User Guide



Alecto

WS-4800 W

WS-4700

Weather station with wireless outdoor sensor

DECLARATION OF CONFORMITY

Hereby, Commaxx declares that the radio equipment type Alecto WS-4700 is in compliance with directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://DOC.hesdo.com/WS-4700-DOC.pdf

ENVIRONMENT

At the end of its lifespan, this product should not be discarded as normal domestic waste, but is must be taken to a collection point for the recycling of electric and electronic equipment.



Don't throw away exhausted batteries, take them to your local depot for small chemical waste

SYSTEM MALFUNCTION

When you suspect a system malfunction, please remove the batteries from the indoor unit and from the outdoor unit. Now wait several minutes and then replace the batteries. If the doesn't resolve the problem, please contact the Alecto customer service at www.alecto.nl

WARRANTY

For the Alecto WS-4700 you have a warranty of 24 months from the date of purchase. During this period, we guarantee the free repair of defects caused by material and workmanship errors. All this subjected to the final assessment of the importer.

HOW TO HANDLE:

If you notice any defect, first refer to the user's manual. If you can't find a decisive answer here, please contact your dealer with a clear complaint description. The dealer will then accept the product with this proof of warranty and the dated proof of purchase and ensure a speedy repair or otherwise send it post paid to the importer.

THE WARRANTY BECOMES NULL AND VOID:

In case of improper use, incorrect connections, leaking and/or incorrectly installed batteries, use of unoriginal parts or accessories, negligence and in case of defects caused by moisture, fire, flooding, lightning and natural disasters. In case of unauthorised modifications and/or repairs performed by third parties. In case of incorrect transportation of the device without adequate packaging and when the device is not accompanied by this warranty card and proof of purchase. The warranty does not cover connecting cables, plugs and batteries.

All further liability, especially concerning any consequential damages, is excluded



1. INDEX

2.	OVERVIEW	
2.1	Indoor unit	. 4
2.2	Outdoor unit	. 5
3.	INSTALLATION	
3.1	Power supply	. 5
2 2	Defining the index of the state of the state of the	~

J.Z		υ
3.3	Positioning	6
3.4	Clock	7
3.5	To reset measurement data	7

4. OPERATION

4.1	Basic functions	8
4.2	Indoor temperature and humidity	9
4.3	Outdoor temperature and air humidity	9
4.4	Weather forecast	9
4.5	Barometer (air pressure)	. 10
4.6	Rain	. 10
4.7	Wind (direction + speed)	11
4.8	Feels like / Wind chill / Heat index / Dewpoint	11
4.9	Display lighting	. 12

5. ALARM CLOCK

5.1	Introduction	. 12
5.2	Alarm time setup	12
5.3	Alarm function setup	12
5.4	Operation	12

6. HISTORY

6.1	Introduction	12
6.2	To view the history	12
6.3	To delete the history	12

7. MAX-MIN ALARM

7.1	Introduction	13
7.2	To set Hi-Lo limits	13
7.3	Hi-Lo Alarm function setup	13
7.4	Operation	13

8. RELATIVE AIR PRESSURE

8.1	Introduction	13
8.2	Relative air pressure setup	13
9.	PROBLEM SOLVING	14
10.	MAINTENANCE	
10.1	Rain meter	14
10.2	Outdoor temperature and humidity sensor	14
11.	SPECIFICATIONS	14



2. OVERVIEW

2.1 Indoor unit:



- 1. **SNOOZE/LIGHT** button: snooze button in alarm mode, also for activating the display lighting
- Display (the following pages will explain what everything on the display means)
- 3. Alert LED for the MAX/MIN alarm
- 4. **HISTORY** button: displays the data of the past 24 hours
- MAX/MIN button: displays the measured minimum and maximum values, including at what time and on which date the measurement was taken
- 6. 🗉 button: 'rainfall' button
- 7. 🗠 button: 'barometer' button
- 8. a button: 'wind' button
- 9. 🔹 button: 'index' button



- 10. [©] button: clock setup button
- 11. S button: alarm clock setup button
- 12. We button: alarm setup button
- 13. v button: down button
- 14. \land button: up button
- 15. °C/°F switch:

to set the temperature display to degrees Celsius or degrees Fahrenheit

- 16. Battery compartment
- 17. RCC button: to switch the DCF receiver on or off
- 18. **SCAN** button: to have the indoor unit search for the outdoor unit
- 19. **RESET** button: to reboot the indoor unit in case of a (possible) fault

2.2 Outdoor unit:





24. Wind direction vane 25. LED (transmit indicator)

26. **RESET** button 27. Battery compartment

- 20. Rain meter
- 21. Antenna
- 22. Wind speed meter
- 23. Temperature + air humidity sensor

3. INSTALLATION

Attention: after the installation, it may take several hours up to a day before the correct values are displayed. Additionally, after replacing exhausted batteries in the indoor unit, all measured data in the indoor unit will be erased.

3.1 Power supply:

Advice regarding batteries:

We advise you to use normal alkaline batteries of high quality for the indoor unit. Alkaline batteries with a capacity of 2000mAh have a lifespan of over one year. Rechargeable batteries are not recommended because of their lower supply voltage.

Also the outdoor unit is powered by 3 AA 1.5Volt batteries, but because normal Alkaline batteries perform poorly or not at all at temperatures of around or below 0°C, it's not recommended to use standard Alkaline batteries for the outdoor unit.

For that reason, we advise you to use Lithium batteries for the outdoor unit that are designed to function well within a temperature range of -20°C to 60°C. These batteries can be ordered via the service department of Alecto via www.alecto.info

Lithium batteries with a capacity of 2900mAh have a lifespan of over one year.

Indoor unit:

Slide down the battery cover at the rear of the unit and insert 3 AA 1.5V batteries according to the markings inside the battery compartment. Slide the battery cover back onto the indoor unit. (Batteries are not included) The indoor unit will now start a 1 minute scan to search for the outdoor unit. Therefore, you'll need to insert the batteries into the outdoor unit within that minute.

Outdoor unit:

Open the battery compartment by loosening the battery cover using a small crosshead screwdriver. Install 3 AA 1.5V batteries according to the picture below, paying attention to the correct polarity (+ and -). Replace the cover and fasten the screw (batteries are not included).

3.2 Pairing the indoor unit/outdoor unit:

Automatically:

As soon as you insert the batteries into the indoor unit, the indoor unit will start a 1 minute scan to search for the signal of the outdoor unit. Therefore, if you insert the batteries into the outdoor unit within that minute and the units will 'find' each other, they will be automatically paired and the display of the indoor unit will show the temperature transmitted by the outdoor unit.

Manually:

If the units cannot be paired automatically, or after replacing the batteries, you can pair the outdoor unit (again) with the indoor unit as follows:

- 1. press and hold the **SCAN** button on the indoor unit for 2 seconds until the 𝔅 antenna symbol starts flashing in the display
- 2. Press briefly press the RESET button on the outdoor unit
- 3. the units will have found each other (again) after several seconds

3.3 Positioning: reset

Indoor unit:

You may suspend the indoor unit from a simple screw in a wall or use it as a desk model^{reset} with the supplied support. In any case, never place the indoor unit in direct sunlight or next to heat radiating lights or stoves.

Outdoor unit:

You may place the outdoor unit on a flat surface (such as a fence or railing) or on top of a pole (not included). In any case, make sure the unit is placed at least 1.5 meters above the ground and ensure the unit is standing freely in the rain and wind.

Outdoor unit positioning tips:

To ensure that the rain meter is functioning as accurate as possible, the outdoor unit must be standing exactly horizontal. You can verify this by using the built-in spirit level at the top of the outdoor unit.

To be able to check from which direction to wind is

coming, the outdoor unit should be aimed to the North. To do this, use the N marking on top of the outdoor unit. Use an accurate compass (not included) to properly orient the unit.

Make sure that the distance between the outdoor unit and indoor unit is no greater than 50 to 100 meters.











3.4 Clock:

Introduction

The WS-4700 is provided with a built-in DCF receiver which receives the DCF time signal from Frankfurt. This signal ensures that the clock shows the time very accurately, provided a strong enough signal is being received.

Automatically:

As soon as you insert the batteries into the indoor unit, the clock will start searching for the DCF radio signal for the time while the № antenna symbol is flashing. After several seconds or minutes the WS-4700 will start showing the correct time. In extreme cases, it can take over a day before the DCF time is shown.

Manually:

If the clock cannot receive the radio signal or cannot receive it well enough, you can set the clock manually as follows:

- 1. press and hold the button O for 2 seconds, 12Hr or 24Hr will appear in the display
- 2. Use v/h to set the time format, then briefly press the $^{\odot}$ button
- 3. use v/h to set the hours and then briefly press the \odot button
- 4. use v/ \wedge to set the minutes and then briefly press the \odot button
- 5. use v/∧ to set the seconds to 0 (this allows you to have the clock run synchronously with your own clock) and then briefly press the ☺ button
- 6. use v/h to set the year and then briefly press the \odot button
- 7. use v/ $\!\!\!\wedge$ to set the month and then briefly press the ${\scriptstyle { \mathfrak{S}}}$ button
- 8. use v/ \wedge to set the date and then briefly press the ${}^{\odot}$ button
- 9. use v/ \wedge to set the hour difference compared to the DCF time. E.g. for use in the Benelux select '0' and then briefly press the \odot button.
- 10. use ∨/∧ to set the language in which the day must be displayed, you may choose from: EN (English), FR (French), DE (German), ES (Spanish) or IT (Italian), now briefly press the ☺ button.
- 11. use v/∧ to determine whether the clock must switch to daylight saving time or standard time automatically (AUTO) or whether you prefer to do this manually (OFF), now briefly press the © button.

The clock is now set manually.

When the DCF receiver is enabled and a strong signal is being received, the receiver will overwrite the clock display.

Switching the DCF receiver on/off:

You can turn off the DCF receiver as follows, allowing you to have only the time and date shown on the display according to your programming:

 turn off: press and hold the RCC OFF button at the rear of the indoor unit for 8 seconds until the
[™] antenna symbol disappears.

You can turn the receiver back on as follows:

The [№] symbol in the upper middle part of the display shows the status of the DCF clock:

- no symbol: the DCF receiver is disabled; the displayed time is provided by the internal clock of the WS-4700
- Is flashing: the DCF receiver is enabled and is searching for the DCF signal; the displayed time is provided by the internal clock of the WS-4700

In provided by the DCF receiver is enabled and is receiving the DCF signal; the displayed time and date are provided by the DCF atomic clock in Frankfurt

3.5 To reset measurement data:

After the installation is completed, press and hold the HISTORY button for 10 seconds to delete all of the measurements made up until that moment. This ensures that you won't see any measurements at a later time that were caused by movements during the installation.



4. OPERATION

4.1 Basic functions:

The display shows the following basic functions/data:



- 1. illuminates when the battery of the indoor unit is running low
- 2. display of the actual time
- 3. illuminates when the alarm clock is set to ice alert (see chapter 5)
- 4. illuminates when the DCF clock radio signal is being received
- 5. illuminates when the daylight saving time is enabled
- 6. display of the moon status (*1)
- 7. display of the day of the week
- 8. illuminates when using the MAX/MIN button to display the maximum or minimum values (*2)
- 9. illuminates when the alarm clock is set (see chapter 5)
- 10. display of the date
- 11. display of the month
- *1: The display of the moon status is linked to the settings of the date, month and year. The display can show the following moon statuses:

¢ ∰ \$	New moon		Full moon
	Waxing crescent		Waning moon
	First quarter	$\mathbf{\hat{z}}^{\sharp} \mathbf{O}_{\mathbf{z}}^{\sharp}$	Last quarter
	Crescent	D^*_{φ}	Ashen moon

*2: By repeatedly pressing the MAX/MIN button, the following data will appear in the display in order:

- *1 maximum outdoor temperature*
- 2 minimum outdoor temperature
- 3 maximum outdoor humidity
- 4 minimum outdoor humidity
- 5 maximum indoor temperature
- 6 minimum indoor temperature
- 7 maximum indoor humidity
- 8 minimum indoor humidity
- 9 maximum wind chill
- 10 minimum wind chill

- 11 maximum heat index
- 12 minimum heat index
- 13 maximum dew point temperature
- 14 minimum dew point temperature
- 15 maximum air pressure
- 16 minimum air pressure
- 17 maximum average wind speed
- 18 maximum wind gust speed
- 19 maximum rainfall

The upper right part of the display shows on which day and at what time the concerned minimum or maximum value was measured.

Press and hold the MAX/MIN button for 2 seconds to erase this memory

4.2 Indoor temperature and humidity:



- 1. relative indoor air humidity
- 2. illuminates when the max or min alarm is set
- 3. indoor temperature
- comfort icon, this is a combination of temperature and humidity (*3)

4.3 Outdoor temperature and air humidity:



- 1. relative outdoor air humidity
- 2. illuminates when the max or min alarm is set
- 3. outdoor temperature
- 4. indicates the connection strength of the radio signal with the outdoor unit (*4)
- 5. illuminates when the batteries in the outdoor unit are running low

*4:	T	₩	T II	Y .	Y II
	no sensor	searching for contact with sensor	good reception	average reception	no reception

4.4 Weather forecast:



Remarks:

- the accuracy of a forecast based on air pressure is 70% to 75%; please keep in mind that a correct display of the weather forecast is not guaranteed.
- the prediction is based on the coming 12 hours and does not necessarily represent the current weather conditions.
- the 'snow' weather forecast is based on the air pressure combined with the temperature: when the forecast is in fact 'rain', but the outdoor temperature is below -3°C (26°F), 'snow' will be predicted



3

comfortable

 ☺ comfort not OK (too cold/too dry)
 ☺ & comfort not OK (too warm/too humid) there's no comfort indication at temperatures
 <0°C (32°F) or >60°C (140°F)



3

4.5 Barometer (air pressure):

If this window is not visible, please first press the button



- 1. actual air pressure
- indicates whether the relative or absolute (*5) air pressure is displayed
- indicates whether the air pressure is shown in hPa (hecto Pascals), in inHg (inches of mercury) or in mmHg (millimetres of mercury) (*6)
- 4+5. this shows the trend of the air pressure over the last 24 hours
- *5: An absolute air pressure indicates the air pressure which is present independent from the height on which you're measuring the air pressure. A relative air pressure is the air pressure corrected for the height on which you're measuring the air pressure. For a correct weather forecast the relative air pressure is required.

You can set the desired unit as follows:

- 1. press and hold the 🚔 button for 2 seconds
- 2. use V/∧ to select your desired unit

3. briefly press the $\stackrel{<}{\hookrightarrow}$ button (if the air pressure now starts flashing, press the $\stackrel{<}{\hookrightarrow}$ button again) Chapter 8 explains how you can change the relative air pressure display in case you're using the weather station on a much higher level than mean sea level.

*6: In the Benelux one uses the hectoPascal notation. Before, the air pressure was sometimes also expressed in bar; 1 mbar equals 1 hPa.

You may switch between these notations by briefly pressing the 🚔 button.

4.6 Rain:

If this window is not visible, please first press the 🗓 button



- *7: You can set the desired unit as follows:
 - press and hold the i button for 2 seconds
 - 2. use V/∧ to select your desired unit
 - 3. briefly press the 🗉 button

- 1. amount of rainfall
- indicates how much rain has fallen in in (inches) or in mm (millimetres) (*7)
- 3+4. this shows the trend of the rainfall over the past 5 days
- indicates over which period rainfall is measured (*8)
- 6. illuminates when the max rain alert is set
- *8: blank = rainfall of the past hour (this is updated every 6 minutes and displayed the rainfall of the last 60 minutes.

DAILY = rainfall of today, calculated from midnight. WEEKLY = rainfall from the beginning of the week (Monday)

MONTHLY = rainfall of this month

You can switch between these indications by briefly pressing the 🗉 button.

4.7 Wind (direction + speed):



- *9: AVERAGE = average speed GUST = wind gust You can switch between these indications by briefly pressing the & button.
- *11: STORM = ≥ 88 km/h (≥ 55 mph) STRONG = 42-87 km/h (26-54 mph) MODERATE = 14-41 km/h (9-25 mph) LIGHT = 3-13km/h (2-8mph)
- 4.8 Feels like / Wind chill / Heat index / Dewpoint:



- 1. actual wind direction
- 2. measured wind directions (max 6) of the last 5 minutes
- 3. wind direction
- indicates whether the displayed wind speed is an average speed or a wind gust (*9)
- 5. Wind speed
- indicates whether the wind speed is expressed in mph (miles per hour), in m/s (meters per second), in km/h (kilometres per hour) or in Knots (1 KNOTS = 1,852 km/h (1.151 mph)) (*10)
- 7. illuminates when the max. wind speed alert is set
- 8. wind speed, according to the Beaufort scale
- 9. wind speed, expressed in everyday speech (*11)
- *10: You can set the desired unit as follows:
 - press and hold the A button for 2 seconds
 - 2. use V/A to select your desired unit
 - 3. briefly press the 🖏 button

- indicates whether the displayed temperature is the Feels like, Wind chill, the Heat Index or the Outdoor Dew Point (dew point temperature, outside (*12)
- 2. temperature according to the indication shown underneath 1 (*13)
- 3. effect of Wind chill and Heat index on Feels like temperature

*12:

Feels like: temperature compensated with the wind chill or heat index Wind chill: combination of the measured temperature and wind speed Heat index: combination of the measured temperature and air humidity Dew point temperature, outside: the temperature at which water vapour is converted into water (mist, dew or frost). This temperature depends on the outdoor temperature and the humidity. You can switch between these indications by briefly pressing the "** button.

13: <u>At HEAT INDEX:</u>	<u>the alert level is:</u>
< 27°C (display 'LO')	no danger
27°C – 32°C (80°F – 90°F)	pay attention (risk of exhaustion due to heat)
33°C – 40°C (91°F – 105°F)	be careful (risk of dehydration due to heat)
41°C – 54°C (106°F – 129°F)	danger (increased risk of exhaustion due to heat)
≥55°C (≥130°F)	very dangerous (huge risk of dehydration/stroke)



4.9 Display lighting:

Press the **SNOOZE** button at the top of the indoor unit to switch on the display lighting. After you release the button, the light will turn off after 5 seconds

5. ALARM CLOCK

5.1 Introduction:

The WS-4700 allows you to program an alarm (wake-up) time.

You may also enable an ice alert for this wake-up function: when the outdoor temperature is below -3°C, the alarm signal will sound 30 minutes before the time you've programmed.

5.2 Alarm time setup:

- 1. press and hold the S button at the rear of the indoor for 2 seconds until the hour display starts flashing
- 2. use V/Λ to set the hours, briefly press \Im and the minute display starts flashing
- 3. use V/A to set the minutes and briefly press \Im to store your alarm time

5.3 Alarm function setup:

- repeatedly press the & button to check/enable/disable the alarm Only "AL" appears: the displayed time is the set alarm time, but the alarm itself is disabled "AL" + "J" appear: the alarm is enabled and the wake-up signal will sound at the set alarm time "AL" + "J" + "#" appear: the ice alert is set
- 2. release the \mathcal{Q} button; after several seconds the actual time will be displayed again and the alarm status as mentioned above remains visible

5.4 Operation:

- At the set moment of time, the alarm will sound for up to 120 seconds
- Press the & button to stop the alarm signal beforehand OR press the SNOOZE/LIGHT button on top of the indoor unit to enable the snooze function; the wake-up alarm will sound again after 5 minutes.
- The alarm is repeated daily until you disable it according to the above instructions OR press and hold the SNOOZE/LIGHT buttons for 2 seconds to delay the alarm for 24 hours.
- When you enable the ice alert and outside it's colder than -3°C, the wake-up signal will sound 30
 minutes earlier than the alarm time you set. When it's warmer than -3°C outside, the alarm will sound
 at the set time.

6. HISTORY

6.1 Introduction:

The indoor unit of the WS-4700 automatically saves all measurement data of the past 24 hours, allowing you to check the trend of the last 24 hours at any time

6.2 To view the history:

- 1. press the **HISTORY** button to show the last saved measurement data in the display, while the upper part of the display shows the time and date of the concerned measurement
- 2. repeatedly press the HISTORY button to scroll the memory

The history memory saves the data of the indoor and outdoor temperature and humidity, air pressure, wind chill, wind speed and rainfall.

6.3 To delete the history:

Press and hold the HISTORY button for 10 seconds to erase all measurement data up until that moment.

7. MAX-MIN ALARM

7.1 Introduction:

For the following measurements you can set an alarm for when a maximum or minimum threshold is exceeded:

Indoor temperature	min/max alarm
Indoor humidity	min/max alarm
outdoor temperature	min/max alarm
outdoor humidity	min/max alarm
Rainfall	max alarm (only the actual rainfall from 00:00am is considered)
Wind speed	max alarm

7.2 To set Hi-Lo limits:

- 1. repeatedly press the (**) button until the desired display is flashing with the indication 'HI AL' or 'LO AL' next to it (if applicable)
- 2. use V/Λ to set the limit
- 3. briefly press the (**) button again to save the value
- 4. press the (*) button again to select the next display or wait several seconds for the setup mode to end automatically

7.3 Hi-Lo Alarm function setup:

- 1. repeatedly press the (**) button until the desired display is flashing with the indication 'HI AL' or 'LO AL' next to it (if applicable)
- 2. briefly press the button to enable or disable the selected alarm

7.4 Operation:

8. RELATIVE AIR PRESSURE

8.1 Introduction:

When you're living considerable higher than the mean sea level, you'll be experiencing a lower air pressure. To ensure that the weather forecast is still accurate, you'll need to correct the air pressure according to your where you live.

8.2 Relative air pressure setup:

- 1. refer to the internet or your local authorities for information about your local air pressure
- 2. press and hold the 🚔 button for 2 seconds until 'absolute' or 'relative' starts flashing
- 3. use V/Λ to select 'relative'
- 4. briefly press 🚔 and the air pressure display starts flashing
- use V/A to correct the display by setting it to the value you've obtained from your local authorities or the internet
- 6. briefly press 🚔 to save the air pressure

9 PROBLEM SOLVING

Problems	Solutions		
No or strange measurements from the rain sensor	 Check the drain in the rain meter; it must be opened. Check whether the rain meter sits horizontal. As long as the wheather station is searching for the correct time, there is no transmitting from the rain sensor. This can last for about 15 minutes. 		
No or strange measurements from the thermometer and humidity meter.	 Check whether the air grooves are open. Check the sensor casing. 		
No or strange measurements of wind speed and wind direction.	 Check the weather vane. Check the wind cups of the wind speed meter. 		
Y and (reception signal lost for 1 minute)	 Move the indoor unit closer to the outdoor unit. Make sure that the indoor unit is not placed near other 		
$\Psi_{\rm max}$ and Er (reception signal lost for 1 hour)	 electronic equipment that might cause interference due to wireless transmissions (TV, PC, microwave) When the problem remains, please reset both the indoor and outdoor unit. 		

10. MAINTENANCE

10.1 Rain meter:

You can disassemble the rain meter as follows to remove any spiders or other insects:

- 1. Rotate the upper ring of the rain collector 30° anti-clockwise, making sure that the star sign in the bottom of the funnel is in the "Unlock" position. You can now remove this ring and look at the interior of the rain meter.
- 2. Use a soft brush with long hairs to clean the rain meter
- 3. Replace the ring onto the rain meter and rotate it clockwise, making sure that the star sign in the bottom of the funnel is in the "Lock" position.

10.2 Outdoor temperature and humidity sensor:

- 1 Remove the wind guides from the outdoor unit according to the illustration.
- 2. Blow into the holder containing the temperature and humidity sensor and use a soft brush with long hairs to clean the wind guides. DO NOT USE WATER. 3. Replace and tighten the wind guides.

11. SPECIFICATIONS

Indoor unit: Dimensions

Weight

Power

Frequency

120 x 190 x 22mm 370gr (including batteries) 3x 1.5V AA batteries 868MHz

Outdoor unit:

Dimensions	343.5 x 393.5 x 136mm
Weigh	673gr (including batteries)
Power	3x 1,5V AA batteries
Frequency	868MHz
Broadcast	every 12 seconds

Indoor temperature:

measuring units: display range: functional range: resolution: accuracy: memory display: alarm.

°C, °F -40°C to 70°C (-40°F to 158°F) ('LO' at <-40°C, 'Hi' at >70°C) -10°C to 50°C (14°F to 122°F) 0.1°C or 0.1°F +/-1°C or 2°F at 25°C (77°F) history of the past 24 hours, MIN/MAX temperature with time and date HI/LO alarm





Outdoor temperature: measuring units: display range: functional range: resolution: accuracy: memory display: alarm:	°C, °F -40°C to 80°C (-40°F to 176°F) ('LO' at <-40°C, 'Hi' at >80°C) -40°C to 60°C (-40°F to 140°F) 0.1°C or 0.1°F +/-0.5°C or 1°F at 25°C (77°F) history of the past 24 hours, MIN/MAX temperature with time and date HI/LO alarm
Indoor humidity: display range: functional range: resolution: accuracy: memory display: alarm:	20% to 90% ('LO' at <20%: 'Hi' at >90%) (at temperatures between 0°C and 60°C) 20% to 90% relative humidity 1% +/-5% at 25°C (77°F) history of the past 24 hours, MIN/MAX humidity with time and date HI/LO alarm
Outdoor humidity: display range: functional range: resolution: accuracy: memory display: alarm:	1% to 99% ('LO' at <1%: 'Hi' at >99%) 1% to 99% relative humidity 1% +/-3% at 25°C (77°F) history of the past 24 hours, MIN/MAX humidity with time and date HI/LO alarm
Air pressure: measuring units: display range: resolution: accuracy: forecasts: memory display:	hPa, inHg, mmHg 540 to 1100hPa 1hPa, 0.01inHg, 0.1mmHg (540 - 699hPa ± 8hPa @ 0-50°C) / 700 - 1100hPa ± 4hPa @ 0-50°C) (405 - 524mmHg ± 6mmHg @ 0-50°C) / (525 - 825mmHg ± 3mmHg @ 0-50°C) (15.95 - 20.66inHg ± 0.24inHg @ 32-122°F) / (20.67 - 32.48inHg ± 0.12inHg @ 32-122°F) sunny, partially cloudy, cloudy, rain, storm, snow history of the past 24 hours, MIN/MAX air pressure with time and date
Wind speed: measuring units: display range: resolution: accuracy: display units: memory display: alarm:	mph, m/s, km/h, knots 0~112mph, 50m/s, 180km/h, 97knots 0.5mph or 0.5knot or 0.5m/s < 5m/s: +/- 0.5m/s > 5m/s: +/- 6% average, wind gust history of the past 24 hours, MAX wind gust with direction, time and date HI alarm (for average and for wind gust)
Wind direction: number of wind directions:	16
Rainfall: measuring units: display range: resolution: accuracy: display units: memory display: alarm:	mm, inch 0-9999mm (0~393.7inch) 0.4 mm (0.0157 in) +/- 7% actual rainfall, this day, this week, this month history of the past 24 hours HI alarm
DCF radio controlled clock: synchronisation display	automatic or off HH:MM:SS/day and date

12hr AM/PM or 24hr time format

