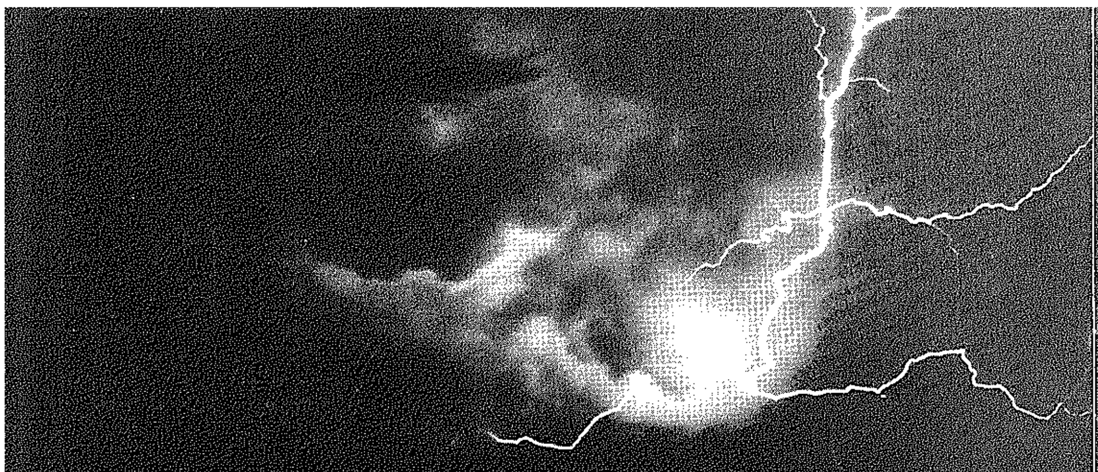


Discovery CHANNEL™

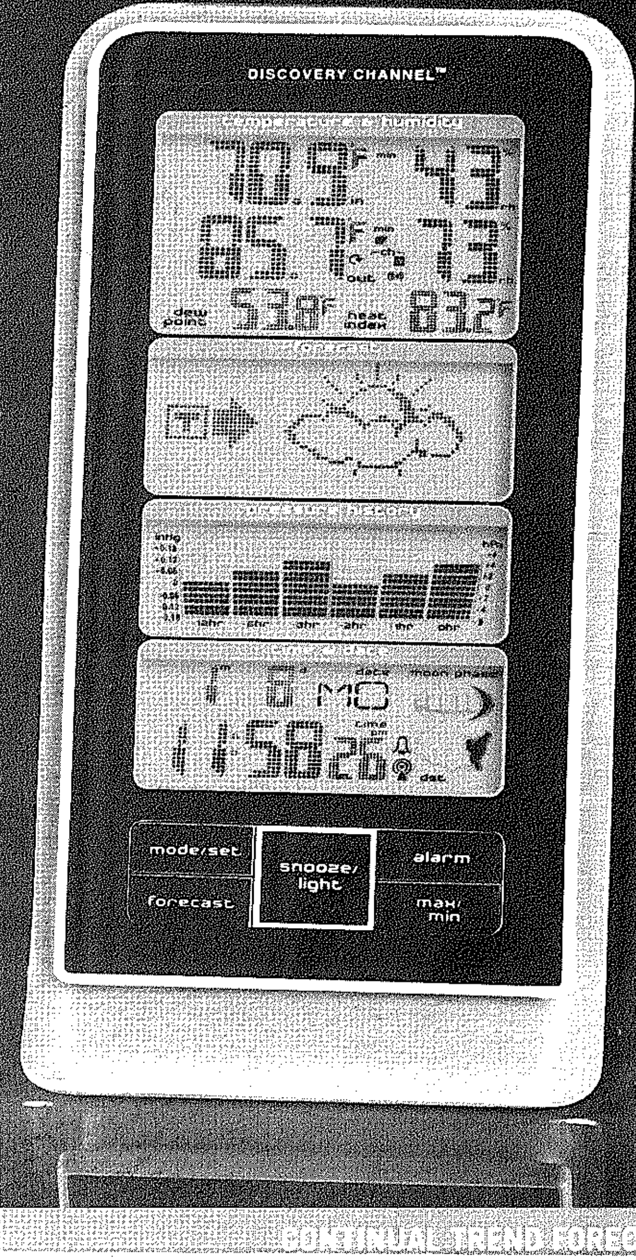
Made in China for The Discovery Channel Store, Inc. Berkeley, CA 94710
For Customer Service or Questions call: 1-800-379-0244
Product and color may vary.

A012506

forecasting

FX5500 weathertech

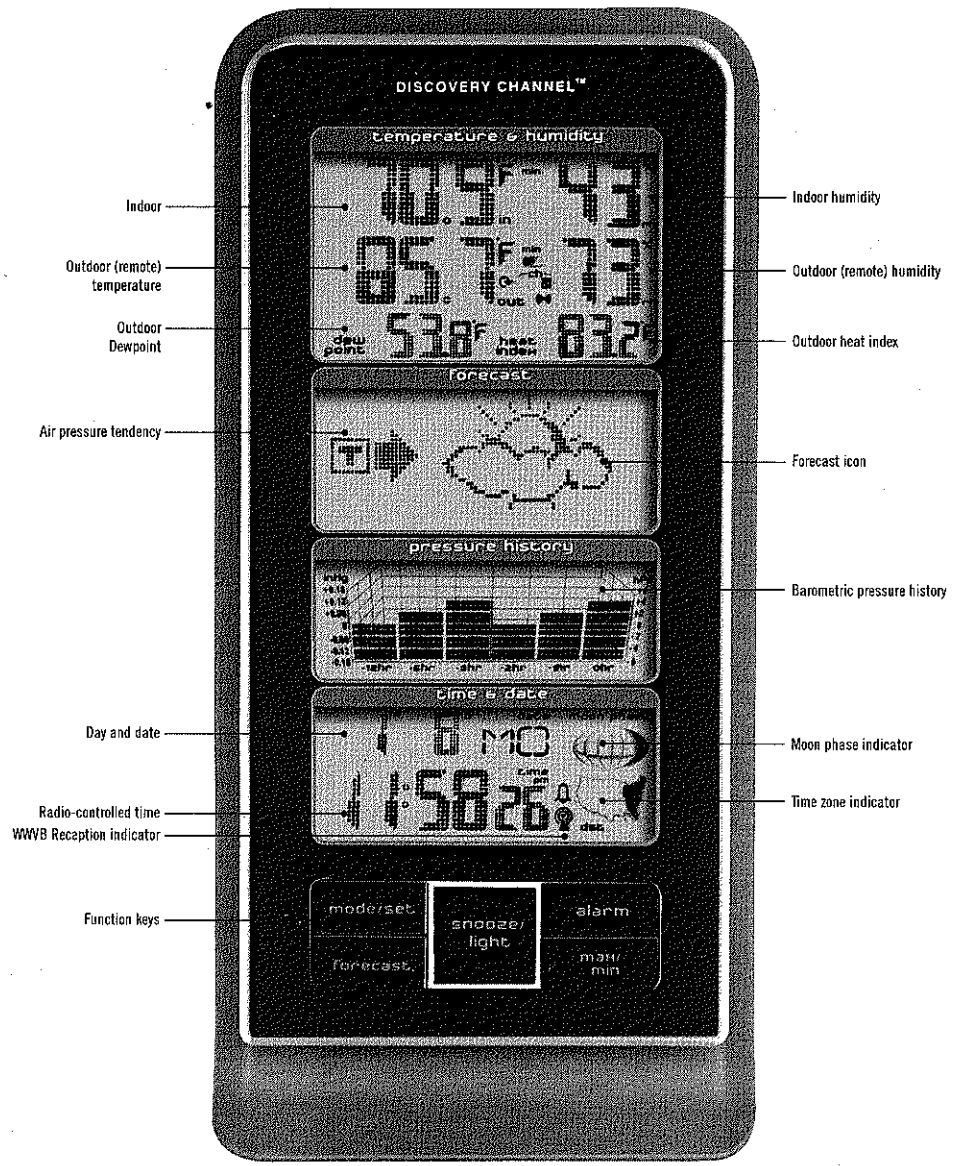
Discovery CHANNEL™



CONTINUAL TREND FORECASTS

Includes

- FX5500 Weather Station
- 1 Remote temperature and humidity sensor
- 1 AC Adapter – adapter rated 120V AC, 60Hz input, 4.5 V DC, 300mA output



The Weathertech FX5500 is a home weather forecaster that reports current and future weather to you – inside or outside – anytime you desire.

Set up is simple

1. Add batteries or attach the included AC adaptor and program the main station.
2. Place the main station in your home — the bright back-light makes it a perfect alarm clock, or the mounting brackets make it perfect for any wall.
3. Add batteries to the remote sensor and place it outside your home.
4. Access your weather anytime at a glance.

Set up your remote sensor

Your first step is to set up the FX5500 remote sensor. The remote device will read external conditions and automatically send them to the main station inside your home.

1. Open up the back panel of the remote device and add two AA (1.5V) batteries (not included).
2. Just above the batteries is a switch which lets you choose which "channel" to broadcast on. Unless you plan to have multiple remote devices (which is unlikely), just keep the setting on Channel 1.
3. Find the button which is marked C/F, for Celsius or Fahrenheit, located on the back of the unit. Press the button until your preference is displayed.

Set up your main station

Your second step is to set up and program your FX5500 main station.

Programming the main unit

1. Open up the back panel of the main unit and add three AA (1.5V) batteries (not included). Replace the cover. The unit can also be operated using the supplied AC adaptor. Plug the barrel end of the adaptor into the jack located on the bottom of the FX5500; plug the other end into a wall outlet.
2. DO NOT TOUCH ANY BUTTONS FOR 10 MINUTES, WHILE THE STATION LOOKS FOR THE OUTDOOR SENSOR AND SCANS FOR THE WWVB SIGNAL.
3. The main unit and outdoor sensor will begin communicating in this time. You should see the main station pick up a reading when it displays a temperature and a channel. This shows that the two devices are in communication.
4. Place the remote device outside your home.
   a. Fog and mist will not harm your remote sensor, but direct rain should be avoided.
   b. The sensor has a range of 30 meters, but intervening walls may lower that number.
   c. For best performance, consider mounting your device on an outside wall, directly opposite to the room where you plan to have your main station.

Setting Clock Automatically

After the main station has finished searching for the remote sensor, it will proceed to scan for the "WWVB" signal — this is an atomic clock transmission which is sent all across the United States.

1. Buttons will not function while station is scanning for WWVB time signal.
2. While scanning, the RCC icon will flash on the main station.
3. When the RCC icon stops flashing, the main station has successfully updated with the correct time.
   a. Your main station will automatically rescan for WWVB time signal every night at 2:00 a.m.. If the first attempt fails, station will scan again at 3:00, 4:00, and 5:00 a.m.
   b. To manually start a new time scan, hold the "RCC" button, located on the back of the unit, for 3 seconds.
4. If the reception fails, the RCC icon will disappear.
   a. If reception fails, you can manually enter time (see next section). However, it's best to let the main station attempt to automatically search for a signal for one 24 hour period.
5. You will see "DST" on the main display if clock is in Daylight Savings Time.

About the WWVB Signal

The NIST (National Institute of Standards and Technology) radio station, called WWVB, is located in Ft. Collins, Colorado. A team of atomic physicists continually measure every second of every day to an accuracy of ten billionths of a second a day. That's quite a clock! The team transmits the WWVB time continuously throughout the United States, and this signal can be received up to 2000 miles away by your main station. However, transmission is best at night, which is why your main station will attempt to update every night at 2:00 a.m.

For more info visit the NIST website at: www.boulder.nist.gov/stations/wwvb.htm

Setting Clock Manually

If your main station did not pick up the correct time from the WWVB transmission, you can set the time manually.

1. First, attempt to scan for time automatically a few times during a 24 hour period — especially at night — by pressing the "RCC" button, located on the back of the unit, for 3 seconds.
2. If you cannot get the time updated automatically, press and hold the "MODE/SET" button for 3 seconds to enter Clock/Calendar Mode.
3. Press "+" or "-" button located on back of unit to adjust the setting, and press "MODE/SET" button to confirm and continue.
4. Every time you press the "MODE/SET" button you will step to the next setting in the sequence, following this order: Hour, Minute, Second, Year, Month-Day format, Month, Day and DST on/off.
5. You will exit out of the time setting mode automatically after 5 seconds of no activity.
6. Hold the "ZONE" button on the back of the unit for 3 seconds to adjust the time zone on the U.S. icon.

12/24 Hour Display Mode

Press "+(12/24)" button located on the back of the unit to select 12 or 24 hour mode.

Using The Alarm Clock

1. Press "MODE/SET" button to select Time Alarm (icon will show on your main display).
2. Hold "MODE/SET" button for three seconds to enter the time you would like alarm to sound.
3. Press "+" or "-" button, located on back of unit, to set time.
4. Press "ALARM" button to switch alarm on or off. If alarm is on, the icon will show on the display.
5. When alarm sounds, press the "SNOOZE/LIGHT" button to put alarm to sleep for 5 minutes. This can be repeated seven times before alarm turns off permanently.
6. Hold "SNOOZE/LIGHT" button for 3 seconds to turn alarm off permanently.

Reading the Weather

1. Press "MAX/MIN" button to show the maximum recorded indoor or outdoor temperature. You will see **MAX** on the main display.
2. Press "MAX/MIN" button again to show the minimum recorded temperature. You will see **MIN** on the main display.
3. Hold "MAX/MIN" button for 3 seconds to clear the recorded maximum and minimum readings.

Setting and Reading The Forecast

To begin the forecasting, you must input the current weather conditions around your house. This is because the forecaster technology works using current conditions to predict future conditions.

1. Press and hold the "FORECAST" button for 3 seconds.
2. Enter the current weather status outside by pressing "+" or "-" buttons, located on the back of the unit. It is important to enter the correct forecast when setting up the unit or future forecasts may be incorrect.
3. Once you have established current weather, press "FORECAST" button again to exit
4. The main station will start to forecast 6 hours after the current weather is entered.
5. When the main station begins forecasting, you will see one of 6 different symbols in the weather forecast. This is your forecast for your area.
6. The forecast is for the next 6 hours from current time.

Low Batteries Indicator

When you see the low battery icon it means you should change the batteries.

Back Light

Press the "SNOOZE/LIGHT" button to turn on the back light for 5 seconds.

*If you desire to keep the back light on permanently, follow the directions below. Please note that keeping the back light on permanently will cause the back light to become dim over time.

— Plug in the included AC adaptor into the jack on the bottom of the unit.

— Slide the switch on the bottom of the unit to turn the back light on.

Mounting

Note: Before permanently mounting ensure that the FX5500 main unit is able to receive the WWVB signals from desired location. Also, extreme and sudden changes in temperature will decrease the accuracy of the indoor weather station. To achieve true temperature readings, avoid mounting where direct sunlight can reach the remote temperature and humidity sensor or indoor weather station. While the remote temperature and humidity sensor is weather proof, you should avoid setting up the sensor in an area that gets direct rain and also avoid submersion in water or snow. We recommend that you mount the remote temperature and humidity sensor on an outside North-facing wall. Obstacles such as walls, concrete, and large metal objects can reduce the sensor range. Place both units in their desired locations, and wait approximately 15 minutes before permanently mounting to ensure that there is proper reception. The main unit should display temperature readings within 5 minutes of setting up both units.

The Remote Temperature and Humidity Sensor

1. Mounting with Screws
   a. Fix the included screw into the desired wall, leaving approximately 3/16 of an inch (5mm) extended from the wall.
   b. Place the remote temperature and humidity sensor onto the screw using the hanging hole on the backside.

The Indoor Main Station

The indoor main station can be mounted in two ways:
- With the table stand or,
- On the wall with the use of a wall hanging screw (included).

1. Using the table stand
   a. The indoor main station comes with a table stand already mounted. If you wish to use the table stand all that is required is to pull the stand out from the main unit and place in an appropriate location.

2. Mounting with Screws
   a. Fix the included screw into the desired wall, leaving approximately 3/16 of an inch (5mm) extended from the wall.
   b. Place the indoor main unit onto the screw using the hanging hole on the backside.

Helpful hints

- If the main station is not working properly, use a pin to press the reset button in the back.
- Avoid placing the main station near interference — this can include computers, TV sets, or anything with a metal frame.
- No buttons will function while main station is scanning for the remote sensor, or for the WWVB time transmission.
- If you ever want to cancel what you are doing, wait 5 seconds and main station will default back to it's primary screen.

Discovery facts

- The fastest temperature change on record was in South Dakota, January 22, 1943. The mercury jumped from -4° to 45° F in just two minutes.
- A computer performs more than 10 billion arithmetical operations to determine the 24 hour national weather forecast.
- The highest temperature ever recorded in the United States was 134° F at Greenland Ranch in Death Valley, California.
- Lightning strikes the Earth 100 times every second...generated by one of the 1,800 active thunderstorms around the planet on any given day.
- Outdoor temperature can be estimated fairly accurately by timing the chirps of a cricket. Count the number of chirps in a 15 second period, add 37 to the total, and you'll be quite close to the Fahrenheit temperature.

Battery warnings and cautions

Important Safety Instructions

When using this product, especially when children are present, basic safety precautions should be followed.

Read All Instructions Before Using

Battery warnings:

- Do not use rechargeable batteries.
- Non-rechargeable batteries are not to be recharged.
- Do not mix old and new batteries.
- Do not mix alkaline, standard (carbon-zinc), lithium, or rechargeable (nickel-cadmium) batteries.
- Only batteries of the same equivalent type as recommended are to be used.
- Batteries are to be inserted according to the correct polarity (+ and -). Incorrect insertion can damage the unit, provoke fire or cause the batteries to explode.
- Dead or exhausted batteries are to be removed.
- Do not throw batteries into a fire.
- Do not attempt to open batteries.
- The supply terminals are not to be short circuited.
- Batteries are harmful if swallowed. Keep out of reach of young children.
- Dispose of batteries safely, following guidelines for your area.

Care and maintenance:

- Keep the product clean by wiping with a dry cloth.
- The adaptor should be periodically examined for conditions that may result in fire, electric shock, or injury to persons and that, in an event of such conditions, the adaptor should not be used until properly repaired.

Specifications

FX5500

Radio-controlled time signal	60KHz from Ft. Collins, CO.
Indoor weather station recommended	32°F to 122°F (0°C to 50°C) operating temperature

Temperature measuring range

Indoor	32°F to 122°F with 0.2°F resolution (0°C to 50°C with 0.1°C resolution) "LL.L or HH.H" displayed if outside this range
Outdoor	-4°F to 158°F with 0.2°F resolution (-20°C to 70°C with 0.1°C resolution) "LL.L or HH.H" displayed if outside this range

Relative humidity range

Indoor	20% to 99% with 1% resolution, indoor weather station displays "--" if outside this range

Air pressure

Sensitivity setting hPa	2 hPa to 4 hPa
Air pressure history	For the past 30 hours (0, -1, -2, -3, -6, -12 hours)

Data checking intervals

Indoor temperature	Every 10 seconds
Indoor humidity	Every 10 seconds
Outdoor temperature	Every 36 seconds
Outdoor humidity	Every 36 seconds

Transmitter reading update (within sensor)

Outdoor temperature	Every 36 seconds
Outdoor humidity	Every 36 seconds
Transmission frequency	433.92 MHz
Transmission range	110 feet (30m)

Power supply

Weather Center	3 x AA (IEC LR6) 1.5V batteries or AC adaptor 120V AC, 60hz input, 4.5V DC, 300mA output
Thermo-Hygro Transmitter	2 x AA (IEC LR6) 1.5V batteries

Dimensions (L x W x H)

Indoor weather station	93x205x36mm
Remote thermo-hygro sensor	75x113x25mm

Troubleshooting

Problem: No reception of WWVB time signal.

Solution:
- Wait overnight for signal
- Be sure indoor thermo station is at least 1.8m (6 feet) from any electrical devices, such as televisions, computers, or other radio-controlled clocks.
- Remove batteries or unplug the AC adaptor for five minutes, reinsert and leave the unit alone overnight without pressing any buttons.
- If there are still problems, contact Discovery Channel.

Problem: Hour is incorrect (minute and date are correct).

Solution:
- Be sure correct time zone and daylight savings time settings are selected.

Problem: The LCD is faint.

Solution:
- Replace the batteries.

Problem: No outdoor temperature is displayed.

Solution:
- Remove all batteries or unplug the AC adaptor, reinsert into remote temperature sensor first, then into the indoor thermo station.
- Place remote temperature sensor closer to the indoor thermo station.
- Be sure all batteries are fresh.
- Place remote temperature sensor and indoor thermo station in position so that the straight-line signal is not passing through more than two or three walls.

Problem: Temperatures do not match if units are placed next to each other.

Solution: Each temperature sensor is manufactured to be accurate to within 1 degree plus or minus and under normal conditions, so two sensors could be as much as 2 degrees different. However, the difference can be exaggerated further because the sensors are designed for different working environments. The indoor sensor is less responsive to ambient air currents because of the shielding effect of the display's case. In addition, the case can act as a heat sink to absorb and store heat from external sources (i.e. handling of the case or radiant heat). Also, the much greater range of the outdoor temperature sensor requires different calibration curve than the outdoor range. Error is usually greater at the extreme ends of a range, making it harder to compare different ranges with different curves. Under non-laboratory conditions, it is difficult to compensate for the above factors and obtain an accurate comparison.

FCC Disclaimer

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tsted and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Heat and humidity chart

Here's a quick way to calculate the heat index inside and outside —a combination of humidity and heat.

How temperature and humidity combine to make it feel hotter

Extreme danger **Danger** **Extreme caution** **Caution**

Relative humidity (percent)

Air temperatures (degrees Farenheit)

	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
140																					
135																					
130			131																		
125				131	141																
120					130	139	148														
115	103						135	143	151												
110	99	102						130	137	143	150										
105	95	97	100	102						135	142	149									
100	91	93	95	97	99	101	104						132	138	144						
95	87	88	90	91	93	94	96	98	101	104						130	136				
90	83	84	85	86	87	88	90	91	93	95	96	100	102								
85	78	79	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102		
80	73	74	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	89	91
75	69	69	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80
70	64	64	65	65	66	66	67	67	68	68	69	69	70	70	70	71	71	71	71	71	72

Apparent temperature is how hot the heat-humidity combination makes it feel.