



# FA575X

## High-Power Repeater

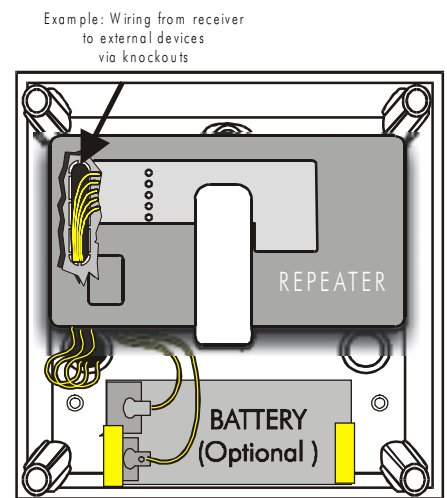
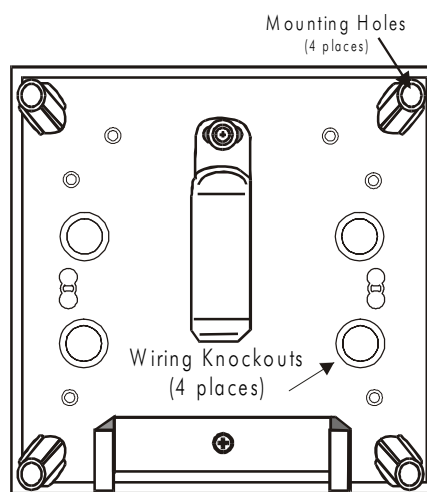
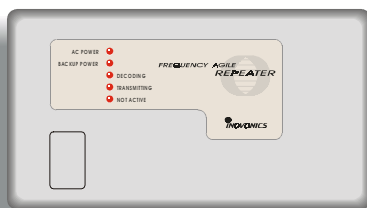
Exterior Installation Housing / without Transformer

Frequency Agile® 900MHz

## Installation Instructions

### Product Description

The FA575 is a sophisticated repeater in a weatherproof enclosure that receives, decodes, and re-transmits signals from Inovonics FA-series transmitters. It acts as a "range extender" for any decodable Inovonics transmission. The FA575 is intended for quick and easy outdoor installation. (For applications that require neither the weatherproof enclosure nor the optional backup battery, the repeater is available by itself as the FA570.)



### Installation

- 1) The enclosure can be mounted with screws inserted in the mounting holes.
- 2) Flex the repeater clip slightly to insert the repeater.
- 3) Flex the battery clip slightly when inserting a battery.

### Wiring

- 1) Wiring should be routed through the oval knockout in the repeater housing base.
- 2) Wiring should exit the enclosure through knockouts in the enclosure base.

### Specifications

Repeater housing dimensions: 6.38" x 3.60" x 1.10"  
 Repeater weight: 5.3 oz.  
 NEMA 4 enclosure dimensions: 7" x 7" x 3"  
 Enclosure + repeater weight: 20.7 oz.  
 Power requirement: 14VAC @ 20VA  
 (Optional) Backup battery: 12VDC  
 Low voltage threshold: 10.5-11.5VDC

### Specifications

Receiver type: frequency-hopping spread spectrum  
 Operating frequency: 902-928 MHz  
 Operating Environment: 32°-140°F (0-60°C),  
 up to 95% relative humidity  
 (non-condensing)

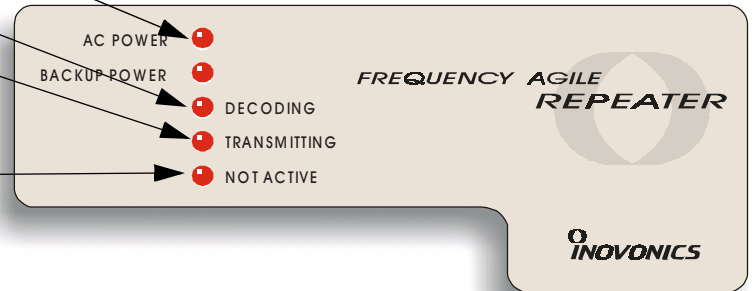


# LED Indicators

- "AC POWER" and "BACKUP POWER" LEDs show repeater power source.
- "DECODING" indicates that the repeater is receiving RF energy.
- "TRANSMITTING" indicates that the repeater is transmitting.

**Note:** The repeater does NOT decode while transmitting.

- "NOT ACTIVE" means that the repeater has not received an Inovonics transmission within its programmed check-in interval. It is "waiting" for incoming traffic.



Note that when power is first applied or when the repeater reset button is pressed, the "NOT ACTIVE" LED will be on until the first valid transmitter message is received.

This is a useful diagnostic indicator. In installations where the repeater services many transmitter messages, illumination of the "NOT ACTIVE" LED might indicate a repeater receiver problem.

## Operation

**Power supply:** A 14VAC transformer must be provided by the user to power the FA575.

**Backup battery:** An optional 1.2AH battery can be mounted in the FA575 enclosure.

**Low voltage detection:** The repeater will report low voltage if the supply voltage (either primary or backup) causes its DC input voltage to drop below its low voltage threshold.

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

**Supervision:** The repeater should be programmed to send check-in signals to the receiver, but can operate unsupervised.

**To program for supervision:** When programming the **system panel** to supervise the repeater, the repeater point should be programmed as a 24-hour point. This is because the repeater may be processing signals from 24-hour points and should be given this same level of point status monitoring.

When programming the **repeater** for supervision, it is necessary to program the repeater to send check-in signals. All other programming options other than check-in times (like normally open versus normally closed, and presence or absence of EOL resistor) will be ignored. Repeater programming is accomplished by connecting a programming cable to the programming header on the repeater, setting the appropriate check-in time when prompted by the panel or receiver display device, and pressing the repeater's Reset button. (See panel or receiver programming or installation manuals for more specific information.)

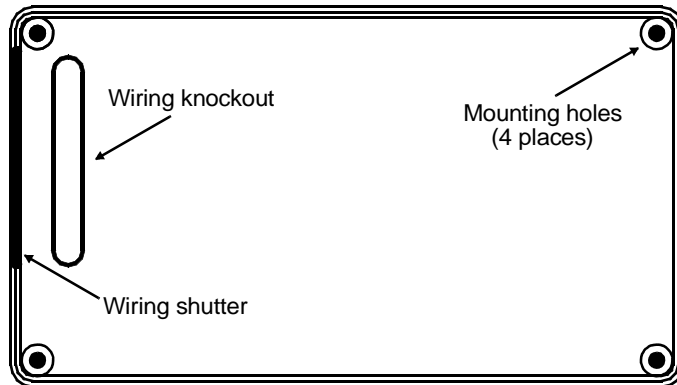
**Test Button:** The Test Button is used only in unique OEM applications.

**Tamper:** Case tamper is provided.

# Installation

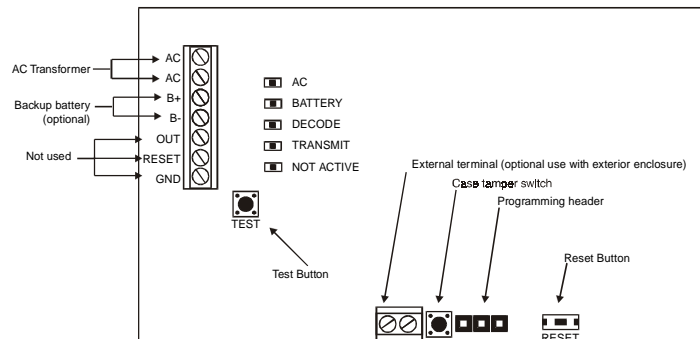
## Mounting repeaters:

- Repeaters should be mounted in locations indicated by the system designer.
- Do NOT mount repeaters on metal surfaces or inside metal enclosures. Do not mount where sheet metal ductwork, wire mesh screens, etc. might unnecessarily block transmissions. The FA575 housing has an inside knockout to permit wires from power sources to be brought into the housing from behind the unit.
- The repeater unit also has a removable shutter to permit wires to enter the housing from the side of the unit.



## Power Supply:

- The 14VAC transformer provided by the user requires an *unswitched* power outlet.
- The case of the 14VAC transformer provided by the user should be secured to the electrical outlet to prevent accidental unplugging.
- Recommended AC power requirement of repeater: 14VAC (only) at 20VA.
- Recommended backup power requirement (optional): 12 VDC, 1.2 Ah. (BAT603) Note that ACC640 Receiver Enclosure or equivalent is needed to mount the battery and receiver.
- 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 or protected by conduit.



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