**MODEL NUMBER IDENTIFICATION**

- **2 SCU 13 LC 1 36 T - 1 A**
  - **Major Revision Code**
  - **Minor Revision Code**
  - **Voltage**
    - T = 208/230V-3 phase-60Hz
  - **Nominal Capacity**
    - 36 = 36,000-Btu
    - 48 = 48,000 Btu
    - 60 = 60,000 Btu
  - **Series**
    - 1
  - **Cabinet**
    - Louvered Commercial
  - **Efficiency Rating**
    - 13 = 13 SEER Nominal
  - **Unit Type**
    - SCU = Split Air Conditioner
  - **Refrigerant Type**
    - 2 = R-22
FEATURES

COMPRESSOR - Limited warranty for five years.
All other covered components - One year.
Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

APPROVALS
Rated according to U.S. Department of Energy (DOE) test procedures.
Units and components within bonded for grounding to meet safety standards for servicing required by UL.
Units are UL listed.

APPLICATIONS
3 through 5 ton.
Nitrogen-charged for replacement of R-22 components only.
Three-phase power supply.
High-efficiency scroll compressor.
Grommet-mounted compressor for quiet operation.
Sound levels as low as 76 dB.
Internally manufactured to withstand high temperature conditions.
Designed for ambients up to 125°F.
Filter drier installed for system protection.
Indoor coil orifice shipped with outdoor unit for optimum efficiency and capacity.
Installer must set outdoor unit, connect refrigerant lines and make electrical connections to complete job.

REFRIGERATION SYSTEM

Outdoor Coil Fan
Direct drive fan moves large air volumes uniformly through entire condenser coil for high refrigerant cooling capacity.
Vertical air discharge minimizes operating sounds and eliminates damage to lawn and shrubs.
Fan motor has sleeve bearings and is inherently protected.
Motor totally enclosed for maximum protection from weather, dust and corrosion.
Louvered steel top fan guard furnished as standard.
Fan service access accomplished by removal of top panel.

Copper Tube/Enhanced Fin Coil
Enhanced aluminum fins and copper tubing for high efficiency and capacity.
Raised coil prevents debris from collecting in bottom of coil and causing loss of airflow.
Lanced fins provide maximum exposure of fin surface to air stream resulting in excellent heat transfer.
Fin collars grip tubing for maximum contact area.
Flared shoulder tubing connections/silver soldering construction.
Entire coil is accessible for cleaning.
Coil is factory-tested under high pressure to ensure leakproof construction.

Hi-Capacity Liquid Line Drier
Furnished with unit for field installation.
Traps any moisture or dirt that could contaminate the refrigerant system.

Optional Accessories

Expansion Valve Kits
Must be ordered separately and field installed on certain indoor units. See Specifications table.
Chatleff-style fittings.

Freezestat
Installs on or near the vapor line of the indoor coil or on the suction line.
Senses suction line temperature and cycles the compressor off when suction line temperature falls below its setpoint.
Opens at 29°F and closes at 58°F.

High Pressure Switch
Protects the system from high pressure conditions that can be a result of fan failure or a blocked/dirty coil.
Manual reset.

Loss of Charge Kit
Helps protect the compressor from damage due low refrigerant charge conditions.
SPST, normally-closed switch, automatic reset switch mounted on suction line.
FEATURES

COMPRESSOR

Scroll Compressor
Compressor features high efficiency with uniform suction flow, constant discharge flow and high volumetric efficiency and quiet operation.
Compressor consists of two involute spiral scrolls matched together to generate a series of crescent shaped gas pockets between them.
During compression, one scroll remains stationary while the other scroll orbits around it.
Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates.
As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced.
When pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls.
During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle.
Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency.
Scroll compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to be worked toward the center and discharged.
Low gas pulses during compression reduces operational sound levels.
Compressor motor is internally protected from excessive current and temperature.
Compressor is installed in the unit on resilient rubber mounts for vibration free operation.

Optional Accessories

Compressor Crankcase Heater
Protects against refrigerant migration that can occur during low ambient operation.

Compressor Sound Cover
A reinforced vinyl compressor cover containing a 1-1/2 inch thick batt of fiberglass insulation.
All open edges are sealed with a one-inch wide hook and loop fastening tape.

CABINET

Heavy gauge steel cabinet with five station metal wash process.
Full metal louvered panel coil guard protection.
Baked polyester paint finish over galvanized steel for maximum durability.
Louvered panels can be quickly removed by loosening two screws per panel.
Controls located in corner post for installation and service assessibility.
Rounded corners for safety.

Refrigerant Line Connections, Electrical Inlets, Service Valves
Sweat connection suction and liquid lines are located on corner of unit cabinet.
Fully serviceable brass service valves prevent corrosion and provide access to refrigerant system. Suction valve can be fully shut off, while liquid valve may be front seated to manage refrigerant charge while servicing system.
Refrigerant line connections and field wiring inlets are located in one central area of cabinet for easy access. See dimension drawing.

PermaGuard™ Unit Base
Durable zinc-coated base section resists rust and corrosion.

CONTROLS

Optional Accessories

Compressor Low Ambient Cut-Off
Non-adjustable switch (low ambient cut-out) prevents compressor operation when outdoor temperature is below 35°F.

Compressor Time-Off Control
Kit prevents compressor short-cycling and allows time for suction and discharge pressure to equalize. Permits compressor start-up in an unloaded condition. Automatic reset with 5 minute delay between compressor shut-off and start-up.

Indoor Blower Off Delay Relay
Delays the indoor blower-off time during the cooling cycle.

Low Ambient Kit
Air conditioners operate satisfactorily down to 45°F outdoor air temperature without any additional controls
Low Ambient Control Kit allows unit operation down to 30°F.

NOTE - Freezestat should be installed on compressors equipped with a low ambient kit.
# OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS - FIELD INSTALLED

<table>
<thead>
<tr>
<th>Item</th>
<th>Model No.</th>
<th>Catalog No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMERCIAL TOUCHSCREEN THERMOSTAT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two-Stage Heating / Two-Stage Cooling Conventional or Heat Pump</td>
<td>C0STAT02AE1L</td>
</tr>
<tr>
<td></td>
<td>Intuitive Touchscreen Interface</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seven-Day Programmable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four Time Periods Per Day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economizer Output</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Title 24 Compliant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Backlit Display</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Automatic Changeover</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMMERCIAL TOUCHSCREEN THERMOSTAT</td>
<td>14W81</td>
</tr>
<tr>
<td>Sensors For Touchscreen Thermostat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Remote non-adjustable wall mount 20k temperature sensor</td>
<td>C0SNZN01AE1-</td>
<td>47W36</td>
</tr>
<tr>
<td>1 Remote non-adjustable wall mount 10k averaging temperature sensor</td>
<td>C0SNZN73AE1-</td>
<td>47W37</td>
</tr>
<tr>
<td>1 Remote non-adjustable duct mount temperature sensor</td>
<td>C0SNDC00AE1-</td>
<td>19L22</td>
</tr>
<tr>
<td>Outdoor temperature sensor</td>
<td>C0SNSR03AE1-</td>
<td>X4148</td>
</tr>
</tbody>
</table>

1 Remote sensors for C0STAT02AE1L can be applied in the following combinations: (1) C0SNZN01AE1-, (2) C0SNZN73AE1-, (2) C0SNZN01AE1- and (1) C0SNZN73AE1-, (4) C0SNZN01AE1-, (3) C0SNZN01AE1- and (2) C0SNZN73AE1.

| Accessories For Touchscreen Thermostat | | |
| Locking cover (clear) | C0MISC15AE1- | 39P21 |

**DIGITAL NON-PROGRAMMABLE THERMOSTATS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Model No.</th>
<th>Catalog No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One-Stage Heating / Cooling Conventional Systems</td>
<td>C0STAT12AE1L</td>
</tr>
<tr>
<td></td>
<td>Intuitive Interface</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Automatic Changeover</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Backlit Display</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Simple Up and Down Temperature Control.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIGITAL NON-PROGRAMMABLE THERMOSTATS</td>
<td>51M32</td>
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<tr>
<td>Sensor For Digital Non-Programmable Thermostat</td>
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<td></td>
</tr>
<tr>
<td>Outdoor temperature sensor</td>
<td>C0SNSR04AE1-</td>
<td>X2658</td>
</tr>
</tbody>
</table>

| Accessories For Digital Non-Programmable Thermostat | | |
| Optional wall mounting plate | C0MISC17AE1- | X2659 |
## SPECIFICATIONS

### General Data
- **Nominal Tonnage**: 3, 4, 5

### Connections (sweat)
- **Liquid line o.d. - in.**: 3/8, 3/8, 3/8
- **Suction line o.d. - in.**: 7/8, 7/8, 7/8

<table>
<thead>
<tr>
<th>Refrigerant charge field supplied (R-22)</th>
<th>5 lbs. 12 oz.</th>
<th>7 lbs. 8 oz.</th>
<th>10 lbs. 0 oz.</th>
</tr>
</thead>
</table>

### Outdoor Coil
- **Tube diameter - in.**: 5/16, 5/16, 5/16
- **Number of rows**: 1, 1, 2
- **Fins per inch**: 26, 22, 22

### Outdoor Fan
- **Diameter - in.**: 18, 22, 22
- **Number of blades**: 3, 4, 4
- **Motor hp**: 1/5, 1/4, 1/4
- **Rpm**: 1075, 825, 825

### Shipping Data - lbs. 1 package
- **196**, **212**, **272**

### ELECTRICAL DATA
- **Line voltage data - 60 hz - 3ph**: 208/230V, 208/230V, 208/230V
- **Maximum overcurrent protection (amps)**: 25, 30, 35
- **Minimum circuit ampacity**: 14.5, 17.7, 20.8

### Compressor
- **Rated load amps**: 10.8, 12.8, 15.3
- **Locked rotor amps**: 73, 93, 104

### Condenser Fan Motor
- **Full load amps**: 1.1, 1.7, 1.7

### SOUND DATA
- **Sound Rating Number (dBA)**: 76, 78, 78

### OPTIONAL ACCESSORIES - ORDER SEPARATELY

<table>
<thead>
<tr>
<th>Accessory</th>
<th>2SCU13LC136T</th>
<th>2SCU13LC148T</th>
<th>2SCU13LC160T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressor Low Ambient Cut-Off</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Compressor Crankcase Heater</td>
<td>93M04</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Compressor Sound Cover</td>
<td>93M05</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Compressor Time-Off Control</td>
<td>69J03</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Expansion Valve Kits</td>
<td>47J27</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Freezestat 3/8 in. tubing</td>
<td>26K34</td>
<td>26K35</td>
<td>91M01</td>
</tr>
<tr>
<td>High Pressure Switch Kit</td>
<td>94J46</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Indoor Blower Off Delay Relay</td>
<td>58M81</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Loss of Charge Kit</td>
<td>84M23</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Low Ambient Kit (30°F)</td>
<td>24H77</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

**NOTE** - Extremes of operating range are plus 10% and minus 5% of line voltage.

1 Refrigerant charge sufficient for 15 ft. length of refrigerant lines.

2 HACR type circuit breaker or fuse.

3 Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

4 Freezestat is recommended with Low Ambient Control.
<table>
<thead>
<tr>
<th>Model No.</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2SCU13LC160T</td>
<td>29-3/8 746</td>
<td>31-1/4 794</td>
<td>33-3/4 857</td>
</tr>
</tbody>
</table>
NOTES:
Service clearance of 30 in. (762 mm) must be maintained on one of the sides adjacent to the control box. Clearance to one of the other three sides must be 36 in. (914 mm).
Clearance to one of the remaining two sides may be 12 in. (305 mm) and the final side may be 6 in. (152 mm).
A clearance of 24 in. must be maintained between two units. 48 in. (1219 mm) clearance required on top of unit.
## REVISIONS

<table>
<thead>
<tr>
<th>Sections</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigeration System</td>
<td>Filter/Drier now shipped with unit for field installation.</td>
</tr>
</tbody>
</table>

Visit us at www.lennox.com
For the latest technical information, www.lennoxcommercial.com
Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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