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Facsimile

686800 RF433 MHz Wireless 4 channel Thermometer

ref: \tonywu\americamarinespringf\4channel

New IC is to be written for customer's special operation.

Features & Specifications:

Base station:

- Easy read single line window
- 4 RF channels to monitor temperature in 4 different locations upto 100' away
- Outdoor temperature display in C or F temperature
- Auto scroll function when more than 1 RF sensor is registered
- Display temperature range: -58F to 158F (-50C to 70C)
- Operating temperature: 32F to 122F (0C to 50C)
- Temperature resolution: 0.2F (0.1C)
- Low battery indicator for remote sensor(s)
- tabletop stand
- Requires 2 AA Hi-Watt heavy duty batteries
- No backlight

Remote Sensor (687000) with direct water-proof cable:

- Operating temperature range: -4F to 158F (-20C to 70C)
- Remote sensor temperature range via probe: -58F to 158F (-50C to 70C)
- Temperature resolution: 0.2F (0.1C)
- 10ft submersible remote sensor probe for use in pools, spas, freezers or soil
- Transmission frequency 433 MHz
- 100' (30m) remote sensor transmission range
- Table or wall mount
- Weather resistant case
- Requires 2 AAA Hi-Watt heavy duty batteries (not included)

Temperature accuracy: 32F to 122F	+/- 2F
Less than 32F and over than 122F	+/- 4F

Buttons arrangment:

Base Station

	Buttons Silkscreened	Press once	Press & hold
1	CHANNEL (Hold to seek) push button	Toggle from channel 1, 2, 3, 4 auto-scroll	Manual re-register of a selected channel
2	C F slide switch	Select Degree C or Degree F temperature reading	
3	ON OFF slide switch	Turn On or Off the power	

Sensor

	Buttons silkscreened	Press once	Press & hold
1	TX / HOLD RESET (hard key top)	-----	Press and hold 2 seconds to send the signal to the base station

Operation Guide

Install batteries into base station first before RF sensor.

Activating Base Station

1. Press and slide open the battery door. Install 2 AA size batteries into the battery compartment according to polarity markings (or label) in the bottom of the battery compartment. Close the battery door.
2. Slide the "ON OFF" switch to turn on the unit
3. The LCD of the receiving unit will have dash "---"blinking (degree C or F display depends on the C/F slide switch position), and is ready to register with remote sensor(s).

Activating and Registering Remote Sensor#1

1. Place remote sensor #1 near receiving unit
2. Slide open the weather-proof battery cover.
3. Install 2 AAA size batteries according to polarity markings in the bottom of the battery compartment. The LCD of the receiving unit will show the selected channel number and the temperature.
4. Once registration is complete, close the battery cover. If not complete, push and hold the TX button for at least 2 seconds to send registration signal to the receiving unit.
5. To activate and register a second, third or fourth remote sensor with the receiving unit (when available), follow step 1-4.

Installation of remote sensor

1. Locating remote sensor in clear areas can attain a maximum 100-foot transmission distance. Actual transmission distance may be reduced by interference from building, obstructions or a screen between the sensor and the receiver. Location should be away from direct sunlight and sheltered from rain.

Checking sensor transmission

1. The red LED on the sensor will blink for each RF temperature transmission. The sensor is designed with a battery saving mode.
2. When updated temperature signal is successfully received by the receiving unit, Tower icon will blink and the new temperature of that particular channel will be displayed.
3. If you note the "Solid" dash (--- F) display for one channel after 11 minute registration, the signal has been lost. Try rotating that sensor in 45 degree steps, waiting at least 3 minutes after each position change. Observe the receiver channel display at each position to determine that the remote temperature display has been restored. If not, continue rotation or repositioning of both receiver and remote sensor until reception is observed.

Auto-Scroll function

If more than one RF sensor is registered, press “CHANNEL Hold to seek” button can select Channel 1, Channel 2, ...Auto Scroll of different channel temperature.

C/F Selection

Slide the button to C or F position to have instant conversion of temperature display

Battery Replacement

For RF sensor,

1. Low battery icon will appear when the battery of particular RF remote is low. Replace batteries into the RF remote sensor (Don't mix old and new batteries)
2. After battery replacement in the remote sensor, re-registration must be made. Press and hold “CHANNEL Hold to seek” button of the receiving unit for a few seconds. The --- digits will blink to indicate manual registration starts. Then install new batteries into the RF sensor and it will automatically send signal to the receiver unit. If no transmission, push and hold the TX button for at least 2 seconds to send registration signal to the receiving unit.

For receiving unit,

1. The LCD will become dim when the battery of the receiving unit runs low. Replace batteries into the RF remote sensor (Don't mix old and new batteries)
2. After battery replacement in the receiving unit, all remote sensors must be re-registered according to the section “**Activating and Registering Remote Sensor#1**” (**Remember to register the RF sensor according to the original sequence**)

Remark: Modifications not authorized by the manufacturer may void users authority to operate this device

Note: This equipment has been tested 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.