



# **FA104**

**C104 Programmer Upgrade**

## **User Manual**

**for FA416, FA416D, FA464  
*Frequency Agile*<sup>™</sup> Receivers  
and  
C404 4-channel slave receiver**



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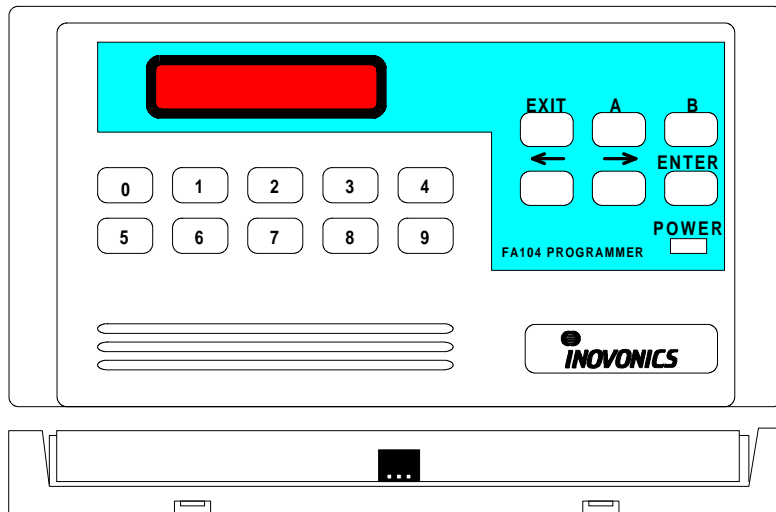
## Overview:

The FA104 is an upgraded version of the C104 Programmer which has the full functionality of the FA116 Programmer. The FA104 Programmer allows the user to alter receiver and transmitter parameters to fit specific applications.

The FA104 is compatible with FA416, FA416D, and FA464 *Frequency Agile™* receivers as well as with the C404 receiver. The programmer also allows the user to monitor signal margin and signal strength of points, to test output functions, to clear faults, to add, modify and delete transmitters and to program transmitters.

The FA104 is menu-driven. Users locate main menu headings using arrow keys, then select headings by pressing the **ENTER** key. The programmer displays option screens which allow the user to accept, change or reject current settings for the receiver, receiver outputs and transmitters. Transmitters are programmed by connecting them to the programmer via the transmitter programming cable.

**Numeric** keys enter values. **Arrow** keys change menu options. The **ENTER** key advances to the next available option or menu heading. The **EXIT** key leaves the current option level. From a main menu heading, **EXIT** leaves programming mode.

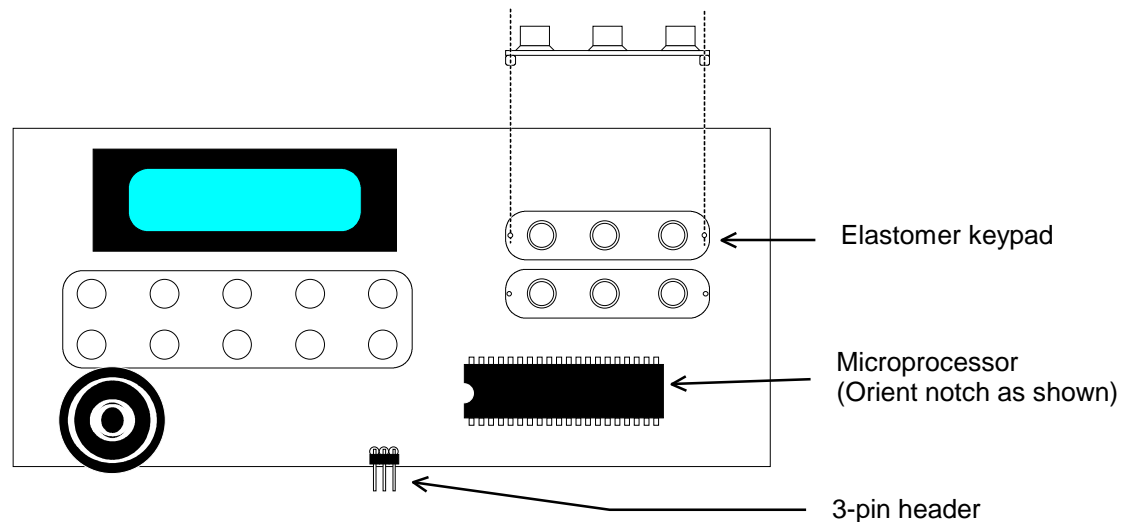


### Features

- Programs all FA-series and C-series receivers and transmitters.
- Sets receiver and transmitter parameters.
- Permits transmitter zoning.
- 2-Line x 16-character liquid crystal display.

# Upgrading the C104 Programmer

The Inovonics C104 programmer becomes the FA104 programmer by installing components included in the the F104 upgrade kit.



## Contents of the kit:

- 1 transmitter programming cable
- 1 microprocessor
- 1 1x3 elastomeric keypad element
- 3 blank keys
- 1 3-pin right-angle header
- 1 graphic overlay label

## Tools needed:

- small (#1 or #0) phillips head screwdriver
- small slot screwdriver
- small paper clip or .032" wire
- soldering iron
- solder

## Upgrade Procedure:

1. Replace the C104 graphic label with the FA104 graphic overlay.
2. Place the C104 Programmer upside down on the workbench.
3. Use a small slot screwdriver to release plastic catches at bottom edge and carefully remove back cover.
4. Use a small phillips screwdriver to remove the single screw fastening the PCB board to the front housing cover. Carefully lift the PCB away from the front cover. This exposes the keys, so be careful not to accidentally dump them.
5. Place the 3 blank keys in the unused cutouts in the front cover. Set the front cover aside.
6. Solder the 3-pin header on the PCB as shown. Insert from the component side of the board. The "short" legs go through the board. Tip: for maximum joint strength, solder the through-hole pins on pads on both sides of the board. Solder on the component side first, to tack the header in place, then turn the PCB over and put good joints on the backside pads. Inspect the solder joints carefully for good flow, and make sure that there are no solder bridges between pads. Finished joints should look "bright and shiny".
7. Insert the paper clip or wire into the holes on the front side of the elastomeric keypad and press the mounting pegs through the mounting holes in the PCB.
8. Very carefully remove the microprocessor from the socket. If you don't have a special tool for this procedure, use a small flat screwdriver under the chip body to gradually pry the microprocessor legs out of the socket.
9. Remove the upgrade microprocessor from the anti-electrostatic foam and carefully insert it into the socket. THE MICRO IS ORIENTED WITH THE POLARIZING NOTCH TOWARD THE CENTER OF THE BOARD. A good method is to insert all the pins on one side of the socket, then to carefully press the other side in. After insertion, look closely for bent or buckled leads.
10. Re-assemble the programmer. Tip: when assembling the housing, hook the top hinges first, then snap the bottom latches into place.

# Programming FA416, FA416D and FA464 Receivers with the FA104 Programmer

Following are descriptions of menu and option displays. Main menu headings are **POINT STATUS**, **RECEIVER SETUP**, **OUTPUT SETUP**, **PROGRAM POINT**, **DELETE POINT**, **CLEAR FAULTS** and **TEST OUTPUTS**.

When the FA104 is first powered up, the display briefly shows software version information, then shows the logo display, including receiver type:

INOVONICS FA416  
FREQUENCY AGILE

INOVONICS FA464  
FREQUENCY AGILE

To enter programming mode, enter the access code. Default access code is **3446**. The display will show:

## Point Status

Press ENTER for  
← POINT STATUS →

Press **ENTER** to see signal margins, signal levels and current point status.  
Press ← to go to Receiver Setup menu or press → to go to Test Outputs.

**Signal margin** is an indicator of relative signal strength to background noise. Margin values are from 3 (signal just distinguishable from background) to 33 (strongest). Signal margins below 10 are reported as "Weak".

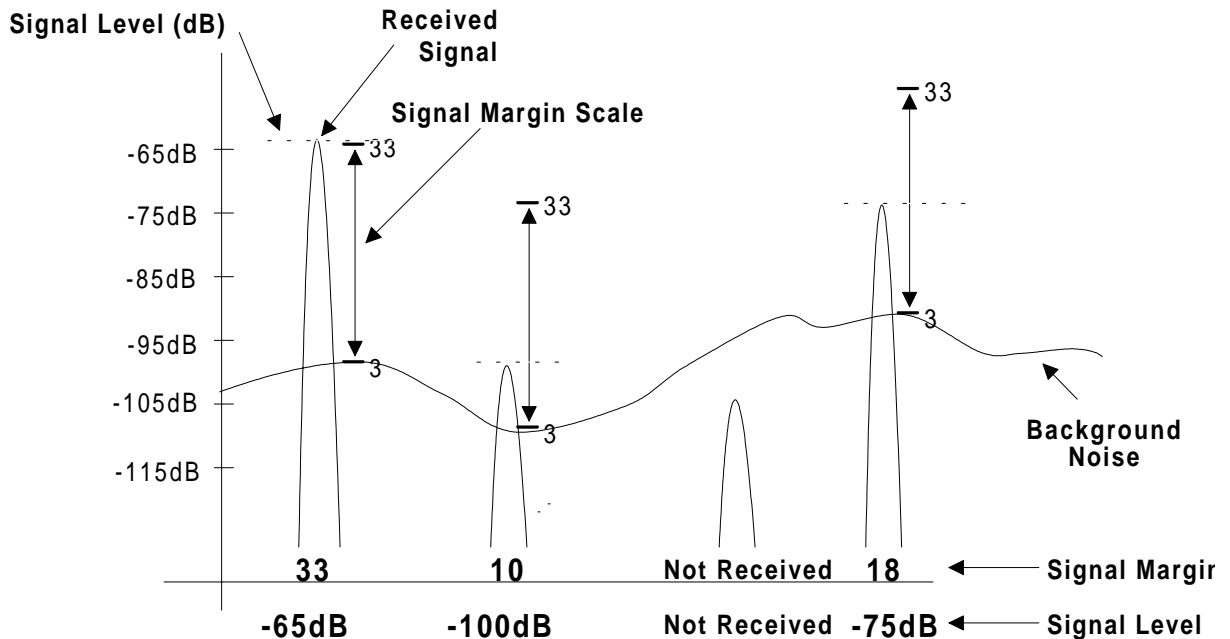
**Signal level** is an absolute measure of intensity, ranging from about -65dB (very strong) to below -110dB (very faint).

←1 ALM TMP BATT→  
GOOD SIGNAL

The top line of the display shows the current status of the transmitter. The second line will read "Good Signal" or "Weak Signal". Press **ENTER** to view

←1 ALM TMP BATT→  
LVL:-nnn MAR:+mm

The top line of the display shows the current status of the transmitter. The bottom line shows real-time values in dB and dBm for signal level and signal margin. Press **ENTER** to toggle back to "Good Signal / Weak Signal" display.



# Programming FA416, FA416D and FA464 Receivers

## Receiver Setup

Press ENTER for  
← RCVR SETUP →

Press **ENTER** to review or to modify receiver settings.  
Press ← to go to **Output Setup** menu or → for **Review Points**.

SYSTEM ID: 123

System ID is encoded in all data transmissions to identify transmitters to their respective receivers. Enter a code from **000** to **255**.

SUPERVISE POINTS  
← YES →

Should the receiver monitor transmitters for inactivity?  
Arrow keys toggle between **YES** and **NO**.

MAX TX INACTIVE  
TIME: 4 ← MIN →

How long should the receiver wait for a supervisory signal to declare points inactive?  
Enter value from **1** to **99**. Arrow keys toggle between **MIN** and **HRS**.

ACCESS CODE  
3446

To change dealer access code enter number from **0000** to **9999**. (**3446** is default.) **Note:** Default access code may be reset **ONLY** by restoring receiver to factory defaults. See below.

VISION COMPATIBLE  
← NO →

Should the receiver look for transmitter data for Vision Plus systems?  
Arrow keys toggle between **YES** and **NO**.

**Reminder:** Press **ENTER** to advance to next menu option. **ENTER** accepts data in display and proceeds.

### What is "Vision Plus Compatibility"?

Vision Plus Compatibility permits transmitters programmed by a the Vision Plus panel to be monitored by an FA416, FA416D or an FA464 receiver **AS LONG AS BOTH SYSTEMS HAVE THE SAME SYSTEM ID**. Transmitters monitored by FA receivers need not be programmed by the receiver. Once the receiver hears a Vision Plus-programmed transmitter, the receiver will consider it one of its own. (Note: any transmitters programmed by an FA416 receiver will **NOT** be received by a Vision Plus .)

**Resetting FA416, FA416D or FA464 receivers:** The following sequence will restore the receiver to factory default settings: (**ADV**, **RESET** and **DEL** Buttons are located on the receiver.)

1. Press and Hold **ADV**.
2. Press and release **RESET**.
3. Release **ADV**.
4. Immediately, while the Decode and Valid LEDs are off, press and hold **DEL** for 6 to 7 seconds.
5. The receiver will flash the **TX PRGM LED**, indicating restoral complete.



# Programming FA416, FA416D and FA464 Receivers

## Output Setup

Press ENTER for  
← OUTPUT SETUP →

Press **ENTER** to review or to modify output settings.  
Press ← to go to **PROGRAM POINTS** menu option or → to go to **RCVR SETUP**.

OUTPUT nn:  
← ALARM →

Press **ENTER** to advance through all numbered outputs.  
Press ← or → to select from options **ALARM**, **ALARM+TAMPER**, **TAMPER**, **LO BATT**, **INACTIVE**, **TAMP+LOBATT**, **TAMP+INACTIVE**, **BATT+INACTIVE**, **ANY TX FAULT**, and **DISABLED**.

Note: **ALARM** and **ALARM+TAMPER** are point-specific: points programmed to a given output will trip the output if alarmed or if tampered. All other fault options are global; i.e., **any** listed fault (or combination of faults) will cause the output to activate. Attempts to assign duplicate global fault conditions to other outputs are not allowed.

OUTPUT 1: GLOBL  
← TAMP+LO BATT →

Global faults will be indicated.

If an output is modified to function as a global fault output and is currently assigned to an active point, the user will be prompted for permission to re-assign the output:

OUTPUT 1 IN USE  
REASSIGN? ← YES →

When output setup is complete, points affected by re-assignment will be shown.

CHECK POINT 1  
OUTPUT ASSIGNM'T

**Note:** "Follower" outputs go on and off as the transmitter changes between alarm and secure states. "Latching" outputs go on at first activation, and stay on until reset. "Momentary" outputs go on for a prescribed duration then turn off, regardless of what the transmitter does after first activation.

ALARM OUTPUTS  
← FOLLOWER →

Press ← or → to select from options **FOLLOWER**, **MOMENTARY** or **LATCHING**.

TAMPER OUTPUT  
← FOLLOWER →

Press ← or → to select from options **FOLLOWER**, **MOMENTARY** or **LATCHING**.

LO BATT OUTPUT  
← LATCHING →

Press ← or → to select from options **FOLLOWER**, **MOMENTARY** or **LATCHING**.

INACTIVE OUTPUT  
← FOLLOWER →

Press ← or → to select from options **FOLLOWER**, **MOMENTARY** or **LATCHING**.

If any outputs are programmed **MOMENTARY**, the user will be prompted for the number of seconds of momentary activation.

MOMENTARY OUTPUT  
TIME: 4 secs

Enter a value from **1** to **16** seconds.

# Programming FA416, FA416D and FA464 Receivers

## Program Points

Press **ENTER** to  
←PROGRAM POINT→

Press **ENTER** to program a point or to modify settings.  
Press ← to go to **DELETE POINTS** menu option or → to go to **OUTPUT SETUP**.

POINT NUMBER:  
ENTER #(1 to nn)

Enter point number from keypad. Press **ENTER**.  
(Note: nn=16 or nn=64, depending on receiver.)

EXT SWITCH TYPE  
← NORM/OPEN →

Is the external transmitter switch loop Normally Open or Closed?  
Arrow keys toggle between **N/O** and **N/C**.

END OF LINE  
RESISTOR: ← NO →

Is a 2.2K end of line resistor being used?  
Arrow keys toggle between **YES** and **NO**.

USE INTERNAL  
CONTACT: ← NO →

Is the FA200W widegap magnet contact being used?  
Arrow keys toggle between **YES** and **NO**.

CHECK-IN TIME  
← 60 SECONDS →

How often should transmitters send supervisory data?  
Arrow keys toggle between **UNSUPERVISED**,  
**10, 30**, or **60 SECONDS** and **5, 30** or **60 MINUTES**.

OUTPUT TO USE:  
← OUTPUT 1 →

Which output should this point activate?  
Arrow keys select desired output.

If the selected output has been previously assigned as a global fault output, the programmer will prompt for confirmation:

OUTPUT n GLOBAL  
CONFIRM?← YES →

It is recommended that the output be redefined as an alarm, or that the point be assigned to another output. Arrow keys toggle between **YES** and **NO**.

ENTER TO PROGRAM  
"A" to REVIEW

Press **ENTER** to proceed with transmitter programming.  
or press **A** to go through transmitter options again.

CONNECT TX+RESET  
OR PRESS "A"

Connect transmitter and press transmitter reset to program device, or press **A** to save program information, activate the point and select a new point number, or press **EXIT** to save program information without activating the point. One of the following displays will appear:

POINT NUMBER nn  
TX PROGRAMMED

If a transmitter is connected, display indicates successful transmitter programming sequence. Display remains for about 3 seconds, then returns to the point number selection screen.

POINT NUMBER nn  
POINT ACTIVATED

If special key **A** is pressed, the point is saved and activated, even though no transmitter has been programmed. This may be necessary when replacing receivers or when using the FA100.

POINT NUMBER nn  
PROGRAM SAVED

If **EXIT** is pressed, point program information is saved without activating the point.

# Programming FA416, FA416D and FA464 Receivers

## Delete Points

Press ENTER to  
← DELETE POINT →

Press **ENTER** to delete a point. Programming remains in memory, but the receiver will not look for the point. To reactivate the point, go to Program Points. Press ← to go to **CLEAR FAULTS** menu option or → to go to **PROGRAM POINT**.

POINT NUMBER:  
ENTER #(1 to nn)

Enter point number from keypad. Press **ENTER**.  
(nn = 16 or nn = 64, depending on receiver.)

At this point the programmer requests confirmation:

ARE YOU SURE?  
← NO →

Press **ENTER** to accept answer in next line.  
Arrow keys toggle between **NO** and **YES**.

## Clear Faults

Press ENTER to  
← CLEAR FAULTS →

Faults may be registered during programming and operation. Press **ENTER** to clear latched fault outputs. Press ← to go to **TEST OUTPUTS** menu option or → to go to **DELETE POINT**.

ARE YOU SURE?  
← YES →

Press **ENTER** to accept answer in next line.  
Arrow keys toggle between **YES** and **NO**.

## Test Outputs

Press ENTER to  
← TEST OUTPUTS →

Press **ENTER** to test outputs. Press ← to go to **POINT STATUS** menu option or → to go to **CLEAR FAULTS**.

ENTER to TOGGLE  
← OUTPUT 1 →

Press **ENTER** to turn selected output on and off.  
Press ← or → to select a different output.

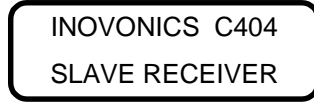
**Note:** The FA416 has 4 outputs, plus the fault output. The FA464 has 16 outputs, plus the fault output.

**Creating Zones with the FA104:** By assigning transmitter alarm conditions to specific alarm outputs, it is possible to differentiate between types of alarms, areas of alarms, etc. For example, suppose an application in a small business requires 10 holdup buttons, 1 fire exit door and 3 removable pendants. Program outputs 1, 2 and 3 to be active on alarm and program the FA200s attached to the holdup buttons to use output 1. Assign the fire exit point to output 2 and the pendants to output 3. Configure the system to monitor low batteries and tampers at output 4.

# Programming C404 Slave Receivers with the FA104 Executive Programmer

Following are descriptions of menu and option displays. Main menu headings are **POINT STATUS**, **RECEIVER SETUP**, **PROGRAM POINT**, and **DELETE POINT**.

When the FA104 is first powered up, the display briefly shows software information, then shows the logo display, including receiver type.

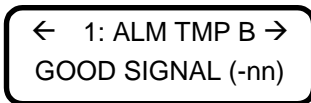


To enter programming mode, enter the access code. Default access code is **0000**. The display will show:

## Point Status



Press **ENTER** to see signal strength and current point status.  
Press ← to go to **RECEIVER SETUP** menu or → for **DELETE POINT**.

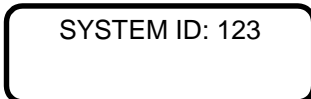


The first line shows point status, including a low battery symbol. The value beside the **GOOD SIGNAL** or **WEAK SIGNAL** is dBm above receiver threshold level, from -99 (weak) to -65 (strong).

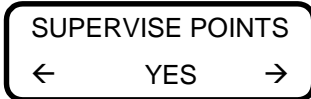
## Receiver Setup



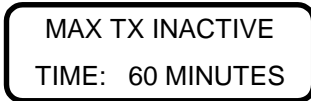
Press **ENTER** to review or to modify receiver settings.  
Press ← to go to **PROGRAM POINT** menu or → for **REVIEW POINTS**.



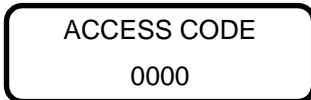
System ID is encoded in all data transmissions to identify transmitters to their respective receivers. Enter a code from **000** to **255**.



Should the receiver monitor transmitters for inactivity?  
Arrow keys toggle between **YES** and **NO**.

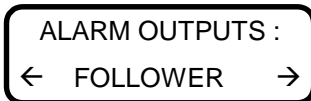


How long should the receiver wait for a supervisory signal to declare points inactive?  
Enter value from **1** to **254** minutes.



Change dealer access code, if desired.  
Enter access code from **0000** to **9999**. (**0000** is default.)

**WARNING:**The C404 access code cannot be recovered or reset if lost.

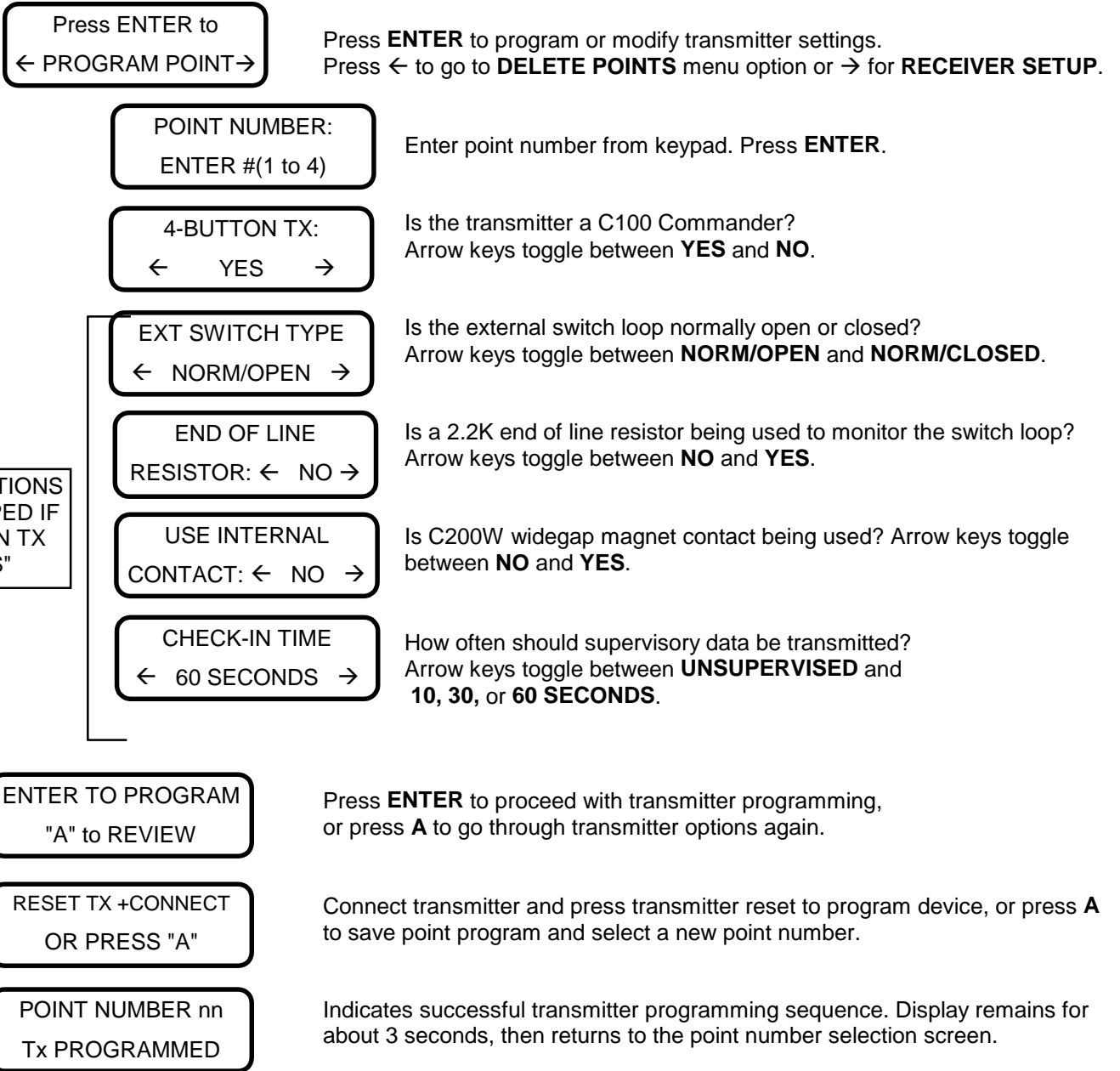


Set mode of all C404 **ALARM** outputs. Arrow keys select option: **FOLLOWER**, **LATCHING** or **MOMENTARY**.  
Press ← or → to change option.

**Note:** This setting affects all of the C404's alarm outputs. The C404 global fault output is **always** latching.

# Programming C404 Slave Receivers

## Program Points



## Programming C404 Slave Receivers

### Delete Points

Press ENTER to  
← DELETE POINT →

Press **ENTER** to program a point or to modify settings.  
Press ← to go to **POINT STATUS** menu option or → to go to **PROGRAM POINT**.

POINT NUMBER:  
ENTER # (1 to 4)

Enter point number from keypad. Press **ENTER**.

At this point the programmer requests confirmation:

ARE YOU SURE?  
← YES →

Arrow keys toggle between **YES** and **NO**.

POINT NUMBER: nn  
DELETED

Indicates successful point deletion. (Display remains for about 3 seconds, then returns to the point number selection screen.)

**Note:** Programming parameters are not erased from receiver memory. Transmitters may be re-programmed to the deleted point number.

## Appendix A

### FA416 Receiver Parameters

| <u>Output</u>                | <u>Default Active on Condition</u> | <u>Programmable Options</u>  |
|------------------------------|------------------------------------|--|
| 1                            | Alarm                              | <b>ALARM / ALARM+TAMPER / TAMPER /<br/>                     LO BATT / INACTIVE / TAMP+LO BATT /<br/>                     TAMP+INACTIVE / LO BATT+INACTIVE /<br/>                     ANY TX FAULT / DISABLED</b> |
| 2                            | Alarm                              |  |
| 3                            | Alarm                              |  |
| 4                            | Alarm                              |  |
| <u>Transmitter Condition</u> | <u>Default Mode</u>                | <u>Programmable Options</u>  |
| Alarm                        | Follower                           | <b>FOLLOWER / MOMENTARY / LATCHING</b>   |
| Inactive                     | Follower                           |  |
| Tamper                       | Latching                           |  |
| Low Batt                     | Latching                           |  |

**Default Momentary Output time:** 4 seconds 1 - 16 seconds

**Default Receiver Parameters:**

|                                |                                |                              |
|--------------------------------|--------------------------------|------------------------------|
| <b>System ID:</b>              | (randomly assigned at factory) | 0 - 255                      |
| <b>Point supervision:</b>      | Yes                            | Yes / No                     |
| <b>Supervision window:</b>     | 4 hours                        | 1 - 99 minutes, 1 - 99 hours |
| <b>Access code:</b>            | 3446                           | 0000 - 9999                  |
| <b>Vision Plus compatible:</b> | No                             | Yes / No                     |

*To reset a receiver to default parameters refer to Page 5 or see the receiver user manual.*

### Default Transmitter Parameters

| <u>Point #</u> | <u>Contact</u> | <u>Output</u> | <u>Check-in</u> |
|----------------|----------------|---------------|-----------------|
| 1              | N/O            | 1             | 60 SEC          |
| 2              | N/O            | 2             | 60 SEC          |
| 3              | N/C            | 3             | 60 SEC          |
| 4              | N/C            | 4             | 60 SEC          |
| 5              | N/O            | 1             | 60 SEC          |
| 6              | N/O            | 2             | 60 SEC          |
| 7              | N/O            | 3             | 60 SEC          |
| 8              | N/O            | 4             | 60 SEC          |
| 9              | N/C            | 1             | 60 SEC          |
| 10             | N/C            | 2             | 60 SEC          |
| 11             | N/C            | 3             | 60 SEC          |
| 12             | N/C            | 4             | 60 SEC          |
| 13             | N/C            | 1             | 60 SEC          |
| 14             | N/C            | 2             | 60 SEC          |
| 15             | N/C            | 3             | 60 SEC          |
| 16             | N/O            | 4             | NONE            |

Note: Point 16 in Table 1 is programmed with no check-in. This configuration is often desirable for use with the FA204 Pendant, permitting the pendant to be taken out of range without being reported inactive.

## Appendix B

### FA464 Receiver Parameters

| <u>Output</u> | <u>Default<br/>Active on<br/>Condition</u> | <u>Programmable Options</u>  |
|---------------|--|--|
| 1             | Alarm                                      | <b>ALARM / ALARM+TAMPER / TAMPER /<br/>                     LO BATT / INACTIVE / TAMP+LO BATT /<br/>                     TAMP+INACTIVE / LO BATT+INACTIVE /<br/>                     ANY TX FAULT / DISABLED</b> |
| 2             | Alarm                                      |  |
| 3             | Alarm                                      |  |
| 4             | Alarm                                      |  |
| ...           |  |  |
| ...           |  |  |
| 16            | Alarm                                      |  |

| <u>Transmitter<br/>Condition</u> | <u>Default<br/>Mode</u> | <u>Programmable Options</u>            |
|----------------------------------|-------------------------|--|
| Alarm                            | Follower                | <b>FOLLOWER / MOMENTARY / LATCHING</b> |
| Inactive                         | Follower                |  |
| Tamper                           | Latching                |  |
| Low Batt                         | Latching                |  |

**Default Momentary Output time:** 4 seconds    1 - 16 seconds

**Default Receiver Parameters:**

|                                |                                |                              |
|--------------------------------|--------------------------------|------------------------------|
| <b>System ID:</b>              | (randomly assigned at factory) | 0 - 255                      |
| <b>Point supervision:</b>      | Yes                            | Yes / No                     |
| <b>Supervision window:</b>     | 4 hours                        | 1 - 99 minutes, 1 - 99 hours |
| <b>Access code:</b>            | 3446                           | 0000 - 9999                  |
| <b>Vision Plus compatible:</b> | No                             | Yes / No                     |

*To reset the FA464 to default parameters refer to page 5 or see the receiver user manual.*



## Default FA464 Transmitter Parameters

| <u>Point#</u> | <u>Contact</u> | <u>Output</u> | <u>Check-In</u> | <u>Point#</u> | <u>Contact</u> | <u>Output</u> | <u>Check-In</u> |
|---------------|----------------|---------------|-----------------|---------------|----------------|---------------|-----------------|
| 1             | N/O            | 1             | 60 SEC          | 33            | N/C            | 9             | 60 SEC          |
| 2             | N/O            | 2             | 60 SEC          | 34            | N/C            | 9             | 60 SEC          |
| 3             | N/C            | 3             | 60 SEC          | 35            | N/C            | 9             | 60 SEC          |
| 4             | N/C            | 4             | 60 SEC          | 36            | N/C            | 9             | 60 SEC          |
| 5             | N/O            | 1             | 60 SEC          | 37            | N/C            | 10            | 60 SEC          |
| 6             | N/O            | 2             | 60 SEC          | 38            | N/C            | 10            | 60 SEC          |
| 7             | N/O            | 3             | 60 SEC          | 39            | N/C            | 10            | 60 SEC          |
| 8             | N/O            | 4             | 60 SEC          | 40            | N/O            | 10            | 60 SEC          |
| 9             | N/C            | 1             | 60 SEC          | 41            | N/O            | 11            | 60 SEC          |
| 10            | N/C            | 2             | 60 SEC          | 42            | N/O            | 11            | 60 SEC          |
| 11            | N/C            | 3             | 60 SEC          | 43            | N/O            | 11            | 60 SEC          |
| 12            | N/C            | 4             | 60 SEC          | 44            | N/O            | 11            | 60 SEC          |
| 13            | N/C            | 1             | 60 SEC          | 45            | N/O            | 12            | 60 SEC          |
| 14            | N/C            | 2             | 60 SEC          | 46            | N/O            | 12            | 60 SEC          |
| 15            | N/C            | 3             | 60 SEC          | 47            | N/O            | 12            | 60 SEC          |
| 16*           | N/C            | 4             | NONE            | 48            | N/O            | 12            | 60 SEC          |
| 17            | N/C            | 5             | 60 SEC          | 49**          | N/O            | 13            | 5 MIN           |
| 18            | N/C            | 5             | 60 SEC          | 50            | N/O            | 13            | 5 MIN           |
| 19            | N/C            | 5             | 60 SEC          | 51            | N/O            | 13            | 5 MIN           |
| 20            | N/C            | 5             | 60 SEC          | 52            | N/O            | 13            | 5 MIN           |
| 21            | N/C            | 6             | 60 SEC          | 53            | N/O            | 14            | 5 MIN           |
| 22            | N/C            | 6             | 60 SEC          | 54            | N/O            | 14            | 5 MIN           |
| 23            | N/C            | 6             | 60 SEC          | 55            | N/O            | 14            | 5 MIN           |
| 24            | N/C            | 6             | 60 SEC          | 56            | N/O            | 14            | 5 MIN           |
| 25            | N/C            | 7             | 60 SEC          | 57            | N/O            | 15            | 5 MIN           |
| 26            | N/C            | 7             | 60 SEC          | 58            | N/O            | 15            | 5 MIN           |
| 27            | N/C            | 7             | 60 SEC          | 59            | N/O            | 15            | 5 MIN           |
| 28            | N/C            | 7             | 60 SEC          | 60***         | N/O            | 15            | 5 MIN           |
| 29            | N/C            | 8             | 60 SEC          | 61***         | N/O+INT        | 16            | 60 SEC          |
| 30            | N/C            | 8             | 60 SEC          | 62            | N/O+INT        | 16            | 60 SEC          |
| 31            | N/C            | 8             | 60 SEC          | 63            | N/O+INT        | 16            | 60 SEC          |
| 32            | N/C            | 8             | 60 SEC          | 64            | N/O+INT        | 16            | 60 SEC          |

\*Note: Point 16 in Table 1 is programmed with no check-in. This configuration is often desirable for use with the FA204 Pendant, permitting the pendant to be taken out of range without being reported Inactive.

\*\*Note: Points 49-60 are programmed to check in every five minutes. This will extend battery life slightly depending on which transmitter is used.

\*\*\*Note: Points 61 through 64: Normally Open plus Internal Contact = Yes.

## Appendix C

### C404 4-channel Slave Receiver Parameters

| <u>Output</u> | <u>Default Active on Condition</u> | <u>Programmable Options</u> |
|---------------|------------------------------------|-----------------------------|
| 1             | Alarm                              | Not programmable            |
| 2             | Alarm                              | "                           |
| 3             | Alarm                              | "                           |
| 4             | Alarm                              | "                           |

**Note:** C404 outputs cannot be re-assigned to other points.

| <u>Transmitter Condition</u> | <u>Default Mode</u>         | <u>Programmable Options</u>            |
|------------------------------|-----------------------------|--|
| Alarm                        | Follower                    | <b>Follower / Momentary / Latching</b> |
| Global Fault                 | Latching (Not programmable) | Latching only                          |

**Default Momentary Output time:** 2 seconds

**Default Receiver Parameters:**

|                            |                                |                 |
|----------------------------|--------------------------------|-----------------|
| <b>System ID:</b>          | (randomly assigned at factory) | 0 - 255         |
| <b>Point supervision:</b>  | Yes                            | Yes / No        |
| <b>Supervision window:</b> | 240 minutes                    | 0 - 240 minutes |
| <b>Access code:</b>        | 0000                           | 0000 - 9999     |

**NOTE:** The C404 cannot be reset to default conditions. It must be reprogrammed.

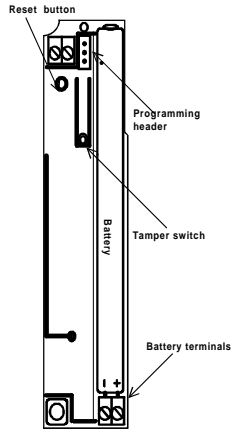
#### Default Transmitter Parameters

|   | <u>Default</u>   | <u>Programmable Options</u>  |
|---|--|--|
| <b>Transmitter type</b>                                 | Standard   | <b>STANDARD<br/>4-BUTTON TX (C100 REMOTE)</b>  |
| <b>Contacts</b>   | Point 1: N/O<br>Point 2: N/O<br>Point 3: N/C<br>Point 4: N/C | <b>NORMALLY OPEN / NORMALLY CLOSED<br/>NORMALLY OPEN / NORMALLY CLOSED<br/>NORMALLY OPEN / NORMALLY CLOSED<br/>NORMALLY OPEN / NORMALLY CLOSED</b> |
| <b>End of Line Resistor</b>                             | No   | <b>NO / YES</b>  |
| <b>Internal Contact<br/>(C200W widegap magnet loop)</b> | No   | <b>NO / YES</b>  |
| <b>Check-In period</b>                                  | 60 Seconds   | <b>60 SECONDS<br/>30 SECONDS<br/>10 SECONDS<br/>NONE</b>   |

## Appendix D

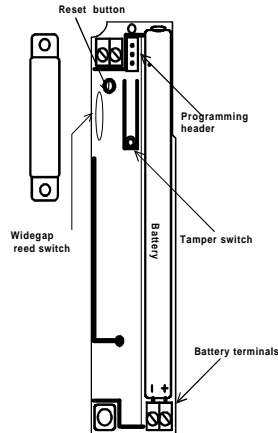
### Frequency Agile Series Transmitter Programming

#### FA200 Universal transmitter



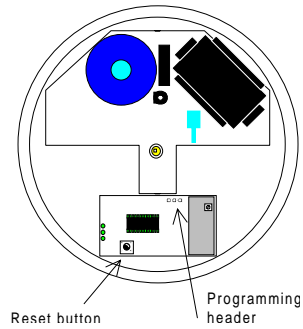
Program contacts: N/O or N/C, as needed  
 EOL resistor: as needed  
 Typical battery life: 2 to 4 years  
 Battery type: 4.5V alkaline battery pack

#### FA200W Universal widegap transmitter



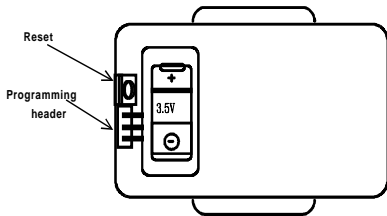
Program contacts: N/O or N/C, as needed  
 EOL resistor: as needed  
 Internal contact: as needed  
 Typical battery life: 2 to 4 years  
 Battery type: 4.5V alkaline battery pack

#### FA201 Smoke detector



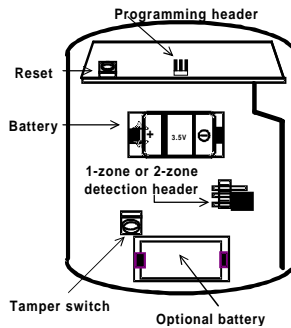
Program contacts: N/O  
 Typical battery life: 1 year  
 (with 2 batteries)  
 Battery type: 9V alkaline  
 Notes: Remove jumper to program,  
 replace jumper after programming.

#### FA204 Pendant transmitter



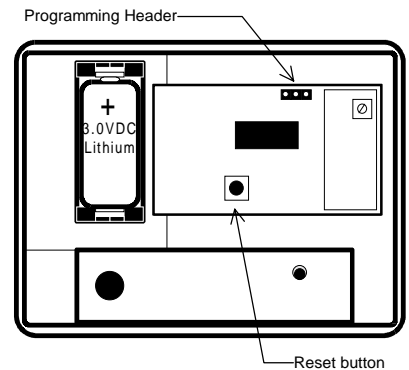
Program contacts: N/O  
 Typical battery life: 2 to 3 years  
 Battery type: 3.5V lithium  
 Note: The FA204 is always supervised  
 for low battery.

#### FA206 PIR motion detector



Program contacts: N/C  
 Typical battery life: 1 to 3 years  
 (with 2 batteries)  
 Battery type: 3.5V lithium

#### FA207 Glassbreak detector



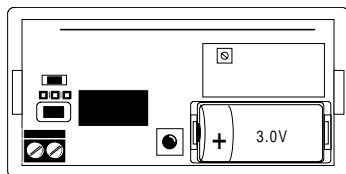
Program contacts: N/O  
 Typical battery life: 2 to 4 years  
 Battery type: 3V lithium  
 Notes: Remove jumper to program,  
 replace jumper after programming.

## Appendix D (continued)

### Frequency Agile Series Transmitter Programming

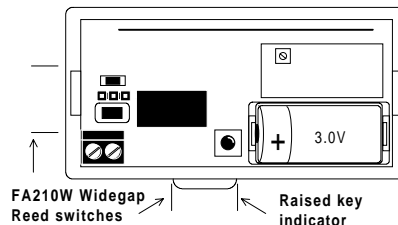
#### FA210 Reduced-size Universal transmitter

Program contacts: N/O or N/C, as needed  
 EOL resistor: as needed  
 Typical battery life: 2 to 4 years  
 Battery type: 3V lithium



#### FA210W Reduced-size Universal widegap transmitter

Program contacts: N/O or N/C, as needed  
 EOL resistor: as needed  
 Internal contact: as needed (FA210W)  
 Typical battery life: 2 to 4 years  
 Battery type: 3V lithium



# NOTES

***Frequency Agile™* Receivers**  
**compatible with the FA104 Executive Programmer**

**FA416** 16-channel / 4-output  
**FA416D** 16-channel / 4-output with display  
**FA464** 64-channel / 16-output

***Inovonics C-series* Receivers**

**C404** 4-channel slave receiver

***Inovonics* Corporation**  
2100 Central Avenue  
Boulder CO 80301  
(800) 782-2709