

## TE821W – Semi-Professional Weather Station

### HOW DO I SET THE TIME ZONE ON MY TE821W?

When selecting your location in the Clock and Alarm mode, either by entering the code of the closest city, or entering your specific location longitude and latitude, all data, including the Time Zone, is set automatically.

### HOW TO SET THE TIME ALARM?

In the Clock and Alarm window, select the desired alarm by pressing the ALARM /CHART button. Then press and hold the ALARM/CHART button until the alarm time digits will flash. Set the desired alarm time (hours, minutes) using the UP or DOWN arrow buttons on the back of the unit. Then press ALARM/CHART button to exit from the programming mode and confirm the setting.

### HOW TO DISABLE THE TIME ALARM?

In the Clock and Alarm window press ALARM/CHART button selecting the alarm you want to disable – an appropriate letter of the selected alarm will appear next to the alarm time. Press UP arrow button once, so the word "OFF" will be displayed. Now that specific alarm is disabled and won't activate.

### HOW OFTEN DOES THE WEATHER FORECAST UPDATE, AND WHAT PERIOD DOES IT COVER?

The weather forecast is updated every 12 hours and covers a period of time from 12 to 24 hours ahead, starting from the first time when the unit has been powered up.

### HOW ACCURATE THE WEATHER FORECAST DISPLAYING ON TE821W?

The weather forecast accuracy is 75%.

### WHERE I CAN FIND MY LOCAL ALTITUDE/ELEVATION?

To find out your altitude/elevation and current barometric pressure go to <http://weather.noaa.gov/weather/ccus.html>. Select the area nearest you. The altitude can also be found with a portable GPS receiver or topographical map. Barometric pressure can be obtained from the radio or TV weather programs.

### HOW DO I PROGRAM MY LOCAL ALTITUDE/ELEVATION?

**IMPORTANT:** Program your altitude in the main unit as soon as batteries are installed.

- After batteries are inserted into the battery compartment, "inHg" abbreviation will flash in Pressure and Weather forecast window of the main unit display.
- Press UP or DOWN arrow buttons selecting the pressure unit in metrics or imperial units.

- Press SET button once to confirm the selection and move to the altitude unit selection mode with "feet" flashing.
- Select the desired altitude unit by pressing the back UP or DOWN arrow button
- Press SET button again – "33" number will start flashing showing default altitude
- Use the UP or DOWN arrow buttons to increase or decrease the altitude value
- Press SET button once to confirm the entered altitude - after a 2-3 second delay the display will change to the SEA LEVEL barometric pressure adjusted to the set altitude in numerals.

#### WHAT IS THE MEANING OF THE PRESSURE BAR GRAPH? IS IT NORMAL THAT THIS BAR GRAPH IS FLASHING?

Yes, this is a normal unit operation. The pressure bar graph shows barometric pressure fluctuations over the past 24 hours. Each bar icon represents 0.06 inHg

#### WHAT IS THE EMPTY WINDOW LOCATED BELOW THE MOON PHASE ICON MEANS?

With each press on the **HISTORY** button, this window shows a specific hour, allowing displaying a barometric pressure history from present time to 36 hours back.

#### WHAT IS THE DIFFERENCE BETWEEN THE WEEKDAY (W) AND SINGLE (S) TIME ALARMS?

The **Weekday (W)** alarm is programmed to sound at the set time Mondays through Fridays with "W" letter flashing.

The **Single (S)** day alarm is programmed to sound at the set time with "S" letter flashing only for the specific day and will not activate on subsequent days.

#### WHAT DOES "PRE-AL" MEAN?

When temperature drops below freezing, programmable **Ice Warning Alarm (PRE-AL)** automatically wakes you up earlier, giving an extra time to get ready.

It programmed to sound before the actual alarm if the remote temperature for Channel one (1) will reach 32°F (0°C) and below. You can set this alarm to 15 to 90 minutes earlier than actual time alarm.

**Ice Warning Alarm (PRE-AL)** can only be set if one or both - **Weekday** or **Single** alarm previously programmed.

#### WHERE IS US ATOMIC CLOCK LOCATED?

US Atomic clock is located at Fort Collins outside Boulder, Colorado, and is operated by the US Government

## WILL MY ATOMIC TIME UNIT WORK IN ALASKA AND HAWAII?

If used in Alaska and Hawaii, the Atomic Time clocks will not receive the RF signal from the US Atomic Clock during the normal daylight hours. The 50kW radio signal transmitted at 60 kHz frequency covers the Continental United States (CONUS) and reaches parts of Alaska and Hawaii during the night-time hours. However, this clock can be set manually if the signal from Boulder, Colorado is not able to reach the locations that geographically are not in the US Atomic Clock Time Signal coverage area.

## HOW TO DISABLE/ENABLE ATOMIC TIME SIGNAL RECEPTION MANUALLY?

1. Press and hold **UP** and **DOWN** arrow buttons at the same time for 3 seconds and the atomic time radio reception icon located above the seconds will disappear.
2. Press and hold **UP** and **DOWN** arrow buttons at the same time for 3 seconds again enabling atomic time radio receiver. The radio reception icon will start flashing showing that the unit is searching for the atomic time signal.

## MY TE821W DID NOT RECEIVE ATOMIC TIME SIGNAL DURING INITIAL SETUP. HOW THIS CAN BE FIXED?

Please, consider the following when atomic time is not set during the initial setup:

- During night-time hours, atmospheric conditions improve radio signal reception. A single daily reception is sufficient enough to keep the clock accuracy within milliseconds.
- Unit should be positioned 8 feet (2 meters) from interference sources such as a TV, computer, microwave, etc.
- The signal reception is weakened within concrete walls found in basements or office buildings. Place the unit near the window for best reception.

Once the atomic time signal is received, the date and time will be set automatically, and the atomic time reception icon will appear.

Your unit's atomic clock is programmed to search for the atomic time signal daily each hour between 1:00 am and 4:30 am. Once the time signal has been successfully received, the time and date will be updated automatically.

## WHAT SHOULD I DO DURING AN INITIAL PRODUCT SETUP?

Remove the protective plastic screen (if any) from the LCD displays.

Insert the batteries into the **remote sensor first** then insert batteries into the main unit.

During initial setup in order to work properly, remote sensor must have the batteries installed before the main unit.

**IF YOU HAVE MORE THAN ONE REMOTE SENSOR SET EACH SENSOR TO A DIFFERENT CHANNEL NUMBER.**

**DO NOT PRESS ANY BUTTONS FOR 6 MINUTES.**

During this time the main unit and remote sensor will start to communicate to each other and the main unit will show both - indoor and remote readings.

**MY TE821W NO LONGER SHOWS AN OUTDOOR/REMOTE TEMPERATURE AND HUMIDITY, WIND SPEED& WIND DIRECTION OR RAINFALL. WHAT CAN I DO TO FIX THIS?**

If the main unit displays dashes (- -) in any remote parameter window press and hold the DOWN arrow button for 3-4 seconds to begin a new signal search. As soon as the signal search icon will start flashing above the remote channel number release the DOWN arrow button.

If the signal isn't received during this signal search, please make sure that:

- The remote sensor is in its proper location and within specified operating range
- The path between units is clear of obstacles. Shorten the distance if necessary.
- Fresh batteries are installed correctly in both remote sensor and main unit.
- If outdoor temperature reached 32°F and lower we recommend using lithium batteries versus alkaline
- Batteries were inserted into the remote unit first and the main unit next.

If there is still no communication, please perform the following steps:

- Bring the main unit and remote sensor close together.
- Remove the batteries from the sensor battery compartment and reinstall them in the same manner.
- Disconnect main unit from AC/DC adapter and remove the batteries from the battery compartment. Reinstall the batteries into the main unit and re-connect it to the wall power outlet through the AC/DC adapter.
- Wait for about 6 minutes. The remote readings appeared on the main unit's display will show that sensor transmission is being received successfully.

**WHERE DO I PLACE A REMOTE TEMPERATURE AND HUMIDITY SENSOR?**

Place the remote temperature & humidity sensors in the area you intent to measure environment conditions.

Example: If you wish measuring an outdoor environment conditions, place the remote temperature & humidity sensor outdoors. If you wish measuring an attic environment conditions, place the remote temperature & humidity sensor to the attic, and etc.

Outdoors the remote temperature & humidity sensors should be placed in a dryer, shaded area. Fog and mist will not harm the remote temperature & humidity sensor but direct rain must be

avoided.

The remote temperature & humidity sensor has operating range of up to 328 feet in an open area. Any walls or other obstacles will reduce this distance.

#### HOW TO ACTIVATE THE BACKLIGHT?

You can activate the backlight for a short time period by pressing LIGHT/SNOOZE button on the top or continuously, if the AC/DC adapter is connected to the wall power outlet.

#### HOW LONG DOES THE BACKLIGHT STAY ON?

The backlight will stay on for 5-6 seconds if the LIGHT/SNOOZE button is pressed.

#### WHAT DOES THE LIGHT SENSOR DO?

The TE821W is equipped with the light sensor which detects the environmental light conditions. At the light conditions lower than 100 LUX, the LCD will light up automatically if AC adapter is connected and the light sensor is set to AUTO position. The light sensor feature also can be turned ON or OFF. The light sensor sensitivity can be adjusted to the high or low sensitivity when the AUTO position is selected.

#### HOW LONG THE BATTERIES LAST IN THE MAIN UNIT?

The average battery life in the device is 2 months.


#### WHAT DOES THE COMFORT LEVEL INDICATOR MEAN?

The Weather Station is capable of detecting and displaying present comfort levels for the surrounding environment. The environmental comfort level is detected, interpreted and displayed on the main unit's display based on the combination of the current indoor temperature and humidity readings.


There are following comfort levels may be displayed: **COMFORT** (comfortable); **WET** (wet) and **DRY** (dry)

Indicator displayed	Temperature Range	Humidity Range	Shows current condition
<b>COMFORT</b>	20°C to 25°C (68°F to 77°F)	40%RH- 70%RH	Ideal for both relative humidity and temperature
<b>WET</b>	-5°C to 50°C (23°F to 122°F)	OVER 70%RH	Contains excess moisture
<b>DRY</b>	-5°C to 50°C (23°F to 122°F)	Below 40%RH	Contains inadequate moisture

#### HOW TO ACTIVATE AN AUTO-SCANNING MODE?

Press and hold the CHANNEL button for 2 seconds – the icon “” will appear on the main unit display to the left of the COMFORT LEVEL indicator.

All three remote channels data will be displayed one-by one automatically with 11 seconds delay in the following sequence: Channel 1, Channel 2 and Channel 3.

To exit from scanning mode, press and hold the CHANNEL button for 2 seconds, and the icon “” will disappear, returning the main unit display to the default display mode showing just single channel information.

#### MY TE821W MAIN UNIT DISPLAY SHOWS DIFFERENT TEMPERATURE READING FROM THE TEMPERATURE ON THE REMOTE SENSOR. WHAT IS THE REASON FOR THAT?

It is possible that you selected DEW POINT TEMPERATURE mode in your TE821W temperature and humidity window display. Look for a “DEW” abbreviation below temperature reading.

To return to the current channel temperature and humidity mode simply press SET button until the abbreviation “DEW” will disappear and temperature and humidity will match remote sensor readings.

MY TE821W MAIN UNIT DISPLAY SHOWS WIND CHILL READING HIGHER THAN THE TEMPERATURE READING AT THE PLACE OF ANEMOMETER. WHAT IS THE REASON FOR THAT?

The weather station can display wind chill temperature that is higher than air temperature measured at the place of anemometer. According to NOAA, an actual wind chill temperature can be measured and calculated only at 40 degrees of Fahrenheit and below.

Please see wind chill index table and formula for calculation of the wind chill below from NOAA website:

