. This in turn may affect all-weather usage and proper operation of dampers. With this limitation, fan speed may be adjusted on belt drive units through use of adjustable motor pulley on models supplied with adjustable motor pulley. On Style C models (both direct and belt drive) air volume can also be reduced by a reduction in blade pitch. *Contact your American Coolair representative before making any field adjustment of blade pitch. Motor capacity must be carefully checked before any increase in fan speed or blade pitch is made*

6. **Lubrication.** Fan bearings on belt drive models are factory lubricated for extended service. External re-lubrication fan bearing fittings are standard on all belt drive models. Relubrication annually or more frequently is recommended. For best results, use Shell Alvania No. 3 lubricant or equivalent. For lubrication of electric motors, see instructions supplied by motor manufacturer.

7. **Repair Parts**

(a) **Belts.** Replacement belts are standard V-belts used on industrial machines. Replacements may be obtained through local industrial supply houses. If more than one belt is used on the PRV, be sure to replace with matched sets. To install belts, see instructions above for belt replacement.

(b) **Propeller.** If one or more propeller blades are damaged, it is recommended that the entire propeller be removed and returned to the factory for repairs. If an unbalanced condition develops, thoroughly clean blades to remove dirt or other foreign matter. If unbalance still exists, treat as blade damage and return to factory.

(c) **Bearings on Belt Drive Models.** Replacement pillow block bearings may be obtained through local industrial supply houses.

(d) **Motor.** Motor repairs should be performed only by an authorized motor repair station. Contact the motor manufacturer or American Coolair for location of repair station.

CAUTION: *Do not return damaged or defective parts to American Coolair without prior authorization. If repairs under warranty are claimed, see warranty terms in American Coolair catalog or contact the factory in Jacksonville, Florida. Claims for warranty repairs to electric motors should be made direct to the motor manufacturer.*

WARNING **CAUTION**

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

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