DISPLAY:

Figure 1

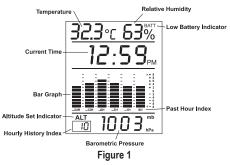## TEMPERATURE:
Operating Range: 0 to 55°C (32 to 131°F)
Resolution: 0.1°
Accuracy: ±0.4°C; ±0.8°F

RELATIVE HUMIDITY:
Range: 0% to 95% RH
Resolution: 1%
Accuracy: ±3 %RH [5 to 75] %RH, ±5 %RH otherwise

Recommended Humidity Operating Range: 20% to 80% (non-condensing) over -10 to 60°C.

BAROMETRIC PRESSURE:
Range: 500 to 1030 mbar (14.77 to 30.41 inHg)

Pressure Type: Absolute
Resolution: 1 mbar; 0.01 inHg
Accuracy: ±4 mbar; ±0.12 inHg
Altitude Compensation: –100 to 2500 meters

Sampling frequency:
Temperature and humidity: 10 seconds
Barometric pressure: 15 minutes

Note: if any parameter reading is out of range, the corresponding LCD location will display '---'. Out of range readings do not trigger alarms.

DEVICE SETUP:

a. Enter Setup Mode: Press and hold SET button for 3 seconds, release when the hour digits start flashing.

b. Press UP/DOWN button(s) to adjust the current hour. Press and hold UP or DOWN button(s) for >2 seconds, the hour will increase or decrease continuously.

c. Once desired hour is set, press and release SET button (don't hold SET button) to move forward to next setup parameter.

d. Setup parameters move forward in the following order: Hour -> Minute -> 12H/24H Format -> Temperature Low Alarm -> Temperature High Alarm -> Humidity Low Alarm -> Humidity High Alarm -> Barometric Pressure Low Alarm -> Barometric Pressure High Alarm -> Local Altitude -> Exit Setup Mode

e. To exit setup mode, press and hold the SET button for >3 seconds. Alternatively, if no SET/UP/DOWN button is pressed for 15 seconds, the device will exit setup mode.

f. While setting temperature, humidity, and barometric pressure alarms, the default step sizes are:
    Temperature: 0.1°
    Humidity: 1%
    Barometric Pressure: 1 mbar or 0.01 inHg
    Altitude: 10 meters

The step sizes are increased for fast adjustment if the UP or DOWN buttons are held for >2 seconds:
    Temperature: 1°
    Humidity: 10%
    Barometric Pressure: 10 mbar or 0.1 inHg
    Altitude: 50 meters

Once the UP/DOWN button is released from long press, the step sizes return to default.

g. If local altitude is set to a non-zero value, the displayed barometric pressure is corrected for sea level barometric pressure (1013 mbar), and the ALT symbol is active on the LCD.

HOURLY STORED RECORDS: THE DEVICE RECORDS HOURLY MINIMUM/MAXIMUM DATA READINGS OBSERVED FOR THE LAST 24 HOURS.

1. Viewing records:

    a. Press the SET button briefly.

    b. Scroll to the desired hour to view using the UP/DOWN buttons. The lower left corner displays the hour index, 1 means 1 hour ago, 2 means 2 hour ago, etc…, until 24.

    c. Press the UP button to view the maximum readings for the selected hour. The current time display will be replaced with the word "HI" to indicate readings viewed are maximum readings. Press the DOWN arrow to view the minimum readings for the selected hour. The current time display will be replaced with the word "LO" to indicate readings viewed are minimum readings.

    d. To exit hourly record display, scroll to index 24 and press the UP button again. Alternatively scroll to the 1 index and press the DOWN button again.

    e. If there is no stored record available, LCD displays "----" at the corresponding location.

2. Clearing records:

    a. In Setup Mode, if the hour is changed by the user, all records will be cleared.

    b. In Setup Mode, if the local altitude is changed by the user, all records will be cleared.

c. While viewing the hourly stored records (lower left corner hourly records index is non-zero), press and hold the CLEAR button for >3 seconds. All recorded data is erased from memory.

3. While the device is in normal work status, pressing the CLEAR button (don't hold) will reset the minimum/maximum value of current hour.

ALARM

1. An alarm event is triggered when either a temperature, humidity, or barometric pressure reading is measured outside or equal to the alarm limits.

2. When an alarm is triggered by either temperature, humidity, or barometric pressure, the corresponding LCD display will flash and the buzzer will beep.

3. The buzzer will continue to beep for the first 60 seconds, and then will beep periodically every 15 seconds.

4. Pressing the CLEAR button will clear the alarm, halting both the LCD flashing and buzzer beeping.

5. If temperature, humidity, or barometric pressure returns to normal range, and then back to out of alarm range, alarm will be triggered again.

Note: If an alarm event is triggered and the parameter returns to within the alarm limits, the buzzer will continue

to beep and the LCD will continue to flash until the alarm event is acknowledged/cleared.

Bar Graph Display:
The bar graph displays the barometric pressure trend for the last 24 hours, and bar index 0H means current hour, -1H means -1 hour, etc.

Note: Bar values are calculated by averaging the min and max of the hour, and subtracting the current pressure reading.

Toggle bar chart and line chart display: press and hold the UP and DOWN buttons simultaneously for >3 seconds, and the device will toggle between bar chart and line chart display.

The following parameters are stored in internal memory. Replacing the batteries will not reset these parameters: time, alarm settings, local altitude, and hourly min/max records.

RS-232 Setting:
Baud rate: 9600
Parity: None
Data bits: 8
Stop Bits: 1
Flow control: None

ACCESSORIES
Cat. No. 6531 Data Acquisition System Accessory Records interval readings; displays MIN/MAX readings; and alarm mode permits user to be notified visually, audibly, and by e-mail when an alarm is triggered. Data is stored to a file that can be printed in any report or spreadsheet format. Networking server/client capability allows the captured data to be monitored on a remote workstation and/or by e-mail. It is designed to work with Windows® 98/Me/NT/2000/XP/Vista/7. Includes a CD, data cable (supplied USB) that plugs into the instrument and computer.

WARRANTY, SERVICE, OR RECALIBRATION
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Control Company is ISO 9001:2008 Quality-Certified by DNV and ISO/IEC 17025:2005 accredited as a Calibration Laboratory by A2LA.

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