



Boomerang 2 Use Instructions

- Requirements for Use: Windows 2000, XP, Vista, Windows 7, 8
- Installation of the latest version of KoldLink desktop software available free at cargodatacorp.com.

Configure

Boomerang 2 is ready for use right out of the box, however, you can custom configure Boomerang 2 specifically for your application using "Boomerang Setup" in KoldLink software.

Connect Boomerang 2 to your computer using the mini USB cord provided. Open KoldLink software and click on "Boomerang Setup" tab found at the top left of the opening screen.

Notes about Unit ID number/Monitoring Session Number: A permanent Unit ID number is embedded within Boomerang 2 and cannot be changed. As each monitoring session is started, a two digit session number is automatically added to the end of the Unit ID number. For example, for Unit #801, the first monitoring session will be designated 80101, the subsequent session will be 80102, etc., until session 80199 is reached. At this point, Boomerang 2 resets session numbering to 80100. Session numbers are shown on the display when reviewing data and allows easy record identification for archiving.

Temperature Range Selection: Select the desired temperature range for the monitored zone. The range can be between -20 and 120 F (default). Cargo Data suggests a minimum 3 degree separation between the high and low limits. Selecting a desired range will enable the blinking red LED alert on the face of Boomerang 2 when the instrument records out of range conditions. Additionally, the selected range will be displayed within KoldLink charts as a shaded area. Any variations above or below range will be more easily identifiable.

Cool down Delay: After setting desired temperature range, the cool down delay will allow for placement of Boomerang 2 to acclimate to controlled temperature before any alert is issued. Boomerang will record all temperatures during the "cool down delay" but will not activate the red LED on the face of the Boomerang 2 until the delay period has ended.

Audible Beeper: Boomerang 2 has a built-in audible beeper. If enabled, this feature simplifies locating the unit in a crowded cooler or trailer. Or, disable to silence this feature. Beeper Delay provides a specific time period for placement of the Boomerang 2 before activation of the beeper.

Sampling interval: The "Sampling Interval" indicates how frequently Boomerang 2 samples and records temperatures. Click on the box appropriate for sampling interval desired.

Identification: Option to enter identifying information in 2 fields, such as cooler name, and trailer/driver, etc. This information will be listed on all charts and reports.

Using Boomerang 2

Start Monitoring Session: Press and **HOLD START** button for 3 seconds. Boomerang 2 will issue 3 beeps to confirm activation. "On" will appear on LCD for approx. 30 seconds. Unit ID and Session Number will be displayed on the LCD. Temperature Range, sampling intervals, and battery life details will also be displayed. The green LED will begin blinking to indicate normal operation.

Viewing Temperature Data on Display: Anytime during the monitoring session you can view recorded temperature data on the LCD by pressing the F (Fahrenheit) or C (Celsius) button. Data will be displayed in two day (48 hour) increments, beginning with the most recent information. Press the ← Review key to view earlier temperature data, press → Review key to see later recorded information. Press DETAILS to view detailed data regarding number of hours at each recorded temperature.

Stop Monitoring Session: Press and **hold** the STOP button. Boomerang 2 will issue three beeps to confirm STOP. The green LED will discontinue blinking, and word DONE will appear on the LCD. Final data can be viewed on the LCD as instructed above.

Temperature Data Retention and Starting a New Monitoring Session: Boomerang 2 has a large internal memory which can retain data from multiple monitoring sessions—this feature allows multiple Boomerang 2 uses before download to a computer is necessary. The display will provide information about remaining archive capacity. Start subsequent monitoring sessions in the same manner as described above.

Routine Maintenance

General Notes: Boomerang 2 is a precision electronic instrument and precautions should be taken to avoid moisture or excessively dirty/dusty conditions. Small plastic pouches/protective bags can be used.

Battery Life: Approximately every 6 months, Boomerang 2 will require a new battery. Boomerang 2 will display "BAT REP" on LCD. The instrument will not START until battery is replaced and the RESET box is checked with Boomerang Setup in KoldLink software.

Battery Replacement Procedure: Boomerang 2 requires a CR 2450 coin cell lithium battery (available locally or from Cargo Data Corporation). Remove battery compartment door screws using a small (#2) Phillips type screwdriver. Gently lift battery from its holder.

Once old battery has been removed, **WAIT 30 SECONDS**. This is necessary to allow residual electrical power within Boomerang 2 to discharge. After 30 seconds have elapsed with no battery in Boomerang 2, install new battery. Before replacing battery door, ensure the moisture protective clear gasket fits into the groove around the battery door area. Boomerang 2 will issue 5 beeps to confirm successful battery installation. If you do not hear five beeps after battery installation, remove battery, wait 30 seconds, then repeat procedure.

Sensors: The Boomerang 2 temperature sensor is a small black device mounted to the sensor port in the lower right corner of the instrument. In the event you wish to use extension sensors or probes (to monitor internal temps of solids or liquids), gently slide the sensor out and replace with extension sensor or probe (available separately from Cargo Data). When removing sensor or probe cables from Boomerang 2, gently grasp the plug body, and apply pressure to remove from Boomerang 2. **DO NOT PULL ON CABLES**. Re-install the connector by gently inserting the connector, with the screw side down and ridges showing. Push gently but firmly to completely seat connector into Boomerang 2.

Note: If Boomerang 2 is activated with sensor removed, the temperature samples recorded during the sensor's absence will show 127 F.

Troubleshooting

If you receive an error message when attempting to download Boomerang into KoldLink software, check port selection under "tools\options". Choose port option that includes "Silicon Lab UART" in its description. Other devices or drivers can interfere with the USB port, such as cameras, etc. that use the same port. For additional troubleshooting information, consult the KoldLink download page on cargodatacorp.com.