



# TA-2 TEMPERATURE ALARM

## OPERATING INSTRUCTIONS

### APPLICATION

A refrigerator or freezer maintains its temperature by Periodically cycling a compressor and fan(s) on and off as controlled by the thermostat in the cooled compartment. As a result of this on-off type of control, the compartment temperature will normally vary 3-5 degrees around the point set by the compartment thermostat. In addition to this variation, a frost-free freezer compartment will have 1 to 4 defrost cycles during a 24-hour period. This will cause the compartment temperature to rise above the normal variation.

The TA-2 Temperature Alarm is a single point or threshold type of temperature alarm. This type of temperature alarm monitors the temperature at the sensor probe tip and when this temperature passes above (or below) the set point, the unit will execute a preset operation. In the case of the TA-2, this will be to sound an audible alarm, close a set of relay contacts and flash a front panel LED. A user selectable one hour delay will prevent false alarms in freezers caused by defrost cycles and frequent door openings.

### INSTALLATION

The TA-2 may be mounted to any flat surface, in any position, using the two holes provided at the top of the case or with the supplied adhesive pads. Avoid mounting in areas of excessive humidity or temperatures outside the operating range of the TA-2.

### SENSOR EXTENSION

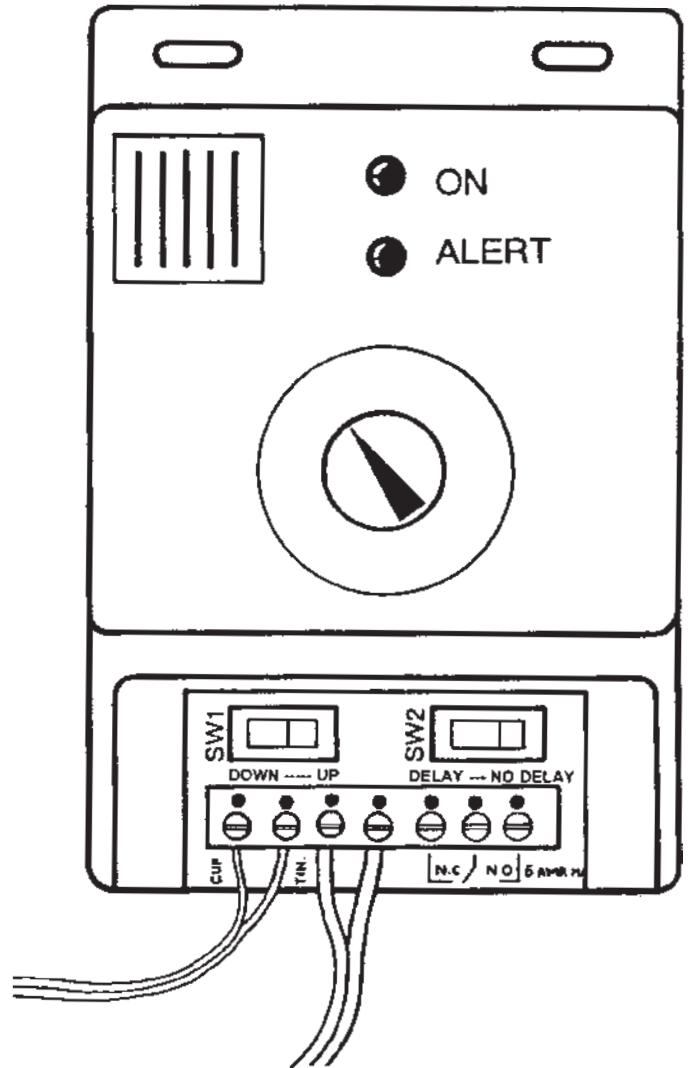
The TA-2 sensor probe is designed to measure air temperature and may be mounted in any convenient location in the area to be monitored. The sensor probe may be extended with any 24AWG stranded wire. Be careful to observe the polarity of the probe when attaching an extension, as reverse polarity will prevent the TA-2 from operating properly.

### RELAY CONTACTS

The TA-2 may be connected to a remote alarm using the relay contacts provided under the Switch Cover. Connections are provided for Normally Open or Normally Closed Dry Contacts. Dry Contacts mean that no electrical power is supplied to the contacts and power for a remote alarm or other device must be supplied externally. When an alarm occurs the N.O. relay contacts will close and remain closed as long as the alarm condition exists. Typical connections are shown at the bottom of this page.

### POWER REQUIREMENTS

The TA-2 operates from standard 120VAC 60Hz power lines. A polarized two-prong plug is supplied. When choosing a mounting location, it is advisable to locate the TA-2 near a power outlet.



### OPERATION

Plug the TA-2 into a 120VAC outlet and verify that the POWER "ON" light is illuminated. If this light should not be on or should it go out, this indicates that the TA-2 is not receiving power and is not operating. For continued protection, this requires immediate attention.

Set the Front Panel Adjustment for the temperature the TA-2 must respond to. Typical values will be between 35 to 45 degrees for a refrigerator and 0 to 15 degrees for a freezer. The setting of this adjustment will depend on the type of protection the TA-2 is being used for and it is up to the judgement of the user to select an appropriate alarm temperature.



The TA-2 is set at the factory to Alarm on a RISE above the temperature set on the Front Panel Adjustment after a one-hour delay. The UP/DOWN Switch is in the UP position and the DELAY/NO DELAY switch is set to the DELAY position.

Remove the Switch Cover and locate SW1, the slide switch on the left-hand side. Note the lettering underneath this switch (DOWN-UP). Setting this switch to UP will cause the alarm to be activated when the sensor temperature rises ABOVE the temperature set on the front panel. Setting this switch to DOWN will cause the alarm to activate when the sensor temperature falls BELOW the temperature set on the front panel.

Locate SW2, the switch on the right hand side. Note the lettering underneath this switch (DELAY – NO DELAY). Setting this switch to DELAY will cause the TA-2 to blink the ALERT Light when the Sensor temperature passes the threshold set by the Front Panel Adjustment. When approximately one hour has passed and the Sensor temperature has remained past the threshold set by the Front Panel Adjustment, the TA-2 will sound the audible alarm and close the N.O. relay contacts. Should the temperature return to its original value before this period has elapsed, the one-hour delay will be reset. Setting this switch to NO DELAY will cause the TA-2 to sound an immediate alarm and blink the ALERT light when the temperature passes the threshold set by the Front Panel Adjustment. Should the temperature return to its original value, the TA-2 will automatically reset.

Locate the terminal strip below SW1 and SW2. This is where the line cord, sensor probe, and remote alarm are connected to the TA-2. The TA-2 comes from the factory with the line cord and sensor probe attached. Note the lettering for terminals 5, 6 and 7. These are the relay contacts for use with external devices, such as remote alarms or automatic dialers. Since each installation has different requirements, it is suggested you consult the instructions supplied with any remote device prior to making any connections to the TA-2. Note the 5 Amp 120VAC rating of the relay contacts. PERMANENT DAMAGE will result if these limits are exceeded.

**TYPICAL CONNECTIONS ARE SHOWN IN THE DRAWING**

**SPECIFICATIONS**

- Line Voltage:** 120 VAC with 2 prong polarized cord
- Probe:** Precision Encapsulated sensor with 6-foot cord
- Alarm Adjustment Range:** -10 to +80 degrees F
- Remote Connections:** Screw Type 120VAC 5 Amp Max.
- Operating Temperature Range:** +32 to +130 degrees F
- Storage Temperature Range:** 0 to +160 degrees F
- Mounting:** Flat Surface, External Holes Provided
- Dimensions:** 3" x 4 7/8" x 1 5/8" deep
- Case Material:** Hi Impact Thermoplastic



**TA-2 WARRANTY**

LIMITED TO ONE YEAR FROM DATE OF PURCHASE

Sealed Unit Parts Co., Inc. warrants its products to be free from defects in materials and workmanship under normal use and service.

Sealed Unit Parts Co., Inc. will repair or replace without charge any such products it finds to be so defective on its return to Sealed Unit Parts Co., Inc.

The foregoing is in lieu of all other expressed or implied warranties, including those of merchantability or fitness for a particular purpose.

The foregoing is also the purchaser's sole remedy and is in lieu of all other guarantees, obligations or liabilities or any consequential or incidental damages attributable to negligence or strict liability.

