

Refrigerator Alarms

Overview:

To ensure adequate refrigeration temperature control is maintained throughout the day, Refrigerator Alarm(s) are preset to alert the Pharmacy Team with an audible tone should the acceptable range be compromised. The temperature range has been preset at 36-46° Fahrenheit according to USP standards.

Goal:

The goal of the installation of refrigerator alarm(s) in the pharmacy is to ensure that all pharmacy refrigerators used to store medications are kept within a temperature range acceptable to guarantee the integrity of the stored products.

Responsibility:

It is the responsibility of each Pharmacy Team Leader / Pharmacy Manager to assign a pharmacy team member to install the refrigerator alarm(s) according to the following instructions and to ensure that the power to the unit is in the "ON" position daily.

Action Needed:

1. Inspect the alarm(s) contained in this shipment. Each unit will contain a temperature display unit (figure a), connecting wire and a glass bottle containing a green temperature sensitive liquid (figure b), and manufacturer instructions.



Fig a



Fig b



Fig c

Note: The alarm unit has been pre programmed prior to shipping and should be displaying the temperature (See figure c). If the unit does not display the temperature please call 1-800-847-8367.

2. Store supply a package of Velcro from the office supply aisle.
3. Mount the Thermometer to the refrigerator- For large refrigerators the temperature display unit should be mounted on the side of the refrigerator. For small under the counter units, the display unit can be mounted to the front of the refrigerator or to the top, as space allows.



Large Fridge



Small Fridge



Mounted sensor (option 1)



Mounted sensor (option 2)

4. Attach small bottle and excess wire to the inside of the refrigerator using the Velcro as depicted in the above photos. (The bottle should ideally be placed in the center of the center shelf of the refrigerator):
5. Feed wire through hinged side of refrigerator and close door:



6. Plug the temperature sensor into the jack on the main indicating unit and leave it for 1 hour.
7. Flip the alarm switch to “ON” after 1-hour if the temperature reading is between 36°F and 46°F.
 - a. Wait another 30 minutes **if the temperature is not** between 36°F and 46°F
8. If the temperature **is still not between 36°F and 46°F**, then check the temperature on the thermometer in the refrigerator against the temperature shown on the alarm unit.
 - a. If the temperature is within 5°F of the thermometer in the fridge then adjust the thermostat in the refrigerator to make the temperature either colder or warmer depending on whether the temperature is too high or too low.
 - i. After making this adjustment wait for 1 hour and check the temperature again.
 - b. If the temperature on the main alarm unit is not within 5°F of the temperature shown on the thermometer in the fridge then call 1-800-847-8367.
9. If the temperature **is now between 36°F to 46°F**, then switch the alarm switch to “ON “.
 - a. If it is still not within range then adjust the thermostat again and wait another hour before checking the temperature again.
 - b. When the temperature comes into range then switch the alarm switch to “ON “.
 - c. If the temperature does not come into range and the thermostat cannot be adjusted anymore, let them know that you have a problem with your refrigerator.
10. Store this document and the manufacturer instructions in a secure area of the pharmacy as you will need to refer to the steps to reset the temperature range upon each battery change.

Further Information:

- If the temperature of the refrigerator falls outside the set range, an audible alarm will sound. When this occurs you should:
 - Check the refrigerator to ensure the door is closed properly.
 - Check the power to the refrigerator to ensure to ensure the power cable has not been disconnected.
 - Adjust the temperature setting of the refrigerator either up or down as necessary.
 - The alarm will sound for 1 minute, and for 5 seconds of each subsequent minute until the thermometer is reset by,
 - Turning the power switch to "OFF"
 - Allowing the refrigerator temperature to adjust to the new setting, (approximately 20 minutes).
 - Turning the power switch to "ON"

Note: Once the alarm has sounded, the only way to reset the unit is to switch the alarm to the off position. Even when the temperature falls back into range the alarm will need to be switched off and then on again.
- For periods when the refrigerator door will be opened for extended periods of time, during cleaning or defrosting, the alarm should be turned off for the duration until normal temperature range is resumed. **Do not forget to turn the unit on once the normal temperature range is established.**
- Batteries in the unit should be replaced approximately every 9 months and is indicated by the *Low Battery* warning on the display unit.
 - To replace the battery, store supply one AAA battery from the store aisle.
 - The temperature range will need to be reset with every battery change (refer to manufacturer instructions).

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