

INSTALLATION INSTRUCTIONS
TYPE HSE-HEAT AND SMOKE POWER ROOF VENTILATORS
OPERATION AND MAINTENANCE INSTRUCTIONS REVERSE SIDE

PRE INSTALLATION OF PRV: BEFORE INSTALLATION OF AN AMERICAN COOLAIR PRV, A CAREFUL CHECK OF THE UNIT SHOULD BE MADE FOR SHIPPING DAMAGE WHICH MAY AFFECT THE UNIT'S SAFE OPERATION. CONCEALED DAMAGE OF THE WIND SHROUD-DAMPER ASSEMBLY IS A POSSIBILITY. IF DAMAGE DOES EXIST, FILE A CLAIM WITH THE DELIVERING CARRIER. ON BELT DRIVE UNITS, CHECK PULLEY ALIGNMENT AND BELT TENSION (SEE PARAGRAPH 2 UNDER OPERATION AND MAINTENANCE-REVERSE SIDE). BEFORE CONNECTING THE PRV TO THE POWER SOURCE, MAKE SURE THAT THE IMPELLER TURNS FREELY WITHOUT STRIKING FRAME OR ANY FOREIGN OBJECT.

CHECK MOTOR NAMEPLATE DATA TO MAKE SURE THAT IT AGREES WITH VOLTAGE AND PHASE IT IS BEING CONNECTED TO.

NOTE THE WHEEL ROTATION AND AIRFLOW DIRECTOR INDICATORS AND MAKE SURE THAT THE UNIT IS RUNNING CORRECTLY WHEN ENERGIZED.

INSTALLATION PROCEDURES: THE TYPE HSE PRV IS SHIPPED IN TWO PARTS FOR EASY ASSEMBLY AND INSTALLATION ON ROOF CURB (EXCEPT FOR THE 18" UNIT WHICH HAS THE SHROUD ASSEMBLY MOUNTED).

- A. INSTALLATION OF BASE:** THE MAJOR COMPONENT OF THE TYPE HSE PRV IS THE BASE SECTION MADE UP OF THE CURB CAP, FAN AND MOTOR. VERIFY THE CURB DIMENSIONS AND SECURELY ATTACH TO THE CURB.
- B. INSTALLATION OF WIND SHROUD ASSEMBLY:** THE WIND SHROUD ASSEMBLY CONSISTS OF THE WIND SHROUD AND COUNTERBALANCED BACK DRAFT DAMPERS. WIND SHROUD ASSEMBLY SHOULD BE ATTACHED TO THE SHROUD SUPPORTS ON THE BASE OF THE PRV. BOLTS FOR THIS PURPOSE ARE IN THE PLASTIC BAG ATTACHED TO THE DAMPER STOP INSIDE THE WIND BAND. METAL CLIPS HOLDING THE DAMPERS CLOSED FOR SHIPPING SHOULD BE REMOVED. MANUALLY OPERATE DAMPERS TO BE SURE THEY OPEN FREELY AND CLOSE SNUGLY OVER THE INNER RING OF THE SHROUD.
- C. MAGNETIC LATCHES (OPTIONAL ACCESSORY)** IF MAGNETIC LATCHES ARE PROVIDED, CHECK ADJUSTMENT OF THE LATCHES TO INSURE PROPER CONTACT WITH BUTTERFLY DAMPERS WHEN CLOSED.

NOTE: ALL LOCAL, STATE AND FEDERAL CODES SHOULD BE CHECKED TO MAKE SURE THAT 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 HANDLING AIR THAT MIGHT BE CLASSIFIED AS EXPLOSIVE OR OTHER HAZARDOUS MIXTURES.

LIMITED WARRANTY

IN THE SALE OF IT'S 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 OUR 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.

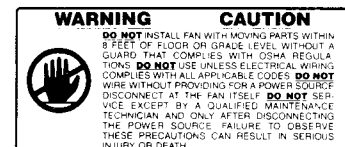
MOTORS ARE GUARANTEED ONLY TO THE EXTENT OF MANUFACTURER'S WARRANTY.

AMERICAN COOLAIR'S LIMITED WARRANTY DOES NOT APPLY TO ANY OF IT'S 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 CORPORATION.



AMERICAN COOLAIR CORPORATION

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**OPERATION AND MAINTENANCE INSTRUCTIONS
TYPE HSE POWER ROOF VENTILATORS
INSTALLATION INSTRUCTIONS-REVERSE SIDE**

CLEANING AND ADJUSTMENT: THE ENTIRE FAN SHOULD BE CLEANED AS NECESSARY TO REMOVE ACCUMULATED DUST, DIRT AND OTHER FOREIGN MATTER WHICH MAY COLLECT ON THE BLADES AND OTHER PARTS. 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 ARE FOUND ANYWHERE ON THE FAN, THE AFFECTED AREA SHOULD BE THOROUGHLY CLEANED AND REFINISHED. WHEN CLEANING AND SERVICING THE PRV, REMOVAL OF THE SHROUD ASSEMBLY IS NECESSARY FOR ACCESS TO THE PROPELLER. MOTOR AND BELTS ARE ACCESSIBLE BY REMOVAL OF THE MOTOR COVER.

BELT REPLACEMENT, TENSION AND ADJUSTMENT:

1. TO CHANGE THE BELT(S), LOOSEN THE BRACKET BOLTS AND TENSION ADJUSTMENT BOLTS. REMOVE BELT(S) FROM THE MOTOR AND FAN PULLEYS. INSTALL THE NEW BELT(S) AND ADJUST AS INDICATED BELOW. WHEN REPLACING BELT(S), DO NOT ROLL OVER THE PULLEY AS THIS WILL DAMAGE THE BELT(S) AND CAUSE PREMATURE FAILURE.
2. TO CHECK THE BELT TENSION, PLACE A FINGER MIDWAY BETWEEN THE MOTOR PULLEY AND THE FAN PULLEY. PUSH THE BELT ENOUGH TO DEFLECT THE BELT APPROXIMATELY 1/64" FOR EVERY INCH OF CENTER DISTANCE WHILE APPLYING APPROXIMATELY 5 POUNDS OF FORCE. 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 V-DRIVE INSPECTION ON A PERIODIC BASIS-RETENSION WHEN SLIPPAGE IS DETECTED.
3. TO ADJUST TENSION, LOOSEN THE MOTOR BRACKETS BOLTS AND USE TENSION ADJUSTMENT BOLTS TO OBTAIN THE CORRECT BELT TENSION. BE SURE TO RETIGHTEN THE MOTOR BRACKETS BOLTS AFTER MAKING ADJUSTMENTS. CHECK THE BELT ALIGNMENT AT THE SAME TIME.

CAUTION: USE OF TENSION ADJUSTMENT BOLT MAKES IT EASY TO OVER TIGHTEN BELT. WHEN THIS OCCURS, BELTS OR BEARINGS CAN FAIL IN A SHORT PERIOD OF TIME.

DO NOT OVER TENSION

ADJUSTMENT OF SPEED AND AIR VOLUME: ANY REDUCTION IN THE AIR VOLUME WILL REDUCE THE AIR VELOCITY. THIS IN TURN MAY AFFECT ALL-WEATHER OPERATION AND PROPER OPENING OF THE DAMPER DOORS. WITH THIS LIMITATION, FAN SPEED MAY BE ADJUSTED THROUGH THE USE OF VARIABLE PITCH MOTOR PULLEYS ON UNITS SUPPLIED AS SUCH. **MOTOR CAPACITY MUST BE CAREFULLY CHECKED BEFORE ANY INCREASE IN FAN SPEED IS MADE.**

LUBRICATION: ON THE BELT DRIVE MODELS, FAN BEARINGS ARE FACTORY LUBRICATED FOR EXTENDED SERVICE AND OPERATION. NORMAL MAINTENANCE WOULD CALL FOR ANNUAL LUBRICATION OF THE FAN BEARINGS. FOR LUBRICATION OF ELECTRIC MOTOR, SEE INSTRUCTIONS BY MOTOR MANUFACTURER.

REPAIR PARTS:

1. **BELTS** ARE STANDARD V-BELTS USED ON INDUSTRIAL MACHINES AND REPLACEMENTS CAN BE OBTAINED THROUGH LOCAL INDUSTRIAL SUPPLY HOUSES. IF MORE THAN ONE BELT IS USED ON THE FAN, BE SURE TO BUY A MATCHED SET OF REPLACEMENT BELTS. SEE PREVIOUS INSTRUCTIONS FOR BELT REPLACEMENT.
2. **PROPELLER** IF ONE OR MORE OF THE BLADES OF THE PROPELLER IS DAMAGED, IT IS RECOMMENDED THAT THE ENTIRE PROPELLER BE REMOVED AND RETURNED TO THE FACTORY FOR REPAIRS. IF AN UNBALANCED CONDITION DEVELOPS, THOROUGHLY CLEAN THE BLADES TO REMOVE DIRT AND OTHER BUILD UP. IF UNBALANCE PERSISTS, TREAT AS BLADE DAMAGE AND RETURN TO THE FACTORY.
3. **BEARINGS** ARE STANDARD COMMERCIALY AVAILABLE PILLOW BLOCK BEARINGS AND MAY BE PURCHASED AT ANY INDUSTRIAL SUPPLY HOUSE.
4. **MOTOR** REPAIRS SHOULD ONLY BE PERFORMED BY AN AUTHORIZED MOTOR REPAIR FACILITY. CONTACT EITHER THE MOTOR MANUFACTURER OR AMERICAN COOLAIR CORPORATION FOR LOCATIONS.
5. **PERIODIC FAN ACTIVATION:** IF THE HSE PRV IS TO BE USED FOR EMERGENCY HEAT AND SMOKE REMOVAL ONLY AND NOT USED FOR GENERAL VENTILATION, THEN A ROUTINE, PERIODIC PRV ACTIVATION IS RECOMMENDED TO ENSURE RELIABLE OPERATION. THE FAN SHOULD BE ACTIVATED AT LEAST ANNUALLY AND ALLOWED TO RUN FOR A MINIMUM OF ONE HOUR DURATION: DURING THIS TIME CLEANING, ADJUSTMENT AND LUBRICATION AS DESCRIBED ABOVE SHOULD BE PERFORMED.

CAUTION: DO NOT RETURN DAMAGED OR DEFECTIVE PARTS TO AMERICAN COOLAIR CORPORATION WITHOUT PRIOR AUTHORIZATION. IF REPAIRS UNDER WARRANTY ARE CLAIMED, SEE WARRANTY TERMS ON THE REVERSE OF THIS PAGE. CLAIMS FOR WARRANTY REPAIRS REGARDING THE MOTOR SHOULD BE MADE DIRECTLY WITH THE MOTOR MANUFACTURER.