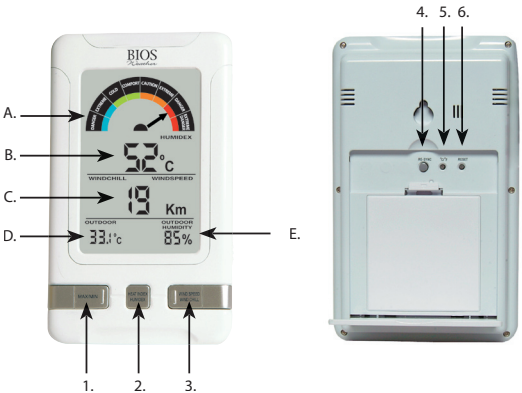
BIOS Weather

266BC

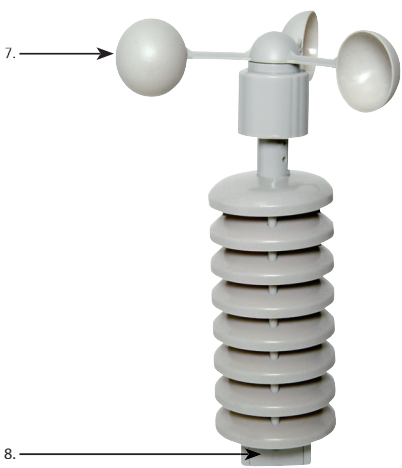
Wireless Wind Chill and Humidex Thermometer

Thermomètre sans fil pour indices de refroidissement éolien et humidex

Monitor/Moniteur :



Transmitter/Transmetteur :



Monitor:

A. Wind Chill & Heat Stress Temperature Index Scale
B. Humidex/Heat Index
C. Wind Chill & Wind Speed
D. Indoor & Outdoor Temperature
E. Outdoor Relative Humidity

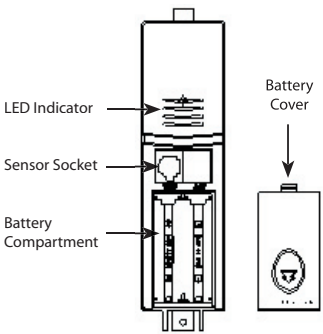
1. Max/Min Button
2. Heat Index/Humidex Button
3. Wind Speed/Wind Chill Button
4. In/Out Temp Button
5. °C/°F Button
6. Reset Button

Transmitter

7. Wind Sensor
8. Remote Sensor

1.0 Set up Procedure

1. Pull away the water proof casing of the transmitter to reveal the battery compartment.
2. The attached cable of the wind sensor will be in the corresponding socket on the transmitter.
3. Remove the battery cover from the monitor located on the back of the unit and insert 2 x AA, 1.5V Alkaline batteries.
4. Remove the battery cover from the transmitter located below the socket and insert 2 x AA, 1.5V Alkaline batteries and close the cover.



Every time the transmitter is powered up (for example after a change of batteries), the LED indicator will light up for 4 seconds (if no LED lights up or if the light stays on permanently, make sure the battery is inserted correctly). After the transmitter is powered up, the sensor will start to transmit regular outdoor temperature, relative humidity and wind speed measurements.

NOTE: Each time the transmitter is powered up, a random security code will be generated to distinguish itself from other transmitters around. **If a battery change has been made in the transmitter**, the receiver must be reset so that the new security code can be re-registered again.

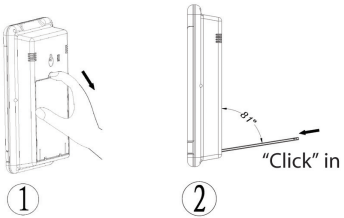
2.0 Mounting

Before mounting the two units permanently ensure the units are working properly.

2.1 Monitor

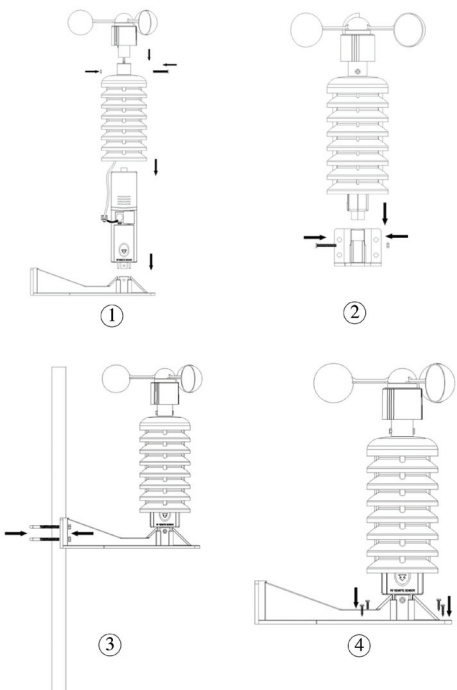
Note diagram to the right for proper flat surface setup.

The monitor can be mounted on a wall or placed on any flat surface.



2.2 Transmitter

There are two mounting methods available for the transmitter.
To mount the transmitter to a pole, follow steps 1, 2, 3. To mount the transmitter to a flat surface follow steps 1, 2, 4.



3.0 Indoor/Outdoor Temperature
The temperature measurement is displayed on the bottom left corner of the screen.
Press the **IN/OUT TEMP** button to switch between indoor and outdoor temperature.

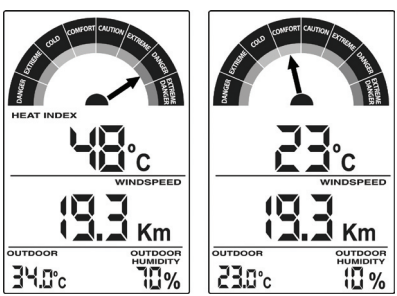
4.0 Outdoor Relative Humidity
The humidity measurement is displayed on the bottom right corner of the screen.

5.0 Heat Index
Heat index is a combination of outdoor temperature and outdoor humidity into one number to reflect perceived temperature. It is a measure of how the air "feels".
As humidity increases, heat index goes up and the sensation of heat increases.

The monitor will display the heat index reading once it has been powered up.

IMPORTANT: Heat index is relevant when temperature is in the range of 26.6°C (80°F) to 46.1°C (115°F), and outdoor humidity is 35% or above, outside of this range no measurement is available or displayed.

When outdoor temperature and humidity are not in the effective calculating range of heat index, then current outdoor temperature will be displayed instead (the words Heat Index and Humidex will not be displayed on the screen when Heat Index is out of range).



6.0 Humidex
Press the **Heat Index/Humidex** button to show Humidex readings on the monitor. Humidex is the same indication of how the air "feels" with the same principles of heat index, however, it uses the Canadian standard calculation which is generally a higher value than the Heat Index.

IMPORTANT: Humidex is relevant when temperature is in the range of 21°C (69.8°F) to 43°C (109.4°F) and outdoor humidity is 20% or above, outside of this range no measurement is available or displayed.

When outdoor temperature and humidity are not in the effective calculating range of humidex, then current outdoor temperature will be displayed instead (the words Heat Index and Humidex will not be displayed on the screen when Humidex is out of range).

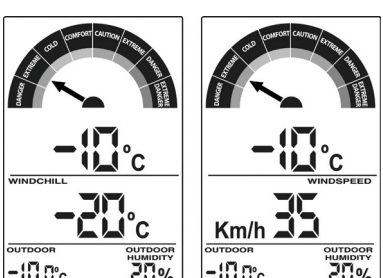
7.0 Heat Stress Index Scale

The Heat Stress Index is a valuable measure of the effect of humidity on how "hot it feels". Since our bodies primary cooling mechanism is through perspiration and the cooling effect of evaporation from our skin; as the humidity increases, there is less evaporation and we feel hotter.
At a certain point, high Heat Index/Humidex values become a health issue and a serious one for people who are working or exercising in it. The color LCD scale reflects the Heat Stress Index values and relates to the health affects outlined below:

Condition	**Heat Index / Humidex Value**	**Physical Response**
Caution	27°C to 31°C 80°F to 89°F	• Fatigue possible with prolonged exposure and physical activity
Extreme Caution	32°C to 40°C 90°F to 104°F	• Sunstroke, muscle cramps and heat exhaustion are possible with prolonged exposure and physical activity
Danger	41°C to 53°C 105°F to 129°F	• Sunstroke, muscle cramps and heat exhaustion are likely • Heat stroke possible with prolonged exposure and physical activity
Extreme Danger	54°C/130°F or higher	• Heat stroke and sunstroke likely

8.0 Wind Chill

Press the **Wind Speed/Wind Chill** button to switch from wind speed to wind chill on the monitor.



Wind chill considers the combined effect of wind and temperature on what we "feel". When the wind speed increases, the "boundary layer" (a thin layer of air which warms our bodies), is taken away, our skin temperature drops and we feel colder.

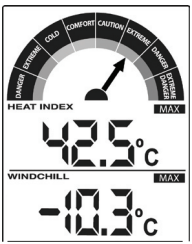
IMPORTANT: Wind chill is relevant when temperature is below 10°C (50°F) and wind speed is over 4.8 km/h (3 miles) but less than 177 km/h (100 miles), outside of this range no measurement is available or displayed.

When outdoor temperature and wind speed are not in the effective calculating range of wind chill, then current outdoor temperature will be displayed instead, if wind speed is not selected (the word Wind Chill will not be displayed on the screen when Wind Chill is out of range).

Condition	**Wind Chill Value**	**Physical Response**	**What to Do**
Cold	14°C to -9°C 57°F to 15°F	• Discomfort • Risk of frostbite, possible hypothermia if wet	• Dress in layers of warm clothing with wind resistant outer layer • Wear hat and mittens • Keep active to maintain blood flow to extremities
Extreme	-10°C to -24°C 14°F to -11°F	• Uncomfortably cold • Risk of hypothermia and frostbite • Check face, fingers and toes for numbness or whiteness	• Dress in layers of warm clothing with wind resistant outer layer • Cover exposed skin and keep warm
Danger	-25°C/-13°F and lower	• High risk of frostbite • Risk of hypothermia, if outside for long periods	• Be careful • Dress in layers of warm clothing with wind resistant outer layer • Cover exposed skin and keep warm

9.0 Maximum and Minimum

1. Press the **MAX/MIN** button once to display the maximum readings. Press the **MAX/MIN** button again to display the minimum readings.
2. To clear the memory, press and hold the **MAX/MIN** button when the Max/Min measurements are displayed. It will clear the record of the shown field.



10.0 ˚C/˚F Switchable

The default measurement for temperature is °C, press the **˚C/˚F** button to toggle between °C and °F.

11.0 Specifications

Outdoor data	
Transmission distance in open field	100 meters
Frequency	433.9MHz
Temperature Range	-40ºC to 65ºC (show OFL if outside range)
Resolution	0.1ºC
Measuring range relative humidity	20% to 95%
Indoor data	
Indoor temperature measuring range	0ºC to 60ºC
Resolution	0.1ºC
Power Consumption	
Monitor	2 x AA 1.5V LR6 Alkaline batteries
Transmitter	2 x AA 1.5V LR6 Alkaline batteries
Battery Life	Minimum 12 months for monitor Minimum 24 months for transmitter