

THE TEXTBOOK COOLING CHECK

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I. ARRIVAL

- A. PARK IN A CONSPICIOUS YET OUT-OF-THE-WAY LOCATION (YOU ARE DRIVING A BILLBOARD - USE IT).
- B. CHECK YOUR APPEARANCE. CHECK YOUR ATTITUDE.
- C. GATHER ALL TOOLS NECESSARY FOR A MAINTENANCE OR DIAGNOSTIC.
- D. LOCK YOUR TRUCK.
- E. APPROACH THE HOUSE VIA WALKS, ETC DO NOT WALK ON THE GRASS.
- F. LOOK FOR WAYS TO BE HELPFUL. NEWSPAPER, ETC.
- G. RING DOOR BELL OR KNOCK AND STEP BACK FROM DOOR.
- H. SMILE, ANNOUNCE YOUR NAME AND PURPOSE OF VISIT.
- I. WIPE YOUR FEET - USE EVERY MAT AVAILABLE - LOOK INSIDE, USE SHOE PROTECTION.

II. INTRODUCTION

PRESENT BUSINESS CARD TO CUSTOMER.

- B ASK QUESTIONS ABOUT SYSTEM PERFORMANCE, IE, ANY NOISES? HOT OR COLD SPOTS? INCREASED DUST?, UTILITY BILLS OK?
- C. LISTEN!!! LISTEN!!! LISTEN!!!
- D. VISIBLY WRITE DOWN ANY CONCERNS. READBACK TO CUSTOMER.

III CHECK THERMOSTAT

- A. NOTE CUSTOMER SETTINGS (ON TICKET)
- B. LEVEL? TIGHT?
- C. CHECK SWITCHING. FAN, ON, AUTO, ETC.
- D. SET TO COOL AND IN DEMAND (BELOW HOUSE TEMPERATURE).

IV. INDOOR SECTION

- A. CONFIRM RUNNING, VISUALLY INSPECT DUCT WORK AND UNIT CONDITION.
- B. USE DISCONNECT TO TURN OFF POWER - USE LOCK OUT PROTECTION.
- C. REMOVE COVER AND PANELS
 1. CHECK FILTER AND NOTE CONDITION AT ARRIVAL ON TICKET.
 - a. CHECK FOR PROPER FIT
 - b. CLEAN IF PERMANENT TYPE

V. REMOVE BLOWER HOUSING

- A. WITH ASSEMBLY REMOVED LOOK UP INTO HEAT EXCHANGER AREA. CHECK FOR CRACKS, ETC. ALSO TRY TO SEE EVAPORATOR.
- B. OIL (BOTH PORTS 1 - 3 DROPS OF OIL) IF SEALED NOTE ON TICKET.
- C. CHECK BLOWER MOTOR AND WHEEL FOR CLEANINESS
 1. IF WHEEL IS DIRTY - THEN EVAPORATOR IS DIRTY - NOTE ON TICKET.
- D. CHECK MOTOR SHAFT END OR SIDE PLAY.
- E. REINSTALL BLOWER ASSEMBLY.

VI. CHECK ALL ELECTRICAL CONNECTIONS

- A. SHAKE
- B. TIGHTEN LUGS AND PUSH ON CONNECTIONS
- C. CHECK WIRES FOR DISCOLORATION, CRACKED OR HARDENED INSULATION.
- D. CHECK DISCONNECT
 - 1. CHECK PRONGS FOR DISCOLORATION OR PITTING.
 - 2. CHECK TIGHTNESS OF FUSE HOLDER.
 - a. IF FUSE DOES NOT SNAP IN OR OUT, IS HARD, DISCOLORED, OR IF FUSE SLIDES WITHIN THE HOLDER WITHOUT RESISTANCE; NOTE ON TICKET.

VII. CHECK EVAPORATOR COIL

- A. GENERAL CONDITION - RUST, SIGNS OF OIL, ETC.
- B. CHECK FOR CLEANINESS
- C. NOTE TYPE OF METERING DEVICE
 - 1. IF TXV CHECK BULB FOR:
 - a. GOOD TIGHT CONTACT TO SUCTION LINE IN PROPER LOCATION AND POSITION.
 - b. PROPERLY INSULATED.
 - 2. VERIFY CHECKVALVE FOR FREE MOVEMENT (USE MAGNET - LISTEN FOR CLICK).
- D. CONDENSATE
 - 1. CLEAN OUT CONDENSATE PAN - ADD TABLETS.
 - 2. TAP COMPLETE CONDENSATE LINE TO LOOSEN SCALE AND SCUM.
 - 3. IF HORIZONTAL OR IN ATTIC, CHECK FOR PROPER PITCH AND SLOPE, CHECK FOR SAGGING, CHECK FOR PROPER SUPPORTS (EVERY 3 -5 FEET).
 - 4. CHECK FOR CRACKS OR BREAKES.
- E. CHECK AND CLEAN EMERGENCY DRAIN PAN.
 - 1.. CHECK EMERGENCY DRAIN LINE
 - 2. CHECK FLOAT SWITCH (IF NOT PRESENT NOTE ON TICKET).
- F. FLUSH ALL CONDENSATE LINES WITH ENOUGH WATER TO RUN CLEAR (USE YOUR SPRAYER TO REACH INTO BACK OF DRAIN PAN).
- G. CHECK DRAIN LINE OUTLET.
 - 1. FULL FLOW?
 - 2. CLEAR WATER?
 - 3. TERMINATION FREE OF ABSTRUCTION?
 - 4. PROPER AIR GAP?

VIII. REAPPLY POWER (SYSTEM SHOULD COME ON)

- A. RECORD ACTUAL LINE AND LOW VOLTAGE.
- B. RECORD ACTUAL BLOWER MOTOR AMP DRAW WITH BLOWER DOOR IN PLACE. COMPARE TO DATA PLATE. NOTE ON TICKET.

IX. REPLACE ALL PANELS AND DOORS

- A. REPLACE ALL SCREWS.
- B. CHECK FOR AIR NOISES AND AIR LEAKS - NOTE ON TICKET.

X. HOUSEKEEPING

- A. WIPE DOWN ENTIRE INDOOR UNIT
- B. UPDATE SERVICE STICKERS
- C. PREPARE TO LEAVE AREA IN BETTER CONDITION THAN YOU FOUND IT.

XI. RECORD INDOOR PERFORMANCE (AFTER 15 MINUTES OF RUN TIME)

- A. RECORD ENTERING AND LEAVING W.B. AND D.B COMPUTE DELTA T (TEMPERATURE CHANGE).

XII. PROCEED TO OUTDOOR SECTION (REMEMBER SYSTEM IS RUNNING)

A. VISUALLY CHECK FOR GENERAL CONDITION.

1. FREE OF AIRFLOW OBSTRUCTIONS? LOOK UP - PROPER CLEARANCES.
2. LEVEL? PROPER DRAINAGE?
3. DISCONNECT WITHIN SIGHT? SECURED TO WALL? EXTERNAL WIRING SECURED?
4. VALVE CAPS TIGHT? MISSING?
5. CHECK PHYSICAL CONDITION OF OUT DOOR COIL.
 - a. DIRTY?
 - b. FIN DAMAGE?
 - c. OIL?
6. RECORD OUTDOOR CONDITIONS.
 - a. AMBIENT TEMPERATURE.
 - b. ENTERING AND LEAVING D.B. TEMPERATURES.
 - c. VAPOR AND LIQUID LINE TEMPERATURES.
 - d. ACTUAL VOLTAGE AND AMP DRAW.

B. CHECK ALL ELECTRICAL CONNECTIONS

1. USE DISCONNECT TO TURN OFF POWER. USE LOCK OUT PROTECTION.
 - a. SHAKE
 - b. TIGHTEN - LUGS AND PUSH ON CONNECTIONS
 - c. CHECK WIRES FOR DISCOLORATION, CRACKED, OR HARDENED INSULATION.
2. CHECK DISCONNECT
 - a. CHECK PRONGS FOR DISCOLORATION OR PITTING.
 - b. CHECK TIGHTNESS OF FUSE HOLDER.
IF FUSE DOES NOT SNAP IN OR OUT, IS HARD, DISCOLORED, OR IF FUSE SLIDES WITHIN THE HOLDER WITHOUT RESISTANCE;
NOTE ON TICKET.

C. REMOVE COVER OR PANELS TO UNIT

1. CHECK CONDITION OF CONTACTOR CONTACTS.
 - a. FOR PITTING OR DISCOLORATION.
2. CHECK LUGS, WIRE NUTS, ETC FOR TIGHTNESS.
3. CHECK WIRING FOR DISCOLORATION, CRACKED, OR HARDENED INSULATION.

XIII HOUSEKEEPING

- A. CLEAN LEAVES AND DEBRIS FROM INSIDE OF UNIT.
- B. OIL CONDENSER FAN MOTOR IF NOT SEALED (NOTE ON TICKET)
- C. CHECK RAIN SHEILD FOR PROPER FIT.
- D. CHECK FAN BLADE FOR PROPER, TIGHT POSITION ON SHAFT.
- E. CHECK TUBING - MAY BE LAYING AGAINST SOMETHING THAT WOULD RUB A HOLE IN IT.
- F. CHECK THE CHECK VALVES FOR FREE MOVEMENT (USE A MAGNET)
- G. VISUALLY INSPECT FOR SIGNS OF OIL, WHICH COULD INDICATE A LEAK.
- H. CHECK CAPACITORS (USE A METER) LOOK FOR SWELLING.

XIV. REAPPLY POWER AND START UNIT.

- A. RECORD COMPRESSOR STARTING AND RUNNING AMPS.
- B. CHECK CRANKCASE HEATER.
- C. REINSTALL PANELS OR COVERS.
 1. REPLACE ALL SCREWS
- D. WIPE DOWN OUTSIDE UNIT.
- E. CLEAN UP THE AREA - LEAVE IT NEATER THAN YOU FOUND IT.

F. RESET INSIDE THERMOSTAT TO ORIGINAL SETTINGS.

XV. REVIEW INVOICE

- A. REVIEW DELTA T, AMP DRAWS
- B. COMPILE RECOMMENDATIONS FROM NOTATIONS.
- C. REVIEW CUSTOMERS ORIGINAL COMMENTS ABOUT OPERATION. HAVE YOU COVERED EVERYTHING? WILL YOUR RECOMMENDATIONS SOLVE THEIR CONCERNS?
- D. IF A SOLUTION INVOLVES ADDING AN ACCESSORY (HUMIDIFIER, EAC, ETC.). WHAT WILL FIT? MEASURE!!!
- E. WHAT OTHER OPTIONS COULD SOLVE THEIR CONCERNS?
- F. REPLACE TOOLS IN THE TRUCK
 - 1. DISPOSE OF ANY TRASH
 - 2. WASH HANDS AND CHECK APPEARANCE.

XVI. PRESENTATION TO CUSTOMER

- A. REVIEW GENERAL CONDITION OF SYSTEM.
 - 1. GIVE THEM A GOOD OVERVIEW.
- B. REPEAT THEIR ORIGINAL CONCERNS.
 - 1. ADDRESS EACH WITH WHAT YOU DID OR NEED TO DO.
 - 2. EXPLAIN THE BENEFITS AND COST COMPLETELY.

XVII. CLOSE

- A. HAVE INVOICE SIGNED
- B. COLLECT ANY MONIES DUE.
- C. EXPLAIN FOLLOW UP - SOMEONE MAY CALL TO CHECK ON YOUR PERFORMANCE, FOLLOW UP ON UNCLOSED LEADS, ETC.
- D. PRESENT TWO (2) BUSINESS CARDS
 - 1. TELL THEM TO GIVE TO FRIENDS OR FAMILY THAT MIGHT NEED OUR SERVICES.
- E. ASK IF THERE IS ANYTHING ELSE THAT YOU CAN DO OR EXPLAIN.

XVIII. TAKE YOUR LEAVE

- A. SMILE, SAY GOOD BY, THANK THEM FOR USING YOUR SERVICE, SHAKE HANDS.
- B. WALK WITH PRIDE TO YOUR TRUCK, KNOWING THAT YOU DID AN OUTSTANDING JOB.