

## WINLAND TEMP-UL-S Temp-B-T Buffer Tube Instruction Manual

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WINLAND TEMP-UL-S Temp-B-T Buffer Tube



## PRODUCT OVERVIEW

### Buffer Tube (Temp-B-T)



#### The Product Contains:

- 1 White Cap w/Bonded Septa (Grommet)
- 1 40mL Glass Tube
- 1 Double Sided Tape
- 1 Product Guide

#### Note:

TEMP-B-T, sensors, and glycerin are sold separately

#### Accepted Sensors:

- TEMP-L-S
- TEMP-L-W

- TEMP-H-S
- TEMP-H-W
- TEMP-UL-S
- EAPro-ULS

## Specifications

Operating Temperature	-47.2 to +77 °F (-44 to +25 °C)
Dimensions	4.0" x 1.0" (10.16cm x 2.54cm)
Weight	3.6oz (102g)

## Glycerin Bottle (Temp-G-B)



## The Product Contains:

- 1 White Cap w/Bonded Septa (Grommet)
- 1 Bottle of Glycerin 6fl oz (177mL)
- 1 Product Guide
- **Note:** TEMP-G-B and sensors are sold separately

## Accepted Sensors:

- TEMP-L-S
- TEMP-L-W
- TEMP-H-S
- TEMP-H-W
- TEMP-UL-S
- EAPro-ULS

## Specifications

Operating Temperature	-47.2 to +77 °F (-44 to +25 °C)
Dimensions	4.56" x 2.13" (11.58cm x 5.41cm)
Weight	6.0fl oz (170.1g)

## Introduction

- Glycerin can be used to buffer a sensor reading so that its rate of change becomes slower in contrast with the faster-reacting reading of air temperature.
- This will help to prevent nuisance alarms and will more closely represent the temperature of a stored product of similar mass.
- **Mixing Instructions:** (Required for temperature below freezing)
- To monitor temperature below freezing (32 °F, 0 °C) glycerin must be mixed with water; max limit of -47.2 °F, -44 °C. A mixture of 55% glycerin with 45% water, by volume, will accomplish this.

## Installation Instructions

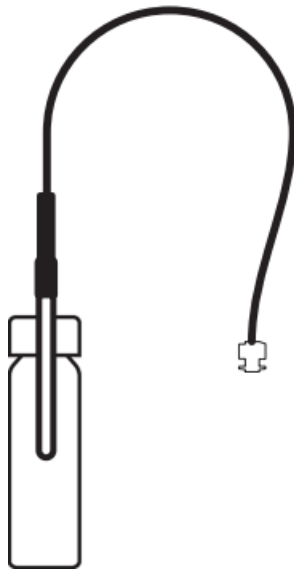
**Figure 1:** Using a bottle of glycerin as buffer with TEMP-L-S sensor. Sensor sold separately.



### TEMP-G-B:

1. Mix solution (if required).
2. Replace the plastic cap with the included white cap w/bonded septa (grommet) cap.
3. Insert the sensor (EAPro-ULS, TEMP-UL-S, TEMP-L-S, TEMP-L-W, TEMP-H-S, or TEMP-H-W) through the hole in the cap and into the bottle until it reaches the sensor's white/black heat shrink tubing.
  - Only the stainless-steel portion/tip of the sensor should be inside the bottle. (Figure 1)
4. Place the bottle with the cap up securely in the environment to avoid accidental tipping.
5. Allow enough time for the temperature to stabilize. This may take several hours depending on the storage temperature.

**Figure 2:** Using glycerin filled tube as buffer with TEMP-L-S sensor. Sensor sold separately.



### TEMP-B-T:

1. Mix solution (if required).
2. Fill the tube to approximately 1/2" (12mm) from the top.
3. Replace the cap on the tube.
4. Insert the probe (EAPro-ULS, TEMP-UL-S, TEMP-L-S, TEMP-L-W, TEMP-H-S, or TEMP-H-W) through the hole in the cap and into the bottle until it reaches the sensor's white/black heat shrink tubing. Only the stainless-steel portion of the sensor/tip should be inside the tube. (Figure 2)
5. Clean the bottom of the tube. Remove the covering from one side of the tape tab and secure it to the bottom of the tube.
  - Apply pressure to completely adhere.
6. Clean installation location surface. Remove the covering from the tape on the bottom of the tube. Apply pressure to completely adhere.
  - **(NOTE:** this tape is rated to adhere in freezer applications).
7. Allow enough time for the temperature to stabilize. This may take several hours depending on storage temperature.

## WARRANTY

### WARRANTY AND SERVICE INFORMATION

- Winland Electronics, Inc. ("Winland") warrants to the original purchaser from Winland that each product of Winland's that it manufactures shall be free from defects in material and factory workmanship for one (1) year from the date of purchase when properly installed and operated under normal conditions according to Winland's instruction.
- Winland's obligation under this limited warranty is limited to correcting the product without charge, at its factory any part or parts thereof which are returned, transportation charges prepaid, to the factory within one year of the date of purchase subject to Winland's examination showing to Winland's satisfaction to be covered by this warranty.
- Product returns will not be accepted unless a Return Material Authorization has been issued by Winland, which is subject to the purchaser's identification of the purchase order number and product serial number.

- UNAUTHORIZED RETURN SHIPMENT OR SHIPMENT CONTRARY TO WINLAND'S WRITTEN INSTRUCTIONS WILL VOID THIS LIMITED WARRANTY. Correction of such defects by repair, replacement, or refund of the amount paid for the product, at Winland's option, shall constitute fulfillment of all Winland's obligations under this limited warranty. Repaired and replacement parts will be warranted for the remainder of the original product warranty. Repairs not covered by this limited warranty may be offered by Winland for a charge.
- This limited warranty shall not apply to any of Winland's products that have been subject to misuse, negligence, or accident, or which have been repaired or altered outside of Winland's factory.
- THIS LIMITED WARRANTY IS INSTEAD OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES, NON-INFRINGEMENT, DESIGN, AND TITLE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE. ALL OTHER REPRESENTATIONS MADE TO THE END USER/PURCHASER BY ANY OTHER PARTY ARE EXCLUDED.
- No person, agent, or dealer is authorized to give warranties on behalf of Winland nor to assume for Winland any other liability in connection with any Winland product.
- WINLAND SHALL NOT BE LIABLE TO ANY PERSON FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF WARRANTY OR OTHER CONTRACT, NEGLIGENCE, OTHER TORT, STRICT LIABILITY OR OTHERWISE. Under no circumstances shall Winland's liability under this limited warranty exceed the purchase price paid by the end user/purchaser for the product.
- The parties agree that the limitation of remedies in this document is an agreed-upon allocation of risk and does not cause the remedy to fail in its essential purpose.
- **D-011-0171 REV E (01/2024)**
- **Tech Support 8:00 am – 5:00 pm Central Time**
- [800-635-4269](tel:800-635-4269)
- [507-625-7231](tel:507-625-7231)
- [techsupport@winland.com](mailto:techsupport@winland.com)
- [www.winland.com](http://www.winland.com).



## Documents / Resources

The Winland logo is at the top left. Below it are two product images: a 'Buffer Tube (Temp-B-T)' and a 'Glycerin Bottle (Temp-G-B)'. To the right of these images are two columns of text, likely technical specifications or instructions. At the bottom left of the table cell are several certification logos, including CE and ISO.	<p><b><a href="#">WINLAND TEMP-UL-S Temp-B-T Buffer Tube</a></b> [pdf] Instruction Manual  TEMP-UL-S, TEMP-L-S, TEMP-L-W, TEMP-H-S, TEMP-H-W, TEMP-UL-S Temp-B-T Buffer Tube  , TEMP-UL-S, Temp-B-T Buffer Tube, Buffer Tube, Tube</p>
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## References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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