

# S6161-XU-FSE-010

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0910-LP-028-6740

## INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS FOR REFRIGERATOR/FREEZER UPRIGHT RTF MODELS NAV-3-6-HLT-B AND NAV-6-14-HLT-B

( RTF MANUFACTURING.  
N00024-97-C-2202 )



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### DESTRUCTION NOTICE:

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PUBLISHED BY DIRECTION OF COMMANDER, NAVAL SEA SYSTEMS COMMAND

01 JUN 2005

**INSTALLATION, OPERATION, AND  
MAINTENANCE INSTRUCTIONS**

**PO# 00077810**

**NAV-3-6-HLT-B**

**REFRIGERATOR/FREEZER**

***RTF MANUFACTURING  
ATMOST REFRIGERATION  
793 ROUTE 66  
HUDSON NY 12534 9801  
800-836-0744***

## **SAFETY SUMMARY**

THE FOLLOWING ARE GENERAL SAFETY PRECAUTIONS THAT ARE NOT RELATED TO ANY SPECIFIC PROCEDURES AND THEREFORE DO NOT APPEAR ELSEWHERE IN THIS PUBLICATION. THESE ARE RECOMMENDED PRECAUTIONS THAT PERSONNEL MUST UNDERSTAND AND APPLY DURING MANY PHASES OF OPERATION AND MAINTENANCE.

### **KEEP AWAY FROM LIVE CIRCUITS**

OPERATING PERSONNEL MUST AT ALL TIMES OBSERVE ALL SAFETY REGULATIONS. DO NOT REPLACE COMPONENTS OR MAKE ADJUSTMENTS INSIDE THE EQUIPMENT WITH THE HIGH VOLTAGE SUPPLY TURNED ON. UNDER CERTAIN CONDITIONS, DANGEROUS POTENTIALS MAY EXIST WHEN THE POWER CONTROL IS IN THE OFF POSITION, DUE TO CHARGES RETAINED IN CAPACITORS.. TO AVOID CASUALTIES, ALWAYS REMOVE POWER AND DISCHARGE AND GROUND A CIRCUIT BEFORE TOUCHING IT.

### **DO NOT SERVICE OR ADJUST ALONE**

UNDER NO CIRCUMSTANCES, SHOULD ANY PERSON REACH INTO OR ENTER THE ENCLOSURE FOR THE PURPOSE OF SERVICING OR ADJUSTING THE EQUIPMENT EXCEPT IN THE PRESENCE OF SOMEONE WHO IS CAPABLE OF RENDERING AID.

THE FOLLOWING WARNING AND CAUTIONS APPEAR IN THE TEXT IN THIS VOLUME, AND ARE REPEATED HERE FOR EMPHASIS.

### **CAUTION:**

1. **DO NOT REMOVE HINGES FROM DOORS.**
2. **CHECK ELECTRICAL REQUIREMENTS ON THE EQUIPMENT DATA PLATE TO BE SURE IT IS THE SAME AS IS BEING SUPPLIED.**
3. **BE SURE POWER IS BEING SUPPLIED TO THE EQUIPMENT IN A CONTINUOUS CIRCUIT.**
4. **THE VOLTAGE SUPPLY SHOULD NOT VARY MORE THAN PLUS OR MINUS 10% OF THE REQUIRED OPERATING VOLTAGE**
5. **DO NOT TURN OR CHANGE ANY VALVES OR CONTROL SETTINGS.**
6. **DO NOT USE SHARP POINTED SCRAPING DEVICES, WIRE BRUSHES, OR ABRASIVE CLEANERS.**
7. **DISCONNECT THE CONDENSING UNIT FROM THE POWER LINE BEFORE WORKING AROUND THE CONDENSER**

## **GENERAL THEORY OF OPERATION**

THE CONTROL OF A CONSTANT AND CORRECT TEMPERATURE IN A CABINET DEPENDS ON THE INTERMITTENT CIRCULATION AND EVAPORATION OF A FIXED SUPPLY OF REFRIGERANT IN THE EVAPORATOR.

WITH THE TEMPERATURE CONTROL'S SENSITIVE FEELER BULB ELEMENT LOCATED INSIDE THE CABINET, THE MOTOR COMPRESSOR PUMPS THE HEAT LADEN VAPOR OUT OF THE EVAPORATOR, DOWN THE SUCTION LINE AND INTO THE COMPRESSOR. THIS LOW PRESSURE VAPOR IS SUCKED INTO THE CYLINDERS, COMPRESSED AND FORCED OUT THROUGH THE DISCHARGE VALVES, AS A HIGH PRESSURED VAPOR, INTO THE CONDENSER.

THE SYSTEM FROM THE EXPANSION VALVE OUTLET TO THE DISCHARGE VALVE IN THE COMPRESSOR IS CALLED THE LOW PRESSURE SIDE OF THE SYSTEM.

AS THE HIGH PRESSURE VAPOR ENTERS THE CONDENSER, THE HIGH TEMPERATURE VAPOR LOSES ITS' HEAT TO THE AIR COOLED CONDENSER. THE RESULTS IN THE HIGH PRESSURED VAPOR BEING CONDENSED INTO A LIQUID REFRIGERANT. THIS LIQUID THEN PASSES THROUGH THE LIQUID LINE INTO THE EVAPORATOR.

THE PART OF THE SYSTEM FROM THE DISCHARGE VALVE, THROUGH THE CONDENSER AND LIQUID LINE, TO THE INLET OF THE EXPANSION VALVE, IS CALLED THE HIGH PRESSURE SIDE OF THE SYSTEM.

THE LIQUID REFRIGERANT IN THE EVAPORATOR IS SUBJECT TO A MUCH LOWER PRESSURE, DUE TO THE SUCTION OF THE COMPRESSOR; THEREFORE EVAPORATION OF THE LIQUID REFRIGERANT TAKES PLACE AT A REDUCED PRESSURE AND TEMPERATURE WITH THE RESULT THAT HEAT IS REMOVED FROM THE REFRIGERATED AREA. AS THE PRESSURE AND TEMPERATURE IN THE EVAPORATOR IS BEING LOWERED BY THE COMPRESSOR SUCTION, A POINT IS REACHED WHERE SUFFICIENT HEAT HAS BEEN REMOVED FROM THE REFRIGERATED AREA TO LOWER THE TEMPERATURE TO A POINT WHERE THE TEMPERATURE CONTROL WILL BREAK THE ELECTRIC CIRCUIT AND STOP THE COMPRESSOR. THE LOWERED SUCTION PRESSURE WILL RISE AGAIN, WHEN THE TEMPERATURE IN THE CABINET RISES AND THE TEMPERATURE CONTROL SENSES THIS, IT TURNS THE COMPRESSOR BACK ON AND REPEATS THE ENTIRE PROCESS AGAIN.

## INSTALLATION

### **UNCRATING:**

ALL REFRIGERATORS AND FREEZERS ARE STRONGLY CRATED TO INSURE DELIVERY IN GOOD CONDITION UNDER ORDINARY HANDLING BY COMMERCIAL CARRIERS. HOWEVER, IT IS IMPORTANT THAT INSPECTION FOR POSSIBLE DAMAGE IN TRANSIT BE MADE IMMEDIATELY UPON RECEIPT OF THE UNIT.

**NOTE! ANY VISIBLE DAMAGE TO THE CRATE, OR TO THE UNIT ITSELF SHOULD BE NOTED ON THE CARRIER DELIVERY RECEIPT. THIS SIGNIFIES THAT A CLAIM FOR DAMAGES WILL BE MADE.**

### **REMOVAL OF DOOR:**

IF FOR ANY REASON THE DOOR HAS TO BE REMOVED, REMOVE THE HINGE COVERS AND THEN REMOVE THE SCREWS HOLDING THE HINGE AND DOOR TO THE FACE OF THE REFRIGERATOR. CAUTION! DO NOT REMOVE HINGED FROM THE DOORS.

### **LOCATION:**

IT IS IMPORTANT THAT THERE IS FREE CIRCULATION OF DRY, COOL, CLEAN AIR AROUND THE REFRIGERATOR OR FREEZER. OBTAIN BEST VENTILATION POSSIBLE. KEEP THE UNIT AT SOME DISTANCE FROM FURNACES, OVENS, ETC. AVOID LOCATIONS WHERE THE ROOM TEMPERATURE WILL DROP BELOW THE TEMPERATURE TO BE MAINTAINED IN THE REFRIGERATOR. KEEP AT LEAST 3" CLEARANCE AT THE BACK, AND AT EACH END TO ALLOW FOR BEST VENTILATION.

### **LEVELING:**

WHEN THE REFRIGERATOR OR FREEZER IS IN PROPER POSITION, MAKE SURE IT IS SITTING LEVEL FROM SIDE TO SIDE AND FROM FRONT TO REAR.

### **DOOR SEAL:**

CLOSE DOOR(S) AND CHECK EACH DOOR FOR PROPER GASKET SEAL. THE GASKET SHOULD SEAT ON THE FRONT SURFACE OF THE UNIT, THIS IS TO PREVENT LEAKAGE OR AIR INTO THE REFRIGERATOR OR FREEZER. IF ADJUSTMENT IS NECESSARY, LOOSEN THE DOOR STRIKE LOCATED ON THE BODY OF THE UNIT. **MOVE STRIKE OUTWARD TO DECREASE GASKET PRESSURE,, MOVE STRIKE INWARD TO INCREASE PRESSURE.** MOVE THE STRIKE IN OR OUT A BIT AT A TIME. WHEN PROPER ADJUSTMENT HAS BEEN MADE, BE SURE THE HOLDING SCREWS ARE TIGHTENED.

**NOTE: PROPER ADJUSTMENT CAN BE DETERMINED BY INSERTING A PIECE OF PAPER BETWEEN THE DOOR GASKET AND THE FRONT DOOR GASKET HITTING SURFACE. PAPER SHOULD INDICATE DRAG COMPLETELY AROUND DOOR.**

**SHELVES:**

SHELVES ARE SUPPORTED ON SMALL BRACKETS CALLED PILASTER CLIPS, WHICH ARE SET INTO VERTICAL PILASTER STRIPS FASTENED TO THE WALLS OF THE REFRIGERATOR. EACH SHELF IS SUPPORTED BY FOUR (4) PILASTER CLIPS. PILASTER CLIPS ARE LOOSENEED BY RAISING THE BOTTOM PART UP AND OUT AND MAY BE MOVED UP OR DOWN TO ADJUST THE HEIGHT OF THE SHELF ON 1/2" SPACINGS.

\*\* THE HOLES AT THE SAME LEVEL HAVE A CORRESPONDING NUMBER TO PERMIT QUICK AND EASY SHELF ADJUSTMENT.

**POWER REQUIREMENTS:**

THE UNIT IS NOW READY TO BE CONNECTED TO A SUITABLE POWER OUTLET.

**CAUTION!** CHECK THE ELECTRICAL REQUIREMENTS ON THE IDENTIFICATION PLATE. MAKE SURE THE POWER BEING SUPPLIED IS THE SAME AS IS ON THE IDENTIFICATION PLATE.

**CAUTION!** BE SURE THAT THE POWER LINE TO WHICH THE REFRIGERATOR OR FREEZER IS CONNECTED, IS A CONTINUOUS CIRCUIT, AND CANNOT BE ACCIDENTALLY CUT OFF OR CONTROLLED BY SOME TYPE OF TIME SWITCH CUT OFF. OBTAIN A SEPARATE CIRCUIT FOR PROPER OPERATION OF THE UNIT.

**CAUTION!** FOR SATISFACTORY OPERATION, THE VOLTAGE SUPPLY SHOULD NOT VARY MORE THAN PLUS OR MINUS 10% OF THE REQUIRED OPERATING VOLTAGE.

**STARTING THE COMPRESSOR:**

**CAUTION! DO NOT TURN OR CHANGE ANY SERVICE VALVE OR CONTROL SETTING.** ALL SERVICE VALVES ARE LEFT IN THE OPEN POSITION, ON SELF CONTAINED, HERMETICALLY SEALED SYSTEMS, DURING THE TEST RUN, BEFORE BEING SHIPPED FROM THE FACTORY. CONNECT THE ELECTRICAL CURRENT TO THE JUNCTION BOX LOCATED IN THE UNIT COMPARTMENT.

NEXT, CHECK THE ELECTRICAL SUPPLY TO BE SURE THAT POWER IS BEING RECEIVED AT THE JUNCTION BOX BY USING A TEST LIGHT. IF CURRENT IS BEING RECEIVED, THE TEST LIGHT WILL LIGHT UP. THE UNIT IS NOW READY TO START. MOVE THE SWITCH TO THE "ON" POSITION.

**CONTROLS AND ADJUSTMENTS:**

ALL CONTROLS ARE FACTORY SET FOR PROPER OPERATION. THEY SHOULD NOT BE CHANGED UNLESS IT IS SHOWN BY USE OF AN ACCURATE THERMOMETER THAT THE CABINET IS NOT HOLDING CORRECT OPERATING TEMPERATURE.

## **OPERATION**

### **LOADING:**

IT IS IMPORTANT THAT THE REFRIGERATOR OR FREEZER IS NOT LOADED WITH PERISHABLES UNTIL THE INSIDE TEMPERATURE HAS BEEN BROUGHT DOWN TO THE PROPER OPERATING LEVEL. AFTER STARTING THE REFRIGERATION UNIT, ALLOW IT TO OPERATE FOR ABOUT FOUR HOURS BEFORE LOADING.

**DO NOT OVERLOAD—LEAVE ROOM FOR CIRCULATING COOL AIR.**

### **MAINTENANCE:**

#### **CLEANING:**

EXTERIOR AND / OR EXTERIOR (STAINLESS STEEL) WASH WITH A MILD SOAP SOLUTION, RINSE WITH CLEAN WATER, WIPE DRY WITH A CLEAN SOFT CLOTH.

#### **CAUTION! DO NOT USE ABRASIVE CLEANERS**

ABOUT ONCE A MONTH, CLEAN DOOR GASKET WITH A MILD SOAP AND WATER SOLUTION. BE SURE TO WIPE THOROUGHLY DRY.

#### **DISCONNECTING:**

IF THE REFRIGERATOR AND OR FREEZER IS NOT TO BE USED FOR AN EXTENDED PERIOD OF TIME, DISCONNECT THE ELECTRIC PLUG AND OPEN THE DOORS. AS SOON AS THE UNIT HAS HAD A CHANCE TO WARM UP TO ROOM TEMPERATURE, WIPE ALL PARTS DRY. LEAVE ALL DOORS OPEN AND LATER CHECK TO SEE THAT NO MOISTURE HAS COLLECTED ON ANY OF THE PARTS.

#### **CONDENSERS:**

**WARNING! DISCONNECT THE CONDENSING UNIT FROM THE POWER LINE BEFORE WORKING AROUND THE CONDENSER.**

**IT IS IMPORTANT THAT THERE IS A FREE CIRCULATION OF AIR AROUND AND THROUGH THE CONDENSER. THE CONDENSER MUST BE KEPT CLEAN AT ALL TIMES. UNSATISFACTORY OPERATION WILL RESULT FROM FAILURE TO OBSERVE THESE POINTS. INSPECT THE CONDENSER FREQUENTLY, CLEAN DUST AND OTHER OBSTRUCTIONS FROM THE CONDENSER WITH A VACUUM CLEANER OR SOFT WIRE BRUSH. DO NOT USE A WIRE BRUSH!!**

## TROUBLE SHOOTING CHART

<u>OBSERVATION</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
UNIT DOES NOT OPERATE	<ol style="list-style-type: none"><li>1. POWER FAILURE AT SOURCE</li><li>2. MAIN SWITCH OPEN</li><li>3. BURNED OUT FUSE</li><li>4. CONTROL OUT OF ADJUSTMENT</li><li>5. CONTROL DEFECTIVE</li><li>6. LOW VOLTAGE</li> <li>7. DEFECTIVE OVERLOAD PROTECTOR</li><li>8. DEFECTIVE RELAY</li><li>9. DEFECTIVE CAPACITOR</li></ol>	<p>CORRECT CLOSE SWITCH REPLACE ADJUST REPLACE CORRECT LINE VOLTAGE</p> <p>REPLACE REPLACE REPLACE</p>
UNIT DOES NOT SHUT OFF	<ol style="list-style-type: none"><li>1. CONTROL OUT OF ADJUSTMENT</li> <li>2. CONTROL DEFECTIVE</li><li>3. UNDERCHARGE OF REFRIGERANT</li><li>4. DIRTY CONDENSER</li><li>5. AIR TEMP TOO HIGH</li> <li>6. CONDENSER FAN INOPERATIVE</li><li>7. AIR RESTRICTION DUE TO OVER CROWDED SHELVES</li><li>8. COMPRESSOR INEFFICIENT</li><li>9. EXPANSION VALVE STUCK</li><li>10. POOR CONTACT, TX VALVE BULB TO SUCTION LINE</li></ol>	<p>CHECK TEMP AND ADJUST CONTROL</p> <p>REPLACE ADD REFRIGERANT CLEAN PROVIDE SUFFICIENT AIR FLOW OVER CONDENSER</p> <p>REPLACE REARRANGE PRODUCT REPLACE CONDENSER REPAIR OR REPLACE TIGHTEN CLAMP HOLDING BULB TO SUCTION LINE</p>
HIGH HEAD PRESSURE	<ol style="list-style-type: none"><li>1. AIR IN SYSTEM</li><li>2. OVERCHARGE OF REFRIGERANT</li><li>3. DIRTY CONDENSER</li><li>4. AIR TEMP TOO HIGH</li></ol>	<p>PURGE PURGE CLEAN PROVIDE SUFFICIENT AIR FLOW</p>
LOW HEAD PRESSURE	<ol style="list-style-type: none"><li>1. UNDERCHARGE OF REFRIGERANT</li><li>2. BROKEN SUCTION VALVE LEAF</li> <li>3. OPERATING IN <u>TOO</u> LOW ROOM TEMP</li></ol>	<p>ADD REFRIGERANT REPLACE COMPRESSOR RELOCATE UNIT OR RAISE ROOM TEMP</p>
SHORT CYCLING	<ol style="list-style-type: none"><li>1. CONTROL OUT OF ADJUSTMENT</li></ol>	<p>ADJUST CONTROL</p>

## **REPLACEMENT INSTRUCTIONS**

### **MOTOR COMPRESSOR:**

1. DISCONNECT MOTOR COMPRESSOR FROM POWER AND CIRCUIT FROM CONTROL.
2. PURGE ENTIRE REFRIGERANT CHARGE, RECLAIM REFRIGERANT IF POSSIBLE.
3. REMOVE BURNED OUT MOTOR COMPRESSOR AND MOUNT REPLACEMENT.  
**(DO NOT CONNECT SUCTION AND DISCHARGE LINE)**
4. ATTACH REFRIGERANT DRUM TO SUCTION LINE, PURGE LOW SIDE OF SYSTEM.
5. INSTALL NEW FILTER DRIER, CONNECT LIQUID AND SUCTION LINES, PULL DEEP VACUUM ON ENTIRE SYSTEM.
6. RE-CONNECT MOTOR COMPRESSOR TO POWER CIRCUIT, AND CONTROL.

### **CONTROLS:**

1. DISCONNECT REFRIGERATOR OR FREEZER FROM POWER CIRCUIT.
2. REMOVE CONTROL COVER. REMOVE LEADS FROM TERMINALS.  
**\*\*NOTE POSITION OF WIRES FOR REPLACING ON PROPER TERMINALS.**
3. DISCONNECT FEELER BULB, AND REMOVE CAPILLARY TUBE FROM INSIDE UNIT.
4. REMOVE BOLTS HOLDING CONTROL TO BASE FRAME, REMOVE CONTROL AND INSTALL NEW CONTROL FOLLOWING THE ABOVE PROCEDURE IN REVERSE.

### **GASKETS: (DOOR)**

1. THE DOOR GASKET IS A COMPRESSION STYLE, SNAP IN GASKET. TO REPLACE, MERELY PULL ORIGINAL GASKET FROM DOOR AND SNAP INN NEW GASKET INTO THE TRANSITION PIECE SLOT.

### **HANDLE:**

TO REMOVE THE EDGEMOUNT HANDLE, REMOVE (3) SCREWS ON SIDE OF CABINET.

### **HINGES:**

1. OPEN DOOR, SNAP HINGE COVER LOOSE FROM INSIDE EDGE OF HINGE WITH A SCREWDRIVER.
2. CLOSE DOOR, REMOVE SCREWS HOLDING HINGE TO DOOR AND CABINET, POSITION NEW HINGE AND REPLACE SCREWS.

### **DEHYDRATOR:**

1. CLOSE LIQUID SERVICE VALVE, RUN COMPRESSOR AND PUMP REFRIGERANT INTO RECEIVER TANK UNTIL 0 LBS. PRESSURE READING IS OBTAINED ON THE BACK PRESSURE GAUGE, CLOSE SUCTION SERVICE VALVE.
2. REMOVE DEHYDRATOR FROM LIQUID LINE, INSTALL NEW DEHYDRATOR, CHARGE SYSTEM, CHECK FOR LEAKS.

### **ANTI-SWEAT AND MULLION HEATERS:**

1. TURN OFF POWER
2. REMOVE PLASTIC RETAINER STRIP
3. DISCONNECT HEATER WIRE AND REMOVE

## **REPLACEMENT INSTRUCTIONS (CONT'D)**

### **EXPANSION VALVES:**

1. CLOSE LIQUID SERVICE VALVE, RUN COMPRESSOR AND PUMP REFRIGERANT INTO RECEIVER TANK UNTIL 0 LBS. PRESSURE IS OBTAINED ON BACK PRESSURE GAUGE, CLOSE SUCTION SERVICE VALVE.
2. DISCONNECT VALVE FEELER BULB FROM CLAMP ON SUCTION LINE
3. DISCONNECT FLARE FITTINGS AT INLET AND OUTLET OF VALVE, REMOVE VALVE
4. INSTALL NEW VALVE, RECONNECT FLARE FITTINGS, FEELER BULB TO SUCTION LINE, RECHARGE SYSTEM, CHECK FOR LEAKS.

### **CHARGING REFRIGERATION SYSTEM:**

1. ATTACH GAUGE MANIFOLD LINES TO LIQUID AND SUCTION SERVICE VALVE PORTS, AND OPEN SERVICE VALVES.
2. PURGE SYSTEM, PULL A VACUUM ON THE SYSTEM THROUGH THE GAUGE MANIFOLD TO A 30" VACUUM.
3. CORRECT CHARGE OF REFRIGERANT IS NOTED ON THE DATA PLATE, ADD THE CORRECT AMOUNT AND TYPE OF REFRIGERANT.
4. CLOSE SERVICE VALVES AND REMOVE GAUGE MANIFOLD

### **PRESSURE GAUGE READINGS:**

**NORMAL OPERATING PRESSURE RANGE AT (75 F) AMBIENT (ROOM) TEMPERATURE**

**PARTS LIST**

**NAV-3-6-HLT-B**

**REFRIGERATOR SECTION:**

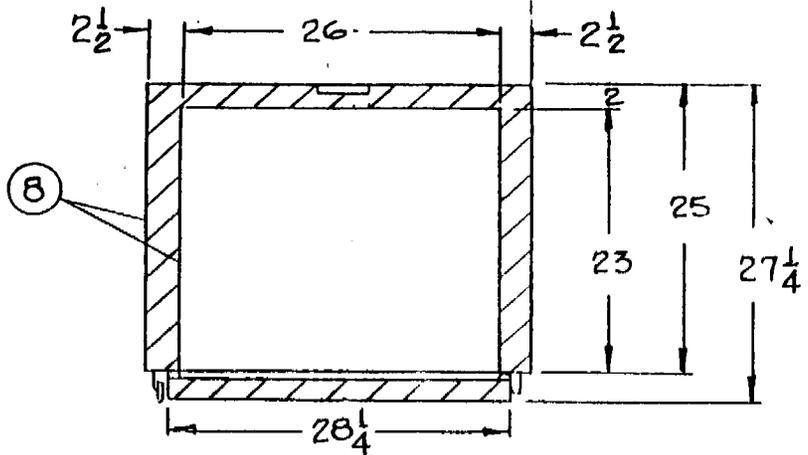
<b><u>ITEM</u></b>	<b><u>PART#</u></b>
<b>COMPRESSOR MOTOR</b>	<b>JR26CIE</b>
<b>COND. FAN MOTOR</b>	<b>050-0259-12</b>
<b>RELAY</b>	<b>040-0090-00</b>
<b>OVERLOAD</b>	<b>071-0369-11</b>
<b>CAPACITOR</b>	<b>014-0032-00</b>
<b>EVAP. FAN MOTOR</b>	<b>F01053</b>
<b>EXPANSION VALVE</b>	<b>AFA-1/4-FC</b>

**FREEZER SECTION:**

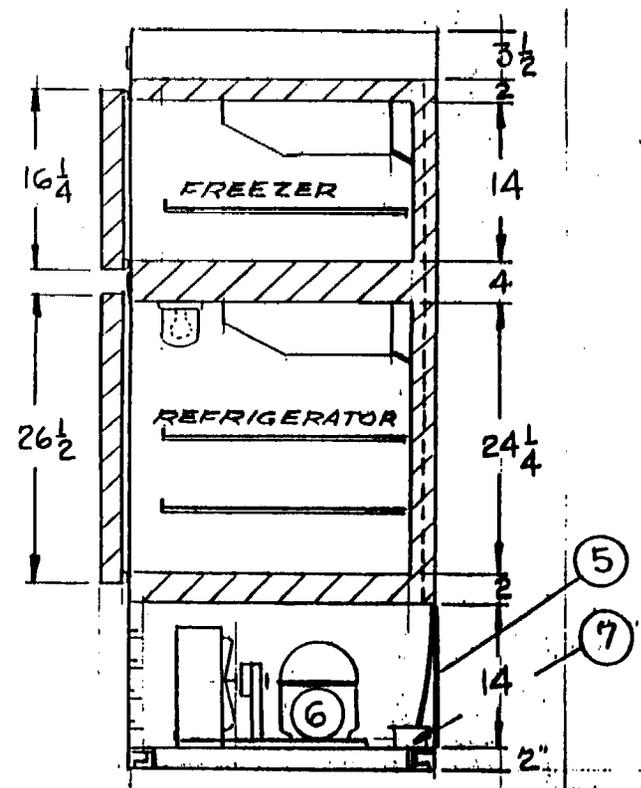
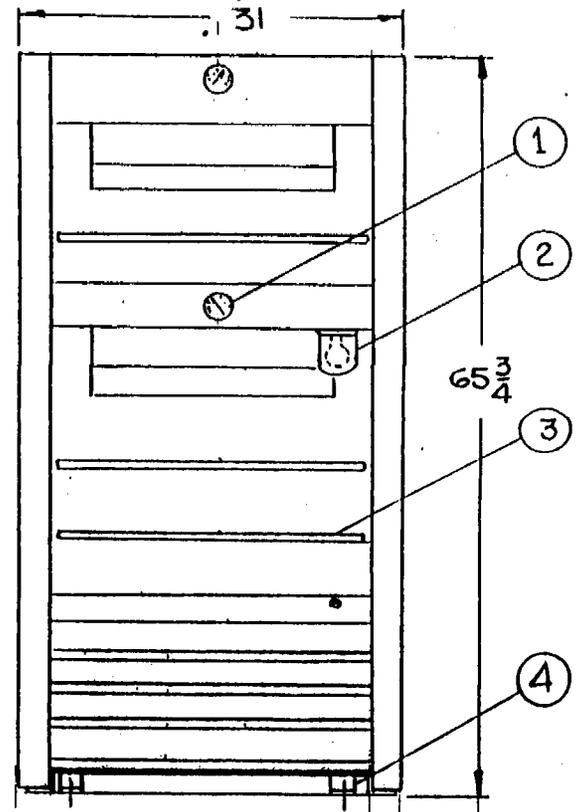
<b>COMPRESSOR MOTOR</b>	<b>AFF5-0027</b>
<b>COND. FAN MOTOR</b>	<b>050-C241-13</b>
<b>RELAY</b>	<b>014-0058</b>
<b>OVERLOAD</b>	<b>071-C100-28</b>
<b>CAPACITOR</b>	<b>014-0038-01</b>
<b>EXPANSION VALVE</b>	<b>AFA-1/4-RC</b>

**COMMON:**

<b>DOOR HANDLE</b>	<b>295-1105-01</b>
<b>DOOR HINGE</b>	<b>295-0217-03</b>



- FEATURES**
1. DIAL THERMOMETER
  2. INTERIOR LIGHT
  3. ADJUSTABLE SPILLPROOF SHELVES
  4. DECK BRACKETS
  5. RAT PROOFING
  6. PULL-OUT CONDENSING UNIT
  7. ELECTRIC CONDENSATE VAPORIZER
  8. STAINLESS STEEL INTERIOR/EXTERIOR



MODEL NAV-3-6-HLT-B					RTF MANUFACTURING		REV
DRAW	DATE	CHK	DATE	SCALE	PART NAME SPEC. SHEET		
<i>JW</i>	11.12.96				PART NO.		

**WARRANTY**

**WE WARRANT TO THE ORIGINAL PURCHASER THAT THIS REFRIGERATOR OR FREEZER WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND SERVICE AS DETERMINED BY US. WE WILL WITHIN ONE YEAR FROM DATE OF ORIGINAL INSTALLATION OR EIGHTEEN MONTHS FROM DATE OF ORIGINAL SHIPMENT FROM THE FACTORY, WHICHEVER IS SOONER, REPLACE WITHOUT CHARGE, ANY PART OR PORTION THEREOF, WHICH IS RETURNED TO US, TRANSPORTATION CHARGES PREPAID TO THE FACTORY, AND WHICH UPON EXAMINATION SHALL DISCLOSE TO OUR SATISFACTION TO BE THUS DEFECTIVE.**

**THIS WARRANTY DOES NOT APPLY TO ANY REPLACEMENT NECESSITATED BY ANY OTHER CAUSES, INCLUDING BUT NOT LIMITED TO, ANY REFRIGERATOR OR FREEZER WHICH HAS BEEN SUBJECT TO ABUSE, MISUSE, NEGLIGENCE, OR ALTERATION UNAUTHORIZED BY US, ACCIDENT OR DAMAGE BY FIRE, ACT OF GOD, OR IN TRANSIT, AND IS IN LIEU OF ALL OTHER WARRANTIES EXCEPT SUCH AS MAY BE SET FORTH IN WRITING AND SIGNED BY US. THIS WARRANTY DOES NOT COVER ANY LABOR COST FOR REPLACING DEFECTIVE PARTS.**

**WE SHALL NOT BE LIABLE FOR DAMAGE OR LOSS DUE TO ANY DELAYS IN REPLACEMENT OR FOR ANY CONSEQUENTIAL DAMAGES.**

**BE ADVISED THAT REMOVAL OF ORIGINAL SERIAL NUMBERS OR DEVIATION FROM THE PUBLISHED INSTALLATION OR OPERATING INSTRUCTIONS, OR FROM THE RATED CAPACITY OF THE REFRIGERATOR OR FREEZER WHEN NOT AUTHORIZED IN WRITING BY US, INVALIDATES THIS WARRANTY.**

**THIS WARRANTY MAY NOT BE MODIFIED EXCEPT IN WRITING SIGNED BY US.**

**RTF MANUFACTURING  
ATMOST REFRIGERATION**

**LOST OR DAMAGED SHIPMENT:**

**ALWAYS CHECK YOUR FREIGHT FOR SHORTAGES FOR SIGNS OF DAMAGE, EVERY TIME YOU RECEIVE A SHIPMENT. IF THERE IS A PROBLEM, IMMEDIATELY BRING IT TO THE ATTENTION OF THE DRIVER AND THEN TAKE THE FOLLOWING STEPS:**

**FOR VISIBLE DAMAGE**

**IF THE CONTAINERS IN YOUR SHIPMENT SHOW VISIBLE SIGNS OF DAMAGE, OPEN THEM IMMEDIATELY TO CHECK THE CONTENTS, AND ASK THE DRIVER TO INSPECT THE CONTENTS WITH YOU. THEN WRITE A COMPLETE DESCRIPTION OF THE DAMAGE ON BOTH COPIES OF THE DELIVERY RECEIPT. AFTER DELIVERY, CONTACT YOUR LOCAL TERMINAL TO HELP YOU DETERMINE IF AN INSPECTION AND FORMAL WRITTEN REPORT IS REQUIRED.**

**OCCASIONALLY, IT MAY BE NECESSARY TO HAVE AN INSPECTOR EXAMINE THE DAMAGED FREIGHT!**

**A CARRIER MAY ALSO REQUEST THAT YOU DO THE INSPECTION YOURSELF AND KEEP A WRITTEN DESCRIPTION IN CASE A CLAIM IS FILED.**

**“ AN INSPECTION REPORT IS NOT A CLAIM”**

**FOR CONCEALED LOSS OR DAMAGE:**

**AS SOON AS POSSIBLE AFTER DELIVERY, UNPACK AND INSPECT YOUR SHIPMENT. IF YOU DISCOVER CONCEALED DAMAGE, REPORT IT IMMEDIATELY TO THE CARRIER, AND REQUEST AN INSPECTION WITHIN 15 DAYS FROM THE DATE IT WAS DELIVERED.**

**HOW TO FILE A CLAIM:**

**A CLAIM AND ITS' SUPPORTING DOCUMENTATION ARE REQUIRED TO BE FILED WITHIN (9) MONTHS OF DELIVERY. FREIGHT CARRIERS WILL NOT PAY A CLAIM UNLESS IT IS FILED, IN WRITING, WITHIN THE 9 MONTH PERIOD.**

**PROCEDURE FOR FILING A CLAIM:**

- A. DETERMINE THE DOLLAR AMOUNT WHICH REPRESENTS YOUR LOSS.**
- B. COMPLETE THE CARRIER'S CLAIM FORM**
- C. COLLECT THE FOLLOWING DOCUMENTS TO SUPPORT YOUR CLAIM--**
  - 1. A VENDOR INVOICE FOR THE GOODS, INCLUDING THE FULL PRICE PAID AFTER ANY DISCOUNTS OR DEDUCTIONS**
  - 2. A COPY OF THE FREIGHT BILL**
  - 3. A COPY OF THE BILL OF LADING**
  - 4. SEND OR FAX YOUR CLAIM AND ALL RELATED DOCUMENTS TO THE CARRIER'S CLAIM DEPARTMENT**

**CLAIM PROCESSING:**

**ONCE YOU REGISTER YOUR CLAIM, THE CARRIER WILL ASSIGN A CLAIM NUMBER AND A CLAIM INVESTIGATOR TO YOUR CLAIM.**

**INSTALLATION, OPERATION, AND  
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**PO# 00077810**

**NAV-6-14-HLT-B  
REFRIGERATOR/FREEZER**

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ATMOST REFRIGERATION  
793 ROUTE 66  
HUDSON NY 12534 9801  
800-836-0744***

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5. DO NOT TURN OR CHANGE ANY VALVES OR CONTROL SETTINGS.
6. DO NOT USE SHARP POINTED SCRAPING DEVICES, WIRE BRUSHES, OR ABRASIVE CLEANERS.
7. DISCONNECT THE CONDENSING UNIT FROM THE POWER LINE BEFORE WORKING AROUND THE CONDENSER

## GENERAL THEORY OF OPERATION

THE CONTROL OF A CONSTANT AND CORRECT TEMPERATURE IN A CABINET DEPENDS ON THE INTERMITTENT CIRCULATION AND EVAPORATION OF A FIXED SUPPLY OF REFRIGERANT IN THE EVAPORATOR.

WITH THE TEMPERATURE CONTROL'S SENSITIVE FEELER BULB ELEMENT LOCATED INSIDE THE CABINET, THE MOTOR COMPRESSOR PUMPS THE HEAT LADEN VAPOR OUT OF THE EVAPORATOR, DOWN THE SUCTION LINE AND INTO THE COMPRESSOR. THIS LOW PRESSURE VAPOR IS SUCKED INTO THE CYLINDERS, COMPRESSED AND FORCED OUT THROUGH THE DISCHARGE VALVES, AS A HIGH PRESSURED VAPOR, INTO THE CONDENSER.

THE SYSTEM FROM THE EXPANSION VALVE OUTLET TO THE DISCHARGE VALVE IN THE COMPRESSOR IS CALLED THE LOW PRESSURE SIDE OF THE SYSTEM.

AS THE HIGH PRESSURE VAPOR ENTERS THE CONDENSER, THE HIGH TEMPERATURE VAPOR LOSES ITS' HEAT TO THE AIR COOLED CONDENSER. THE RESULTS IN THE HIGH PRESSURED VAPOR BEING CONDENSED INTO A LIQUID REFRIGERANT. THIS LIQUID THEN PASSES THROUGH THE LIQUID LINE INTO THE EVAPORATOR.

THE PART OF THE SYSTEM FROM THE DISCHARGE VALVE, THROUGH THE CONDENSER AND LIQUID LINE, TO THE INLET OF THE EXPANSION VALVE, IS CALLED THE HIGH PRESSURE SIDE OF THE SYSTEM.

THE LIQUID REFRIGERANT IN THE EVAPORATOR IS SUBJECT TO A MUCH LOWER PRESSURE, DUE TO THE SUCTION OF THE COMPRESSOR; THEREFORE EVAPORATION OF THE LIQUID REFRIGERANT TAKES PLACE AT A REDUCED PRESSURE AND TEMPERATURE WITH THE RESULT THAT HEAT IS REMOVED FROM THE REFRIGERATED AREA. AS THE PRESSURE AND TEMPERATURE IN THE EVAPORATOR IS BEING LOWERED BY THE COMPRESSOR SUCTION, A POINT IS REACHED WHERE SUFFICIENT HEAT HAS BEEN REMOVED FROM THE REFRIGERATED AREA TO LOWER THE TEMPERATURE TO A POINT WHERE THE TEMPERATURE CONTROL WILL BREAK THE ELECTRIC CIRCUIT AND STOP THE COMPRESSOR. THE LOWERED SUCTION PRESSURE WILL RISE AGAIN, WHEN THE TEMPERATURE IN THE CABINET RISES AND THE TEMPERATURE CONTROL SENSES THIS, IT TURNS THE COMPRESSOR BACK ON AND REPEATS THE ENTIRE PROCESS AGAIN.

## INSTALLATION

### **UNCRATING:**

ALL REFRIGERATORS AND FREEZERS ARE STRONGLY CRATED TO INSURE DELIVERY IN GOOD CONDITION UNDER ORDINARY HANDLING BY COMMERCIAL CARRIERS. HOWEVER, IT IS IMPORTANT THAT INSPECTION FOR POSSIBLE DAMAGE IN TRANSIT BE MADE IMMEDIATELY UPON RECEIPT OF THE UNIT.

**NOTE! ANY VISIBLE DAMAGE TO THE CRATE, OR TO THE UNIT ITSELF SHOULD BE NOTED ON THE CARRIER DELIVERY RECEIPT. THIS SIGNIFIES THAT A CLAIM FOR DAMAGES WILL BE MADE.**

### **REMOVAL OF DOOR:**

IF FOR ANY REASON THE DOOR HAS TO BE REMOVED, REMOVE THE HINGE COVERS AND THEN REMOVE THE SCREWS HOLDING THE HINGE AND DOOR TO THE FACE OF THE REFRIGERATOR. CAUTION! DO NOT REMOVE HINGED FROM THE DOORS.

### **LOCATION:**

IT IS IMPORTANT THAT THERE IS FREE CIRCULATION OF DRY, COOL, CLEAN AIR AROUND THE REFRIGERATOR OR FREEZER. OBTAIN BEST VENTILATION POSSIBLE. KEEP THE UNIT AT SOME DISTANCE FROM FURNACES, OVENS, ETC. AVOID LOCATIONS WHERE THE ROOM TEMPERATURE WILL DROP BELOW THE TEMPERATURE TO BE MAINTAINED IN THE REFRIGERATOR. KEEP AT LEAST 3" CLEARANCE AT THE BACK, AND AT EACH END TO ALLOW FOR BEST VENTILATION.

### **LEVELING:**

WHEN THE REFRIGERATOR OR FREEZER IS IN PROPER POSITION, MAKE SURE IT IS SITTING LEVEL FROM SIDE TO SIDE AND FROM FRONT TO REAR.

### **DOOR SEAL:**

CLOSE DOOR(S) AND CHECK EACH DOOR FOR PROPER GASKET SEAL. THE GASKET SHOULD SEAT ON THE FRONT SURFACE OF THE UNIT, THIS IS TO PREVENT LEAKAGE OR AIR INTO THE REFRIGERATOR OR FREEZER. IF ADJUSTMENT IS NECESSARY, LOOSEN THE DOOR STRIKE LOCATED ON THE BODY OF THE UNIT. **MOVE STRIKE OUTWARD TO DECREASE GASKET PRESSURE,, MOVE STRIKE INWARD TO INCREASE PRESSURE.** MOVE THE STRIKE IN OR OUT A BIT AT A TIME. WHEN PROPER ADJUSTMENT HAS BEEN MADE, BE SURE THE HOLDING SCREWS ARE TIGHTENED.

**NOTE: PROPER ADJUSTMENT CAN BE DETERMINED BY INSERTING A PIECE OF PAPER BETWEEN THE DOOR GASKET AND THE FRONT DOOR GASKET HITTING SURFACE. PAPER SHOULD INDICATE DRAG COMPLETELY AROUND DOOR.**

**SHELVES:**

SHELVES ARE SUPPORTED ON SMALL BRACKETS CALLED PILASTER CLIPS, WHICH ARE SET INTO VERTICAL PILASTER STRIPS FASTENED TO THE WALLS OF THE REFRIGERATOR. EACH SHELF IS SUPPORTED BY FOUR (4) PILASTER CLIPS. PILASTER CLIPS ARE LOOSENED BY RAISING THE BOTTOM PART UP AND OUT AND MAY BE MOVED UP OR DOWN TO ADJUST THE HEIGHT OF THE SHELF ON 1/2" SPACINGS.

\*\* THE HOLES AT THE SAME LEVEL HAVE A CORRESPONDING NUMBER TO PERMIT QUICK AND EASY SHELF ADJUSTMENT.

**POWER REQUIREMENTS:**

THE UNIT IS NOW READY TO BE CONNECTED TO A SUITABLE POWER OUTLET.

**CAUTION!** CHECK THE ELECTRICAL REQUIREMENTS ON THE IDENTIFICATION PLATE. MAKE SURE THE POWER BEING SUPPLIED IS THE SAME AS IS ON THE IDENTIFICATION PLATE.

**CAUTION!** BE SURE THAT THE POWER LINE TO WHICH THE REFRIGERATOR OR FREEZER IS CONNECTED, IS A CONTINUOUS CIRCUIT, AND CANNOT BE ACCIDENTALLY CUT OFF OR CONTROLLED BY SOME TYPE OF TIME SWITCH CUT OFF. OBTAIN A SEPARATE CIRCUIT FOR PROPER OPERATION OF THE UNIT.

**CAUTION!** FOR SATISFACTORY OPERATION, THE VOLTAGE SUPPLY SHOULD NOT VARY MORE THAN PLUS OR MINUS 10% OF THE REQUIRED OPERATING VOLTAGE.

**STARTING THE COMPRESSOR:**

**CAUTION! DO NOT TURN OR CHANGE ANY SERVICE VALVE OR CONTROL SETTING.**

ALL SERVICE VALVES ARE LEFT IN THE OPEN POSITION, ON SELF CONTAINED, HERMETICALLY SEALED SYSTEMS, DURING THE TEST RUN, BEFORE BEING SHIPPED FROM THE FACTORY. CONNECT THE ELECTRICAL CURRENT TO THE JUNCTION BOX LOCATED IN THE UNIT COMPARTMENT.

NEXT, CHECK THE ELECTRICAL SUPPLY TO BE SURE THAT POWER IS BEING RECEIVED AT THE JUNCTION BOX BY USING A TEST LIGHT. IF CURRENT IS BEING RECEIVED, THE TEST LIGHT WILL LIGHT UP. THE UNIT IS NOW READY TO START.

MOVE THE SWITCH TO THE "ON" POSITION.

**CONTROLS AND ADJUSTMENTS:**

ALL CONTROLS ARE FACTORY SET FOR PROPER OPERATION. THEY SHOULD NOT BE CHANGED UNLESS IT IS SHOWN BY USE OF AN ACCURATE THERMOMETER THAT THE CABINET IS NOT HOLDING CORRECT OPERATING TEMPERATURE.

## OPERATION

### **LOADING:**

IT IS IMPORTANT THAT THE REFRIGERATOR OR FREEZER IS NOT LOADED WITH PERISHABLES UNTIL THE INSIDE TEMPERATURE HAS BEEN BROUGHT DOWN TO THE PROPER OPERATING LEVEL. AFTER STARTING THE REFRIGERATION UNIT, ALLOW IT TO OPERATE FOR ABOUT FOUR HOURS BEFORE LOADING.

**DO NOT OVERLOAD—LEAVE ROOM FOR CIRCULATING COOL AIR.**

### **MAINTENANCE:**

#### **CLEANING:**

EXTERIOR AND / OR EXTERIOR (STAINLESS STEEL) WASH WITH A MILD SOAP SOLUTION, RINSE WITH CLEAN WATER, WIPE DRY WITH A CLEAN SOFT CLOTH.

#### **CAUTION! DO NOT USE ABRASIVE CLEANERS**

ABOUT ONCE A MONTH, CLEAN DOOR GASKET WITH A MILD SOAP AND WATER SOLUTION. BE SURE TO WIPE THOROUGHLY DRY.

#### **DISCONNECTING:**

IF THE REFRIGERATOR AND OR FREEZER IS NOT TO BE USED FOR AN EXTENDED PERIOD OF TIME, DISCONNECT THE ELECTRIC PLUG AND OPEN THE DOORS. AS SOON AS THE UNIT HAS HAD A CHANCE TO WARM UP TO ROOM TEMPERATURE, WIPE ALL PARTS DRY. LEAVE ALL DOORS OPEN AND LATER CHECK TO SEE THAT NO MOISTURE HAS COLLECTED ON ANY OF THE PARTS.

#### **CONDENSERS:**

**WARNING! DISCONNECT THE CONDENSING UNIT FROM THE POWER LINE BEFORE WORKING AROUND THE CONDENSER.**

**IT IS IMPORTANT THAT THERE IS A FREE CIRCULATION OF AIR AROUND AND THROUGH THE CONDENSER. THE CONDENSER MUST BE KEPT CLEAN AT ALL TIMES. UNSATISFACTORY OPERATION WILL RESULT FROM FAILURE TO OBSERVE THESE POINTS. INSPECT THE CONDENSER FREQUENTLY, CLEAN DUST AND OTHER OBSTRUCTIONS FROM THE CONDENSER WITH A VACUUM CLEANER OR SOFT WIRE BRUSH. DO NOT USE A WIRE BRUSH!!**

## TROUBLE SHOOTING CHART

<u>OBSERVATION</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
UNIT DOES NOT OPERATE	1. POWER FAILURE AT SOURCE 2. MAIN SWITCH OPEN 3. BURNED OUT FUSE 4. CONTROL OUT OF ADJUSTMENT 5. CONTROL DEFECTIVE 6. LOW VOLTAGE  7. DEFECTIVE OVERLOAD PROTECTOR 8. DEFECTIVE RELAY 9. DEFECTIVE CAPACITOR	CORRECT CLOSE SWITCH REPLACE ADJUST REPLACE CORRECT LINE VOLTAGE  REPLACE REPLACE REPLACE
UNIT DOES NOT SHUT OFF	1. CONTROL OUT OF ADJUSTMENT  2. CONTROL DEFECTIVE 3. UNDERCHARGE OF REFRIGERANT 4. DIRTY CONDENSER 5. AIR TEMP TOO HIGH  6. CONDENSER FAN INOPERATIVE 7. AIR RESTRICTION DUE TO OVER CROWDED SHELVES 8. COMPRESSOR INEFFICIENT 9. EXPANSION VALVE STUCK 10. POOR CONTACT, TX VALVE BULB TO SUCTION LINE	CHECK TEMP AND ADJUST CONTROL  REPLACE ADD REFRIGERANT CLEAN PROVIDE SUFFICIENT AIR FLOW OVER CONDENSER REPLACE REARRANGE PRODUCT REPLACE CONDENSER REPAIR OR REPLACE TIGHTEN CLAMP HOLDING BULB TO SUCTION LINE
HIGH HEAD PRESSURE	1. AIR IN SYSTEM 2. OVERCHARGE OF REFRIGERANT 3. DIRTY CONDENSER 4. AIR TEMP TOO HIGH	PURGE PURGE CLEAN PROVIDE SUFFICIENT AIR FLOW
LOW HEAD PRESSURE	1. UNDERCHARGE OF REFRIGERANT 2. BROKEN SUCTION VALVE LEAF  3. OPERATING IN <u>TOO</u> LOW ROOM TEMP	ADD REFRIGERANT REPLACE COMPRESSOR RELOCATE UNIT OR RAISE ROOM TEMP
SHORT CYCLING	1. CONTROL OUT OF ADJUSTMENT	ADJUST CONTROL

## REPLACEMENT INSTRUCTIONS

### **MOTOR COMPRESSOR:**

1. DISCONNECT MOTOR COMPRESSOR FROM POWER AND CIRCUIT FROM CONTROL.
2. PURGE ENTIRE REFRIGERANT CHARGE, RECLAIM REFRIGERANT IF POSSIBLE.
3. REMOVE BURNED OUT MOTOR COMPRESSOR AND MOUNT REPLACEMENT.  
**(DO NOT CONNECT SUCTION AND DISCHARGE LINE)**
4. ATTACH REFRIGERANT DRUM TO SUCTION LINE, PURGE LOW SIDE OF SYSTEM.
5. INSTALL NEW FILTER DRIER, CONNECT LIQUID AND SUCTION LINES, PULL DEEP VACUUM ON ENTIRE SYSTEM.
6. RE-CONNECT MOTOR COMPRESSOR TO POWER CIRCUIT, AND CONTROL.

### **CONTROLS:**

1. DISCONNECT REFRIGERATOR OR FREEZER FROM POWER CIRCUIT.
2. REMOVE CONTROL COVER. REMOVE LEADS FROM TERMINALS.  
**\*\*NOTE POSITION OF WIRES FOR REPLACING ON PROPER TERMINALS.**
3. DISCONNECT FEELER BULB, AND REMOVE CAPILLARY TUBE FROM INSIDE UNIT.
4. REMOVE BOLTS HOLDING CONTROL TO BASE FRAME, REMOVE CONTROL AND INSTALL NEW CONTROL FOLLOWING THE ABOVE PROCEDURE IN REVERSE.

### **GASKETS: (DOOR)**

1. THE DOOR GASKET IS A COMPRESSION STYLE, SNAP IN GASKET. TO REPLACE, MERELY PULL ORIGINAL GASKET FROM DOOR AND SNAP INN NEW GASKET INTO THE TRANSITION PIECE SLOT.

### **HANDLE:**

TO REMOVE THE EDGEMOUNT HANDLE, REMOVE (3) SCREWS ON SIDE OF CABINET.

### **HINGES:**

1. OPEN DOOR, SNAP HINGE COVER LOOSE FROM INSIDE EDGE OF HINGE WITH A SCREWDRIVER.
2. CLOSE DOOR, REMOVE SCREWS HOLDING HINGE TO DOOR AND CABINET, POSITION NEW HINGE AND REPLACE SCREWS.

### **DEHYDRATOR:**

1. CLOSE LIQUID SERVICE VALVE, RUN COMPRESSOR AND PUMP REFRIGERANT INTO RECEIVER TANK UNTIL 0 LBS. PRESSURE READING IS OBTAINED ON THE BACK PRESSURE GAUGE, CLOSE SUCTION SERVICE VALVE.
2. REMOVE DEHYDRATOR FROM LIQUID LINE, INSTALL NEW DEHYDRATOR, CHARGE SYSTEM, CHECK FOR LEAKS.

### **ANTI -SWEAT AND MULLION HEATERS:**

1. TURN OFF POWER
2. REMOVE PLASTIC RETAINER STRIP
3. DISCONNECT HEATER WIRE AND REMOVE

## **REPLACEMENT INSTRUCTIONS (CONT'D)**

### **EXPANSION VALVES:**

1. CLOSE LIQUID SERVICE VALVE, RUN COMPRESSOR AND PUMP REFRIGERANT INTO RECEIVER TANK UNTIL 0 LBS. PRESSURE IS OBTAINED ON BACK PRESSURE GAUGE, CLOSE SUCTION SERVICE VALVE.
2. DISCONNECT VALVE FEELER BULB FROM CLAMP ON SUCTION LINE
3. DISCONNECT FLARE FITTINGS AT INLET AND OUTLET OF VALVE, REMOVE VALVE
4. INSTALL NEW VALVE, RECONNECT FLARE FITTINGS, FEELER BULB TO SUCTION LINE, RECHARGE SYSTEM, CHECK FOR LEAKS.

### **CHARGING REFRIGERATION SYSTEM:**

1. ATTACH GAUGE MANIFOLD LINES TO LIQUID AND SUCTION SERVICE VALVE PORTS, AND OPEN SERVICE VALVES.
2. PURGE SYSTEM, PULL A VACUUM ON THE SYSTEM THROUGH THE GAUGE MANIFOLD TO A 30" VACUUM.
3. CORRECT CHARGE OF REFRIGERANT IS NOTED ON THE DATA PLATE, ADD THE CORRECT AMOUNT AND TYPE OF REFRIGERANT.
4. CLOSE SERVICE VALVES AND REMOVE GAUGE MANIFOLD

### **PRESSURE GAUGE READINGS:**

**NORMAL OPERATING PRESSURE RANGE AT (75 F) AMBIENT (ROOM) TEMPERATURE**

**PARTS LIST**

**NAV-6-14-HLT-B**

**REFRIGERATOR:**

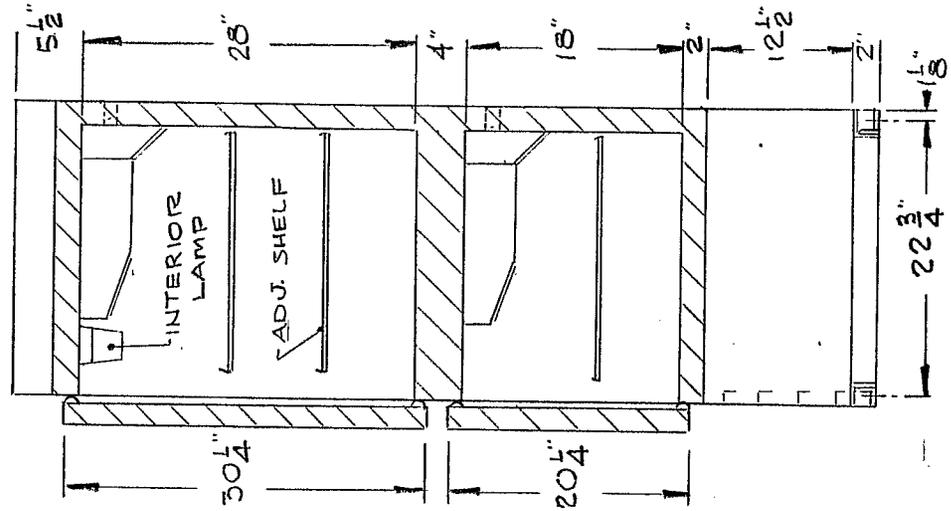
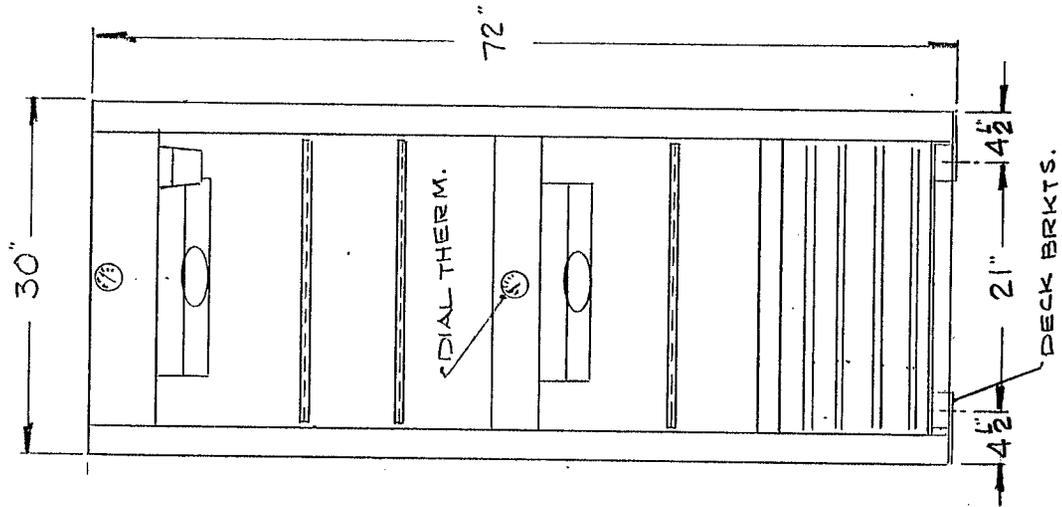
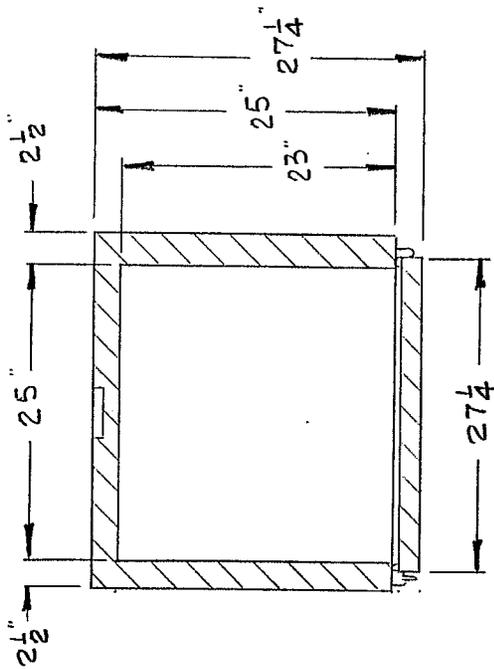
<b><u>DESCRIPTION</u></b>	<b><u>PART NO.</u></b>	<b><u>MANUFACTURER</u></b>
TEMP CONTROL	010-1409	RANCO INC.
EXPANSION VALVE	FV-1/2-C	SPORLAN VALVE. CO
COND. FAN MOTOR	050-0259-12	COPELAND CORP.
RELAY	040-0090-06	COPELAND CORP.
CAPACITOR	014-6032-00	COPELAND CORP.
OVERLOAD	0071-0369-15	COPELAND CORP.

**FREEZER:**

TEMP CONTROL	010-14008	RANCO INC.
EXPANSION VALVE	FR-1/2-Z	SPORLAN VALVE CO.
RELAY	040--C411-66	COPELAND CORP.
CAPACITOR	014-0038-01	COPELAND CORP.
OVERLOAD	071-0369-11	COPELAND CORP.

**COMMON:**

EVAP. FAN MOTOR	5012S	BOHN REFRIGERATION
DEHYDRATOR	C-052	SPORLAN VALVE CO.
THERMOMETER	138-1056	MILJOCO
DOOR HINGE	123-1018	ATMOST REFRIGERATION
DOOR LATCH	122-1044	ATMOST REFRIGERATION
DOOR GASKET	04-025--001	ATMOST REFRIGERATION
DOOR	05-025-001	ATMOST REFRIGERATION
LOUVERED PANEL	01-025-002	ATMOST REFRIGERATION
SHELVES	06-213-01M	ATMOST REFRIGERATION



MODEL NAV-6-14-HLT-B					<b>RTF MANUFACTURING</b>		<u>REV.</u>
<u>DRAW</u>	<u>DATE</u>	<u>CHK</u>	<u>DATE</u>	<u>SCALE</u>	PART NAME SPEC. SHEET		
JW	2-4-99	●			PART NO.		

WARRANTY

**WE WARRANT TO THE ORIGINAL PURCHASER THAT THIS REFRIGERATOR OR FREEZER WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND SERVICE AS DETERMINED BY US. WE WILL WITHIN ONE YEAR FROM DATE OF ORIGINAL INSTALLATION OR EIGHTEEN MONTHS FROM DATE OF ORIGINAL SHIPMENT FROM THE FACTORY, WHICHEVER IS SOONER, REPLACE WITHOUT CHARGE, ANY PART OR PORTION THEREOF, WHICH IS RETURNED TO US, TRANSPORTATION CHARGES PREPAID TO THE FACTORY, AND WHICH UPON EXAMINATION SHALL DISCLOSE TO OUR SATISFACTION TO BE THUS DEFECTIVE.**

**THIS WARRANTY DOES NOT APPLY TO ANY REPLACEMENT NECESSITATED BY ANY OTHER CAUSES, INCLUDING BUT NOT LIMITED TO, ANY REFRIGERATOR OR FREEZER WHICH HAS BEEN SUBJECT TO ABUSE, MISUSE, NEGLIGENCE, OR ALTERATION UNAUTHORIZED BY US, ACCIDENT OR DAMAGE BY FIRE, ACT OF GOD, OR IN TRANSIT, AND IS IN LIEU OF ALL OTHER WARRANTIES EXCEPT SUCH AS MAY BE SET FORTH IN WRITING AND SIGNED BY US. THIS WARRANTY DOES NOT COVER ANY LABOR COST FOR REPLACING DEFECTIVE PARTS.**

**WE SHALL NOT BE LIABLE FOR DAMAGE OR LOSS DUE TO ANY DELAYS IN REPLACEMENT OR FOR ANY CONSEQUENTIAL DAMAGES.**

**BE ADVISED THAT REMOVAL OF ORIGINAL SERIAL NUMBERS OR DEVIATION FROM THE PUBLISHED INSTALLATION OR OPERATING INSTRUCTIONS, OR FROM THE RATED CAPACITY OF THE REFRIGERATOR OR FREEZER WHEN NOT AUTHORIZED IN WRITING BY US, INVALIDATES THIS WARRANTY.**

**THIS WARRANTY MAY NOT BE MODIFIED EXCEPT IN WRITING SIGNED BY US.**

**RTF MANUFACTURING  
ATMOST REFRIGERATION**

**LOST OR DAMAGED SHIPMENT:**

**ALWAYS CHECK YOUR FREIGHT FOR SHORTAGES FOR SIGNS OF DAMAGE, EVERY TIME YOU RECEIVE A SHIPMENT. IF THERE IS A PROBLEM, IMMEDIATELY BRING IT TO THE ATTENTION OF THE DRIVER AND THEN TAKE THE FOLLOWING STEPS:**

**FOR VISIBLE DAMAGE**

**IF THE CONTAINERS IN YOUR SHIPMENT SHOW VISIBLE SIGNS OF DAMAGE, OPEN THEM IMMEDIATELY TO CHECK THE CONTENTS, AND ASK THE DRIVER TO INSPECT THE CONTENTS WITH YOU. THEN WRITE A COMPLETE DESCRIPTION OF THE DAMAGE ON BOTH COPIES OF THE DELIVERY RECEIPT. AFTER DELIVERY, CONTACT YOUR LOCAL TERMINAL TO HELP YOU DETERMINE IF AN INSPECTION AND FORMAL WRITTEN REPORT IS REQUIRED.**

**OCCASIONALLY, IT MAY BE NECESSARY TO HAVE AN INSPECTOR EXAMINE THE DAMAGED FREIGHT!**

**A CARRIER MAY ALSO REQUEST THAT YOU DO THE INSPECTION YOURSELF AND KEEP A WRITTEN DESCRIPTION IN CASE A CLAIM IS FILED.**

**“ AN INSPECTION REPORT IS NOT A CLAIM”**

**FOR CONCEALED LOSS OR DAMAGE:**

**AS SOON AS POSSIBLE AFTER DELIVERY, UNPACK AND INSPECT YOUR SHIPMENT. IF YOU DISCOVER CONCEALED DAMAGE, REPORT IT IMMEDIATELY TO THE CARRIER, AND REQUEST AN INSPECTION WITHIN 15 DAYS FROM THE DATE IT WAS DELIVERED.**

**HOW TO FILE A CLAIM:**

**A CLAIM AND ITS' SUPPORTING DOCUMENTATION ARE REQUIRED TO BE FILED WITHIN (9) MONTHS OF DELIVERY. FREIGHT CARRIERS WILL NOT PAY A CLAIM UNLESS IT IS FILED, IN WRITING, WITHIN THE 9 MONTH PERIOD.**

**PROCEDURE FOR FILING A CLAIM:**

- A. DETERMINE THE DOLLAR AMOUNT WHICH REPRESENTS YOUR LOSS.**
- B. COMPLETE THE CARRIER'S CLAIM FORM**
- C. COLLECT THE FOLLOWING DOCUMENTS TO SUPPORT YOUR CLAIM--**
  - 1. A VENDOR INVOICE FOR THE GOODS, INCLUDING THE FULL PRICE PAID AFTER ANY DISCOUNTS OR DEDUCTIONS**
  - 2. A COPY OF THE FREIGHT BILL**
  - 3. A COPY OF THE BILL OF LADING**
  - 4. SEND OR FAX YOUR CLAIM AND ALL RELATED DOCUMENTS TO THE CARRIER'S CLAIM DEPARTMENT**

**CLAIM PROCESSING:**

**ONCE YOU REGISTER YOUR CLAIM, THE CARRIER WILL ASSIGN A CLAIM NUMBER AND A CLAIM INVESTIGATOR TO YOUR CLAIM.**



Figure A-1 Refrigerator Base



Figure A-2 Front View



Figure A-3 Front Side View



Figure A-4 Side View



Figure A-5 Open Refrigerator View



Figure A-6 Open Freezer View



Figure A-7 Control Panel View

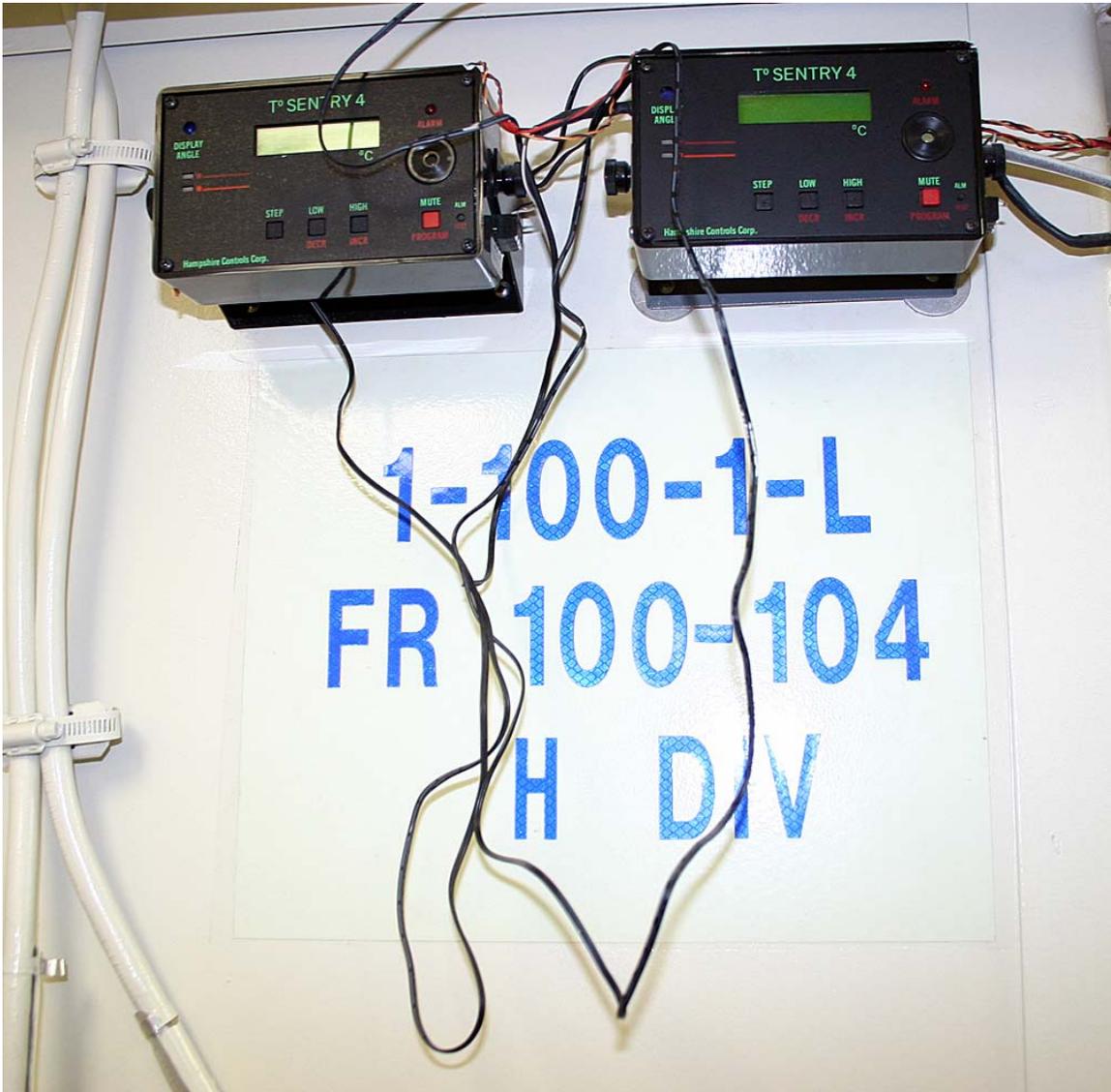


Figure A-8 Alarm View





FOLD HERE AND TAPE SECURELY  
PLEASE DO NOT STAPLE

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INCLUDE COMPLETE ADDRESS

**USE PROPER  
POSTAGE**

FOR OFFICE USE ONLY

COMMANDER  
CODE 310 BLDG 1389  
NAVSURFWARCENDIV NSDSA  
4363 MISSILE WAY  
PORT HUENEME, CA 93043-4307

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FOLD HERE AND TAPE SECURELY  
PLEASE DO NOT STAPLE