![INOVONICS HIGH PERFORMANCE WIRELESS]

FA104

C104 Programmer Upgrade

User Manual

for FA416, FA416D, FA464
***Frequency Agile*™ 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.
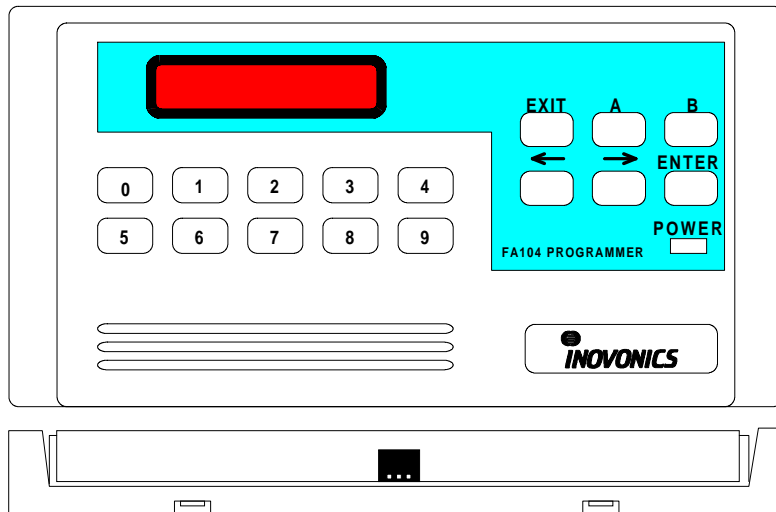

Features
- Programs all FA-series and C-series receivers and transmitters.
- Sets receiver and transmitter parameters.
- Permits transmitter zoning.
- 2-Line x 16-character liquid crystal display.

Upgrading the C104 Programmer

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

Elastomer keypad

Microprocessor
(Orient notch as shown)

3-pin header
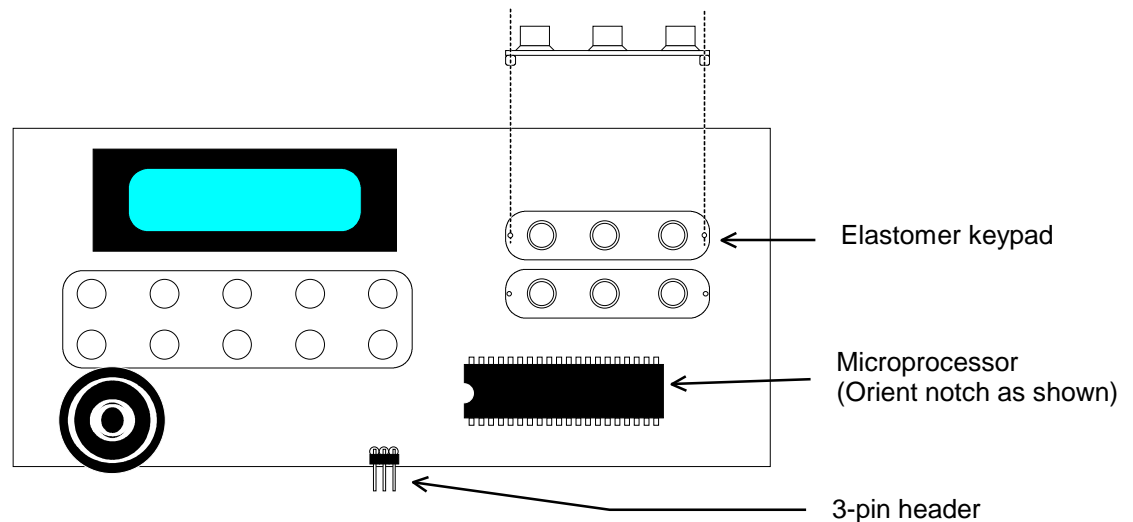
Contents of the kit:

1	transmitter programmming 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 hosing 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.
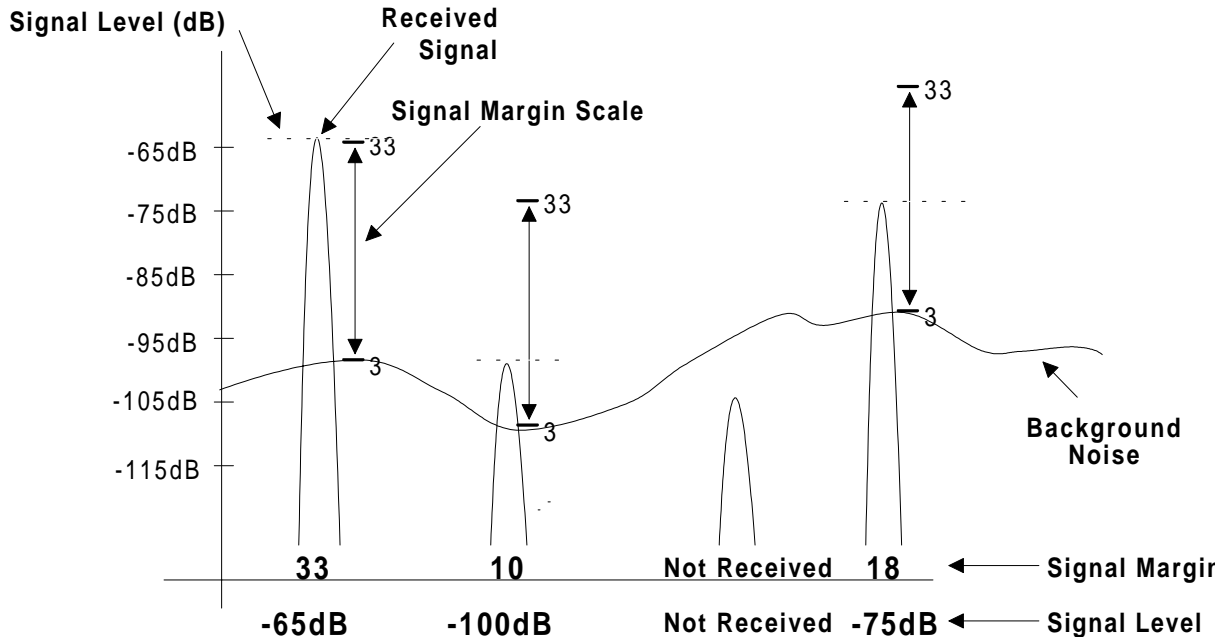
Programming FA416, FA416D and FA464 Receivers

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, INACTVE, TAMP+LOBATT, TAMP+INACTVE, BATT+INACTVE, 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.

```
INOVONICS  C404
SLAVE RECEIVER
```
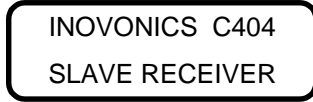
To enter programming mode, enter the access code. Default access code is **0000**. The display will show:
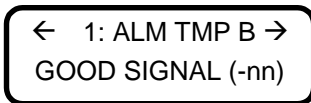
Point Status

```
Press ENTER for
← POINT STATUS →
```

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

```
←  1: ALM TMP B →
GOOD SIGNAL (-nn)
```

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 for
← RCVR SETUP →
```

Press **ENTER** to review or to modify receiver settings.
Press ← to go to **PROGRAM POINT** menu or → for **REVIEW POINTS**.
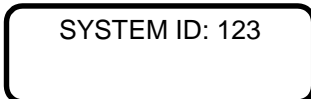
```
SYSTEM ID: 123
```

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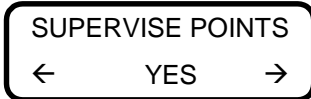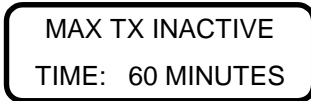
How long should the receiver wait for a supervisory signal to declare points inactive?
Enter value from **1** to **254** minutes.

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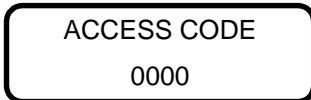
Change dealer access code, if desired.
Enter access code from **0000** to **9999**. (**0000** is default.)

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

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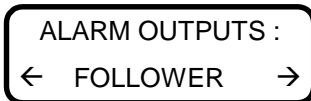
Set mode of all C404 **ALARM** outputs. Arrow keys select option:
FOLLOWER, LATCHING or **MOMENTARY.**
Press ← or → to change option.

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

Press ENTER to
← PROGRAM POINT→

Press **ENTER** to program or modify transmitter settings.
Press ← to go to **DELETE POINTS** menu option or → for **RECEIVER SETUP**.

POINT NUMBER:
ENTER #(1 to 4)

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

4-BUTTON TX:
←   YES   →

Is the transmitter a C100 Commander?
Arrow keys toggle between **YES** and **NO**.

EXT SWITCH TYPE
← NORM/OPEN →

Is the external switch loop normally open or closed?
Arrow keys toggle between **NORM/OPEN** and **NORM/CLOSED**.

END OF LINE
RESISTOR: ← NO →

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

THESE OPTIONS
ARE SKIPPED IF
4-BUTTON TX
= "YES"

USE INTERNAL
CONTACT: ← NO →

Is C200W widegap magnet contact being used? Arrow keys toggle
between **NO** and **YES**.

CHECK-IN TIME
← 60 SECONDS →

How often should supervisory data be transmitted?
Arrow keys toggle between **UNSUPERVISED** and
 10, 30, or **60 SECONDS**.

ENTER TO PROGRAM
"A" to REVIEW

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

RESET TX +CONNECT
OR PRESS "A"

Connect transmitter and press transmitter reset to program device, or press **A**
to save point program and select a new point number.

POINT NUMBER nn
Tx PROGRAMMED

Indicates successful transmitter programming sequence. Display remains for
about 3 seconds, then returns to the point number selection screen.

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

Output	Default Active on Condition	Programmable Options
1	Alarm	ALARM / ALARM+TAMPER / TAMPER /
2	Alarm	LO BATT / INACTIVE / TAMP+LO BATT /
3	Alarm	TAMP+INACTIVE / LO BATT+INACTIVE /
4	Alarm	ANY TX FAULT / DISABLED

Transmitter Condition	Default Mode	
Alarm	Follower	**FOLLOWER / MOMENTARY / LATCHING**
Inactive	Follower	
Tamper	Latching	
Low Batt	Latching	

Default Momentary Output time: 4 seconds   1 - 16 seconds

Default Receiver Parameters:

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

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

Default Transmitter Parameters

Point #	Contact	Output	Check-in
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

Output	Default Active on Condition	Programmable Options
1	Alarm	**ALARM / ALARM+TAMPER / TAMPER /**
2	Alarm	**LO BATT / INACTIVE / TAMP+LO BATT /**
3	Alarm	**TAMP+INACTIVE / LO BATT+INACTIVE /**
4	Alarm	**ANY TX FAULT / DISABLED**
...		
...		
16	Alarm	

Transmitter Condition	Default Mode	
Alarm	Follower	**FOLLOWER / MOMENTARY / LATCHING**
Inactive	Follower	
Tamper	Latching	
Low Batt	Latching	

Default Momentary Output time: 4 seconds   1 - 16 seconds

Default Receiver Parameters:

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

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

Default FA464 Transmitter Parameters

Point#	Contact	Output	Check-In		Point#	Contact	Output	Check-In
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

	Default Active on	
Output	**Condition**	**Programmable Options**
1	Alarm	Not programmable
2	Alarm	"
3	Alarm	"
4	Alarm	"

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

Transmitter Condition	**Default Mode**	
Alarm	Follower	**Follower / Momentary / Latching**
Global Fault	Latching (Not programmable)	Latching only

Default Momentary Output time: 2 seconds

Default Receiver Parameters:

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

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

Default Transmitter Parameters

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

Appendix D

Frequency Agile Series Transmitter Programming

FA200
Universal transmitter
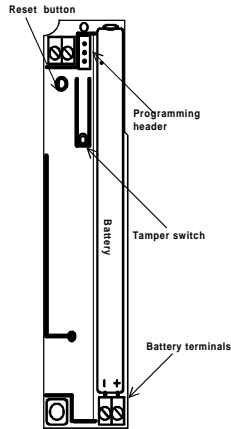
Reset button

Programming header

Battery

Tamper switch

Battery terminals

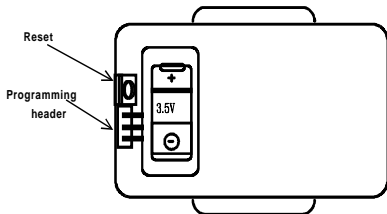|	
Program contacts:	N/O or N/C, as needed
EOL resistor:	as needed
Typical battery life:	2 to 4 years
Battery type:	4.5V alkaline battery pack

FA200W
Universal widegap transmitter

Reset button

Programming header

Battery

Tamper switch

Widegap reed switch

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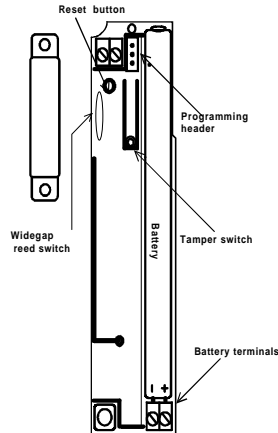
Program contacts:	N/O or N/C, as needed
EOL resistor:	as needed
Internal contact:	as needed
Typical battery life:	2 to 4 years
Battery type:	4.5V alkaline battery pack

FA201
Smoke detector

Reset button

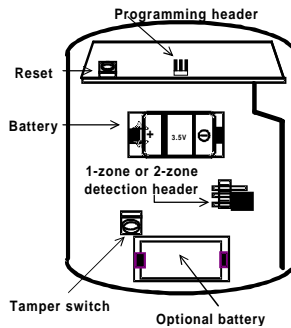Programming header
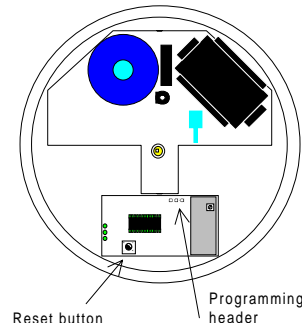
Program contacts:	N/O
Typical battery life:	1 year
	(with 2 batteries)
Battery type:	9V alkaline

Notes: Remove jumper to program, replace jumper after programming.

FA204
Pendant transmitter

Reset

Programming header

3.5V

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

Programming header

Reset

Battery

1-zone or 2-zone detection header

Tamper switch

Optional battery

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

FA207
Glassbreak detector

Programming Header

3.0VDC Lithium

Reset button
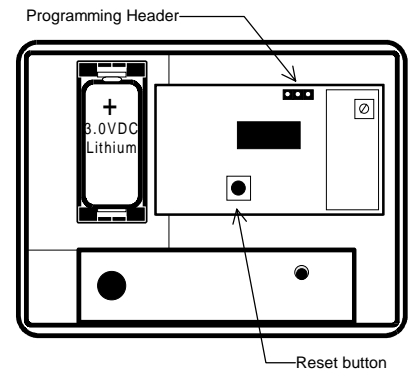
Program contacts:	N/O
Typical battery life:	2 to 4 years
Battery type:	3V lithium

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

3.0V
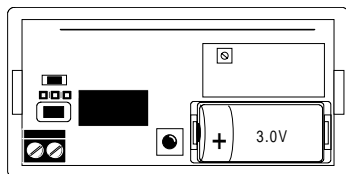
FA210W
Reduced-size
Universal widegap transmitter

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

3.0V

**FA210W Widegap
Reed switches**

**Raised key
indicator**
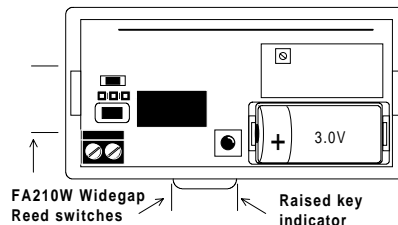
NOTES

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

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