



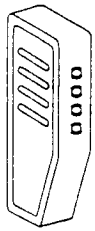
**INOVONICS**  
HIGH PERFORMANCE WIRELESS

# TRANSMITTERS

## TECHNICAL INFORMATION BULLETIN

### Inovonics *Frequency Agile*™ 900 MHz Transmitters

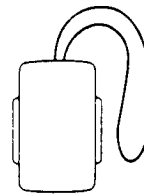
All Inovonics transmitters feature non-volatile memory and a fully-supervised radio link with programmable 10, 30, or 60 second check-in periods.



**FA100**  
**Remote Control Unit**

Four button remote control for arming, disarming and panic. (Remote control is not supervised.)

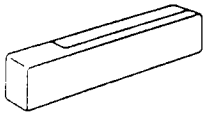
Dimensions: 1.875"W x 5.625"H x .875"D  
Power Requirements: 3.6V Lithium (8-10 yr. life typ.)  
Color: Dark Charcoal



**FA204**  
**Pendant Transmitter**

Two button pendant prevents false alarms. Comes with necklace cord. Optional belt holster is available. (part FA624)

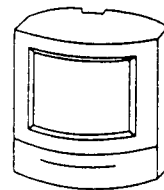
Dimensions: 2"W x 2.75"H x .75"D  
Power Requirements: 3.6V Lithium (2 yr. life typ.)  
Color: Ivory



**FA200**  
**Universal Transmitter**

Used with any normally open or normally closed switches, contacts or sensors. Tamper protected, provides transmitted low battery warning, and supports end-of-line resistor.

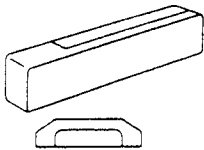
Dimensions: 1.25"W x 6"H x .75"D  
Power Requirements: Alkaline battery pack, 4.5V (3 yr. life typ.)  
Color: Ivory/Brown



**FA206**  
**Sharpshooter PIR & Transmitter**

Pulse count with verification. Includes mounting hardware for wall or corner mounting. Standard pattern provides 90° field of view by 45 ft. radius.

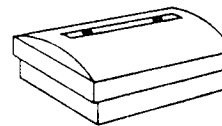
Dimensions: 2.875"H x 3.688"W x 2.063"D  
Power Requirements: 3.6V Lithium (2 yr. life typ.)  
Color: Ivory



**FA200W**  
**Universal Wide Gap Transmitter**

Same as FA200, but also equipped with a reed switch. A wide-gap magnet is provided.

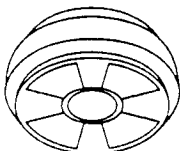
Dimensions: 1.25"W x 6"H x .75"D  
Power Requirements: Alkaline battery pack, 4.5V (3 yr. life typ.)  
Color: Ivory/Brown



**FA207**  
**ShatterPro & Transmitter**

Detects acoustic pattern of breaking glass – even through blinds and drapes. Features range of 20 ft. (radius).

Dimensions: 3.13"H x 4.25"W x 1.7"D  
Power Requirements: 3.0V Lithium (4 yr. life typ.)  
User Replaceable.  
Color: White



**FA201**  
**Smoke Detector & Transmitter**

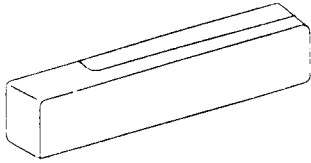
Photo-electric unit with built-in transmitter and alarm horn. Provides local and transmitted low battery warning. Optional: transmitted low battery warning only.

Dimensions: 6"W x 1.75"D  
Power Requirements: Two 9V (1 yr. life typ.)  
Color: Ivory

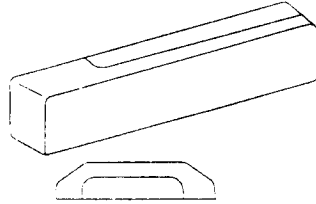
All Inovonics products made with quality in the USA.

# Caddx 9000E Panel to ProLink 9090 Receiver Wiring Diagram

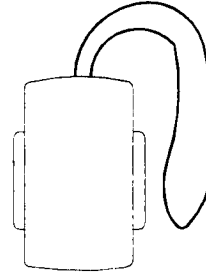
**FA200  
Universal  
Transmitter**



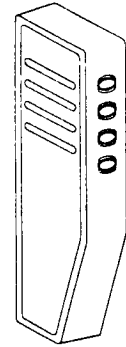
**FA200W  
Door/Window  
Transmitter**



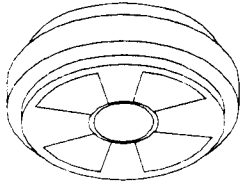
**FA204  
Pendant  
Transmitter**



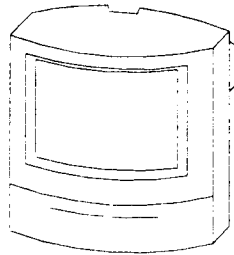
**FA100  
Remote  
Control Unit**



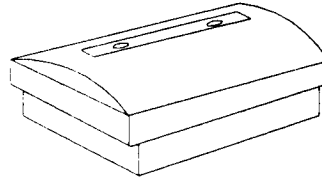
**FA201  
Smoke Detector  
& Transmitter**



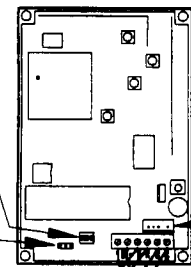
**FA206  
Sharpshooter PIR  
& Transmitter**



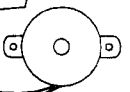
**FA207  
GlassBreak Detector  
& Transmitter**



**Caddx  
ProLink 9090  
Receiver**

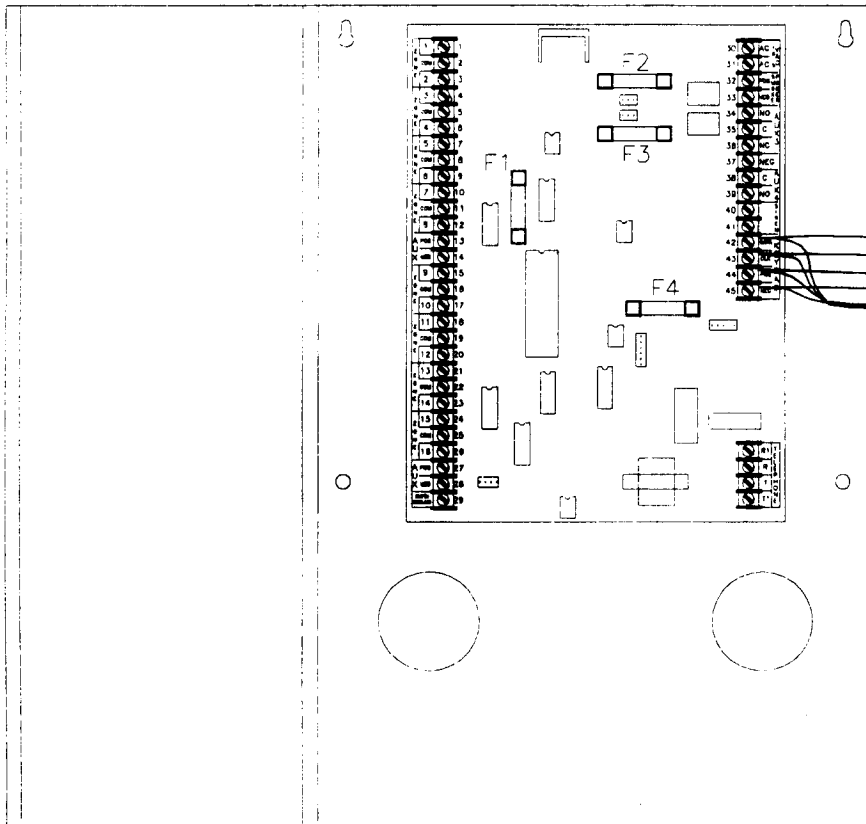


**8950  
Programmer  
Header**

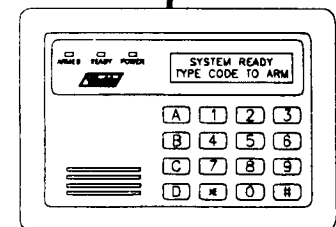


**Optional Remote  
Sounder**

**Expansion  
Address Switch  
Transmitter  
Program Cable  
Header**



**Caddx 9000E  
Control Panel**



**Caddx 9060E  
Keypad**

**PROGRAMMING INFORMATION AND INSTRUCTIONS FOR THE CADDX 9090  
WIRELESS RECEIVER AND INOVONICS (FA series) TRANSMITTERS  
9000E Panel Version**

Preliminary December 5, 1994

**Overview:** The Caddx 9090 wireless receiver is designed to connect to the keypad terminals on a Caddx 9000E control communicator. It will support up to 100 Inovonics FA series transmitters of various types, including door/window transmitters, smoke detectors, PIR's, pendants, and handheld remote arming controls. Transmitters that are set for supervision will send a test signal once a minute, and the receiver will test for the receipt of a valid signal every 60 minutes. Each transmitter is assigned to a zone (1-32) in a similar manner as would multiple contacts on a wired zone. By assigning logical groups of transmitters to a zone, the amount of programming on the panel for zone features, output features, report codes, etc, is greatly reduced. Because of this, the alarm and tamper signals will be reported by zone, but the supervisory and low battery messages will identify a specific transmitter. All transmitters will be programmed by the 9090 receiver when used in conjunction with a 9060E keypad or an 8950 programmer.

**Setting the Address:** Before the 9090 receiver is connected to the keypad bus, location 377 on the 9000E must be programmed with the total number of expansion devices of any type on the keypad buss. The dip switches on the 9090 must also be set to assign it to the first available expansion address. **Note:** *The 9090 receiver cannot be used in conjunction with the 9032 zone expander board.*

DEVICE #	SWITCH 1	SWITCH 2	SWITCH 3
1	OFF	OFF	OFF
2	ON	OFF	OFF
3	OFF	ON	OFF
4	ON	ON	OFF
5	OFF	OFF	ON
6	ON	OFF	ON
7	OFF	ON	ON

**Shadow Locations:** The 9090 contains a nonvolatile memory for storing specific information about the receiver and each transmitter. Because of the amount of information and the limited amount of programming locations available on the 9000E panel, a set of 12 *shadow locations* are employed to transfer information from the 9000E to the 9090 receiver during programming. These shadow locations are actual locations on the 9000E, but it does not use them. Instead, the 9090 receiver will read these shadow locations whenever a new set of program information is ready to set in the receiver or a transmitter. These shadow locations range from 636 to 647. Location 646 is a special location for initiating transmitter programming and deleting a transmitter from the system. The valid commands and result codes will be described in the table on the following page. Whenever a valid command has been intercepted by the 9090 receiver, the display on the keypad that you are using will go back to address 636 and read all locations up to 646 for the latest data to use during transmitter programming.

LOCATION 646			
DATA DISPLAY	FUNCTION DESCRIPTION OR RESULT TYPE	INITIATE FUNCTION	RESULT DISPLAY
0	Transmitter programmed Okay		X
1	Start Transmitter Programming	X	
2	Delete Transmitter From System	X	
6	Invalid Transmitter (Point) Number (loc. 644-645)		X
7	Invalid Zone Number (loc. 642-643)		X
8	Waiting for Transmitter Sync (TX attached and reset)		X
9	Transmitter was Successfully Deleted		X

**Location 636-639:** These locations contain the system ID codes that will be used to match the 9090 receiver to each transmitter it will accept messages from. These locations should be set differently for systems in radio range of each other to prevent interference and erratic operation. The system ID should be set during the first transmitter's programming and not changed so the 9090 receiver and each following transmitter will remain matched. Each location has a range of 0-15 which allows for a total of 65536 different system ID's.

**Location 640:** This location is used to set the transmitter type to be programmed. The following table defines all valid entries for this location.

LOCATION 640	
DATA	TRANSMITTER TYPE AND SUPERVISION
0	Non-supervised, Non-fire Detector/Transmitter
1	Supervised Non-fire Detector/Transmitter
2	Remote Arming Control (set partition in loc. 642,643)
4	Non-supervised Smoke Detector/Transmitter
5	Supervised Smoke Detector/Transmitter

**Location 641:** This location will be used to set the transmitter's switch type and EOL features. The valid transmitter features will be listed in the two tables below.

FA200 & FA200W TRANSMITTER FEATURES	LOC. 641 DATA
Internal contact not used, N/C external switch, EOL resistor not used	0
Internal contact used, N/C external switch, EOL resistor not used	1
Internal contact not used, N/O external switch, EOL resistor not used	2
Internal contact used, N/O external switch, EOL resistor not used	3
Internal contact not used, N/C external switch, EOL resistor used	4
Internal contact used, N/C external switch, EOL resistor used	5
Internal contact not used, N/O external switch, EOL resistor used	6
Internal contact used, N/O external switch, EOL resistor used	7

**Second Table on Next Page**

PART#	TRANSMITTER DESCRIPTION	LOC. 641 DATA
FA100	REMOTE CONTROL UNIT	0
FA201	SMOKE DETECTOR & TRANSMITTER	2
FA204	PENDANT TRANSMITTER	2
FA206	SHARPSHOOTER PIR & TRANSMITTER	0
FA207	GLASSBREAK DETECTOR & TRANSMITTER	2

**Location 642-643:** These locations are used to set the zone number for the transmitter (point) being programmed to trigger. If location 640 defines the transmitter as a Remote Arming Control, this location will set the partition that will arm and disarm. Only partition numbers 1,2,3, & 4 are valid.

**Location 644-645:** These locations are used to set the transmitter (point) number that is to be programmed or deleted. The valid range for these locations is 00-99.

**Location 646:** See special table for use on previous page.

**Location 647:** This location sets the telephone (central station) number to be used for reporting transmitter missing (supervised transmitter failed to check in), and transmitter low battery signals. These signals can only be sent to a central station receiver that will accept either Contact ID or SIA formats. Make sure that the primary and/or secondary format location in the 9000E is also set to Contact ID or SIA. When the 9090 receiver has seen and accepted the data programmed at this location the data display is updated with 8 added to the value programmed. **Note:** *The supervisory signals sent from the 9090 to the central station are not stored in the event log.*

LOCATION 647		
ENTERED DATA	FUNCTION DESCRIPTION OR RESULT TYPE	RESULT DATA
0	Supervisory signals not sent	8
1	Supervisory signals are sent to telephone #1	9
2	Supervisory signals are sent to telephone #2	10
3	Supervisory signals are sent to telephones #1 & #2	11

**Attaching The Transmitters:** Program the transmitter data locations, initiate programming sequence by entering a 1 at location 646, and wait for beep and a result code of 8 to be returned. At this time, the programming cable supplied with the 9090 receiver should be attached to the 3 pin header to the left of the address dip switch (with the terminal strip facing the bottom). Each type of Inovonics FA series transmitters will also have a 3 pin programming header and a reset button. The free end of the programming cable should be attached to the header on the transmitter. The reset button of the transmitter should now be pressed. If the programming was successful, the keypad will beep and display a result code of 0. If the a beep was not heard and/or the 8 was not displayed within 3 seconds, try pressing the reset button again. This process should then be repeated for the remaining transmitters.

LOCATION	DESCRIPTION	DATA 1	DATA 2	DATA 3	DATA 4
636-639	RADIO SYSTEM ID CODE				

TX TYPE & SUPERVISE	TX FEATURES	ZONE # (01-16)	POINT# (00-99)
640	641	642,643	644,645
			00
			01
			02
			03
			04
			05
			06
			07
			08
			09
			10
			11
			12
			13
			14
			15
			16
			17
			18
			19
			20
			21
			22
			23
			24
			25
			26
			27
			28
			29
			30
			31
			32
			33
			34
			35
			36
			37
			38
			39
			40
			41
			42
			43
			44
			45
			46
			47
			48
			49

TX TYPE & SUPERVISE	TX FEATURES	ZONE # (01-16)	POINT# (00-99)
640	641	642,643	644,645
			50
			51
			52
			53
			54
			55
			56
			57
			58
			59
			60
			61
			62
			63
			64
			65
			66
			67
			68
			69
			70
			71
			72
			73
			74
			75
			76
			77
			78
			79
			80
			81
			82
			83
			84
			85
			86
			87
			88
			89
			90
			91
			92
			93
			94
			95
			96
			97
			98
			99

LOCATION	DESCRIPTION	DATA 1
646	TRANSMITTER PROGRAMMING INITIATE AND RESULT DISPLAY	*****
647	TELEPHONE RESOURCES FOR LOW BATTERY AND MISSING REPORTS	