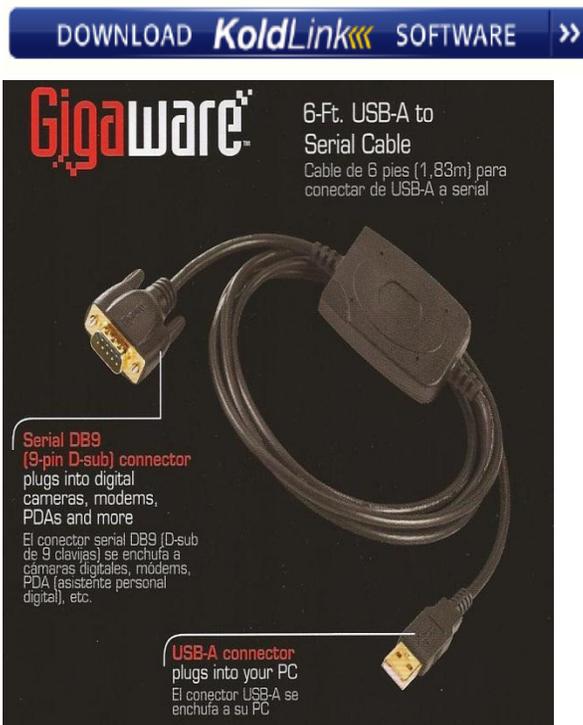


Boomerang Operating Instructions

Boomerang is a versatile, reusable digital temperature monitoring device designed to record ambient temperatures in cold storage and in-transit applications.

Requirements for Use:

- Installation of free KoldLink software application available for download at: www.cargodatacorp.com.
- "USB to Serial" adaptor cable- (source from Cargo Data or Radio Shack (*Catalog #: 26-949*) for best results). It is necessary to install the drivers that are provided with the adapter cable.
- OPTIONAL: **Express** handheld unit to dock (or via RF). **Express** provides full screen chart viewing and data storage.
- Click on images below for sourcing information.



[Radio Shack item 26-949](#)



[Boomerang Battery CR2450](#)

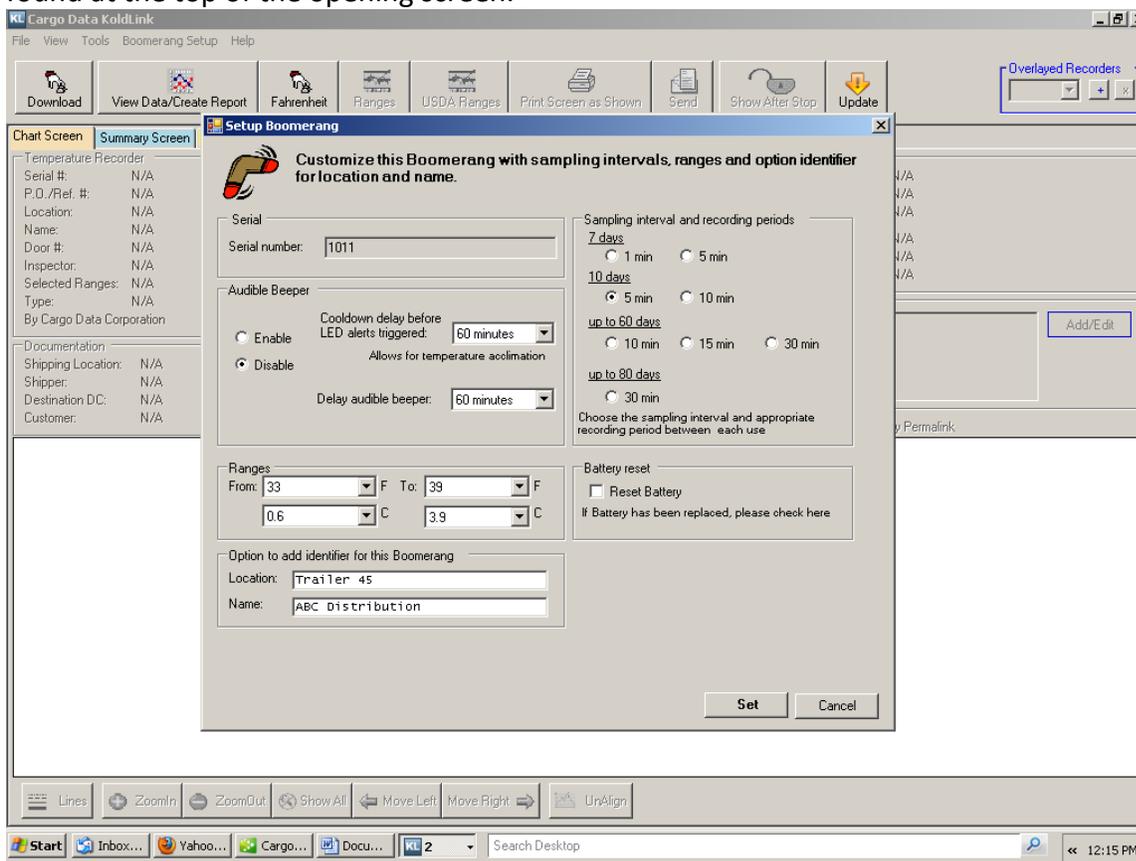


[Optional Express](#)

Setup Your Boomerang

KoldLink software must be used to configure **Boomerang** for initial use in your specific application. The setup process *must* be completed before **Boomerang** can be used!

To setup **Boomerang**, download, install, and open the **KoldLink** software. Connect **Boomerang** to the computer using the “USB to Serial” adaptor cord. Click on the “Boomerang Setup” menu found at the top of the opening screen.



The following features can be selected to best meet your needs:

- **Serial Number:** This should not be changed. Each unit has an internal assigned serial number and matching external bar code label. It is provided for you in this field for information purposes only. This is the master Unit ID Number. **Boomerang** also has an internal counter which assigns successive numbers for each activation. For example, a **Boomerang** serial number is 1011. The first monitoring session will be automatically identified as session 101100, the second session will be 101101, etc. Each time the unit is

started and stopped, the session identification number will increase by one. At the completion of monitoring session 101199, the session identification number will return to 101100. The session identification number will be displayed both on the **Boomerang** LCD and the downloaded temperature record.

- The audible beeper can be activated to simplify locating **Boomerang** in a crowded cooler or trailer. The “delay” feature will allow the recorder to remain silent while awaiting placement in the temperature controlled location. Similarly, there is a selectable “cool down” feature for the Out of Range Alerts. This allows the device to acclimate to the ambient temperature before red LED alerts are activated. This delay can be enabled and adjusted to best fit the application.
- Desired temperate ranges: Use these fields to input the desired temperature range for your monitoring application.
- Optional unit Identification information: Complete these fields if you would like to add location and name data to the internal memory.
- Sampling Interval and Recording Periods: The “sampling interval” option instructs **Boomerang** to take a temperature reading at the specified interval. Click on the appropriate bubble for your application.
- Battery reset: Click this box when you have installed a new battery.

Start Monitoring with Boomerang

To begin a monitoring session, press and **HOLD** the START button for 3 seconds. You may need to use a pointer to fully depress the START button. Once activated, Boomerang will emit three audible beeps and the green LED will begin blinking. The word “On” will also be displayed on the LCD.

Viewing up-to-the-minute temperature data during the monitoring session is possible using the built in LCD. Simply press the F (Fahrenheit) or C (Celsius) button. The temperature data will be displayed in the following sequence:

- Unit/Session ID number
- Total elapsed monitoring time
- Selected Range
- Full session average temperature
- Low and High session temperatures
- Hours at each temperature
- Average Temperature for each day
- High and Low temperature for each day

If monitored temperatures are not within the range selected during the setup, the red LED alert will be activated and continue blinking until the end of the monitoring session.

Temperature data can also be viewed in chart form using the optional **Express** handheld data retrieval device. **Boomerang** can be physically docked to **Express**. **Boomerang RF** (radio frequency enabled) sends data wirelessly to **Express**. This allows for semi-permanent **Boomerang RF** installation inside a trailer or cooler—wireless data download capability means there is no need to physically retrieve **Boomerang** for data review or saving.

End Monitoring Session

To end the monitoring session, press STOP. **Boomerang** will display all data on the LCD and the display a blinking “DONE” for approx. 30 seconds. Data can also be viewed and saved using optional **Express**.

If you wish to permanently save your temperature monitoring data, **Boomerang** *must* be reconnected to your computer (or **Express**). Once the **KoldLink** software is open, click on the “Download” button found in the top left corner. **KoldLink** will first open a dialog box where documentation details can be added to the record. Once the documentation has been entered and saved, **KoldLink** will display full data for the monitoring session. **Warning: Data will NOT be available on Boomerang after it has been restarted—internal memory is cleared during the restart process! Be sure to save data on your computer (or Express) if you will need it in the future!**

Routine Maintenance

Approximately every six months, the battery in **Boomerang** will need to be replaced. When replacement is required, the LCD will display a “LO BATT” warning. Once the LO BATT warning appears, **Boomerang** will not start again. Replace the battery with a coin cell CR 2450 (available locally or from Cargo Data Corp.). A small Phillips screwdriver is required to remove and replace the battery compartment door on the reverse side of **Boomerang**.

Once the new battery is installed, **Boomerang** will need to be reset using the “Boomerang Setup” procedure detailed above. Click the “Reset Battery” box before clicking SET.

It is important for **Boomerang** to remain clean and dry. Cargo Data supplies clear plastic moisture resistant pouches that are recommended when the monitoring environment is wet, highly humid, and/or corrosive. The pouches have no insulating properties so temperature monitoring accuracy will not be affected.