### R-2000 HEADLINER

**Air Conditioner Unit**

**TRUCKS • MOTOR HOMES • VANS • REFUSE**

The compact, low profile design of the R-2000 allows an out of the way ceiling mount in virtually any vehicle. The high output of ice cold air blowing down from above is the ultimate in driver comfort.

The R-2000 can be installed facing any direction that best suits the particular application. Not only does this air conditioner make a perfect installation in cabs where space is a problem it is also an effective auxiliary cooling unit in vans, motor homes and small delivery vehicles.

### R-2000 SPECIFICATIONS

<table>
<thead>
<tr>
<th><strong>BTU's:</strong></th>
<th>Cooling – 17,000 BTU/Hr w/36°F (5 kW w/ 2.2°C) refrigerant temp. and 80°F (26.7°C) wet bulb entering air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Flow:</strong></td>
<td>235 CFM (400 m³/h)</td>
</tr>
<tr>
<td><strong>Weight:</strong></td>
<td>24 lbs. (11 kg)</td>
</tr>
<tr>
<td><strong>Current Draw:</strong></td>
<td>18.5 amps @ 13.6 VDC (includes 4 amps for A/C clutch)</td>
</tr>
<tr>
<td></td>
<td>9.3 amps @ 27.2 VDC (includes 2 amps for A/C clutch)</td>
</tr>
<tr>
<td><strong>Controls:</strong></td>
<td>Three speed fan, adjustable thermostat</td>
</tr>
<tr>
<td><strong>Models:</strong></td>
<td>R-2000-6P (12 VDC), R-2000-6-24P (24 VDC)</td>
</tr>
</tbody>
</table>

### R-2000 SYSTEM ORDERING GUIDE

<table>
<thead>
<tr>
<th><strong>R12/C-134a</strong></th>
<th><strong>NOTES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. UNIT</strong></td>
<td>R-2000-6P 12 VDC</td>
</tr>
<tr>
<td></td>
<td>R-2000-6-24P 24 VDC</td>
</tr>
<tr>
<td><strong>2. CONDENSER</strong></td>
<td>R-6160 - ROOF MOUNT</td>
</tr>
<tr>
<td></td>
<td>77R0650 - UNIVERSAL</td>
</tr>
<tr>
<td><strong>3. INSTALLATION KIT</strong></td>
<td>78R1025 (Front Mount Condenser)</td>
</tr>
<tr>
<td></td>
<td>78R1070 (Roof Mount Condenser)</td>
</tr>
<tr>
<td><strong>4. COMPRESSOR</strong></td>
<td>See 75 Series Compressor section</td>
</tr>
<tr>
<td><strong>R12 SERVICE VALVES</strong></td>
<td>75R5611 &amp; 75R5618 Required with CCI and TECUMSEH applications.</td>
</tr>
<tr>
<td><strong>R134A CHARGE FITTING</strong></td>
<td>75R5661 &amp; 75R5668 Required with CCI and TECUMSEH applications.</td>
</tr>
<tr>
<td><strong>5. CLUTCH TECUMSEH/CCI</strong></td>
<td>See 75 Series Clutch section</td>
</tr>
<tr>
<td><strong>6. COMPRESSOR MOUNT KIT</strong></td>
<td>See Compressor Mount Applications section</td>
</tr>
</tbody>
</table>

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The compact, low profile design of the R-2000 allows an out of the way ceiling mount in virtually any vehicle. The high output of ice cold air blowing down from above is the ultimate in driver comfort.

The R-2000 can be installed facing any direction that best suits the particular application. Not only does this air conditioner make a perfect installation in cabs where space is a problem it is also an effective auxiliary cooling unit in vans, motor homes and small delivery vehicles.
### Service Parts List

#### Item | Note | Part No. | Description | Cat. No.
---|---|---|---|---
1 | | RD-2-2994-1 | Base Plate Assy | 12
2 | | RD-2-2997-1 | Control Panel Assy (12V) | 13
3 | | RD-5-8526-0 | Motor/Blower Assy (12V) | 14 A
4 | | RD-2-3005-0 | Motor Mount Assy | 15 A
5 | | RD-5-8436-0 | Louver | 16
6 | | RD-2-0986-1 | Retainer - BTM HDR | 17
7 | | RD-2-3003-1 | Retainer - TOP HDR | 18
8 | | RD-2-0993-1 | Evaporator Assy | 19
9 | | RD-5-4531-24 | Thermostat | 20 B
10 | | RD-5-3664-0 | Switch - 3 SPD Fan | 21 B
11 | | RD-2-3006-0 | Cover Assy | 22
12 | | RD-5-6868-0 | Expansion Valve | 71R 8300
13 | | RD-5-3647-0 | Resistor | 71R 1450
14 | A | RD-2-3135-0 | Wire Harness Assy | 71R 1262
15 | A | RD-2-1017-0 | Foam - Evaporator | 71R 4040
16 | | RD-5-8535-0 | Dome Light Assy | 71R 5514
17 | | RD-5-5928-0 | Knob (2) | 71R 5510
18 | | RD-2-0851-1 | Label | 71R 5514
19 | | RD-2-2997-2 | Control Panel Assy (24V) | 71R 5514
20 | B | RD-5-8526-1 | Motor/Blower Assy (24V) | 71R 5514
21 | B | RD-5-5037-0 | Lighting Duld - 24 Volt | 71R 5514

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**Not Shown**

**24 Volt System Only**

**RED DOT CORPORATION** P.O. Box 88790 Seattle, WA 98138 (425) 251-6897 FAX (425) 251-3934

**RD-2-3138-0 (REV B)** NOTE: FOR REFERENCE ONLY. SUBJECT TO CHANGE WITHOUT NOTICE.
R-9715 HEADLINER
High Capacity Ceiling Mount Air Conditioner

BUSES • VANS • FIRE TRUCKS

The highest capacity unit in our headliner air conditioner line, the R-9715 offers big airflow at 577 CFM. Red Dot has used its established engineering experience to produce the most attractive, quality product on the market. The R-9715 can be used in a variety of larger cab applications such as: Shuttle buses/vans, fire trucks, and smaller school buses. The electric water pump can be used in tilt cab situations or in extremely humid applications.

**R-9715 SPECIFICATIONS**

<table>
<thead>
<tr>
<th>BTU’s:</th>
<th>Cooling – 39,500 BTU/Hr with 36°F (11.6 kW with 2.2°C) refrigerant temp. and 80°F (26.7°C) wet bulb entering air</th>
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<tbody>
<tr>
<td>Air Flow:</td>
<td>577 CFM (980 m³/h)</td>
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<tr>
<td>Weight:</td>
<td>40 lbs. (18 Kg)</td>
</tr>
<tr>
<td>Current Draw:</td>
<td>26.3 amps @ 13.6 VDC (includes 4 amps for A/C clutch)</td>
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<tr>
<td></td>
<td>13.2 amps @ 27.2 VDC (includes 2 amps for A/C clutch)</td>
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<tr>
<td>Models:</td>
<td>R-9715-3P (12 VDC), R-9715-3-24 (24 VDC)</td>
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**R-9715 SYSTEM ORDERING GUIDE**

<table>
<thead>
<tr>
<th>R12/R-134a</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. UNIT</td>
<td></td>
</tr>
<tr>
<td>R-9715-3P</td>
<td>12 VDC</td>
</tr>
<tr>
<td>R-9715-3-24</td>
<td>24 VDC</td>
</tr>
<tr>
<td>2. CONDENSER</td>
<td></td>
</tr>
<tr>
<td>R-4500 Remote Mount</td>
<td>12 &amp; 24 VDC</td>
</tr>
<tr>
<td>3. INSTALLATION KIT</td>
<td>7881025</td>
</tr>
<tr>
<td>Refrigerant hose, fittings, drier, pressure switch, hardware</td>
<td></td>
</tr>
</tbody>
</table>

4. COMPRESSOR
   See 75 Series Compressor section

R12 SERVICE VALVES
   75R5611 & 75R5618
   Required with CCI and TECUMSEH applications.

R134A CHARGE FITTING
   75R5681 & 75R5688
   Required with CCI and TECUMSEH applications.

5. CLUTCH TECUMSEH/CCI
   See 75 Series Clutch section

6. COMPRESSOR MOUNT KIT
   See Compressor Mount Applications section
<table>
<thead>
<tr>
<th>ITEM</th>
<th>NOTE</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>CAT. NO</th>
<th>ITEM</th>
<th>NOTE</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>CAT. NO</th>
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<tr>
<td>1 A</td>
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<td>RD-2-2926-2</td>
<td>CONTROL PANEL ASSY.</td>
<td></td>
<td>14</td>
<td></td>
<td>RD-5-4417-0</td>
<td>RELAY 24 VOLT</td>
<td>71R1704</td>
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<tr>
<td>2 A</td>
<td></td>
<td>RD-5:8421-1</td>
<td>COVER, PLASTIC</td>
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<td>15</td>
<td></td>
<td>RD-5-3647-0</td>
<td>RESISTOR</td>
<td>71R1450</td>
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<td>3</td>
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<td>RD-4:340-0</td>
<td>DIFFUSER</td>
<td>72R2300</td>
<td>16</td>
<td></td>
<td>RD-5-5940-0</td>
<td>SNAP FASTENER</td>
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<tr>
<td>4 C</td>
<td></td>
<td>RD-5:3550-84</td>
<td>DRAIN HOSE (7 FEET)</td>
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<td>17 A,B</td>
<td></td>
<td>RD-5-8425-1</td>
<td>SWITCH ASSY. 12V.</td>
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<td>5</td>
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<td>RD-2:2928-0</td>
<td>EVAPORATOR ASSY.</td>
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<td>18 A,B</td>
<td></td>
<td>RD-5-8425-3</td>
<td>SWITCH ASSY. 24V.</td>
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<tr>
<td>6</td>
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<td>RD-1-0860-0</td>
<td>FILTER</td>
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<td>RD-5-3646-0</td>
<td>SWITCH 3SPEED</td>
<td>71R1150</td>
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<td>RD-2:2933-</td>
<td>HOUSING ASSY.</td>
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<td>RD-4:125-36</td>
<td>THERMOSTAT</td>
<td>71R2250</td>
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<td>RD-5:5928-0</td>
<td>KNOB</td>
<td>71R4040</td>
<td>21 B,C</td>
<td></td>
<td>RD-2-2944-0</td>
<td>WIRE HARNESS, PUMPKIT</td>
<td>71R8320</td>
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<tr>
<td>9</td>
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<td>RD-2-0851-1</td>
<td>LABEL</td>
<td></td>
<td>22 B,C</td>
<td></td>
<td>RD-2-2944-1</td>
<td>WIRE HARNESS, PUMPKIT</td>
<td></td>
</tr>
<tr>
<td>10</td>
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<td>RD-3-6770-0</td>
<td>MOTOR / BLOWER ASSY.</td>
<td></td>
<td>23</td>
<td></td>
<td>RD-5-7015-0</td>
<td>VALVE EXPANSION R-134A</td>
<td></td>
</tr>
<tr>
<td>11</td>
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<td>RD-3-6770-24</td>
<td>MOTOR / BLOWER 24 V.</td>
<td></td>
<td>24 B,C</td>
<td></td>
<td>RD-2-2940-0</td>
<td>WIRE HARNESS, UNIT 12V.</td>
<td></td>
</tr>
<tr>
<td>12</td>
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<td>RD-5:8424-0</td>
<td>PUMP-CONDENSATE</td>
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<td>25 B,C</td>
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<td>RD-2-2940-1</td>
<td>WIRE HARNESS, UNIT 24V.</td>
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<tr>
<td>13</td>
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<td>RD-5-4408-0</td>
<td>RELAY 12VOLT</td>
<td>71R1702</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

A. INCLUDES: ALL ATTACHED COMPONENTS
B. INCLUDES ALL ELECTRIC SUB COMPONENTS
C. NOT SHOWN

Red Dot Corporation PO Box 88790, Seattle, WA 98138 (425) 251-6897 Fax (425) 251-3934
RD-5-8651-0 REV - For Reference Only. Subject to change without notice
**R-9750 HEADLINER**  
*Air Conditioner Unit with Heat Option*

The R-9750 is the ultimate choice in off road air conditioning comfort. The R-9750 produces a quick 240 CFM and filters recirculating cab air. Cab pressurization can be added using an outside air adapter and particulate filter. A HEATER OPTION rounds out the R-9750 into a perfect package for equipment manufacturers looking for a powerful product in a minimum amount of space.

**R-9750 SPECIFICATIONS**

- **BTU’s:**  
  - Cooling: 17,000 BTU/Hr with 36°F (5 kW with 2.2°C) refrigerant temp. and 80°F (26.7°C) wet bulb entering air  
  - Heating: 25,600 BTU/Hr @ 100°F (7.5 kW @ 37.8°C) air temp. rise

- **Air Flow:** 240 CFM (408 m³/h)

- **Weight:** 44 lbs. (20 kg)

- **Current:** 13 amps @ 13.6 VDC (includes 4 amps for A/C clutch)

- **Draw:** 6.5 amps @ 27.2 VDC (includes 2 amps for A/C clutch)

- **Models:**  
  - Heater-A/C Units: R-9750-5P (12 VDC), R-9750-5-24P (24 VDC)  
  - A/C Only Units: R-9750-6P (12 VDC), R-9750-6-24P (24 VDC)

**OPTIONS:**

- **Outside Air Adapter (optional)**  
  - RD-3-4784-0P (installed on back of unit)  
  - RD-5-5982-1P (not shown)

- **Remote Mount Filter Kits**  
  See Filters & Pressurizers section

- **Heat Conversion Kit**  
  RD-5-5982-1P

- **Metal Converter Controls**  
  RD-5-7999-1P

- **Cable**  
  RD-5-5505-33P

* Booster Pressurizer Can Only Be Used With Remote Mount Filters

**R-9750 SYSTEM ORDERING GUIDE**

<table>
<thead>
<tr>
<th>R12/R-134a</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. UNIT</td>
<td></td>
</tr>
<tr>
<td>R-9750-5P</td>
<td>12 VDC – Heater - A/C</td>
</tr>
<tr>
<td>R-9750-5-24P</td>
<td>24 VDC – Heater - A/C</td>
</tr>
<tr>
<td>R-9750-6P</td>
<td>12 VDC – A/C Only</td>
</tr>
<tr>
<td>R-9750-6-24P</td>
<td>24 VDC – A/C Only</td>
</tr>
</tbody>
</table>

| 2. CONDENSER |       |
| Radiator Mount | See 77 Series Condensers section |
| Remote Mount | See Units Condensers section |

| 3. INSTALLATION KIT | 78R1705 |
| Refrigerant hose, fittings and hardware. |

| 4. COMPRESSOR | See 75 Series Compressor section |

| R12 SERVICE VALVES | 75R5611 & 75R5618 |
| Required with CCI and TECUMSEH applications. |

| R134A CHARGE FITTING | 75R5681 & 75R5688 |
| Required with CCI and TECUMSEH applications. |

| 5. CLUTCH TECUMSEH/CCI | See 75 Series Clutch section |

| 6. COMPRESSOR MOUNT KIT | See Compressor Mount Applications section |

**OPTIONS**

- **Outside Air Adapter**  
  - RD-3-4784-0P

- **Remote Mount Filters**  
  See Filters & Pressurizers section

- **Replacement Recirc. Filter**  
  78R5310

- **In-Line Booster Pressurizers**  
  See Filters & Pressurizers section

- **Heat Conversion Kit**  
  RD-5-5982-1P

- **Metal Converter Controls**  
  RD-5-7999-1P

- **Cable**  
  RD-5-5505-33P

* Booster Pressurizer Can Only Be Used With Remote Mount Filters
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<th>CAT. NO.</th>
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<th>NOTE</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>CAT. NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>RD-3-4684-0</td>
<td>BOTTOM HOUSING ASSY</td>
<td>1</td>
<td>B</td>
<td></td>
<td>RD-5-8838-0</td>
<td>BLWR MOTOR ASSY (24V)</td>
<td>73R5534</td>
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<tr>
<td>2</td>
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<td>RD-5-8436-0</td>
<td>LOUVER (4)</td>
<td>2</td>
<td>D</td>
<td></td>
<td>RD-1-0726-0</td>
<td>HEATER CORE ASSY</td>
<td>76R1000</td>
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<td>RD-5-9022-32</td>
<td>CVNRTR-CABLE CTRL</td>
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<td>RD-2-1633-0</td>
<td>EVAPORATOR ASSY</td>
<td>76R4900</td>
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<td>KNOB-CONTROL, ROTARY</td>
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<td>RD-5-6868-0</td>
<td>EXPANSION VALVE</td>
<td>71R8300</td>
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<td>RD-5-0071-0</td>
<td>SWITCH-TOGGLE SPDT</td>
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<td></td>
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<td>RD-3-4683-0</td>
<td>COVER ASSY - HOUSING</td>
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</tr>
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<td>6</td>
<td>D</td>
<td>RD-4123-2</td>
<td>SWITCH-TOGGLE DPDT</td>
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<td></td>
<td>RD-3-7794-1</td>
<td>BRKT ASSY - FILTER RIGHT</td>
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<td>7</td>
<td>C</td>
<td>RD-5-3748-0</td>
<td>SWITCH - TOGGLE SPST</td>
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<td>RD-3-7495-1</td>
<td>BRKT ASSY - FILTER LEFT</td>
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<td>RD-4125-36</td>
<td>THERMOSTAT</td>
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<td>RD-3-4804-0</td>
<td>FILTER</td>
<td>78R5310</td>
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<td>D, F</td>
<td>RD-5-8083-0</td>
<td>WATER VALVE ASSY</td>
<td>9</td>
<td></td>
<td></td>
<td>RD-3-4784-0</td>
<td>FRESH AIR BOX ASSY</td>
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</tr>
<tr>
<td>10</td>
<td>A</td>
<td>RD-5-8837-0</td>
<td>BLWR MOTOR ASSY (12V)</td>
<td>10</td>
<td>E</td>
<td></td>
<td>RD-5-5982-1</td>
<td>CONVERSION KIT</td>
<td></td>
</tr>
</tbody>
</table>

A. 12 Volt System Only  B. 24 Volt System Only  C. Air Conditioner Only
D. Purchased Separately as Part of Heater Con. Kit RD-5-S982-0
E. Optional and Purchased Separately.
F. R-9750-TP (TIMBCO) Uses RD-5-8193-0 Water Valve & RD-5-9022-6 Cable/Converter

Optional components for addition of Heater and/or Pressurization options:

1. Fresh Air Box Assy (for Cab Pressurization) RD-3-4784-0
2. Heater Conversion Kit RD-5-5982-0
   * 3. 12 Volt Pressurizer 73R9202
   * 4. 24 Volt Pressurizer 73R9204
3. Horizontal Air Filter 78R5100
4. Vertical Air Filter 78R5110

* Used with 78R5100 or 78R5110 Air Filters.
Red Dot Air Conditioner
With Heater Option
R-9750 Series

TECHNICAL SALES BULLETIN AND SERVICE PARTS LIST

DIMENSIONS

- 19.02 in. x 2.29 in. x 16.73 in.
- 483.1 mm x 58.2 mm x 424.9 mm

SPECIFICATIONS

BTU's Per Hour:
- Cooling: 17,000 Btu/Hr (4.98 K.W./Hr.) @ 80°F (26.7°C) Wet Bulb and 36°F (2.20°C) Refrigerant Temp.
- Heating: 25,600 BTU/Hr (7.50 K.W./Hr.) @ 100°F (37.8°C)

Air Flow:
- 240 C.F.M. (6.80 M³/MIN)

Current Draw:
- 13 Amps @ 13.6 Volts (Includes 4 Amps for A/C Clutch)
- 6.5 Amps @ 27.20 Volts (Includes 2 Amps for A/C Clutch)

SCHEMATICS

ELECTRICAL SCHEMATIC

PLUMBING SCHEMATIC

Note: All Wires Are 16 Ga Unless Otherwise Specified
WARNING: Unit warranty void if fused power source not used.
NOTE:
1. Please read instructions all the way through, making sure you have all the parts and tools.
2. While working on or around a Vehicle disconnect the battery to prevent accidental start-up or electrical shorts.
3. It has been established the R-12 refrigerant does deplete the earth's protective ozone layer. Use care so as not to release this material into the atmosphere.
4. A/C systems operate under high pressure. At 77°F the refrigerant container will be pressurized to approximately 80 psi. Use caution when working with these materials. Goggles are recommended.
5. To function properly the A/C system must be clean and dry. Keep caps or protective covers on all hoses and fittings until final assembly.
6. IMPORTANT: Attach appropriate SAE warning label on vehicle.

NOTE:
1. Additional items required for complete installation:
   A) Compressor 8 to 10 cubic inch displacement are required (Sanden SD-5[8], SD-510 or equivalent). For HFC-134a use a compressor compatible with R-134a
   B) Condenser Remote Mount (R-9720 or equivalent); or Radiator Mount (77R 06,50 or equivalent). For R-134a use R-9725 or 77R 0650
   C) Compressor Mount Kit This includes mounting hardware, belts and pulleys (if needed).
   D) Receiver Drier High capacity (12 cubic inches of desiccant) 74R 1706 or equivalent. For R-134a applications use 74R 1806 or equivalent.
   E) System Protection Switch(es) 71R 7000 binary switch, high and low pressure cut-out or equivalent dual switches. For R-134a applications use 71R 7050.
   F) Refrigerant Hose Nylon Barrier or nylon lined refrigerant hose is recommended minimum quality for heavy duty applications. Push-on fittings can be used on either hose although a “crimp fitting” is recommended. Reusable fittings can be used only with the Aeroquip nylon hose (R-12 applications only). Galaxy hose with crimp fittings are recommended for R-134a.

A. Mounting the Unit
1. Remove the headliner or loosen enough to drop the center portion (Disregard if no headliner).

2. Determine the most suitable location for mounting the air conditioning unit.
   a. Mark the front-to-rear centerline of the cab on the outside of the cab roof (if centering unit in the cab).
   b. Unbolt unit lid from main housing and place on the roof using the centerline as a guide.
   
   NOTE: For proper water drainage, be sure the rear of the unit is not mounted higher than the front.

3. Mark the mounting hole locations.

4. Drill the mounting holes and remove burrs and sharp edges. Clean 2" around mounting holes with solvent for application of adhesive sealant to waterproof holes. See Figure 1.

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RD-5-5983-0 REV A For Reference Only. Subject to change without notice
5. Re-assemble unit lid to main housing unit.

6. Temporarily install the headliner unit inside the cab and determine if roof reinforcing is needed. If so, make and install reinforcing at this time.

7. Mount unit to roof of cab using mounting bolts, nuts and washers. See Figure 1.

**NOTE:** Apply adhesive sealant to the mounting hole locations before mounting unit. Tighten mounting bolts evenly and caulk with sealant.

**B. Compressor Mounting**

1. Install compressor mounting hardware to engine block.

**NOTE:** Red Dot does not recommend any compressor mount designs that are not directly attached to the engine. If fabrication of compressor mounting bracket is required, be sure to design so the belt wrap is a minimum of 1/3 around the clutch pulley and can be tensioned easily. If designing for a Sanden Compressor, Red Dot does provide an adjustable adapter bracket 75R 6010 which often saves time in design and fabrication. See Figure 2.
2. Install compressor making sure to properly align and tension drive belt.

3. Check compressor refrigerant oil level per compressor manufacturer's instructions.

C. Condenser Mounting (Remote or Radiator Style)
   Remote Mount
   1. Locate in an area as far from flying debris as possible so the condenser can be easily serviced when motors need changing or cleaning debris from fins.

   2. Mount in a position so that the large (#8) hose fitting is above the small (#6) hose fitting.

   Radiator Mount
   1. A radiator mounted condenser will be effective only if positioned to receive maximum air flow. (Usually flow is greatest toward the outside versus the center of the radiator).

   2. Install condenser allowing a minimum of 1.5 inch air space between the condenser and the radiator. Also, all radiators should have baffles on top and sides to prevent hot air recirculating back around the radiator.

D. Refrigerant Hose Installation
   1. Determine desired hose routing and measure hose lengths, per plumbing schematic. See Figure 3.
      NOTE: If suction line #10 hose length is longer than 10 feet, Red Dot recommends using #12 refrigerant hose and "step-up" refrigerant fittings. This will improve system function.

   2. Cut refrigerant hose to length using a knife. DO NOT SAW OFF. See Figure 4, Step 1.

   3. Install fittings on hose. See Figure 4, Steps 2 and 3. (Be sure to clean out refrigerant hose after cuffing).

   4. Add refrigerant oil to A/C components as follows:
      
      2 oz. - Condenser
      1 oz. - Receiver Drier
      1 oz. – Evaporator

      If using R-134a refrigerant, be sure to use oil recommended by the compressor manufacturer.
1. Cut hose to proper length.
2. Screw hose into collar (left hand thread) until hose bottoms. Back out 1/4 turn.

REUSABLE FITTING INSTALLATION
(R-12 Systems Only)
Figure 4

5. Lubricate "O" rings with mineral oil and attach to fittings. Route and connect #6, #8 and #10 hoses to unit, compressor, condenser, and receiver drier per plumbing schematic. See Figure 3. (Use appropriate oil for R-12 or R-134a).

6. Use clamps to secure hoses and prevent hose movement. Hoses must not come in contact with hot vehicle components, exhaust manifold, etc., and they should not be subject to mechanical abrasions. NOTE: Insulating the suction line is often required for proper system performance.

E. Drain Hose Installation
NOTE: See Figure 5 for additional information on drain hose installation.
1. Attach drain hose assembly to the unit.

2. Route drain hoses out the cab at desired location. Be certain the drain hoses run downhill from the unit at a minimum slope angle of 20ø. Also be certain the last two feet point straight down.
   **NOTE:** The drain hose is stepped down in size at two places to promote siphoning water from the drain pan under evaporator. The reduction in diameter forces the water to flow in a solid column. This creates a suction that draws the rest of the water out of the pan. For this effect to work properly, the last two feet of 5/16 O.D. drain tube should point straight down or as close to this as possible.

3. If drain hose assembly is too long remove 7/16 drain hose at reducer; cut to desired length and re-install.

4. Secure drain hoses with tie wraps. Inspect to make sure hoses are not kinked or pinched off.

**F. Unit Wiring**

**NOTE:** See Figure 6 for wiring diagram provided for additional information.

1. Disconnect bakery.
2. Black w/White - Route to low pressure protection switch stripe wire.
3. Red Wire - Connect to an ignition switch supply through a 30 amp circuit breaker for 12 volt system; a 15 amp circuit breaker for 24 volt system.
4. Black Wire - Unit grounding wire.
5. Brown Wire - Route to condenser motor via relay.

---

**Not Used A/C Only**

**Use 15 Amp Fuse or Breaker for 24V System (Cust. Supplied)**

**Use 30 Amp Fuse or Breaker for 12V System (Cust. Supplied)**

**Not Used On Heater-A/C Combination**

*Note: All Wires Are 16 Ga Unless Otherwise Specified*

*WARNING: Unit warranty void if fused power source not used.*

**WIRING DIAGRAM**

Figure 6

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G. Final Assembly and Check

**WARNING**

The owner operator of the R-9750 unit accepts the responsibility for the proper and safe installation and maintenance of the unit. Special attention must be given to the mounting assembly and fasteners as well as the hose assembly and connections to be sure that they are securely fastened and in good condition to preclude the possibility of personal injury.

1. Evacuate the system, then charge with refrigerant and test for leaks.

2. Connect the battery.

3. Turn the ignition switch to the "on" position and place the fan speed switch on the highest position.

4. Place the Heat-A/C switch to the "A/C" position and the temperature control lever on the coldest position.
   a. The clutch should click on and be engaged.
   b. The evaporator blower should be turning at high speed.

5. Turn the fan switch to the "off" position and compressor clutch should disengage.

6. Move the Heat-NC switch to the "Heat" position and compressor should disengage.

7. Start engine and run at 1500-2000 rpm. Place the Heat-A/C switch to the "A/C" position and the A/C fan switch to the high speed position. Check sight glass for bubbles. Add 6 to 8 ounces more refrigerant after the sight glass just clears.

8. Make sure clutch cycles off and on as system is operating.
R-9755 HEADLINER
Air Conditioner Unit

CONSTRUCTION • MINING • INDUSTRIAL

The R-9755 compact headliner air conditioner was designed for hard to air condition cabs. Its compact, low profile, heavy duty construction makes this unit the best in its class for off road applications. With its capacity to filter recirculated air and adaptability to use an outside air adapter dusty environments are not a problem.

**R-9755 SPECIFICATIONS**

- **BTU’s:** Cooling – 17,000 BTU/hr with 36°F (5 kW with 2.2°C) refrigerant temp. and 80°F (26.7°C) wet bulb entering air
- **Air Flow:** 240 CFM (408 m³/h)
- **Weight:** 32 lbs. (14.5 kg)
- **Current:** 14.1 amps @ 13.6 VDC (includes 4 amps for A/C clutch)
- **Draw:** 7 amps @ 27.2 VDC (includes 2 amps for A/C clutch)
- **Models:** AC Only Units: R-9765-0P (12 VDC), R-9755-0-24P (24 VDC)

**OPTIONS:**

- **Outside Air Adapter (optional)**
  RD-3-4784-0P
  (Installed on back of unit)

**R-9755 SYSTEM ORDERING GUIDE**

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<th>R12/R-134a</th>
<th>NOTES</th>
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</thead>
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<tr>
<td>R-9755-0P</td>
<td>12 VDC</td>
</tr>
<tr>
<td>R-9755-0-24P</td>
<td>24 VDC</td>
</tr>
<tr>
<td>2. CONDENSER</td>
<td></td>
</tr>
<tr>
<td>R-9720 - Remote Mount</td>
<td></td>
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<tr>
<td>4. COMPRRESSOR</td>
<td>See 75 Series Compressor section</td>
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<td>5. CLUTCH TECUMSEH/CCI</td>
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</tr>
<tr>
<td>R134A SERVICE VALVES</td>
<td>[5, 56511, 56518] Required with CCI and TEUMSEH applications.</td>
</tr>
<tr>
<td>R134A CHARGE FITTING</td>
<td>[5, 56681, 56688] Required with CCI and TEUMSEH applications.</td>
</tr>
<tr>
<td>6. COMPRESSOR MOUNT KIT</td>
<td>See Compressor Mount Applications section</td>
</tr>
</tbody>
</table>

**OPTIONS**

- **Outside Air Adapter**
  RD-3-4784-0P
- **Replacement Filter**
  78R5310
- **Remote Mount Filters**
  See Filters & Pressurizers section
- **Replacement Recirc Filter**
  78R 5350
- **In-Line Booster Pressurizers**
  See Filters & Pressurizers section

* Booster Pressurizer Can Only Be Used With Remote Mount Filters
Model R-9755 Series

RED DOT CORPORATION  P.O. Box 58270  Seattle, WA  98188  (206) 575-3840

FOR REFERENCE ONLY. SUBJECT TO CHANGE  WITHOUT NOTICE

A. OPTIONAL AND PURCHASED SEparately (NOT SHOWN).
**Red Dot Air Conditioner**

**R-9755 Series**

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**TECHNICAL SALES BULLETIN AND SERVICE PARTS LIST**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>14.46 In (367.3 mm)</td>
</tr>
<tr>
<td>Height</td>
<td>21.99 In (558.5 mm)</td>
</tr>
<tr>
<td>Depth</td>
<td>5.12 In (130.0 mm)</td>
</tr>
</tbody>
</table>

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**SPECIFICATIONS**

**BTU's Per Hour:**
- Cooling: 17,000 Btu/Hr (4.98 K.W./Hr.) @ 80°F. (26.7°C) Wet Bulb and 36°F. (2.20°C) Refrigerant Temp.

**Air Flow:**
- 250 C.F.M.

**Current Draw:**
- 14 Amps @ 13.6 Volts (Includes 4 Amps for A/C Clutch)
- 7 Amps @ 27.2 Volts (Includes 2 Amps for A/C Clutch)

---

**SCHEMATICS**

**ELECTRICAL SCHEMATIC**

- Cond. Motor
- Cond. Motor
- Power In
- Relay
- To Binary A/C Compressor Clutch
- Thermostat
- Binary Switch
- Compressor
- A/C-Fan Switch
- Relay
- C

**PLUMBING SCHEMATIC**

- Condenser
- #10 Suction
- #6 Pressure
- #8 Pressure
- #6 Liquid
- Rec/Drier
- Expansion Valve
- R-9755 Unit

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**Note:** All Wires Are 16 Ga Unless Otherwise Specified

**WARNING:** Unit warranty void if fused power source not used.