

Ranco A22-1129

RANCO A22-1129 Ice Machine Bin Level & Harvest Control Manual

Model: A22-1129 | Series: A22/A30

1. PRODUCT OVERVIEW

The RANCO A22-1129 is a specialized control unit designed for ice machines. It functions as both a bin level control and a harvest control, ensuring efficient operation of the ice production cycle. This model features a dial-type adjustment for precise settings and is part of the A22/A30 series. It comes equipped with standard 1/4-inch quick-connect terminals and offers optional screw terminals for versatile installation.



Figure 1: Ranco A22-1129 Ice Machine Bin Level and Harvest Control. This image displays the control unit, which includes a white plastic enclosure, a robust metal mounting bracket, a brass adjustment dial, and a coiled capillary tube extending from the main body. The unit is designed for precise temperature and level sensing in ice machine applications.

2. SETUP AND INSTALLATION

Installation of the RANCO A22-1129 control unit should be performed by a qualified HVAC technician or a trained professional. Improper installation can lead to equipment damage, personal injury, or void the product warranty.

2.1 Safety Precautions

- Always disconnect power to the ice machine before beginning any installation or maintenance.
- Ensure all wiring conforms to local electrical codes and regulations.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Verify correct voltage and current ratings before connecting the unit.

2.2 Mounting the Control

Mount the control unit securely in a location that is protected from excessive moisture, vibration, and extreme temperatures, yet accessible for adjustment and maintenance. Use the integrated mounting brackets for secure attachment.

2.3 Wiring Connections

The A22-1129 features standard 1/4-inch quick-connect terminals. For applications requiring screw terminals, ensure proper connection and tightening. Refer to the ice machine's wiring diagram for specific connection points for bin level and harvest control circuits.

- Connect the power supply to the designated terminals.
- Connect the bin level sensor leads to the appropriate terminals.
- Connect the harvest cycle control leads to the appropriate terminals.
- Ensure all connections are tight and secure to prevent intermittent operation or electrical hazards.

2.4 Capillary Tube Installation

Carefully route the capillary tube to the sensing location within the ice machine's bin or evaporator. Avoid kinking or sharply bending the tube, as this can impair its function. The end of the capillary tube, which contains the sensing bulb, must be positioned correctly to accurately detect ice level or evaporator temperature for harvest initiation.

3. OPERATING INSTRUCTIONS

The RANCO A22-1129 control unit is designed for straightforward adjustment using its integrated dial.

3.1 Adjusting Bin Level and Harvest Settings

1. **Locate the Adjustment Dial:** The dial is typically found on the front or side of the control unit.
2. **Understand Markings:** The dial may have markings indicating "COLD," "WARM," or numerical values corresponding to temperature or ice level thresholds.
3. **Adjusting Bin Level:**
 - To increase the amount of ice in the bin before the machine stops production, turn the dial towards the "COLD" or higher numerical setting.
 - To decrease the amount of ice, turn the dial towards the "WARM" or lower numerical setting.
4. **Adjusting Harvest Cycle:**
 - The harvest setting controls when the ice machine releases ice from the evaporator. Adjusting this dial can fine-tune the ice thickness or the duration of the harvest cycle.
 - Refer to your ice machine's specific requirements for optimal harvest settings.
5. **Test and Observe:** After making adjustments, allow the ice machine to complete several cycles to observe the effect of the new settings. Fine-tune as necessary.

Note: Small adjustments are recommended, followed by observation, to achieve desired performance. Drastic changes may lead to inefficient operation or premature wear.

4. MAINTENANCE

The RANCO A22-1129 control unit is designed for durability and requires minimal maintenance. However, periodic inspection can help ensure its longevity and proper function.

- **Visual Inspection:** Regularly inspect the control unit for any signs of physical damage, corrosion, or loose connections.
- **Cleaning:** Keep the exterior of the control unit clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use abrasive cleaners or solvents.
- **Capillary Tube Check:** Ensure the capillary tube is not kinked, damaged, or dislodged from its sensing position.

- **Terminal Integrity:** Periodically check that all electrical connections are secure and free from corrosion.

Important: Any internal repairs or component replacements should only be performed by authorized service personnel.

5. TROUBLESHOOTING

This section provides guidance for common issues. For complex problems, consult a qualified technician.

| Problem | Possible Cause | Solution |
|--|---|---|
| Ice machine overfills bin | Bin level setting too high; faulty capillary tube/sensor; control unit malfunction. | Adjust dial to a warmer setting. Check capillary tube for damage or improper placement. Consult technician if issue persists. |
| Ice machine stops prematurely (bin not full) | Bin level setting too low; capillary tube/sensor not detecting ice correctly. | Adjust dial to a colder setting. Ensure capillary tube is correctly positioned and not obstructed. |
| Ice machine not harvesting ice | Harvest control setting incorrect; faulty sensor; control unit malfunction. | Verify harvest setting. Check capillary tube for proper sensing. Professional diagnosis may be required. |
| Intermittent operation | Loose wiring connections; environmental factors (vibration, extreme temperature). | Check and secure all electrical connections. Ensure mounting location is stable and within operating temperature range. |

6. SPECIFICATIONS

- **Model:** A22-1129
- **Series:** A22/A30
- **Adjustment Type:** Dial
- **Function:** Ice Machine Bin Level & Harvest Control
- **Terminals:** Standard 1/4 Quick-Connect (with optional Screw Terminals)
- **Product Dimensions:** 4 x 2.5 x 4 inches
- **Weight:** 5.6 ounces
- **Manufacturer:** RANCO
- **Category:** HVAC Accessory & Rebuild Kit & Seal Kit

7. WARRANTY AND SUPPORT

Warranty information for the RANCO A22-1129 control unit is typically provided by the manufacturer or the point of purchase. Please retain your proof of purchase for warranty claims.

For technical support, service, or to inquire about replacement parts, please contact RANCO customer service or an authorized RANCO distributor. Contact information can usually be found on the manufacturer's official website or on the product packaging.

Disclaimer: This manual provides general information and guidelines. Specific installation and operational procedures may vary based on the ice machine model and local regulations. Always refer to the ice machine's manufacturer manual and consult with qualified professionals for specific applications.

