INOVONICS
HIGH PERFORMANCE WIRELESS®

Installation Instructions

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FA202

900MHz *Frequency Agile®* **Technology**

Scope of Manual: This Inovonics manual contains additional installation and servicing information that is not available in the accompanying primary installation manual: *ESL 560 Series Wireless Smoke Detector Installation Instructions*. This secondary manual is chiefly concerned with transmitter programming and servicing the detector in response to trouble indications at the control panel.

FA202 Current Draw Specifications
(Supersedes Sentrol ESL 560 specifications)

Typical average standby current..38.5µA

Typical peak alarm current...91.1mA

FA202 Wireless Smoke Detector with CleanMe™ Signaling

The FA202 Wireless Smoke Detector, built upon photoelectric Sentrol/ESL technology, continually monitors its own sensitivity and operational status. If it detects a Low Battery condition or is in need of cleaning, it transmits a Low Battery signal that should be interpreted as a "Maintenance Needed" trouble condition at the control panel. If the unit is in need of cleaning, it can be serviced on-site by replacing its Smoke Chamber. Two 3 volt lithium batteries, supplied with the product, provide at least one year of operation.

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72.
(National Fire Protection Association, Batterymarch Park, Quincy, MA 02269)

Programming Procedure

1. Locate the transmitter programming pins by disassembling the detector as follows (refer to Figures 4 through 7 in the ESL 560 instructions):
   a. Remove the red dust cover containing the batteries from the smoke detector.
   b. With the smoke detector facing you, remove the detector from its Mounting Base by twisting the detector about 15 degrees counterclockwise with respect to the Mounting Base.
   c. Remove the Detector Cap by first sliding a flatblade screwdriver part way into the slot on the side of the Detector Cap. Now, gently push the handle down while twisting the Detector Cap counterclockwise with respect to the Detector Lid.
   d. Remove the Detector Lid from the Body by pushing down on the Smoke Chamber while pulling up on the bottom of the Lid (see Figure A).

Figure A: Removing the Detector Lid

   e. Remove the Battery Cover that encloses the Battery Compartment by pushing on the area marked *OPEN*.
   f. Take the batteries out of the red dust cover holder and load them into the Battery Compartment. Make sure to observe battery polarity and that the battery removal ribbon rests under the batteries.
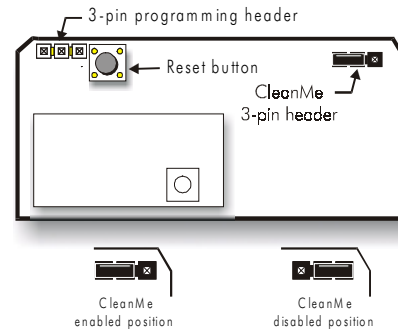   g. Refer to Figure B to locate the programming pins on the transmitter board.

Figure B: Transmitter Board Features

2. Using an appropriate Inovonics programming device, set the programming options as follows:
   • External Switch Type: Normally Closed
   • EOL Resistor: No
   • Use Internal Contact: No
   • Check-in Time: 60 seconds

Note: These also are the factory default programming options. Some programming devices like the FA422 Receiver can place an Identification Number into a transmitter without changing the default settings.

3. When prompted by the programming device to plug in the transmitter, connect the programming cable to the 3-pin header. (Orientation of the cable with respect to the 3-pin header is not important; both outside pins on the 3-pin header are at ground potential.)
4. Press the Reset button on the transmitter.

When programming is complete, disconnect the cable, test the detector per the Wireless Sensitivity Test Procedure (on the back of this sheet), and reassemble the smoke detector.

Wireless Sensitivity Test Procedure

The FA202 should be tested upon initial programming and each time the Smoke Chamber is changed or the batteries are replaced. To make wireless signals from the detector cause an alarm or trouble indication at the control panel, receiver and panel programming must be completed prior to this test. If this has not been done, do so now.

To test the detector, follow the procedure described under the Testing the Detector Sensitivity section in the ESL 560 instructions. When the test button is pressed, the LED will flash the number of times that corresponds to its sensitivity. During this test, the control panel should receive an alarm, followed a few seconds later by a restoral.

If the panel fails to respond properly, it is possible that the transmitter failed to reset properly when the batteries were installed. To force a transmitter reset, remove the batteries from the FA202 for a least 30 seconds, reinstall them, and then retest as described above.

Disabling Wireless CleanMe Reporting

As the factory default condition, the FA202 combines the CleanMe signal described in the ESL 560 instructions with its Low Battery signal. If the control panel indicates a Low Battery trouble condition, this should be interpreted as a Maintenance Needed trouble indication. (The battery may be fine, but the detector needs cleaning.) If this multiple-condition panel indication is not desired, wireless reporting of the CleanMe status can be disabled by moving the jumper on the CleanMe 3-pin header to the inactive position (see Figure B). When this is done, only a Low Battery signal will be sent from the detector, and only a Low Battery trouble condition reported at the panel.

Servicing Panel Trouble Indications

In the event that a Low Battery trouble indication appears on the control panel, service the FA202 as described in the following procedure:

1. Remove the FA202 from its Mounting Base and disassemble the unit as described in the above Programming Procedure. (The Detector Lid needs to be removed from the Detector Body.)
2. Perform a wireless sensitivity test on the unit as described in the previous Wireless Sensitivity Test Procedure. Depending on the results of this test do the following:
    a. If the results of this test show that the detector **does not** need cleaning, press the Reset button on the transmitter to update the panel with the detector's latest operational status.

    If the panel trouble indication returns, the batteries need changing. Change the batteries as described in the Replacing the Batteries section of the ESL 560 instructions and repeat this step.

    As indicated in the *WARNING* label on the Battery Compartment, **wait at least 30 seconds after removing batteries before inserting new batteries**. This is necessary to force an immediate test of the new batteries.

    If the panel trouble indication now remains off, servicing has been completed.
    b. If the results of this test shows that the unit **does** need cleaning, replace the Smoke Chamber and retest the unit per the Cleaning the Detector section of the ESL 560 instructions. Now, press the Reset button on the transmitter to update the panel with the detector's latest operational status. If the panel trouble indication remains off, the unit is performing normally, the batteries do not need changing, and servicing has been completed.

    If, however, the panel trouble indication returns, the detector probably has a secondary Low Battery condition that requires that the batteries be replaced. Change the batteries as described in the Replacing the Batteries section of the ESL 560 instructions, wait about nine seconds until the detector LED begins to flash, and press the transmitter Reset button.

    As indicated in the *WARNING* label on the Battery Compartment, **wait at least 30 seconds after removing batteries before inserting new batteries**. This is necessary to force an immediate test of the new batteries.

    If the panel trouble indication now remains off, servicing has been completed.

Note: As discussed before, if the wireless CleanMe signal reporting were disabled, some of this complication could be avoided. A Low Battery indication at the panel would always mean that the batteries needed changing; there would be no CleanMe signal piggybacked onto the Low Battery indication. However, it is recommended that the wireless CleanMe signal reporting remain enabled (factory default condition) in order to let the panel know that the detector is operating within normal limits, and to avoid potential false alarms due to detector over-sensitivity.

If an FA202 fails to operate properly, phone Inovonics Technical Support (800.782.2709) to request a Return Material Authorization ("RMA") number, then ship the unit to the address shown below. (Please include the RMA number on the package to expedite handling.)

Inovonics Corporation
RMA # _____
2100 Central Ave
Boulder CO 80301

Warranty & Disclaimer

Inovonics Corporation ("Inovonics") warrants its products ("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 twenty-four (24) 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 warrantied 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, 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.

The User recognizes that a properly installed and maintained security system may only reduce the risk of events such as burglary, robbery, personal injury and fire. It does not insure or guarantee that there will be no death, personal damage and/or damage to property as a result. **Inovonics does not claim that the Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection.**

Inovonics Corporation shall have no liability for any death, injury or damage, however incurred, based on a claim that Inovonics Products failed to function. However, if Inovonics is held liable, directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, Inovonics' maximum liability will not in any case exceed the purchase price of the Product, which will be fixed as liquidated damages and not as a penalty, and will be the complete and exclusive remedy against Inovonics.

⚠ **Warning: The User should follow all installation, operation and maintenance instructions.** The User is strongly advised to conduct Product and systems tests at least once each week. Changes in environmental conditions, electric or electronic disruptions and tampering, may cause the Product to not perform as expected.

⚠ **Warning: Inovonics warrants its Product to the User.** The User is responsible for exercising all due prudence and taking necessary precautions for the safety and protection of lives and property wherever Inovonics Products are installed. Inovonics strongly advises the User to program Products to be supervised whenever used in applications affecting life safety. Users are warned that unsupervised devices are subject to undetected failure due to malfunction, battery failure, tampering, or changes in environment.