

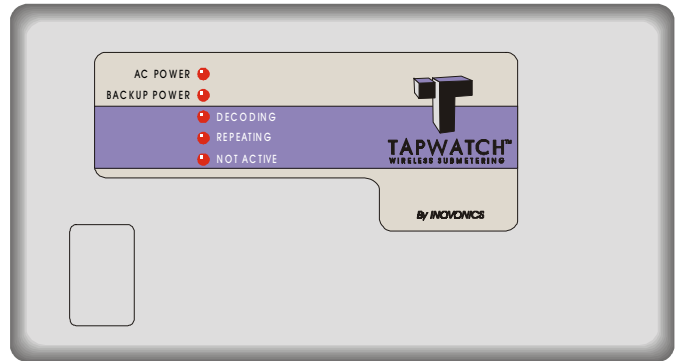


**Product Description**

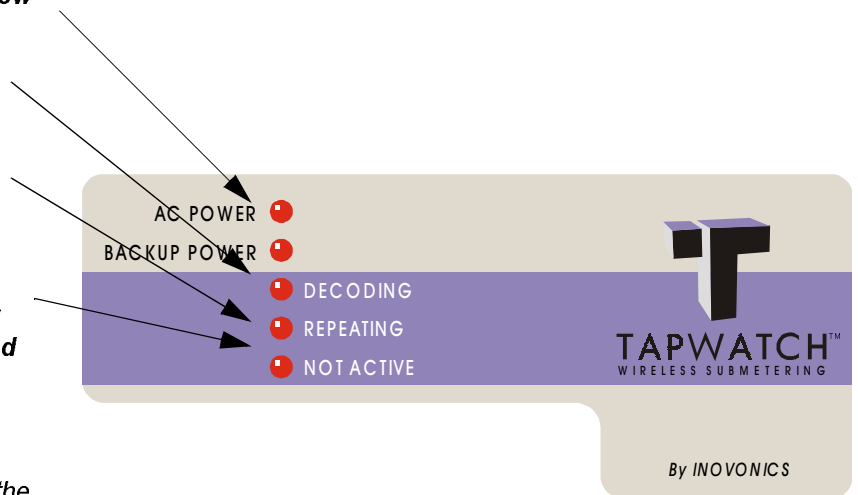
The FA5570 is a sophisticated repeater that receives, decodes, and re-transmits signals from TapWatch submetering transmitters. It acts as a "range extender" for any decodable TapWatch transmission. The FA5570 is intended for quick and easy indoor installation by professional technicians. (Kits are available for outdoor installation.)

**Specifications**

- Housing dimensions: 6.38" x 3.60" x 1.10"
- Weight: 6.9 oz.
- Power requirement: 14 VA
- (Optional) Backup battery: 12VD
- Low voltage threshold: 10.5-11.5VDC
- Receiver type: frequency-hopping spread spectrum
- Operating frequency: 902-928 MHz
- Operating Environment: -20° to 145°F (-29 to 63°C), up to 95% relative humidity (non-condensing)



- **"AC POWER" and "BACKUP POWER" LEDs show repeater power source.**
- **"DECODING" indicates that the repeater is receiving RF energy.**
- **"REPEATING" indicates that the repeater is transmitting.**
- **Note: The repeater does NOT decode while transmitting.**
- **"NOT ACTIVE" means that the repeater has not received a TapWatch transmission in a specified period. It is "waiting" for incoming traffic.**




The repeater will not send its supervision transmission while in Not Active condition. This adds receiver side supervision, because the system receiver will declare the repeater "Inactive" if no signal is received when the Supervision Window elapses.

## Repeater Registration into the TapWatch<sup>®</sup>2 Software and DCC

FA5570 repeaters should be registered to report status to the TapWatch system. The system will then be able to monitor the repeater. Detailed instructions are in the *TapWatch2 Users Manual*, part number 03253. Following is a brief description of the registration procedure.

### Registering a Repeater in TapWatch2:

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The screenshot shows a dialog box titled "Add a Repeater". Below the title bar, it says "Enter the repeater location then click [Register] to log." There are three input fields: "Description of repeater location:" (a text box), "Tx ID:" (a dropdown menu showing "UNREGISTERED"), and "Comments:" (a text area). At the bottom of the dialog are three buttons: "Register", "OK", and "Cancel".

1. From the Edit Repeater screen, click on "Add" button. "Add a Repeater" screen opens.
2. Enter the description of repeater location. Enter the description of the repeater location.
3. Register repeater. It is recommended that repeaters are registered to provide diagnostic information.
4. New repeater will appear under Repeaters tab. "OK" saves and exits screen. "Cancel" exits screen without saving.

## Operation

**Power supply:** A 14VAC transformer is provided with the FA5570.

**Backup battery:** An optional 1.2AH 12VDC battery (not included) can be mounted outside the FA5570 housing. This is typically not used in submetering applications.

**Low voltage detection:** The repeater will report low voltage if the supply voltage (either primary or backup) drops into a preset range.

- AC power failure will not be reported directly—the TapWatch system will detect inactivity if repeater power is off for the duration of the supervision period.

**Supervision:** Once every 5 minutes, the repeater sends a check-in transmission to the receiver. The repeater will be declared inactive if no check-ins are received before the expiration of the supervision period.

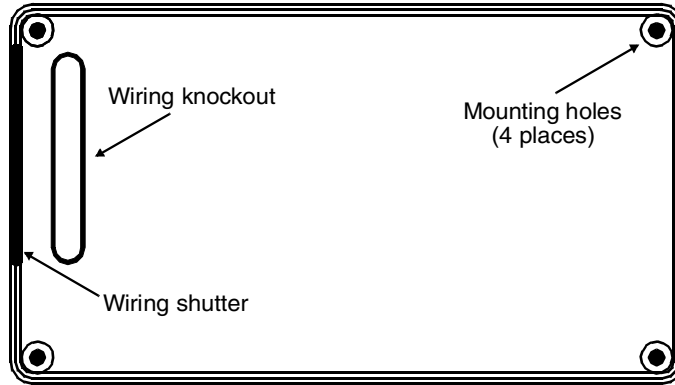
**Test mode:** Pressing the Test button will cause the repeater to transmit its current status until the button is released.

Note: Repeaters do not show a "Test" state. Status will be displayed as "OK", "Low Battery" or "Inactive".

# Installation

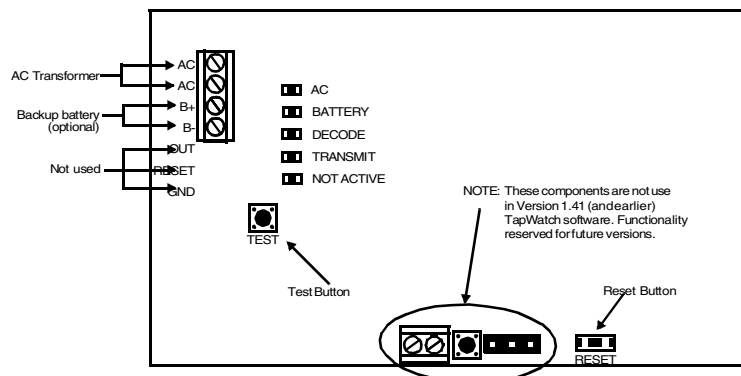
## Mounting repeaters:

- Unless directed by the system designer, do not mount repeaters on metal surfaces or inside metal enclosures, or where sheet metal ductwork, wire mesh screens, etc., might block transmissions.
- Outdoor installations require a weatherproof enclosure. (Available separately.)
- The FA5570 housing has an inside knockout to permit wires from power sources to be brought into the housing from behind the unit.
- The FA5570 also has a removable shutter to permit wires to enter the housing from the side of the unit.



## Power Supply:

- The FA5570 transformer requires an *unswitched* 120VAC power outlet.
- The transformer case should be secured to the electrical outlet to prevent accidental unplugging.
- AC power requirement of repeater: 14VAC transformer (included).
- Backup power requirement (optional): 12VDC.
- Recommended wire requirements: 2-conductor 20AWG (or larger) stranded tinned copper with PVC insulation rated to 300 volts @ 80°. (Belden #8205, for example.) Maximum recommended wire length between transformer and repeater: 100 meters (328 feet). Measure voltage at repeater on long wire runs. (Source: Tech Note #1053.)
- Wire runs should be hidden, stapled or protected by conduit.
- Recommended power supply is 200mA, or 20VA at 14VAC.





## Submetering Repeater Products Warranty

Inovonics Wireless Corporation ("Inovonics") warrants its Repeater Products used in submetering applications ("Product" or "Products") to conform to its own specifications and to be free of defects in materials and workmanship under normal use for a period of sixty (60) months from the date of manufacture. Within the warranty period Inovonics Corporation will repair or replace, at its option, all or any part of the warranted product. Inovonics will not be responsible for dismantling and/or reinstallation charges. To exercise the warranty, the User ("User", "Installer" or "Consumer") must be given a Return Material Authorization ("RMA") Number by Inovonics. Details of shipment will be arranged at that time.

This warranty does not apply in cases of improper installation, misuse, damage due to lightning or water, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than Inovonics.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express, or implied, including any warranty of merchantability or fitness for a particular purpose. Inovonics will not be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties.

This warranty will not be modified, varied or extended. Inovonics does not authorize any person to act on its behalf to modify, vary or extend this warranty. This warranty will apply to Inovonics Products only. All other products, accessories or attachments used in conjunction with Inovonics equipment, including batteries, will be covered solely by their own warranty, if any. Inovonics will not be liable for any direct, incidental or consequential damage or loss whatsoever, caused by the malfunction of Product due to products, accessories, or attachments of other manufacturers, including batteries, used in conjunction with Inovonics Products.

This warranty does not warrant the replacement of batteries that are used to power Inovonics Products.

**Inovonics does not claim that the Product may not be compromised and/or circumvented.**



**Warning: The User should follow all installation, operation and maintenance instructions.** Changes in environmental conditions, electric or electronic disruptions and tampering, may cause the Product to not perform as expected.