CADI SCIENTIFIC PTE LTD

31 Ubi Road 1, #03-00 Aztech Building Singapore 408694   Tel: (65) 6276 2676 Fax: (65) 6276 6216   www.cadi.com.sg
Company Reg No: 200300306W   GST Reg No: 20-0300306-W

TSS-870
Instruction Manual

WARNINGS

For customer in the U.S.A and Canada

- You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

- 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:

  - Increase the separation between the equipment and receiver.

- Operation is subject to the following two conditions:
  1) This device may not cause interference and
  2) This device must accept any interference, including interference that may cause undesired operation of the device.

- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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For customer in Europe

- This equipment has been tested and found to comply with the limits set out in the R&TTE Directive.

- Where you see this symbol on any of our electrical products/packaging in Europe, it means that at end of life the product/battery must be disposed of in accordance with any applicable laws or requirements for the separate disposal of electrical equipment/batteries.

- The manufacturer of this product is CADI Scientific Pte Ltd, 31 Ubi Road 1, #03-00 Aztech Building, Singapore 408694.
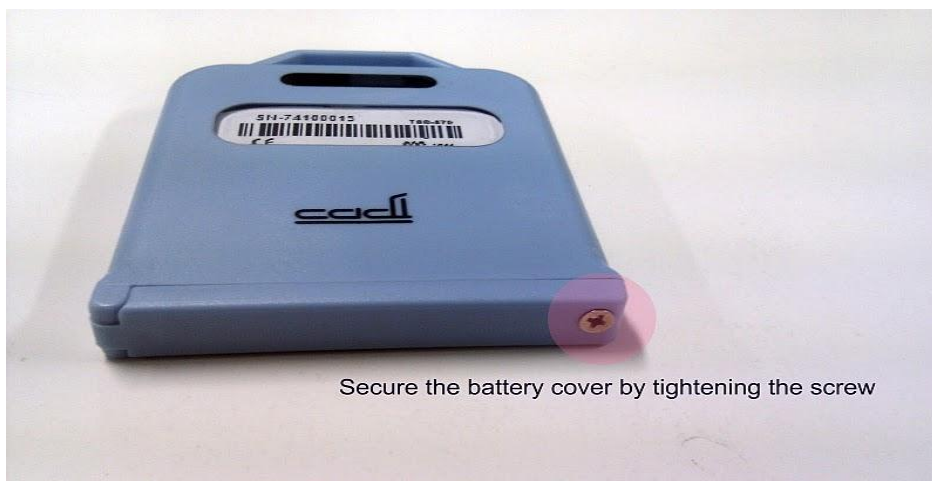

PRECAUTIONS

- Connect only recommended power supply to the unit.
- Place the unit on a stable and non-slip surface.

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SETUP

The diagram shows the battery compartment of the TSS-870. They are located at the bottom of the unit.

The SMN-870 can be powered with 2 x CR2032 coin cell lithium batteries. Insert the batteries into the TSS-870 as shown in the diagram above. The batteries should be inserted into the TSS-870 according to the indicator shown on the batteries cover.

Secure the battery cover by tightening the screw

Secure the batteries compartment by tightening the screw.

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Description

The TSS-870 ThermoSensor is designed as part of the SmartSense suite of products, to measure the temperature of products that is in it is in contact with. It receives messages on LF channel, and transmits and receives via UHF signals.

The TSS-870 has no input and communicates wirelessly with either a SMN-800/SMN-890 or the desktop SMN-870.

USAGE

The TSS-870 can either be in low power mode or Operational mode. The TSS-870 can be set to either mode using the SMN-870 desktop reader.

Low Power Mode

When the TSS-870 is in Low Power mode, it will only respond to command from the SMN-870 desktop reader.

Operational Mode

When the TSS-870 is in operational mode, it will respond to command from the SMN-870 desktop reader. The SMN-870 can be used to queried the current temperature, to turn the TSS-870 on/off etc.

When in operational mode, the TSS-870 will transmit a heartbeat beacon every 10 minutes via its UHF channel. It will also listen for messages on its LF channel. Upon receiving a special crafted message from the SMN-826, the TSS-870 will transmit the received message to the central server.

When in operational mode, the TSS-870 will measure the temperature every minute and logged the temperature to its memory. The TSS-870 can save up to 42 days of temperature measurement (at one minute logging interval).

SPECIFICATIONS

Product Model	TSS-870
Operating Ambient Temp	-20.0 degC to 60.0 degC
Temp Accuracy	+/- 1 degC
Waterproof	Yes
Power Source	2 x CR-2032
Battery Life	9 Month
Dimension	71 x 56 x 9.0 mm
Operating Frequency (LF) LF	125kHz (Receiving)
Operating Frequency (RF)	UHF 919.8MHz, 925.0MHz