

ITEM 975233



Wireless Professional Weather station with 4-Day Forecaster

Owner's Manual

Thank you for purchasing the new generation of professional weather station. Designed and engineered with the state-of-art technology and components, this instrument will provide accurate and reliable measurement of wind speed & direction, wind chill, daily/weekly/monthly/accumulated rainfall, indoor/outdoor humidity, temperature, heat index & dew point as well as 4-day forecast of your home city. Read this manual carefully to fully explore the features and functions of the new product.

In this package you will find:

One main unit (Receiver)

One USB transmitter (Connects to PC and transmits 4-day forecast data from the Internet)

One anemometer (Transmitter – transmit wind & outdoor Channel-1 temperature/humidity data)

One rain gauge (Transmitter – transmit rainfall data)

Mounting hardware for rain gauge (2 sets of screws & plastic screw plugs)

Mounting hardware for anemometer (2 pieces of U-shape metal plate, 4 sets of Hex screws & nuts)

One CD (4-day forecast PC program)

One owner's' manual

Additional tools needed for anemometer & rain gauge installation

- Small Phillips screwdriver
- Hexagonal Key
- Electric drill
- Pencil
- Level
- Mast, 1 – 1.25 inch (2.54 – 3.18 cm) in diameter (to mount the anemometer)

Important note:

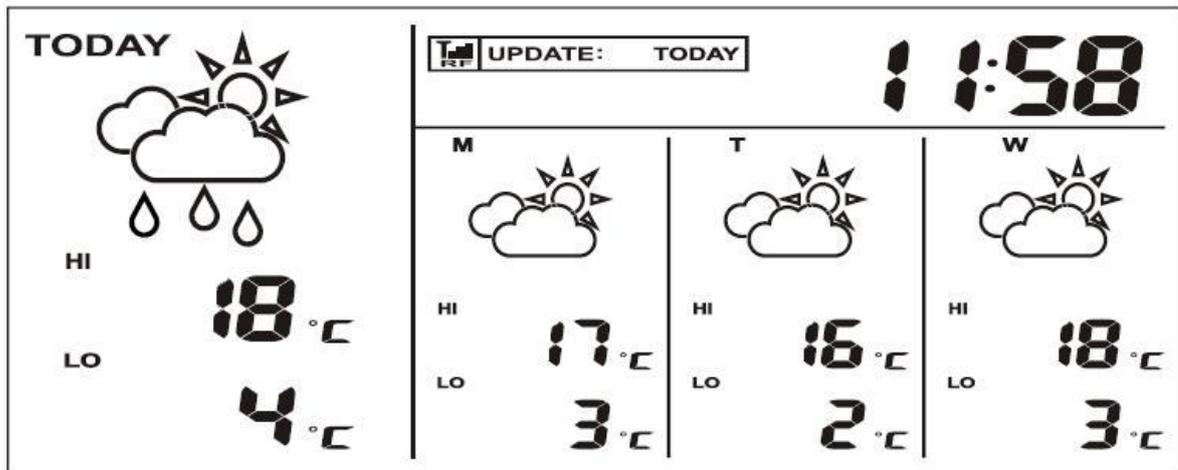
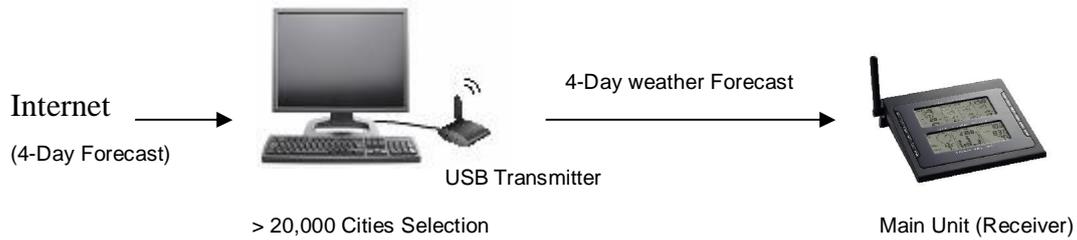
This manual is divided into 2 major sections:

- 4-Day Forecast installation & operation (USB transmitter)
- Current weather installation & operation (anemometer & rain gauge)

Please follow the installation instructions in the order they appear in this manual.

4-DAY FORECAST

4-day forecast data is updated from the Internet automatically and send to the main unit wirelessly via the USB transmitter. 4-day forecast readings are located on the upper display of the main unit.



Forecast includes:

- Weather Forecast
- High & low temperature forecast
- Average humidity forecast
- Chance of precipitation
- Rainfall forecast
- Maximum UV index forecast
- Average wind speed & direction forecast

City list:

- Europe: Over 9,200 cities selection
- North America: Over 10,900 cities selection
- Asia Pacific: Over 300 cities selection in Japan & Australia

Auto-Synchronized Clock from Internet

Sunrise & Sunset Time

Calendar, Weekday & Single Daily Alarm

Quick start guide for basic 4-day forecast setup

(4-Day Forecast)

- 1) Insert 6 pieces of AA batteries in the main unit
- 2) Install 2 pieces of AAA batteries in the USB transmitter
- 3) Connect the USB transmitter to your PC via USB port
- 4) Ensure that your PC is connected to the Internet. Run the "INSTALL_1940.EXE" or "NIS01_INSTALL_1940.EXE" program in the CD to start installation
- 5) After the installation is completed, run the program by double clicking the desktop "4-DAY



FORECAST" icon. Then Click "SETTING" button in the PC program. Enter your home city location & other setting on the PC program. 4-day forecast will be updated on your PC program automatically via the Internet

- 6) Press [PC SEARCH] button repeatedly on the main unit until the RF icon  flashes. The main unit will start searching for RF signal from USB transmitter
- 7) Press [TRANSMIT] button on your USB transmitter to enforce transmitting RF weather data to the main unit
- 8) Once the RF connection is established between the main unit & USB transmitter, RF icon with full strength  will appear. It may take 10 minutes or more to receive & display all forecast information on the main unit

Name and Functions of Buttons on Main Unit:

(4-Day Forecast)

	<u>Press Functions</u>	<u>Hold 3 seconds</u>
Front Buttons		
[MODE/SNOOZE]	Trigger snooze alarm Toggle forecast between - Hi/Lo temperature - Rainfall / chance of precipitation - Maximum UV Index / average humidity - Average wind direction / average wind speed - Auto-scroll “↻” display function	
[CLOCK]	Read time, day-of-week & sunrise/set time	12/24 Hour & day/month format setting
[ALARM]	Read alarm time; enable/disable alarm	Alarm time setting
[WIND / UP]	Select wind speed's unit 1 step forward in setting	Fast advance in setting
[C/F / DOWN]	Select degree C/F 1 step backward in setting	Fast backward in setting
[RAIN UNIT]	Select rainfall's unit (mm or inch)	
Back Buttons		
[PC SEARCH]	Receive RF signal from USB transmitter	

Name and Functions of Buttons on USB Transmitter:

Top Keys	<u>Press Functions</u>
[TRANSMIT]	Transmit forecast data & synchronize with main unit

INSTALLATION

(4-Day Forecast)

SETTING UP THE MAIN UNIT (RECEIVER)

BATTERY INSTALLATION:

Battery installation: Open the battery door, install 6 pieces of AA batteries according to the polarity indicated and close the battery door.

USB TRANSMITTER & PC PROGRAM INSTALLATION

(4-Day Forecast)

BATTERY INSTALLATION & USB CONNECTION

- Slide to open the battery door on the bottom of the USB transmitter, insert 2 pieces of AAA batteries according to the polarity indicated. Close the battery door.
- Connect USB transmitter to your PC via an USB port
- Flip the antenna to vertical position

PC PROGRAM INSTALLATION

- Before installation, ensure that
 - 1) Your PC is connected to the Internet. Try browsing through a couple of websites to make sure
 - 2) You are using Windows 2000, XP (32 bits) or Vista (32 bits)
 - 3) USB transmitter is connected properly to your PC via the USB port
- Insert CD into your CD ROM and double click the "INSTALL_1940.EXE" or "NIS01_INSTALL_1940.EXE" program to start installation. If the installation program detected that Microsoft .NET Framework 2.0 driver was not installed in your Windows before, it will prompt you to install the driver. Follow the instruction to install the driver and complete the rest of the installation
- After the installation is completed, run the program by double clicking the desktop "4-DAY FORECAST" icon . Then click [SETTING...] in the HOME WEATHER display. Click [SET LOCATION] to enter your home city in the program.
- After setting your home location, 4-day forecast of your home city will be updated on your PC program automatically via the Internet. You may click [UPDATE FORECAST] anytime to manually update the forecast display on the program. The program will also update the forecast and send to the main unit automatically if your PC is online all the time or every time you turn on your PC.

NOTE: Refer "TROUBLESHOOTING" section if you have problem displaying 4-day forecast information on your PC program

ESTABLISH RF CONNECTION WITH MAIN UNIT

- Before setting up the RF connection, please ensure that you have successfully received 4-day forecast on your PC program for your home city
- Place the USB transmitter & main unit away from metal & source of interference such as PC monitor, mobile phones, appliances, TV etc. It is recommended to start with a short distance (eg.

within 0.5 meter) between the two units for initial RF setup. Once the RF connection is established, place the main unit within the effective transmission range from the transmitter. Shorten the distance if necessary for best reception.

- Flip the antenna to vertical position
- To search for RF signal from a new USB transmitter, press [PC SEARCH] button on the main unit repeatedly until the RF icon  flashes.
- Press [TRANSMIT] button on the USB transmitter to enforce transmitting RF weather data to the main unit
- Once the RF connection is established between the main unit & USB transmitter, the RF icon  "with full strength will appear on the main unit. In the first few minutes of the RF reception, the main unit is showing data on one part of the screen and this is normal. The rest of the screen display data will gradually appear in the next 10 minutes or more.

NOTE:

- If you have waited half an hour or more without seeing the rest of the screen, shorten the distance between the USB transmitter & main unit, check the battery levels and repeat the setup procedure above
- If it continues to fail, try removing the USB connection and all batteries from the USB transmitter. Reinstall the batteries and then reconnect the USB connection again. Repeat above procedure to set up the RF connection

4-DAY FORECAST INFORMATION

(4-Day Forecast)

AUTOMATIC FORECAST UPDATE

- 1) After your PC is turned on or rebooted, the PC program will access the Internet server for weather forecast update and start sending data to the main unit automatically
- 2) If your PC is turned on all the time with Internet connection, weather forecast will be updated periodically from the Internet and send to the main unit automatically.

MAIN UNIT'S DISPLAY

(4-Day Forecast)

WEATHER FORECAST

4-day weather forecast with 28 different weather symbols

PC Program	Description
	Clear
	Partly cloudy
	Partly cloudy with light rain
	Partly cloudy with light sleet
	Partly cloudy with light snow
	Partly cloudy with showers
	Partly cloudy with sleet showers
	Partly cloudy with snow showers
	Partly cloudy with thunderstorms
	Mostly cloudy
	Mostly cloudy with light rain
	Mostly cloudy with light sleet
	Mostly cloudy with light snow
	Mostly cloudy with showers
	Mostly cloudy with sleet showers
	Mostly cloudy with snow showers

	Mostly cloudy with thunderstorms
	Overcast
	Overcast with light rain
	Overcast with light sleet
	Overcast with light snow
	Overcast with showers
	Overcast with sleet showers
	Overcast with snow showers
	Overcast with rain
	Overcast with sleet
	Overcast with snow
	Overcast with thunderstorms

HIGH / LOW TEMPERATURE FORECAST

To view the high & low temperature forecast, press [MODE] repeatedly until “HI” & “LO” icons appear
Press [C/F] button to select degree C or F

AVERAGE HUMIDITY FORECAST

To view the average humidity forecast, press [MODE] repeatedly until “RH%” icon appears

CHANCE OF PRECIPITATION

To view the precipitation forecast, press [MODE] repeatedly until “PRECIP” icon appears

RAINFALL FORECAST

To view the rainfall forecast, press [MODE] repeatedly until the “RAIN” icon appears.
Press [RAIN] to select rainfall unit between “mm” or “inch”

MAXIMUM UV INDEX FORECAST

To view the maximum UV forecast, press [MODE] repeatedly until “UVI” icon appears

- UVI 1 to 2: Maximum UV level is low. Low danger to the average person
- UVI 3 to 5: Maximum UV level is moderate. Moderate risk of harm from unprotected sun exposure
- UVI 6 to 7: Maximum UV level is high. High risk of harm from unprotected sun exposure
- UVI 8 to 10: Maximum UV level is very high. Very high risk of harm from unprotected sun exposure
- UVI 11 to 15: Maximum UV level is extreme. Extreme risk of harm from unprotected sun exposure

AVERAGE WIND SPEED & WIND DIRECTION FORECAST

To view the wind speed/direction forecast, press [MODE] repeatedly until “WIND” icon appears
16 wind directions available: N for north, S for south, SW for south-west and so on
Press [WIND/UP] to select wind speed unit between km/h, m/s, knots & mph.

RF RECEPTION STATUS

The icon shows the RF connection status between the main unit and the USB transmitter.



Main unit is successfully synchronized to the USB transmitter and is receiving weather data from USB transmitter periodically.



Flashing indicates that it is in registration mode and is searching for RF signal from USB transmitter



Fail to receive RF signal from USB transmitter (see “ESTABLISH RF CONNECTION WITH MAIN UNIT” section to reconnect the USB transmitter)

LAST UPDATE OF FORECAST

It shows the last update of forecast from the Internet.

“UPDATE: TODAY”: Forecast is updated today from the Internet

“UPDATE: -1 DAY”: Forecast is updated yesterday from the Internet

.... and so on

If your PC is not connected to the Internet for more than 10 days, it will show “UPDATE: -- DAY” and all forecast information will show “ - - “ until the PC is connected to the Internet again.

NETWORK TIME (Auto-synchronized clock)

The clock on the main unit is synchronized to the Internet network time automatically and is adjusted for optimal accuracy.

NOTE:

- If your PC is not connected to the Internet for a long period of time, the clock display may not be accurate
- You may set the time offset (+/- 0.5, 1, 1.5 or 2 hours) of your home city in the PC program to adjust DST & time zone if necessary and the time on your main unit will be updated accordingly

Hold [CLOCK] on the main unit to set the 12/24 hour format, press [WIND/UP] or [CF/ DOWN] to select and press [CLOCK] to confirm. The “M” & “D” icons will flash, press [WIND/UP] or [CF/ DOWN] to select day/month or month/day format for the calendar. Press [CLOCK] to confirm and exit.

SUNRISE / SUNSET TIME

To view the sunrise and sunset time of your home city, press [CLOCK] button repeatedly until the respective “SUNRISE” or “SUNSET” icon appears

ALARM TIME

Press [ALARM] button to view the alarm time and “AL” icon will appear. Press [ALARM] again to enable & disable the alarm. “▲” icon appears when alarm is enable. Press [CLOCK] to return to time display

Hold [ALARM] for 3 seconds to enter alarm setting mode. Press [WIND/UP] or [CF/ DOWN] to enter the desired Hr/ Min values and press [ALARM] to confirm setting. When alarm is going off, press [ALARM] to stop alarm for one day. Press [MODE/SNOOZE] to activate snooze function

CALENDAR

Press [CLOCK] repeatedly to show the time with day-of-the-week or seconds

Calendar can be displayed in day/month or month/day format. See section A “NETWORK TIME” for setting.

LOW BATTERY INDICATION

(4-Day Forecast)

Low battery indication is available for USB transmitter. Replace the batteries and follow the setup

procedure in this instruction manual

Low battery indicator

USB transmitter: Below the  icon

IMPORTANT NOTE:

You are required to set up the RF connection between the USB transmitter & main unit after battery replacement (ie. press [PC Search] on the main unit and then press [TRANSMIT] on the USB transmitter).

Refer "ESTABLISH RF CONNECTION WITH MAIN UINIT" section for details.

USB TRANSMITTER

(4-Day Forecast)

Press [PC Search] on the main unit and then press [TRANSMIT] on the USB transmitter to enforce transmitting RF weather data and set up the RF connection with the main unit

(See "USB TRANSMITTER & PROGRAM INSTALLATION" section to set up the USB transmitter)

NOTE:

- Flip the antenna to vertical position for best transmission range
- To run the PC program, ensure that your USB transmitter is connected properly to the PC via an USB port
- When weather data is transmitted from the USB transmitter, the LED light will flash

PC PROGRAM

(4-Day Forecast)



After installation, a small toolbar icon  of your PC program appears on the lower right of the Window indicating your program is running and it will automatically access 4-day forecast information periodically while your PC is online. You may open the above PC program window by double clicking this toolbar icon to view the full details.

IMPORTANT NOTE: If the toolbar icon disappears (not hidden), your PC program is terminated and no longer access the weather information from the Internet. Restart the program again.

HOME WEATHER

(4-Day Forecast)

SETTING

Click [SETTING...] to set the home city's location & unit/time format. Click [SET LOCATION] to set your home location. Click [SAVE] to save your setting and exit. The forecast information will be updated on your PC program according to your new home location and send to your main unit automatically.

Version 1.0

HOME LOCATION

Chicago, IL, USA

3:55am
8 / 11 / 2007

TIME OFFSET: 0 Hour

Temperature: °F

Wind Speed: knots

Time format: 12 hour

Calendar Format: Day/Month

SAVE CANCEL

Select Location

Continent: North America

Country: USA

Region/State: Illinois

City: Chicago

SAVE CANCEL

UPDATE FORECAST

Click [UPDATE FORECAST] to manually receive 4-day forecast from the Internet and display on the program

SEND TO RECEIVER

Click [SEND TO RECEIVER] to manually send the 4-day forecast data to the main unit via the USB transmitter.

It may takes more than 10 minutes to 1 hour to update all of the 4-day forecast data on the main unit.

CITY 1, 2, 3 & 4

(4-Day Forecast)

SELECT LOCATION

Beside your home city, you can preset & monitor the weather forecast of up to 4 different cities on your PC program



The 'Select Location' dialog box is shown. It has a title bar 'Select Location'. Below the title bar, there are four dropdown menus: 'Continent' (selected: Europe), 'Country' (selected: Russia), 'Region/State' (selected: Gorod Moskva), and 'City' (selected: Moscow). At the bottom, there are two buttons: 'SAVE' and 'CANCEL'.

- Click to select "CITY 1", "CITY 2", "CITY 3" or "CITY 4" on the top of the program
- Click [SET LOCATION] to select the location
- Click [SAVE] to save & exit the setting. The PC program will automatically update the 4-day forecast of your selected city from the Internet
- To view the weather forecast of your preset city list, click the corresponding city number

NOTE: The forecast information of city 1, 2, 3 & 4 will not be sent to your main unit

UPDATE FORECAST

Click [UPDATE FORECAST] to manually receive 4-day forecast from the Internet of your selected city.

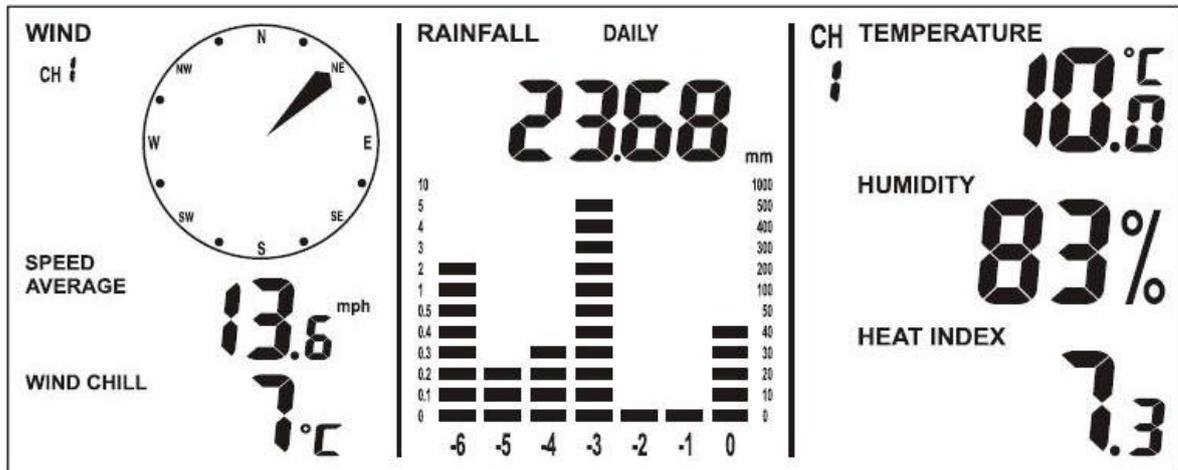
TROUBLESHOOTING

(4-Day Forecast)

1. Ensure that you are using Windows 2000, XP (32 bits) or Vista (32 bits) and your PC is connected to the Internet. Try browsing through a couple of websites to make sure. During the CD installation, if the program detected that Microsoft .NET Framework 2.0 driver was not installed in your Windows before, it will prompt you to install the driver. Follow the instruction to install the driver and complete the rest of the installation.
2. Ensure that the USB transmitter is properly connected to the USB port of your PC. Otherwise, you are unable to run the PC program and access the 4-day forecast update from the Internet
3. Ensure all batteries in the main unit & USB transmitter are fresh. Replace battery when the respective low battery indicator appears on the main unit (refer "LOW BATTERY INDICATION" section)
4. If the toolbar icon  of the PC program disappears (not hidden) on the lower right of your Window, your program is terminated and no longer access 4-day forecast from the Internet. Restart the program again
5. In the first few minutes of the RF reception from USB transmitter, the main unit is showing data on one part of the screen and this is normal. The rest of the screen display data will gradually appears in the next 10 minutes or more. If you have waited 1 hour or more without seeing the rest of the screen, shorten the distance between the USB transmitter & main unit and check the battery levels. Then repeat the setup procedure in "ESTABLISH RF CONNECTION WITH MAIN UINIT" section. If it continues to fail, try removing the USB connection and all batteries from the USB transmitter. Reinstall the batteries and then reconnect the USB connection again. Repeat the setup procedure in "ESTABLISH RF CONNECTION WITH MAIN UINIT" section.
6. If the RF indicator is showing full strength  but one or more of the next 3 days' forecast is missing on the main unit & PC program, your PC may be offline for many days. Connect your PC to the Internet again to receive the latest forecast update
7. If all forecast information appears except the UV Index, your PC may be offline for more than 1 day. Connect your PC to the Internet again to receive the latest UVI forecast update
8. If the forecast reading of the PC program does not match with the main unit. Press [TRANSMIT] on the USB transmitter to re-transmit signal again and wait for 10 minutes or more
9. If your time on the PC program & main unit is off by half an hour or more, click [SETTING...] on the PC program and set the hour offset until the proper time is set.
10. If your city does not appear in the 20,000 city list, select the one near your home location
11. Heavy Internet traffic may slow down the respond of the server temporary. Try later if you wish to update the forecast manually by the [UPDATE FORECAST] button.

CURRENT WEATHER

Current weather data is obtained wirelessly from the anemometer (with built-in temperature & humidity sensors) & rain gauge via RF transmission. These readings are located on the lower display of the main unit.



Current weather readings include:

- Current indoor temperature, humidity, heat index & dew point
- Current outdoor temperature, humidity, heat index & dew point
- Current daily, weekly, monthly & accumulated rainfall readings
- Current average & gust wind speed
- Current wind direction & wind chill

Installation

(Current Weather)

The weather station operates at 433MHz and does not require wire installation among the component parts. To ensure successful installation and the best performance, we recommend you to follow the installation instructions in the order they appear in this manual.

1. Selecting a location for the anemometer

(Current Weather)

Select a mounting location for the anemometer that is:

- Outdoors, not blocked on top or sides, so wind can freely reach the anemometer
- Within 50 meter (164 feet) open area from the main unit. Reduce distance if obstacles is between the anemometer & the main unit

The best location for the anemometer is usually mounted on a mast in an open area where wind is not blocked on top or sides, or above roof level on the building where the main unit is located.

Testing the effective transmission range

Before mounting the anemometer, measure the distance between the main unit & anemometer and be

sure it is within the effective transmission range. It is recommended to perform a simple RF transmission test before mounting.

- 1) Place the main unit in your selected indoor location and install batteries (see “Battery installation for the main unit” section above)
- 2) Place the anemometer horizontally in your selected outdoor location. Loosen the screws on the battery door with a small Phillips screwdriver and open the battery door. Insert 2 pieces of AA batteries according to the polarity indicated. Close the battery door and tighten the screws.
- 3) Hold “CHANNEL/SEARCH” button on the main unit for 3 seconds and the wind direction, temperature & humidity icons will flash on the display. The main unit is now searching for all remote sensors.
- 4) If valid wind direction, wind speed and channel-1 temperature/humidity readings are shown on the main unit within 10 minutes, the RF transmission is successful and the anemometer & main unit are within the effective transmission.

If above readings are not shown after 10 minutes of searching, the transmission is failed.

Shorten the distance between the anemometer & main unit. Reset the anemometer by removing all batteries from the anemometer & wait for 10 seconds before re-installing the batteries again.

Repeat step 3 & 4 until the transmission is successful.

- 5) Remove all batteries from the anemometer before mounting and calibration.

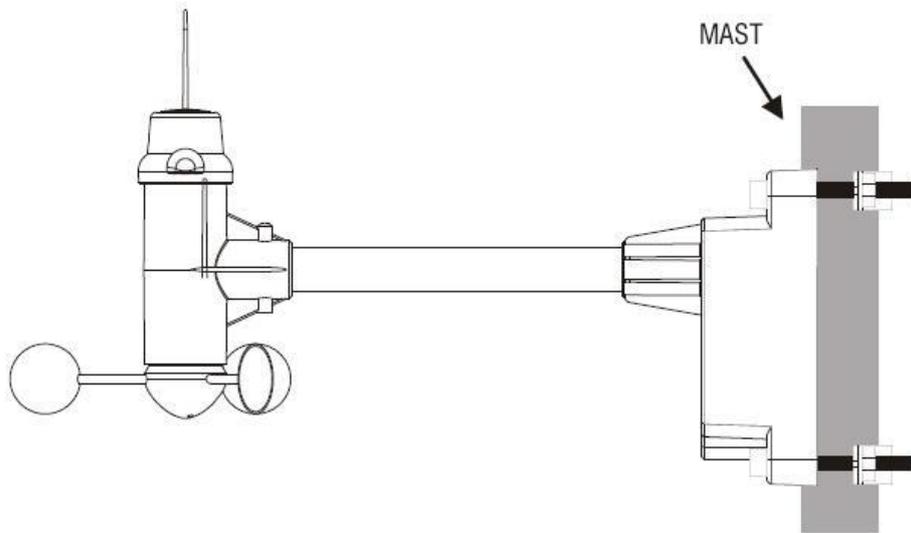
2. Mounting the anemometer

(Current Weather)

Important: Before mounting, be sure the main unit & anemometer are within the effective transmission range.

Note: To mount the anemometer, you need a mast (not supplied) about 1 – 1.25 inches (2.54 – 3.1 cm) in diameter, and the hardware necessary to fasten it to the mounting location. If you previously installed such a mast (for mounting antenna, for example), you can mount the anemometer on that mast.

1. If necessary, mount and ground a mast as directed in the instructions provided by the mast.
2. Place the supplied U-shape metal plates around the mast. Insert 4 pieces of the supplied Hex screws through the holes of the U-shape plates and the holes on the anemometer's mounting bracket.
(The wind vane is above the wind cup and the metal bar of the anemometer is in horizontal level)
3. Tighten the supplied Hex nut onto both ends of each screw



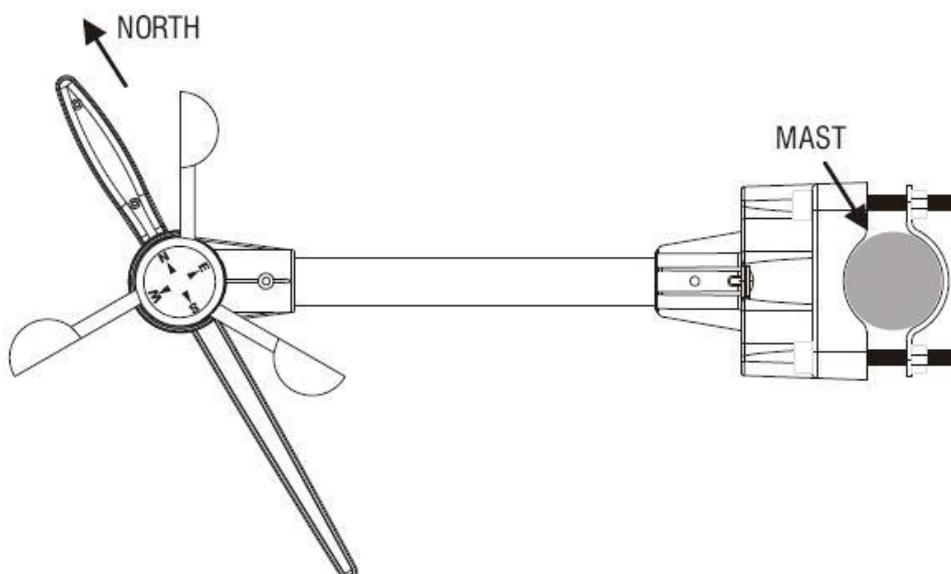
3. Calibrating the anemometer & installing batteries

(Current Weather)

After mounting the anemometer, follow these steps to calibrate the wind direction so that the anemometer properly measures the wind direction and transmit to the main unit. Be sure battery has been removed from the anemometer before the calibration.

Important: The same calibration (step 1 to 5) is needed for the first set up and every battery replacement.

1. After mounting the anemometer, loosen the screws on the battery door with a small screwdriver and open the battery door.
2. Use the compass on the anemometer and turn the wind vane so it is pointing due north.



3. Hold the wind vane pointing due north and do not allow it to turn. Insert 2 pieces of AA batteries according to the polarity indicated. The red LED indicator above the battery cover of the anemometer will flash few times right after battery installation. Be sure the vane is pointing due

north at the moment when red LED flashes and the calibration is now completed. Replace the battery cover and tighten the screws.

4. If the wind vane is not pointing due north when the red LED first flashes, remove batteries and repeat step 2 & 3.
5. Hold "CHANNEL/SEARCH" buttons on the main unit to search for remote transmitter. Wind direction, wind speed, wind chill & channel-1 temperature/humidity readings will appear within 10 minutes if the RF transmission is successful.

4. Selecting a location for the rain gauge

(Current Weather)

Select a mounting location for the rain gauge that is:

- a flat, level surface and look for a location where the rain gauge can be placed 1 meter or more above ground level.
- within 30 meter (100 feet) open area from the main unit. Reduce distance if obstacles is between the rain gauge & the main unit
- in an area not blocked on the top or sides, so rain can freely reach the rain gauge (for example, not under an overhang or too close to a building or fence)

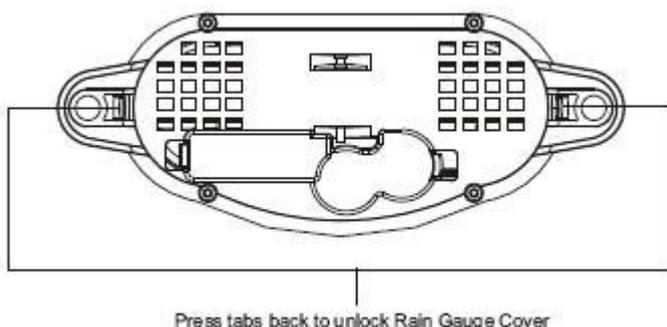
Cautions:

- To prevent false rainfall readings caused by water splashes, do not choose a location that is not level or that is too close to the ground, a swimming pool, lawn sprinklers, or anywhere water might accumulate or run off
- The screen in the cylinder of the rain gauge filters most debris (such as leaves) that might fall into the rain gauge. To avoid frequent build-up of debris in the cylinder, do not mount the rain gauge too close to the trees or plants

5. Battery Installation for the rain gauge

(Current Weather)

1. Press the tabs back as indicated below to unlock the rain gauge cover



2. Lift the rain gauge cover off its base. Then carefully remove the packing tape from the bucket assembly
3. Open battery cover and insert 2 pieces of AA batteries according to the polarity indicated. Close the battery cover
4. Replace & lock the rain gauge cover on the base

5. Hold "CHANNEL/SEARCH" button on the main unit for 3 seconds and the total rainfall "- - -" will flash. The main unit is now searching for all remote sensors. Total rainfall reading (in this case "0" mm or inch) will appear within 2 minutes if the RF transmission is successful and the main unit & rain gauge are now within the effective transmission range.
6. If total rainfall "- - -" stop flashing and stay on the display after 2 minutes of searching, the RF transmission is failed. Shorten the distance between the main unit & rain gauge. Reset the rain gauge by removing all batteries from the rain gauge and wait for 10 seconds before re-installing the batteries again. Then repeat step 5 (& 6) until the RF communication is completed.

6. Mounting the rain gauge

(Current Weather)

Before mounting the rain gauge, be sure the rain gauge & main unit are within the transmission effective range and batteries are installed.

1. Hold the base of the rain gauge flat against the mounting surface then use a level to make sure the rain gauge (as it rest on the mounting surface) is horizontally level.
2. Use a pencil to trace the inside of the mounting holes on the base of the rain gauge to mark the screw locations.
3. Drill a hole in the center of each marked location and insert the supplied plastic screw plugs
4. Hold the rain gauge against the mounting surface so the holes on the base are aligned with the plugs, then thread the supplied washer head screws into each hole and use a screwdriver to tighten them.

7. Installing additional remote thermo-hygrometer sensor(s)

(Current Weather)

Additional remote thermo-hygrometer sensors can be purchased separately (not supplied in the package).

1. Select a location for the remote thermo-hygrometer that is within the effective transmission range of 50 meters (164 feet). Shorten the distance if obstacle is between the main unit & remote sensor.
2. Use a small screwdriver to loosen the screws on the battery door of the remote sensor. Insert 2 pieces of AAA batteries according to the polarity indicated.
3. Assign channel 2 or 3 to the remote sensor by setting the slide switch inside the battery compartment. (Channel 1 is used by the anemometer and should not be assigned to the new remote thermo-hygrometer)
4. Press "Tx" button inside the battery compartment of the remote sensor to transmit temperature & humidity data to the main unit. Then close the battery door and tighten the screws.
5. Hold "CHANNEL/SEARCH" button on the main unit to search for all remote sensors. The temperature & humidity readings of your selected channel number will be displayed on the main unit if RF transmission is successful.

OPERATION

(Current Weather)

Name and Functions of Buttons:

Front Buttons

Press Functions

Hold 3 seconds

CHANNEL/
SEARCH

Select indoor, Channel 1, 2, 3 or
auto scroll ↻

Search for all remote sensors

MEMORY

Read maximum/minimum records

Clear memory record

HEAT INDEX/
DEW POINT

Read Heat Index & Dew Point

WIND

Read average & gust wind speed

RAIN/CLEAR

Read daily/monthly/weekly/total rainfall

Clear rainfall record

RAIN HISTORY

Read current & past 6 days, weeks or
months rainfall data

Back Buttons

Press Functions

Hold 3 seconds

WIND ALARM 🔔

Enable/disable high gust wind alarm
& low wind chill alarm

WIND ALARM

Read high gust wind alarm and low wind
chill alarm

Enter high wind speed alarm & low
wind chill alarm setting

WIND UNIT

Toggle current wind speed unit between
Beaufort, mph, m/s, km/h & knot

C/F

Toggle degree C & F unit for current temp

RAIN UNIT

Toggle mm & inch current rainfall unit

Up

1 step forward in current weather setting Fast advance

Down

1 step backward in current weather setting Fast backward

CONNECTING WITH REMOTE SENSORS

(Current Weather)

The weather station uses 433MHz radio signals to send and receive weather data between the main

units and remote sensors.

After battery installation, the main unit will automatically search for remote sensors.

You can also enforce a searching mode by holding "CHANNEL/SEARCH" on the main unit.

Follow the instruction in the "INSTALLATION" section to set up the sensors and wireless connection. If the connection cannot be established, reset the remote sensor by removing the batteries from the sensor. Wait for 10 seconds and reinstall the batteries. Then hold "CHANNEL/SEARCH" on the main unit to search for the sensors. If that continues to fail, shorten the distance between the sensor & main unit and reinstall the sensors if necessary (Details refer "INSTALLATION" section)

Anemometer (with built-in temperature & humidity sensors):

(Current Weather)

Important: Wind direction calibration is needed whenever the anemometer is reset (or after battery replacement)

Searching mode display:

Wind direction, temperature & humidity information will flash

RF Connection completed:

Valid wind speed/direction & Ch-1 temperature/humidity readings appear

(It may take up to 10 minutes to receive all wind speed/direction & Ch-1 temperature/humidity readings during the searching mode)

RF Connection failed:

"- - -" wind speed appears; no wind direction. Unable to display Ch-1 temperature & humidity

Rain Gauge:

(Current Weather)

Searching mode display:

Total rainfall information will flash

RF connection completed:

Valid total rainfall reading appears

RF connection failed:

"- - -" stops flashing & stays on the total rainfall display (previous daily/weekly/monthly rainfall readings remain in record)

Additional remote thermo-hygrometer sensor:

(Current Weather)

Additional remote thermo-hygrometer sensors can be purchased separately (not supplied in the package).

Important: Select Ch-2 or 3 for additional remote thermo-hygrometer sensor since Ch-1 has been assigned to the anemometer.

Searching mode display:

Temperature & humidity information will flash

RF Connection completed:

Valid temperature/humidity readings of your selected channel appear

RF Connection failed:

Unable to display the temperature & humidity readings of your selected channel

IN/OUT TEMPERATURE & HUMIDITY

(Current Weather)

Current indoor & outdoor temperature & humidity readings are shown on the right of the lower display.

Press "C/F" button to select temperature unit C/ F.

Press "CHANNEL/SEARCH" repeatedly to select indoor, Ch1, Ch2, Ch3 or auto-channel scrolling  display modes.

Note: The outdoor temperature & humidity sensor is built inside the anemometer and is assigned to channel 1. Additional remote thermo-hygrometer sensor(s) can be purchased separately and they should be assigned to Ch-2 or 3 only.

ICE ALERT

(Current Weather)

Ice alert indicator  appears on the display next to the wind chill reading when outdoor channel-1 temperature falls to or below 4C (or 39.2F). It provides an early alert for possible icy road condition to driver.

IN/OUT HEAT INDEX

(Current Weather)

Heat Index combines the effects of heat and humidity. It is the apparent temperature of how hot the heat-humidity combination makes it feels.

Press "Heat Index/Dew Point" button once to show the respective indoor or outdoor heat index on the display. "HEAT INDEX" icon will appear.

IN/OUT DEW POINT

(Current Weather)

Dew point is the saturation point of the air, or the temperature to which the air has to be cooled in order to get condensation.

Press HEAT INDEX / DEW POINT button twice to show the respective indoor or outdoor dew point reading on the display. "DEW POINT" icon will appear.

DAILY, WEEKLY, MONTHLY & ACCUMLATED RAINFALL

(Current Weather)

The wireless rain gauge provides daily, weekly, monthly and accumulated rainfall measurements.

Press "RAIN/CLEAR" repeatedly to switch between the different modes and the corresponding "DAILY", "WEEKLY", "MONTHLY" or "TOTAL" icon will appear indicating your current display mode.

In daily, weekly or monthly rainfall display, hold "RAIN/CLEAR" to clear all daily, weekly & monthly rainfall reading to zero. In total rainfall display, hold "RAIN/CLEAR" to clear total rainfall reading.

Press "RAIN UNIT" on the back casing to change the unit between mm and inch.

RAINFALL HISTORY

(Current Weather)

This unit has a large capacity memory that can store and display:

- Daily rainfall (up to last six days as well as current day)
- Weekly rainfall (up to last six weeks as well as current week)
- Monthly rainfall (up to last six months as well as current month)

Press "RAIN" to select daily, weekly or monthly rainfall display mode. Press "RAIN HISTORY" repeatedly to scroll through the current & last 6 days/weeks/months data corresponding to your selected rainfall mode. On the bar chart display, the "0" represents the current period. -1, -2, etc indicate the prior periods. The precise rainfall reading of the selected period will be shown on the display.

Example 1:

In April, press "RAIN HISTORY" repeatedly in the monthly rainfall mode until "-3" bar chart is shown. The bar chart and reading indicate the monthly rainfall record in January (from 1st Jan to 31st Jan)

Example 2:

On Wednesday, press "RAIN HISTORY" repeatedly in the weekly rainfall mode until "-1" bar chart is shown. The bar chart and reading indicate the weekly rainfall recorded last week (from last Sunday to last Saturday).

Example 3:

On Friday, press "RAIN HISTORY" repeatedly in the daily rainfall mode until "-2" bar chart is shown. The bar chart and reading indicate the daily rainfall record on this Wednesday.

WIND SPEED & DIRECTION

(Current Weather)

The weather station uses the anemometer to sample the wind speed and direction. You can set the main unit to display the wind speed in miles per hour (mph), kilometers per hour (km/h), meters per second (m/s), knots and Beaufort. Press "WIND UNIT" on the back casing until the desired unit appears.

The main unit displays 16 wind directions (N for north, S for south, SW for south-west and so on).

Press "WIND" to select gust & average wind speed display.

Wind direction: Average wind direction over a 2-minute period

Average wind speed: Average wind speed over a 2-minute period

Gust wind speed: Maximum wind speed over a 10-minute period

Beaufort	Knots	Wave height (meter)	Wave height (feet)	WMO description	Effects observed on the sea
0	Under 1	-	-	Clam	Sea is like a mirror
1	1 – 3	0.07	0.25	Light air	Ripples with appearance of scales; no foam crests
2	4 – 6	0.15 – 0.3	0.5 – 1	Light breeze	Small wavelets; crests of glassy appearance, not breaking

3	7 – 10	0.6 – 0.9	2 – 3	Gentle breeze	Large wavelets; crests begin to break; scattered whitecaps
4	11 – 16	1 – 1.5	3.5 – 5	Moderate breeze	Small waves, becoming longer; numerous whitecaps
5	17 – 21	1.8 – 2.4	6 – 8	Fresh breeze	Moderate waves, taking longer form; many whitecaps; some spray
6	22 – 27	2.9 – 4	9.5 – 13	Strong breeze	Larger waves forming; whitecaps everywhere; more spray
7	28 – 33	4.1 – 5.8	13.5 – 19	Near gale	Sea heaps up; white foam from breaking waves begins to be blown in streaks
8	34 – 40	5.5 – 7.6	18 – 25	Gale	Moderately high waves of greater length; edges of crests begin to break into spindrift; foam is blown in well-marked streaks
9	41 – 47	7 – 9.7	23 – 32	Strong Gale	High waves; sea begins to roll; dense streaks of foam; spray may begin to reduce visibility
10	48 – 55	8.8 – 12.5	29 – 41	Storm	Very high waves with overhanging crests; sea takes white appearance as foam is blown in very dense streaks; rolling is heavy and visibility is reduced
11	56 – 63	11.2 – 15.8	37 – 52	Violent	Exceptionally high waves; sea covered with white foam patches; visibility further reduced
12	64 & over	13.7 & over	45 & over	Hurricane	Air filled with foam; sea completely white with driving spray; visibility greatly reduced

(Reference table based on observations of the effects of the wind)

WIND CHILL

(Current Weather)

Wind chill is the apparent temperature felt on exposed skin due to the combination of air temperature and wind speed. The wind chill reading on the main unit is calculated based on the temperature measured from the anemometer (channel-1) and the average wind speed.

To change wind chill temperature unit, press “C/F” button on the back casing.

GUST WIND & WIND CHILL ALARM

(Current Weather)

High Gust Wind Alarm

You can set the main unit to sound an alarm for about 1 minute when gust wind reaches or exceeds a set limit. Press “WIND ALARM” to silence the alarm sound. The related high alarm icons will continue to flash until the alarm condition is no longer met.

High Gust Wind Alarm Setting:

- Press “WIND ALARM” to show high gust wind alarm display. “ALARM” icons appear in the gust wind display area
- Hold “WIND ALARM” button to enter its setting mode and gust wind digits will flash
- Press “Up” or “Down” to set the value
- Press “WIND ALARM” to confirm setting and exit

Press “WIND AL  repeatedly to enable or disable the gust alarm. “H” appears when it is enabled.

Low Wind Chill Alarm

You can also set the main unit to sound an alarm for about 1 minute when the wind chill reaches or falls below the set limit. Press "WIND ALARM" to silence the alarm sound. The related low alarm icon will continue to flash until the alarm condition is no longer met.

Low Wind Chill Alarm Setting:

- Press "WIND ALARM" repeatedly so "ALARM" icons appear in the wind chill display area
- Hold "WIND ALARM" button to enter its setting mode and the wind chill digits will flash
- Press "Up" or "Down" to set the value
- Press "WIND ALARM" to confirm setting and exit

Press "WIND AL  repeatedly to enable or disable the wind chill alarm. "Lo" appears when it is enabled.

MAXIMUM & MINIMUM RECORDS

(Current Weather)

Press "MEMORY" repeatedly to view the maximum & minimum values of indoor/outdoor temperature, humidity, heat index, dew point, wind speed & wind chill readings. The corresponding "MAX" and "MIN" icons will appear. To clear the memory record, hold "MEMORY" in the max/min display mode

LOW BATTERY INDICATION

(Current Weather)

Low battery indication is available for the main unit itself and all of the remote sensors. Replace the batteries and follow the setup procedure in this instruction manual.

Important: Wind direction calibration is required for the anemometer during battery replacement (Details refer "Calibrating the anemometer & installing batteries" section)

BATTERY DISPOSAL

Replace only with the same or equivalent type recommended by the manufacturer.

Please disposal of old, defective batteries in an environmentally friendly manner in accordance with the relevant legislation.

IMPORTANT NOTE:

Warning! The weather station and the outside sensor contain sensitive electronic components. Radio waves transmitted e.g. from mobile telephones, walkie talkies, radios, WiFi, remote controls or microwaves may influence the transmission distance of the weather station and the outside sensor and lead to a shorter reception range. It is therefore important to keep as great distance as possible between the devices of the weather station and the outside sensor and the devices which send out radio waves. We do not guarantee the maximum specified transmission range between the weather station and the outside sensors due to the radio frequency interference in the environment.

SPECIFICATIONS

4-Day Forecast:

Software : Compatible with Windows 2000, XP-32 bits & Vista-32 bits
(Microsoft .NET Framework 2.0 required)
USB : 1.1 or above
Transmission (USB Transmitter) : Up to 30M (98 ft.) in open area
Clock : Auto-synchronized clock from Internet, Quartz back-up



Current Weather:

Indoor Temperature : 0 C to + 50 C (+32 F to +122 F)
Outdoor Temperature : -20 C to +60 C (-4 F to +140 F)
Temperature Resolution : 0.1 degree C
Indoor & Outdoor Humidity : 20% - 99% RH
Humidity Resolution : 1% RH
Channel for Temp & Humidity : maximum 3
Wind speed range : 0 – 30m/s
: 0 – 108 km/h
: 0 – 67 mph
: 0 – 58.3 knot
: 0 - 11 Beaufort
Rain Gauge reading : 0 – 9999 mm
: 0 – 393.66 inch
Transmission (Anemometer) : up to 50M (164 feet) in open area
Transmission (Rain Gauge) : up to 30M (98 feet) in open area (1m above ground level)

Power:

Main unit : AA x 6 pieces
Anemometer : AA x 2 pieces
Rain Gauge : AA x 2 pieces
USB Transmitter : AAA x 2 pieces

