UZOLI

EM3390 Weather Station

User Manual

Contents

1. Introduction

Thank you for your purchase of the Uzoli EM3390 Wireless Weather station. The EM3390 weather station consists of a display console (receiver), 3 remote sensors, and a DC power adapter. The following user guide provides step-by-step instructions for installation, operation and troubleshooting.

2. Features

▶WWVB Radio control time function

▶Perpetual Calendar Up to Year 2099

▶Day of week in 3 languages user selectable: English, ,French and Spanish

▶Time in 12-hour or 24-hour format.

▶Two daily alarms

▶Snooze function (OFF or 5~60min)

▶Sunrise and sunset time (select city)

▶Moon phases and tides

▶Humidity: Indoor & Outdoor measurable range: 20%RH ~ 95%RH

▶Temperature:

— Indoor temperature measurement ranges: 15°F ~122°F(-9.9°C~50°C)

— Outdoor temperature measurement ranges: -40°F~ 158°F (-40°C~70°C)

— Temperature alternatively in °F or °C.

▶Minimum/maximum display for air humidity and temperature

▶Display of comfort

▶Display of indoor mold risk

▶Indoor and outdoor temperature and humidity upper and lower limit alert and frost warning

▶Wireless Outdoor Sensor:

— Wall Mount or Table Stand

— 433.92MHz RF transmitting frequency

— 60 meters transmission range in an open area

—Up to 3 wireless outdoor sensors can be connected.

▶Atmospheric pressure:

— Atmospheric pressure measurement ranges: 17.72 inHg to 32.50 inHg

600 hPa/mb to 1100 hPa/mb

— Pressure alternatively in inHg or hPa/mb

▶Weather forecast: Display with 6 weather icons.

▶Power Supply:

·Display Console:

Battery: 2 x LR6 AA

Equipment power input: DC 5V 1.2A (dedicated power adapter)

·Wireless Outdoor Sensor:

Battery:2 x LR6 AA

▶USB output: You can plug in the USB cable to charge other products.

Note:

The wireless remote sensor can work at -30°C to +70°C. Please choose the right battery according to the limit temperature of the wireless sensor:

Alkaline zinc manganese battery can work at -20°C to +60°C

Polymer lithium ion rechargeable battery can work at -40°C to +70°C.

3. Weather Station Appearance

3.1 Layout of display console.

A1: Week Day

A2: Month and date

A3: Indoor Humidity

A4: Mold Risk of Indoor

A5: Indoor Temperature

A6: Time

A7: Atmospheric pressure

A8: Humidity of Wireless Remote Channel 3

A9: Weather forecast

A10: Temperature of Wireless Remote Channel 3

A11: Temperature of Wireless Remote Channel 2

A12: Temperature of Wireless Remote Channel 1

A13: Humidity of Wireless Remote Channel 1

A14: Humidity of Wireless Remote Channel 2

A15: Selected city

A16: Moon phase

A17: Tide level

A18: Sunrise time

A19: Sunset time

3.2 Icon of display console.

① : Wireless Remote Channel 1

② : Wireless Remote Channel 2

③ : Wireless Remote Channel 3

📶 : Wireless reception sign

🔋 : low battery sign

MAX : Temperature or humidity maximum record symbol

MIN : Temperature or Humidity Minimum Recording Symbol

⬆ : Temperature or humidity rising trend symbol

⬇ : Temperature or humidity falling trend symbol

HI⚠ : High temperature or humidity alarm symbol

LO⚠ : Low temperature or humidity alarm symbol

❄ ice : frost warning symbol

DRY 😐 : Dry symbols for comfort

COM ☺ : Comfort symbol for comfort

WET 😞 : Wet symbol for comfort

: Radio Control Time Reception Symbol

: daylight saving time sign

: Backlit night mode sign

: alarm 1 icon

: alarm 2 icon

: snooze sign

M-F : alarm repeat Monday to Friday sign

S-S : alarm repeat Saturday and Sunday sign
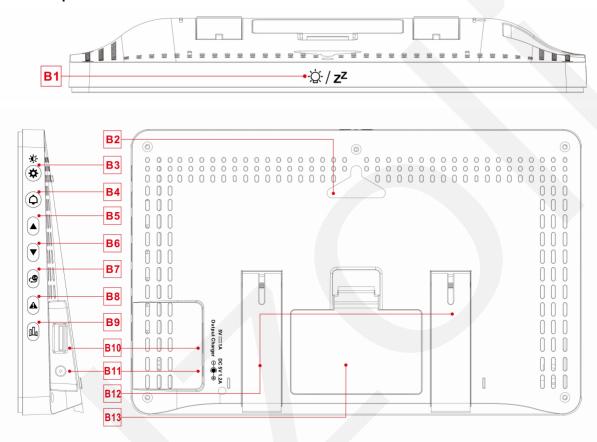
IN : Indoor sign where the equipment is located

3.3 Buttons and power.

B1: "☼ / z^z" touch field

B2: Hanging holes

B3: "✿|☼" button

B4: "🔔" button

B5: "▲" button

B6: "▼" button

B7: "↻" button

B8: "⚠" button

B9: "📊" button

B10: USB charger output socket

B11: Power supply socket

B12: Support frame

B13: Battery compartment

3.4 Wireless remote sensor.

C1: LCD display – Temperature

C2: LCD display – Humidity

C3: Transmit signal LED

C4: "°C/°F" button

C5: "TX" button

C6: "CHANNEL 1 or 2 or 3" switch

C7: Battery compartment

4. Initial Operation

4.1 Installation of remote sensors.

▶ Open the battery compartment cover of the 3 remote sensors, and choose the channel(1,2,3) by switching the channel shift.

▶ Insert 2 x AA batteries into each remote sensor according to the battery polarity direction.

▶ After power on, all icons on the LCD will light up for 3 seconds, the temperature and humidity of the sensor will be detected. At the same time, the red LED will flash for once, the sensors will automatically transmit wireless signals.

4.2 Installation of the display console.

▶ Install the batteries into the display console. Remove the battery compartment cover, install 2 AA batteries in the battery compartment. Or you can plug in the display console with the DC power adapter we provided.

▶ After power on, the display will beep once and all the icons on the LCD will light up for 3 seconds, then the LCD will show the values of indoor temperature, humidity, and pressure.

▶ The weather station will take about 3 minutes to automatically scan the nearby remote sensors, while in the search mode, the receive RF antenna symbol icon " ▧ " will be constantly displayed. After receiving, the temperature and humidity of 3 channels will display on the LCD screen.

5. Set (Program) Mode

▶ When entering the set mode, the corresponding setting content flashes and other irrelevant display content is hidden.

▶ In normal mode, press and hold the the "✿|☀" button more than 2 seconds to enter the set mode. The first setting will begin flashing.

▶ Press the "☼/z^z" touch area twice to exit the setting mode at any time.

▶ If no operation is performed for 20 seconds, the weather station will exit the set mode to the normal mode.

▶ In the set mode, you can press the "✿|☀" button to confirm and enter to next setting, press "▲" or "▼" button to set or change the value, press and hold "▲" or "▼" button more than 2 seconds, the value will increase or decrease rapidly. **The setting order is as follows**:

Beeper ON/OFF→Temperature Units of Measure(°C or °F)→Barometric Pressure Display Unit(hPa or inHg)→RCC ON/OFF→DST ON/OFF→Time Zone Setting (AST EST CST MST PST AKT and HAT)→12/24 Hour Format→Change Hour→Change Minute→Change Year→Change Month→Change Day→Language Display of Week and Month(English, Français, and Español)→Barometric Pressure Calibration Mode→Initial Weather Setting→Exit.

📝 *Note*:

▶ There are 3 languages of Weekday and month code: English , Français, and Español.

▶ *Week language display*

Language	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
English	SUNDAY	MONDAY	TUESDAY	WENDESDAY	THURSDAY	FRIDAY	SATURDAY
Français	DIMANCHE	LUNDI	MARDI	MERCREDI	JEUDI	VENDREDI	SAMEDI
Español	DOMINGO	LUNES	MARTES	MIERCOLES	JUEVES	VIRNES	SABADO

▶ *Month code display*

Languag	January	February	March	April	May	June	July	August	September	October	November	December
English	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Français	JAN	FEV	MAR	AVR	MAI	JUI	JUL	AOU	SEP	OCT	NOV	DEC
Español	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC

▶America time zone：

    AST: Altantic Standard Time   -4

    EST: Eastern Standard Time   -5

    CST: Central Standard Time   -6

    MST: Mountain Standard Time   -7

    PST: Pacific Standard Time   -8

    AKT: Alaska Standard Time   -9

    HAT: Hawaii-Aleutian Standard Time   -10

📝 **Note**:

▶ Please select the correct time zone according to the area where the weather station is located, otherwise the time will be wrong when the **WWVB** signal is successfully received.

▶ Exceeding the America signal tower diameter of 1500KM or more, the signal received by the radio clock signal is very poor. It is recommended to set the **WWVB** to OFF.

▶ The atmospheric pressure is provided by the factory and has been adjusted to absolute pressure. Since air pressure usually decreases as altitude increases, public meteorological agencies always publish so-called relative air pressure. In order to obtain a comparable value, the relative air pressure has been adjusted to the topography of the country. You can adjust the air pressure of the weather station to the ratio of its location. For this, you must uniquely adjust the current air pressure of the weather station. Ask your local weather forecast service about the air pressure at sea level, or get the current value from the Internet. The above adjustment of the air pressure setting is based on this reason. When the air pressure is absolute air pressure, ABS PRESSURE is displayed, and when the air pressure is adjusted, it displays REL PRESSURE.

▶ The time of sunrise and sunset will be determined according to DST, so if the DST system is not implemented in this

area, it is recommended to set the DST to OFF.

6. Alarm and Snooze

6.1 Alarm clock setting.

▶ In normal mode, press and hold the "🔔" button for more than 2 seconds to enter the alarm clock setting mode, **its setting order**: Hour setting for alarm 1→Minute setting for alarm 1→Repeat setting for alarm 1→Snooze time setting for alarm 1→Hour setting for alarm 2→Minute setting for alarm 2→Repeat setting for alarm 2→Snooze time setting for alarm 2→Exit.

▶ In the alarm clock setting mode, press "🔔" button to confirm your setting and enter to the next setting part. Press "▲" or "▼" button to set or change the value. Press and hold "▲" or "▼" button for more than 2 seconds, the value will increase or decrease rapidly.

▶ Touch the "☼ / z^Z" area twice to exit the setting mode directly.

▶ There have 3 options for the alarm repeat mode:

M-F
S-S (M-F: The alarm function will be activated from Monday to Friday, and will be disabled on Saturday and Sunday)

M-F
S-S (S-S: The alarm function will be activated on Saturday and Sunday, and will be disabled from Monday to Friday

M-F
S-S （M-S: The alarm function will be activated for a week.）

▶ The snooze time setting range: 5 ~ 60mins, OFF. When set to OFF, it means the snooze function is turned off. The unit of snooze time is minutes.

▶ If no operation is performed for 20 seconds, the weather station will exit the set mode to the normal mode.

6.2 Turn on and off the alarm clock.

▶ In the normal mode, press "🔔" button to enter the alarm clock view mode, here you can view the ALARM1 time or ALARM2 time, and press the "▲" button to turn the alarm clock ON or OFF. If the ALARM1 or ALARM2 turn on, the ① or ② icon is displayed, otherwise the icon will disappear.

▶ When the alarm goes off, the corresponding alarm icon ① or ② will be displayed and flash.

▶ The alarm sound will sound last for 2 minutes, and will change as below:

0-9 seconds: BI per second.

10-19 seconds: BI BI per second.

20-29 seconds: BI BI BI per second.

30-120 seconds: BI BI BI BI per second.

▶ **Turn off the alarm sound.** When the alarm clock goes off, press any buttons except the "☼ / z^Z" button or press and hold the "☼ / z^Z" button for more than 2 seconds to stop the alarm signal.

6.3 Snooze function.

▶When the alarm clock goes off, press the "☼/z^z" button to stop the alarm sound and enter the SNOOZE mode. After the snooze time is counted, the alarm will ring again. If press the "☼/z^z" button again, you will enter the snooze mode again, and you can cycle the snooze mode.

▶When the snooze alarm goes off, to stop the alarm and exit the snooze mode, you can press any buttons except the "☼/z^z" button, or touch and hold the "☼/z^z" for more than 3 seconds, or do nothing after the alarm goes off for 1 minute.

▶In snooze mode, to exit the snooze mode, press and hold the "☼/z^z" for more than 3 seconds or press any buttons except the "☼/z^z".

▶When the snooze function is set to off, when the alarm ring is on, no matter you press any button, the alarming will stop and will not enter to the snooze mode.

📝 *Note*:

▶When alarm 1 and alarm 2 are set to the same time, the system defaults to alarm 1, and alarm 2 will be deactivated.

▶ When the 2 alarms ring separately (the interval is 1 minute), when the second alarm rings, the first alarm will automatically turn off.

▶If the 2 alarms are both activated, when the first alarm rings and enters the snooze mode, and then the second alarm rings during the snooze mode, it will exit the snooze mode of the first alarm.

7. Moon Phases and Tide Indicator

▶In the normal mode, moon phases and tide levels are calculated based on the city's calendar and time.

▶The tide indicator is divided into 3 levels: HIGH, MEDIUM, and LOW

▶The following 12 kinds of moon phases are displayed based on the calendar.

New moon	Waning half-moon	Half-moon	Waning full moon	Full moon	Waning full moon	Half-moon	Waning half-moon

8. Select or Setting City of Your Location

8.1 Select a city.

▶ Press the "🏙" button once to enter the city selection mode, in the city selection mode, press "▲" or "▼" button to select the correct city according to the three-character code of the city corresponding to the table below. Press and hold "▲" or "▼" button for more than 2 seconds to increase or decrease the value rapidly.

▶ After selecting the city, press the "🏙" button to exit the selection mode and return to the normal mode.

No.	country	city	code	No.	country	city	code
1	Germany(DE)	Berlin	BER	126		Cordoba	COR
2		Bremen	BRE	127		Eivissa Ibiza	IBZ
3		Köln	KOE	128		La Coruña	LCO
4		Dortmund	DOR	129		Las Palmas	LPA
5		Dresden	DRE	130		Leon	LEO
6		Düsseldorf	DUS	131		Madrid	MAD
7		Erfurt	ERF	132		Malaga	MAL
8		Frankfurt	FRA	133		Palma de Mallorca	PDM
9		Freiburg	FRE	134		Salamanca	SAL
10		Hamburg	HAM	135		Sevilla	SEV
11		Hannover	HAN	136		Valencia	VAL
12		Hof	HOF	137		Zaragoza	ZAR
13		Kaiserslautern	KAI	138	Sweden(SE)	Gothenburg	GOT
14		Kassel	KAS	139		Karlstad	KAR
15		Kiel	KIE	140		Stockholm	STO
16		Leipzig	LEI	141	Switzerland(CH)	Basel	BAS
17		Magdeburg	MAG	142		Berne	BNE
18		München	MUN	143		Chur	CHU
19		Nürnberg	NUR	144		Geneva	GNV
20		Osnabrück	OSN	145		Lucerne	LUC
21		Passau	PAS	146		Lugano	LUG
22		Regensburg	REG	147		Sion	SIO
23		Rostock	ROS	148		St. Gallen	SGL
24		Saarbrücken	SAA	149		Zurich	ZUR
25		Stuttgart	STU	150	United Kingdom(GB)	Aberdeen	ABD
26		Ulm	ULM	151		Belfast	BEL
27		Würzburg	WUR	152		Birmingham	BIR
28	Austria(AT)	Bregenz	BRZ	153		Cardiff	CAR
29		Graz	GRZ	154		Glasgow	GLW
30		Innsbruck	INN	155		London	LON
31		Linz	LNZ	156		Manchester	MAN
32		Salzburg	SLZ	157		Newcastle upon Tyne	NEC
33		Vienna	WIE	158		Plymouth	PLY
34		Villach	VIL	159	Lithuania(LT)	Vilnius	VNO
35		Wels	WEL	160	Bulgaria(BG)	Sofia	SOF
36	Belgium(BE)	Antwerp	ANT	161	Romania(RO)	Bucharest	BUH
37		Bruges	BRG	162	Cyprus(CY)	Nicosia	NIC
38		Brussels	BRU	163	Northen Ireland	Belfast	BFS

					(NI)		
39		Libramont	LIB	164	United States(US)	Washington DC	WDC
40		Liege	LIE	165		New York	NYC
41	Bosnia &Herzegovina(BA)	Sarajevo	SAR	166		Los Angeles	LAS
42	Croatia(HR)	Split	SPL	167		Chicago	CHI
43		Zagreb	ZAG	168		Houston	HOU
44	Czech(CZ)	Brno	BRN	169		Phoenix	PHO
45		Prague	PRG	170		San Antonio	SAO
46	Denmark(DK)	Aalborg	ALB	171		San Diego	SDO
47		Copenhagen	KOB	172		Dallas	DAL
48		Odense	ODE	173		San Francisco	SFO
49	Finland(FI)	Helsinki	HEL	174		Philadelphia	PHL
50	France(FR)	Ajaccio	AJA	175		Charlotte	CHA
51		Biarritz	BIA	176		Seattle	SEA
52		Bordeaux	BOR	177		Denver	DEN
53		Brest	BRT	178		Boston	BOS
54		Cherbourg-Octeville	CHE	179		Detroit	DET
55		Clermont-Ferrand	CMF	180		Nashville	NAS
56		Dijon	DIJ	181		Memphis	MEM
57		Lille	LIL	182		Portland	PTL
58		Lyon	LYO	183		Oklahoma city	OKC
59		Marseille	MRS	184		Las Vegas	LVG
60		Metz	MET	185		Milwaukee	MWK
61		Nantes	NAN	186		Kansas City	KAN
62		Nice	NCE	187		Atlanta	ATL
63		Orleans	ORL	188		Miami	MIA
64		Paris	PAR	189		Virginia beach	VAB
65		Perpignan	PER	190		Oakland	OAK
66		Rouen	ROU	191		Minneapolis	MIN
67		Strasbourg	STR	192		New Orleans	NOL
68		Toulouse	TOU	193		Cleveland	CLE
69	Greece(GR)	Athens	AHN	194		Tampa	TAM
70	Hungary(HU)	Budapest	BUD	195		Honolulu	HON
71	Ireland(IE)	Dublin	DUB	196		St.Louis	SLS
72	Italy (IT)	Ancona	ANC	197		Pittsburgh	PIT
73		Bari	BAR	198		Cincinnati	CIN
74		Bolzano	BOZ	199		Lincoln	LIN
75		Cagliari	CAG	200		Orlando	ORD
76		Florence	FIR	201		Buffalo	BUF
77		Foggia	FOG	202		Richmond	RMD

#	Country	City	Code	#	Country	City	Code
78		Genoa	GEN	203		Columbia	COL
79		Lecce	LEC	204		Little Rock	LRC
80		Messina	MES	205		Columbus	CLS
81		Milan	MIL	206		Grand Rapids	GRS
82		Naples	NAP	207		Salt Lake City	SLC
83		Palermo	PAL	208		Providence	PVD
84		Parma	PRM	209		Manchester(NH)	MNH
85		Perugia	PEG	210		San Diego	SDG
86		Rome	ROM	211		Santa Fe	SFE
87		San Remo	SRE	212		Bismarck	BIS
88		Triest	TRI	213		Reno	REN
89		Turin	TUR	214		New Haven	NHV
90		Venice	VEN	215		Baltimore	BAL
91		Verona	VER	216		South Carolina (SC)	SCR
92	Liechtenstein(LI)	Vaduz	VDZ	217		Savannah	SAV
93	Luxemburg(LU)	Luxembourg	LUX	218	Canada(CA)	Ottawa	OTT
94	Monaco(MC)	Monte Carlo	MCM	219		Quebec City	QUC
95	Netherlands(NL)	Amsterdam	AMS	220		Edmonton	EDM
96		Arnhem	ARN	221		Calgary	CLY
97		Eindhoven	EIN	222		Vancouver	VAN
98		Groningen	GRO	223		Montreal	MON
99		Rotterdam	ROT	224		Toronto	TOR
100		The Hague	DHA	225	Mexican	Mexico City	MEX
101	Norway(NO)	Bergen	BGN	226	Panama	Panama City	PAN
102		Lillehammer	LLH	227	Brazil(BR)	Brasília	BRA
103		Oslo	OSL	228		Belo Horizonte	BHZ
104	Poland(PL)	Cracow	KRA	229		Recife	REC
105		Gdansk	GDA	230		Rio de Janeiro	RIO
106		Poznan	POZ	231		São Paulo	SPA
107		Warsaw	WAR	232		Salvador	SLV
108	Portugal(PT)	Faro	FAR	233	Argentina	Buenos Aires	BUE
109		Lisbon	LIS	234		Cordoba	CDB
110		Porto	POR	235		La Plata	LPL
111	Russian Federation(RU)	St. Petersburg	PET	236		Mardel Plata	MAR
112		Moscow	MOS	237		Mendoza	MEN
113		Novosibirsk	NOV	238		Rosario	ROO
114		Kazan	KAZ	239	Chile	Santiago de Chile	SAN
115		Volgograd	VOL	240	Colombia	Bogotá	BOG
116		Yekaterinburg	YEK	241	Australia(AU) and New Zealand(NZ)	Canberra	CBR

117	Serbia(RS)	Belgrade	BEO	242		Melbourne	MEL
118	Slovakia(SK)	Bratislava	BRV	243		Sydney	SYD
119		Kosice	KOS	244		Wellington	WLG
120	Slovenia(SI)	Ljubliana	LUB	245		Adelaide	ADE
121	Spain(ES)	Alicante	ALI	246		Brisbane	BRI
122		Andorra	AND	247		Darwin	DRW
123		Badajoz	BAD	248		Hobart	HBA
124		Barcelona	BRC	249		Perth	PEH
125		Bilbao	BIL	250		Auckland	AKL
				251		Christchurch	CHC

8.2 City custom setting mode.

▶If your city is not listed in the table above, you can customize the city, latitude, and longitude.

▶It is recommended that you check the time zone, latitude, and longitude of your city before setting.

▶In the normal mode, press and hold the "🏙" button for more than 2 seconds to enter the city custom setting mode.

▶In the city custom setting mode, press "🏙" button to confirm and enter the next setting item, press "▲" or "▼" button to adjust the value up or down, press and hold "▲" or "▼" button for more than 2 seconds to increase or decrease the value rapidly.

▶**Setting order**: Set the first code of your city→Set the second code of your city→Set the third code of your city→Set the time zone→Set the longitude of the city→Set the latitude of the city→Exit.

▶ Touch the "☼/zᶻ" area twice to exit the setting mode directly.

▶ If no operation is performed for 20 seconds, the weather station will exit the set mode and enter the normal mode.

▶ After selecting a city or setting a custom city, the sunrise time and sunset time are automatically calculated and displayed in the corresponding area according to the location, time zone, and current time of the selected city,

9. RF Transmission Procedure

▶ When the weather station successfully receives the signal from the remote sensors, the outdoor temperature and humidity will be displayed on the corresponding outdoor channel of the display console.

▶ The weather station can connect up to 3 remote sensors, but when using multiple sensors at the same time, please set the sensors to different channels.

▶In the normal mode, press the "🔄" button for more than 2 seconds, all the data on the weather station of outdoor sensors will be cleared(--.-°C or --.-°F and --%RH are displayed on the LCD), at this time, you can wait for the weather station to automatically re-receive the sensor signal, or you can manually press the TX button (located in the battery compartment) on the remote sensor to quickly send a signal to the weather station.

▶ In the normal mode, press the "🔄" button to select the channel, the number of selected channels will flash, then press and hold the "🔄" button for more than 2 seconds, the data of the channel you selected will be cleared (--.-°C or

--.-°F and --%RH are displayed on the LCD), at this time, you can wait for the weather station to automatically re-receive the sensor signal, or you can manually press the TX button (located in the battery compartment) on the remote sensor to quickly send a signal to the weather station.

▶ If the weather station failed to receive a transmission from the outdoor remote sensors("--.-" is displayed on the LCD), press the "🔃" button to select the channel, the number of selected channels will flash, then press and hold "🔃" button for more than 2 seconds, RF icon "📶" will be flashing, the weather station will rescan the launch signal of the channel.

📝 *Note*:

▶The "TX" button on the remote sensor (located in the battery compartment) is used to quickly transmit the signal to the weather station without waiting for the automatic updates. You can use it when the weather station receives the signal from the sensor for the first time, or when the weather station reconnects the signal from the sensor.

▶When clearing the outdoor data, the original minimum and maximum date of outdoor temperature and humidity will also be cleared together.

10. Reception of the Radio Signal

▶ In the WWVB radio signal reception mode, the signal symbol "📡" is displayed and flashes. If a valid signal is received during the receiving process, the signal symbol "📡" will stop flashing, and the signal wave symbol "◎" is displayed and flashes. If the signal is suddenly interrupted during valid reception, the signal wave symbol "◎" is not displayed and converted to a signal symbol "📡" displays and flashes.

▶ The WWVB signal reception time is 7 minutes, if the reception is successful within 7 minutes, the time displayed by the weather station is converted to the received time, and the WWVB symbol "📡" is displayed on the screen, indicating that the WWVB reception is successful. If no valid signal is received within 7 minutes, it will automatically exit the WWVB reception, and the symbol "📡" will not be displayed.

▶ **Automatically receive the WWVB signal**: At 1:00 /2:00 /3:00 /4:00 /5:00 AM every day, the clock automatically performs a synchronization procedure with the WWVB signal to correct any deviations to the exact time. If this synchronization attempt is unsuccessful (the signal symbol disappears from the display), the system will automatically attempt another synchronization in the next full hour. This procedure is automatically repeated up to 5 times. As long as the reception is successful once, the signal reception will not be turned on for the next few times.

▶ **Manually receive the WWVB signal**: To start receiving the WWVB signal manually, press and hold down the "▲" button for 2 seconds. If no signal is received within 7 minutes, the WWVB signal search stops (the signal symbol

disappears) and restarts in the next full hour. Please note: The weather station will not automatically enter the WWVB signal after 3 minutes of RF reception after power on, you need to operate it manually If you want to receive the WWVB signal immediately.▶ During WWVB radio signal reception, to stop searching radio signal, press and hold down the "▲" button for more than 2 seconds.

▶ When the WWVB signal is received, the system time will be converted to the time in the set time zone.

Note:

▶During the WWVB radio reception mode, except for the "▲" and "☼ / z^Z" button, other buttons have no function. To perform other operation functions, press and hold the "▲" button for more than 2 seconds to exit the WWVB radio reception mode.

▶ When weather station enter the radio control time receiving mode, the backlight will automatically turn off, press "☼ / z^Z" button to turn on the backlight, or the backlight will be automatically turn on after the radio control time receiving reception.

▶ The symbol "DST" indicates the reception time of daylight saving time.

▶ When the WWVB is successfully received, if you manually enter the time setting and change any time item, the receiving symbol "📡" will not be displayed, and if there is daylight saving time, the daylight saving time symbol "DST" will not be displayed either.

▶ We recommend keeping weather stations at least 2.5 meters away from all sources of interference, such as televisions or computer monitors.

▶Radio reception is weak in rooms with concrete walls (e.g.: in cellars) and offices. Under these circumstances, place the weather station near the window.

11. Temperature & Humidity Measurement Specifications

▶ Indoor temperature range: 14°F~ 122°F (-9.9°C~50°C), **LL.L**°F(°C) will be displayed if the value is lower than 14°F (-9.9°C), **HH.H** °F(°C) will be displayed if the value higher than 122°F (50°C).

▶ Outdoor temperature range: -40°F ~ +158°C (-40°C~70°C), **LL.L** °F(°C) will be displayed if the value is lower than -40°F (-40°C), **HH.H** °F(°C) will be displayed if value higher than +158°F (+70°C).

▶ Indoor and outdoor humidity display range: 20%RH ~ 95%RH.

▶ If the indoor and outdoor humidity value is lower than 20%RH, it will display 20%RH on the screen, if the indoor and outdoor humidity value is more than 96%RH, it will display 96%RH on the screen.

12. Temperature/Humidity Trend Display

▶ The current indoor & outdoor temperature/humidity and the temperature/humidity trend are shown in the LCD display.

▶ You may see the following displays:

🡅 : When the temperature rises more than 1°C(1.8°F) ;

When the humidity increases more than 5%RH within 1 hour.

🡇 : When the temperature drops more than 1°C(1.8°F) .

When the humidity decreases more than 5%RH within 1 hour.

No display: When the temperature rises/ drops less than1°C(1.8°F) .

When the humidity increases/ decreases less than 5%RH within 1 hour.

13. Maximum/Minimum of Temperature/ Humidity

▸ In the normal mode, press the "▼" button to view the maximum /minimum values of indoor & outdoor temperature and humidity. When the "MAX" symbol is displayed, the displayed temperature and humidity value is the maximum value. When the "MIN" symbol is displayed, the displayed temperature and humidity value is the minimum value. **The viewing order is**: Maximum values→Minimum values→Current values.

▸When viewing the MAX/MIN value, if no operation is performed for 5 seconds, the weather station will automatically return to the current value.

▸To reset the MAX and MIN temperature and humidity, press and hold down the "▼" button for about 2 seconds. This resets all recorded MAX and MIN data to the current data.

14. Temperature & Humidity Alarm and Frost Warning

14.1 Temperature and humidity alarm settings.

▸ In the normal mode, press the "⚠" button to enter the temperature and humidity alarm viewing mode, press the "⚠" button again to switch to view the next item, **in order**:

Temperature upper limit alarm→Temperature lower limit alarm→Humidity upper limit alarm→Humidity lower limit alarm→Frost alarm (INDOOR has no frost alarm item)→Can switch cyclically

▸ In this temperature and humidity alarm viewing mode, press the "🔁" button to switch to a different channel, **in the order of items:** 🏠→①→②→③ , and can switch cyclically

▸ In this temperature and humidity alarm viewing mode, the alarm function of each item can be turned ON or OFF by pressing the "✿/☀" button when the respective item is displayed. In the normal mode, the corresponding alarm symbol "HI⚠" or "LO⚠" or "❄" is displayed on the screen if the alert function is turned ON.

▸ In the normal mode or temperature and humidity alarm viewing mode, press and hold "⚠" button for more than 2 seconds to enter the temperature and humidity alert setting mode, the corresponding temperature and humidity value become the upper limit or lower limit of temperature and humidity. At this point, you can start to set the alarm value of

temperature and humidity.

▶Press "▲" or "▼" button to set the value up or down, press and hold "▲" or "▼" button to increase or decrease the value rapidly.

▶Press the "⚠" button to confirm and enter to the next setting item. **The setting order**: Upper limit alert setting of the temperature→ Lower limit of the temperature alert→Upper limit of the humidity alert→Lower limit of the humidity alert →Exit.

▶ When setting the upper and lower limit alarm values of temperature and humidity, press the "↻" button to switch to different channels, and set the upper and lower limit alarm values of temperature and humidity for different channels.

▶ Touch the "☼ / zᶻ" area twice to exit the setting mode directly.

▶ If no operation is performed for 20 seconds, the weather station will exit the set mode to the normal mode.

14.2 Temperature & humidity upper and lower limit and frost warning.

▶ When the current temperature or humidity value is higher or lower than the temperature or humidity alarm value, and the corresponding temperature or humidity alarm function is turned ON, the weather station will beep for 3 seconds, at the same time, the corresponding symbol "HI⚠" or "LO⚠" and the corresponding values will flash, and they will keep flashing after beeping for 3 seconds.

▶Conditions for stopping the alarm(including the flashing of the alarm symbol):

Press any button to cancel the alarm sound, but the alarm symbol will still flash on the display.

Turn off the corresponding temperature or humidity alarm function.(Refer to 14.1 Temperature and humidity alarm settings.)

When the temperature or humidity returns to the alarm range, it will automatically stop the alarm.

▶ When the frost alarm of outdoor channel 1/2/3 is turned ON (no frost alarm function indoor), and the temperature of outdoor channel 1/2/3 is in the range of 30°F~37°F (–1°C~ 3°C), the frost alarm is triggered, the weather station will beep for 3 seconds at the same time, the frost symbol "❄ICE" will flashes on the corresponding channel until the temperature value is not within the range of the frost alarm range.

15. Comfort and Indoor Mildew Risk

▶ There are 4 display modes for the comfort level, as follows:

DRY 😐	The temperature is any value, the humidity is less than 40%
COM 😊	Temperature in the range of 68.0℉～82.4℉ (20.0℃～28.0℃), humidity in the range of 40%～70%

WET ☹	The temperature is any value, and the humidity is greater than 70%
icon does not display	Temperature is less than 68.0℉ & 20.0℃ or greater than 82.4℉ & 28℃, humidity is in the range of 40%～70%

▶ The mold risk level is displayed to the left of the indoor humidity. There are 4 levels of mold risk warning: HI (high) ME (medium) LO (low) and no risk (no arrow displayed), which are calculated based on the indoor temperature and humidity.
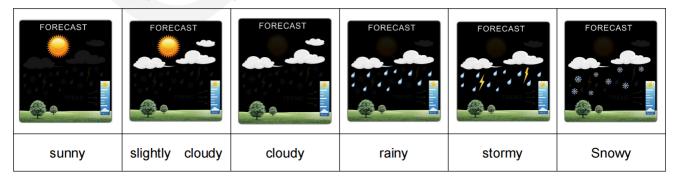
Temperature range	No risk	Low risk	Medium risk	High risk
Display form	No display	"LO", not flash	"ME", not flash	"LO", flash 1 time/second
<11.0℃	Any humidity value			
11.0℃~25.9℃	Humidity<=48%	Humidity(49%~78%)	Humidity>=79%	
26.0℃~30.9℃		Humidity<=78%	Humidity(79%~87%)	Humidity>=88%
31.0℃~40.9℃		Humidity<=48%	Humidity(49%~87%)	Humidity>=88%
>41.0℃	Any humidity value			

16. Low battery:

▶ If the low battery icon "▭" appears in the INDOOR area, you need to replace the display console's battery as soon as possible.

▶ When the low battery icon "▭" is displayed in the corresponding sensor channel, you need to replace battery of the low battery remote sensor as soon as possible.

17. Weather Forecast

▶The weather forecast is to predict the weather conditions in the next 12 hours according to the barometric pressure trend. It's calculated from the evaluation of fluctuations in the barometric pressure and may deviate from the actual weather conditions and official forecast. If there is a deviation, please refer to the official forecast.

▶The weather station displays the following weather icon:

sunny	slightly cloudy	cloudy	rainy	stormy	Snowy

📝 **Note**:

▶ The Snowy icon will only appear if the outdoor temperature is below -4℃ （+25℉) in the case of rain or storm. By default, the outdoor temperature is the temperature of CH1, if there is no signal in CH1, the outdoor temperature is the temperature of CH2. When there is no signal in CH1 and CH2, the outdoor temperature defaults to CH3.

▶ After the weather station needs 7-10 days of air pressure calibration, the weather forecast will stabilize with an accuracy rate of 70%-75%.

▶ The weather forecast can be given for a radius of up to 12-20km.

▶ The weather station can display the barometric pressure trend.

▶ Barometric pressure trend display:

⟋: The barometric pressure will rise.

⟶: The barometric pressure will remain constant.

⟍: The barometric pressure will fall.

18. Backlight Instructions

18.1 Adjustable brightness of backlight.

▶ If the console is powered by batteries only, touch the "☼/z^Z" once to turn on the backlight for 15 seconds, and if no operation is performed for 15 seconds, the backlight will turn off to save power.

▶ If the console is plugged into the power adapter, the backlight will always stay on. Press "✖|☼" button to change the brightness levels of backlight:4 different brightness level (LV4→LV1）and OFF. Return to normal mode after 3 seconds without pressing the button.

▶ In the brightness other than LV4(the maximum brightness), touch the "☼/z^Z" field can make the backlight turns to the brightest(LV4) for 15 seconds.

18.2 Settings for Screen Night Mode.

▶ Touch and hold "☼/z^Z" field for more than 3 seconds to enter the night mode setting, **the setting order is**: Turn on or off the night mode→ Brightness in the night mode→Hours to enter the night mode →Minutes to enter the night mode→Hours to exit the night mode→Minutes to exit the night mode→Exit.

▶ In the night mode setting , press "✖|☼" button to confirm and enter to the next setting item. Press "▲" or "▼" button to set the value. Press and hold "▲" or "▼" button to increase or decrease values rapidly. Touch the "☼/z^Z" area twice to exit the setting mode directly.

▶The backlight brightness in night mode can be set to 3 levels: LV1, LV2, and LV3.

▶ When the night mode is ON, the icon "🌑" will be displayed. When the time reaches the time to enter the night mode, the backlight will automatically switch to the set night mode brightness, and when the time reaches the time to exit the night mode, the backlight will return to the original brightness

  ▶ In night mode, the backlight can be switched to the highest brightness for 15 seconds by touching the "☼ / z^z" field. Press "✿|☼" button, the brightness will turn to the next level (such as:lv3 to lv2) and exit the night mode. At the next time when night mode is reached, it will automatically enter night mode.

📝 *Note*:

▶ During the reception of the time radio wave signal, the backlight will be automatically closed to prevent the interference of the radio wave. Touch the "☼ / z^z" area to turn on the backlight for 15 seconds, and it will automatically turn off after 15 seconds.