



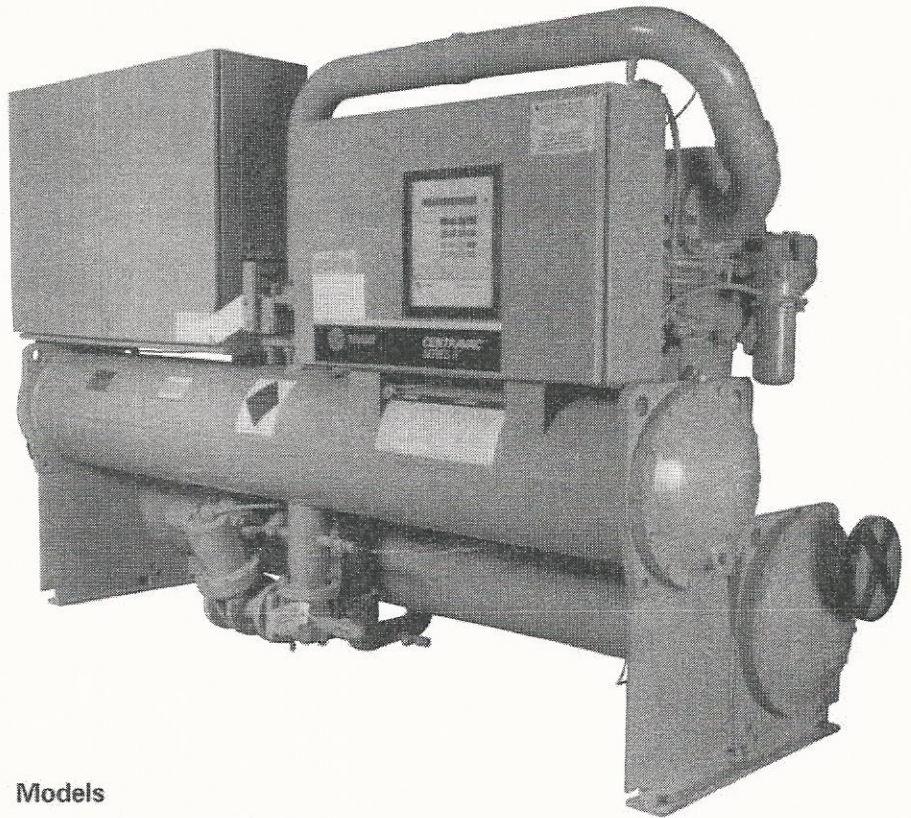
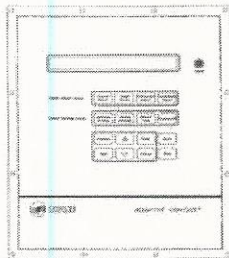
Model # RTHB18066000 0000WA3LF2LFV0Q40  
 Serial# u99m04018  
 Year: 1999  
 Tons: 180  
 460/3/60  
 R22

# Installation Operation Maintenance

## RTHB-IOM-1

|                 |                                       |
|-----------------|---------------------------------------|
| Library         | Service Literature                    |
| Product Section | Refrigeration                         |
| Product         | Rotary Liquid Chillers - Water-Cooled |
| Model           | RTHB                                  |
| Literature Type | Installation, Operation, Maintenance  |
| Sequence        | 1                                     |
| Date            | February 1994                         |
| File No.        | SV-RF-RLC-RTHB-IOM-1-294              |
| Supersedes      | Original                              |

### Series R® Water-Cooled Hermetic CenTraVac® Rotary Liquid Chillers



#### Models

- |          |          |
|----------|----------|
| RTHB-130 | RTHB-255 |
| RTHB-150 | RTHB-300 |
| RTHB-180 | RTHB-380 |
| RTHB-215 | RTHB-450 |

Since The Trane Company has a policy of continuous product improvement, it reserves the right to change specifications and design without notice. The installation and servicing of the equipment referred to in this booklet should be done by qualified, experienced technicians.

## 1-10. MODEL NUMBER CODING SYSTEM

The model numbers for the unit, the compressor, and the starter are comprised of numbers and letters which represent features of the equipment. Shown on the chart in Figure 1-3 are samples of typical unit, compressor, and starter model numbers, followed by the coding system for each.

Each position, or group of positions, in the number is used to represent a feature. For example, in Figure 1-3, position 08 of the unit model number, Unit Voltage, contains the letter "F". From the chart, it can be seen that an "F" in this position means that the unit voltage is 460/60/3.

RTHB 180111000000 <sup>WA 3</sup> ~~WA 3~~ L F 2 L F Y O Q U O

The Series R unit model number is as follows:

RTH B 150 F M A 0 0 L W P 0 T 0 U N N 3 L F 2 L F V 0 Q U  
 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 (digit position for above)

### Digits 01, 02, 03 — Series R® CTV

RTH = Series R CenTraVac®

### Digit 04 — Development Sequence

B = 2nd Major Development

### Digits 05, 06, 07 — Nominal Tons

130 = 130 Nominal Tons  
 150 = 150 Nominal Tons  
 180 = 180 Nominal Tons  
 215 = 215 Nominal Tons  
 255 = 255 Nominal Tons  
 300 = 300 Nominal Tons  
 380 = 380 Nominal Tons  
 450 = 450 Nominal Tons

### Digit 08 — Unit Voltage

A = 200/60/3  
 C = 230/60/3  
 M = 346/50/3  
 D = 380/60/3  
 R = 380/50/3  
 N = 400/50/3  
 U = 415/50/3  
 F = 460/60/3  
 H = 575/60/3  
 S = SPECIAL

### Digit 09

L = Lowest Nominal Kw Motor for Compressor Size  
 M = Medium Nominal Kw Motor for Compressor Size  
 H = Highest Nominal Kw Motor for Compressor Size

### Digits 10, 11 — Design Sequence

AO = First Design, etc. Will increment when parts are affected for service purposes.

### Digit 12 — Unit Specials

0 = No Unit Specials  
 C = All Unit Specials are denoted by digits elsewhere in the model number  
 S = Unit Has An Uncatagorized Special not denoted by a digit elsewhere in the model number

### Digit 13 — Shell Length

N = Standard (Short) Shells  
 L = High Eff. (Long) Shells  
 E = Extended Shells

### Digit 14 — Unit Structure

W = Welded  
 B = Separable

### Digit 15 — Control Options

0 = Without Options Module  
 P = With Options Module

### Digit 16 — Printer Interface

0 = Without Printer Interface  
 P = With Printer Interface

### Digit 17 — ICS Interface

0 = Without Tracer Interface  
 T = Tracer Communications (COMM 3)  
 M = Tracer Summit Communications (COMM 4)

### Digit 18 — Remote CLD Display Module

0 = Without  
 R = With

### Digit 19 — Starter Type

R = Remote Starter (See Starter Model No.)  
 U = Unit Mounted Starter (See Starter Model No.)

### Digit 20 — Evap Temp Range

N = Standard and Low Temp Range (Above 20 Deg F)  
 V = Very Low Temp Range (20 Deg F and Below)

### Digit 21 — Design Pressure Ratio

N = Standard Pressure Ratio  
 S = Special Customer Option

### Digit 22 — Evap Water Passes

2 = 2 Pass  
 3 = 3 Pass  
 4 = 4 Pass  
 S = Special Customer Option

### Digit 23 — Evap Connections

L = 150 psi Flanged Connections  
 H = 300 psi Flanged Connections  
 M = 300 psi Marine Grooved Connections  
 S = Special Customer Option

### Digit 24 — Evap Tubes

F = Standard 06A High-Perf Tubes  
 M = Smooth Bore Copper Tubes  
 S = Special Customer Option

### Digit 25 — Cond Water Passes

2 = 2 Pass  
 3 = 3 Pass  
 S = Special Customer Option

### Digit 26 — Cond Connections

L = 150 psi Flanged Connections  
 H = 300 psi Flanged Connections  
 M = 300 psi Marine Grooved Connections  
 S = Special Customer Option

### Digit 27 — Cond Tubes

F = Standard I-E Finned Tubes  
 G = Smooth Bore Copper Tubes  
 H = Smooth Bore 90/10 CU-NI Tubes

### Digit 28 — Isolation Valve

0 = No Condenser Isolation Valve  
 R = With Condenser Isolation Valve

### Digit 30 — Thermal Insulation

0 = Without Thermal Insulation  
 Q = With Thermal Insulation  
 S = Special Customer Option

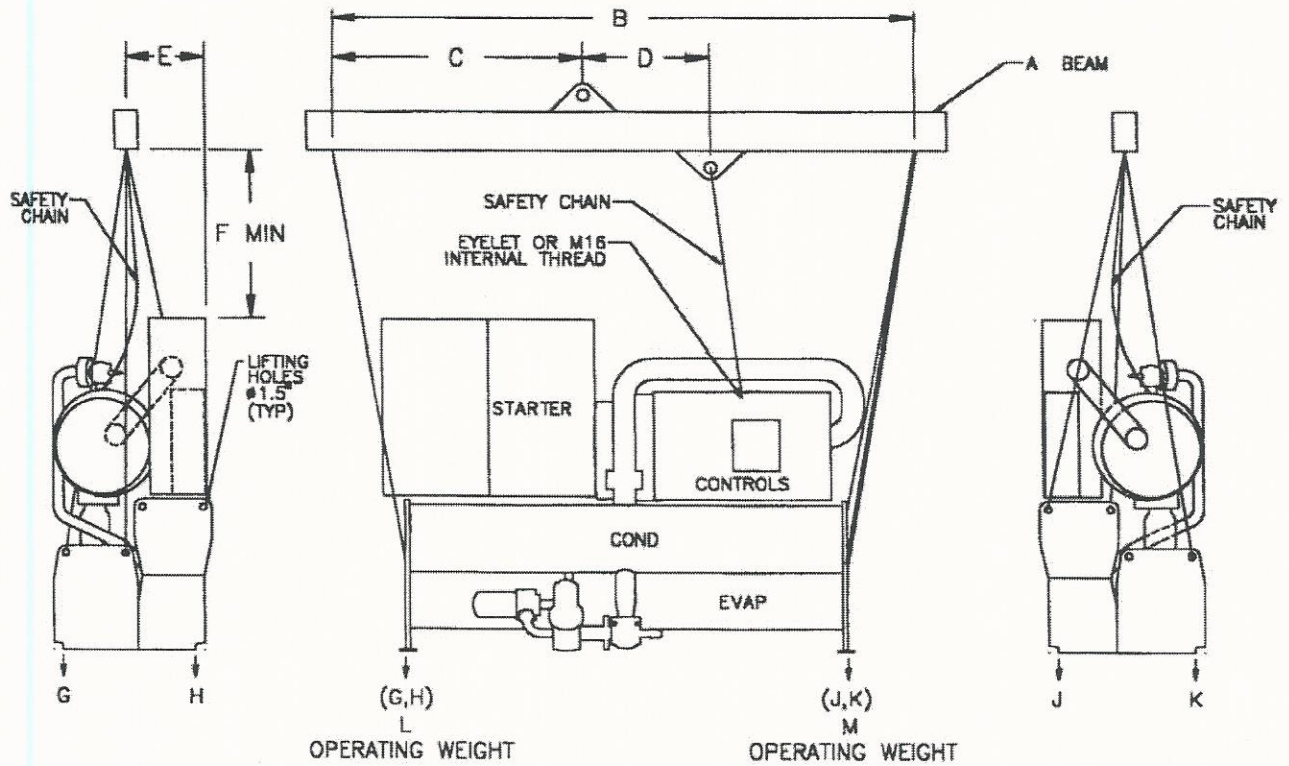
### Digit 31 — Agency Listing

0 = No Agency Listing  
 U = UL Listed  
 C = CSA Listed  
 B = UL and CSA Listed

Note: Position numbers not shown are currently unassigned. Not all combinations are available on all sizes.

Figure 1-3.

Model Number Coding System  
 (Continued on next page)



NOTES:

1. LIFTING CHAINS (CABLES) WILL NOT BE THE SAME LENGTH. ADJUST TO KEEP UNIT LEVEL WHILE LIFTING.
2. ATTACH SAFETY CHAIN (CABLE) AS SHOWN WITHOUT TENSION. NOT AS A LIFTING CHAIN, BUT TO PREVENT UNIT FROM ROLLING.
3. DO NOT FORK LIFT UNIT.
4. WEIGHTS ARE TYPICAL FOR UNITS WITH R-22 CHARGE.

WARNING: DO NOT USE CABLES (CHAINS) OR SLINGS EXCEPT AS SHOWN. OTHER LIFTING ARRANGEMENTS MAY CAUSE EQUIPMENT DAMAGE OR SERIOUS PERSONAL INJURY.

| UNIT SIZE   | A   | B   | C         | D     | E      | F     |
|-------------|-----|-----|-----------|-------|--------|-------|
| 130/150 STD | 11' | 10' | 4'-9 3/4" | 2'-2" | 1'-5"  | 2'-1" |
| 180/215 STD | 12' | 11' | 5'-3 3/4" | 2'-2" | 1'-7"  | 2'-3" |
| 255/300 STD | 12' | 11' | 5'-3 3/4" | 2'-2" | 1'-10" | 1'-8" |
| 380/450 STD | 12' | 11' | 5'-3 3/4" | 2'-2" | 1'-9"  | 1'-8" |

|                                | UNIT SIZE   | LIFTING WEIGHT | LIFTING WEIGHT (LBS) |      |      |      | OPERATING WEIGHT (LBS) WITH WATER |      |      |      |      |       |
|--------------------------------|-------------|----------------|----------------------|------|------|------|-----------------------------------|------|------|------|------|-------|
|                                |             |                | G-H                  | J    | K    | G    | H                                 | J    | K    | L    | M    | TOTAL |
| UNITS WITH STANDARD WATERBOXES | 130/150 STD | 5375           | 2698                 | 1291 | 1387 | 1596 | 1272                              | 1387 | 1461 | 2868 | 2848 | 5716  |
|                                | 180/215 STD | 6931           | 3477                 | 1674 | 1780 | 2067 | 1657                              | 1807 | 1894 | 3724 | 3701 | 7425  |
|                                | 255/300 STD | 9934           | 4958                 | 2302 | 2674 | 2950 | 2380                              | 2508 | 2840 | 5330 | 5348 | 10678 |
|                                | 380/450 STD | 14691          | 7342                 | 3172 | 4167 | 4334 | 3532                              | 3532 | 4332 | 7866 | 7864 | 15730 |
| UNITS WITH MARINE WATERBOXES   | 130/150 STD | 6156           | 3088                 | 1495 | 1573 | 1833 | 1532                              | 1647 | 1698 | 3365 | 3345 | 6710  |
|                                | 180/215 STD | 8371           | 4197                 | 2045 | 2129 | 2510 | 2128                              | 2278 | 2337 | 4638 | 4615 | 9253  |
|                                | 255/300 STD | 11640          | 5811                 | 2763 | 3066 | 3473 | 2988                              | 3116 | 3363 | 6461 | 6479 | 12940 |
|                                | 380/450 STD | 17397          | 8695                 | 3901 | 4791 | 5198 | 4513                              | 4513 | 5196 | 9711 | 9709 | 19420 |

5715-0161C

Figure 2-2.  
Weights and Rigging  
for 3-Point Lifting