



# GEM-P400 Programming Instructions

Note: These Programming Instruction are intended to be used in conjunction with WI879A, please refer to WI879A for additional information, instructions and definitions.

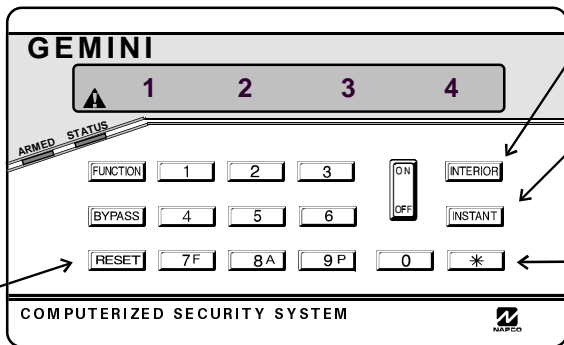
## DEALER PROGRAM MODE - KEYPAD KEY DEFINITION

### NOTE:

After 15 minutes of keypad inactivity the keypad will emit a steady tone indicating the panel has been left in Dealer Program Mode. Enter Dealer Code to exit or press the **RESET** key to return to Dealer Program mode.

### Set Key

Press this key before entering a Programming Block Number.



### Scroll Key

Use this key to scroll through data that has been entered in Programming Blocks.

### Blank Key

Press this key to disable all features within a LED type Programming Block or to blank out digits in a Direct Entry type Programming Block.

### Hexadecimal Data Entry

To Enter a hexadecimal digit enter the following:

A =	*	1	D =	*	4
B =	*	2	E =	*	5
C =	*	3	F =	*	6

### DEFAULTING THE PANEL

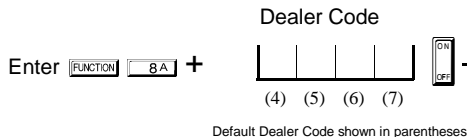
1. Remove power from the panel.
2. Remove all wiring from terminal 15 (PGM) and terminal 3.
3. Connect terminal 15 (PGM) to terminal 3.
4. Apply power to the GEM-P400 control panel.
5. After a few seconds the ARMED, READY and **▲**SYSTEM TROUBLE LEDs will flash.
6. The keypad will beep 3 times indicating the panel default values have been loaded.
7. Remove wiring between terminal 15 (PGM) and terminal 3.
8. Re-install original wiring for terminal 15 (PGM) and terminal 3.

**Note:** Any programming in *Dealer Options 1* [96] and *Dealer Options 2* [97] will not be defaulted. If *Dealer Code Lockout* has been programmed the panel will not default the Dealer Code.

## Entering Dealer Program Mode

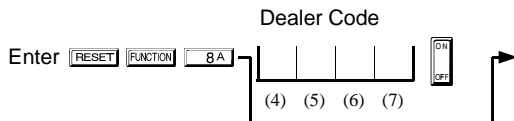
### NOTE:

Entering Dealer Program Mode is not permitted while the panel is Armed, Reporting, or the Bell Output is on. To Enter Dealer Mode while the Bell is ON or the panel is Reporting or Armed; power up the panel and enter Dealer Mode within the first 3 minutes. Pressing the **RESET** key clears the 3 minute timer.



	ARMED ON	Indicates the panel is in Dealer Program Mode. The panel is ready for a programming block to be entered.
	STATUS OFF	
	TROUBLE FLASHING	

## Exiting Dealer Program Mode



	ARMED FLASHING	Indicates the panel is Ready to exit Dealer Program Mode. Enter the Dealer Code to exit.
	STATUS FLASHING	
	TROUBLE FLASHING	

## Types of Programming Blocks

### LED Programming Block

Enable features by pressing the key that corresponds to the associated feature; the LED will turn ON. To disable a feature press the key again; the LED will turn OFF. To disable all features within a LED Type Programming Block press the **INSTANT** key; all LEDs will turn OFF.

#### 1 LED Programming Block Example

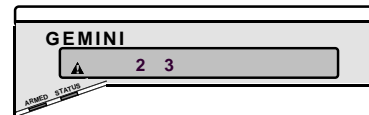
Program zones 2 and 3 as *Follower Zones*.

1. Enter Programming Block 02, by pressing **RESET** (Beep), then **0** **2** (Beep).
2. Press the **2** key to select zone 2.
3. Press the **3** key to select zone 3.

02	<b>Exit/Entry Follower</b>
	Default
	<input type="checkbox"/> OFF <input type="checkbox"/> Zone 1
	<input type="checkbox"/> OFF <input checked="" type="checkbox"/> Zone 2
	<input type="checkbox"/> OFF <input checked="" type="checkbox"/> Zone 3
	<input type="checkbox"/> OFF <input type="checkbox"/> Zone 4

LED Type Programming Block

Zone 2 and Zone 3 LEDs are ON indicating that zones 2 and 3 have been programmed as follower zones.



### Direct Entry Programming Block

Enter data directly. For hexadecimal entries of A-F, use the **\*** key + **1** through **6** keys, respectively. Use the **INSTANT** key to blank out digits in Direct Entry type programming blocks. Default values are shown in parentheses.

#### 1 Direct Entry Programming Example 1

Program the panel for a 60 second *Exit Delay*.

1. Press **RESET** (Beep) **1** **0** (Beep).
2. Press **0** **6** **0**.

10	<b>Exit Delay</b>
	<input type="text" value="0"/> <input type="text" value="6"/> <input type="text" value="0"/> Exit Delay, seconds
	(0) (4) (5) Maximum Entry 255

Direct Entry Type Programming Blocks

#### 2 Direct Entry Programming Example 2

(Hexadecimal data entry)

Program *Telephone Prefix Number* with a 9E.

1. Press **RESET** (Beep) **4** **4** (Beep).
2. Press **9 P**
3. Press **\***
4. Press **5**

44	<b>Dialing Prefix</b>	<input type="text" value="9"/> <input type="text" value="E"/> <input type="text"/>
----	-----------------------	--

<input type="checkbox"/>	ARMED	OFF	Indicates the panel is in Dealer Program Mode; the next digit entered will be interpreted as a Hexadecimal digit. Valid entries are 1-6 (A-F).
<input type="checkbox"/>	STATUS	FLASHING	
<input checked="" type="checkbox"/>	TROUBLE	FLASHING	

## Viewing Data in Programming Blocks

To view data within a programming Block enter the Program Block Number, the 1st digit will be displayed. Press the **INTERIOR** key to view the 2nd digit, continue pressing the **INTERIOR** key until all digits within the Programming Block have been viewed. Data will be displayed in the binary format shown in the table below:

Value	Data Displayed	Value	Data Displayed
0/Blank	<input type="text"/>	8	<input type="text" value="4"/>
1	<input type="text" value="1"/>	9	<input type="text" value="1 4"/>
2	<input type="text" value="2"/>	*A/0	<input type="text" value="2 4"/>
3	<input type="text" value="1 2"/>	B	<input type="text" value="1 2 4"/>
4	<input type="text" value="3"/>	C	<input type="text" value="3 4"/>
5	<input type="text" value="1 3"/>	D	<input type="text" value="1 3 4"/>
6	<input type="text" value="2 3"/>	E	<input type="text" value="2 3 4"/>
7	<input type="text" value="1 2 3"/>	F	<input type="text" value="1 2 3 4"/>

**\* NOTE:**  
In the following Programming Blocks, data that has been entered as a '0' will be displayed as an 'A':  
*Subscriber ID Numbers, Phone Numbers, Pager Leading and Trailing digits and Report Codes.*

For Technical Assistance,  
Contact the NAPCO Toll  
Free Helpline ☎  
(800) 645-9440

Zone #	Bit Value
1	1
2	2
3	4
4	8

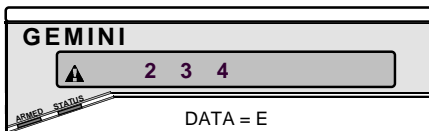
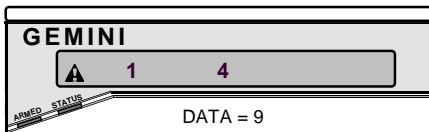
### Example: Viewing the Dialing Prefix

A Dialing Prefix of 9E has been programmed at Programming Block Number 44 (outside access number). Follow the steps below to view the data.:


① Press **RESET**   to enter Programming Block 44. The 1st digit of Programming Block 44 is displayed.

② Press the **INTERIOR** key to view the 2nd digit.

44 Dialing Prefix    9 E



**NOTE:**  
The Following Programming Options are not permitted for UL installations: [05], [06], [23-2], [26-3] and [26-4].

The  symbol by a programming Block indicates the programming option is not permitted for UL installations.

**NOTE:**  
For information about programming blocks refer to GEM-P400 Installation Manual WI879A.

## Zone Features

### 00 Exit/Entry Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 03 Auto Bypass Reentry Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 06 Open Circuit Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

See wiring  
diagram for  
Open Circuit  
wiring.

### 01 Home/Away with Delay Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 04 24 Hour Protection Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 07 Burg (Steady) Output

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 02 Exit/Entry Follower Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 05 40 ms Loop Response Zones

Default

Zone 1

Zone 2

Zone 3

Zone 4

### 08 Programmable Output (PGM)

Default

Zone 1

Zone 2

Zone 3

Zone 4

## System Times

### 10 Exit Delay

Exit Delay, seconds  
(0) (4) (5) Maximum Entry 255

### 11 Entry Delay

Entry Delay, seconds  
(0) (3) (0) Maximum Entry 255

### 12 Burg (Steady) Output Time-out

Bell Time-out, minutes  
(0) (0) (5) Maximum Entry 255

### 13 Reserved

### 14 Test Timer Interval

Test Timer, days  
(0) (0) (1) Maximum Entry 255

### 15 Line Cut Time-to-Fail (Disabled = 000)

Line Cut Time-to-Fail, seconds  
(0) (0) (0) **Enable Feature**-Valid Entries 10-255

### 16 Wireless Supervisory Timer

Supervisory Timer, hours  
(1) (2) Maximum Entry 26

## System Features

### 20 Keypad Features 1

Default  
 OFF |  Zn 1 LED ON = \*Keypad Panic 2 (  7F  \* )  
 OFF |  Zn 2 LED ON = \*Keypad AUX (  8A  \* )  
 ON |  Zn 3 LED ON = \*Keypad Panic (  9P  \* )  
 OFF |  Zn 4 LED ON = \*Ambush (4th User Code)  
\*See Note 1

### 21 Keypad Features 2

Default  
 ON |  Zn 1 LED ON = Audible panic  
 OFF |  Zn 2 LED ON = Exit/Entry with Urgency  
 ON |  Zn 3 LED ON = Display Bypass (ARMED)  
 OFF |  Zn 4 LED ON = Disable Code Entry Beeps

### 22 Miscellaneous Features 1

Default  
 OFF |  Zn 1 LED ON = Abort Delay  
 ON |  Zn 2 LED ON = Easy Arm/Easy Exit  
 ON |  Zn 3 LED ON = Swinger Shutdown  
 OFF |  Zn 4 LED ON = Bell on Line Cut (Armed)

### 23 Programmable Output (PGM) Features 1

Default  
 OFF |  Zn 1 LED ON = Audio Verification  
 OFF |  Zn 2 LED ON = \*Access Output (  FUNCTION  3 )  
 OFF |  Zn 3 LED ON = \*Follow Keypad Sounder  
 OFF |  Zn 4 LED ON = \*Keyfob/Keyswitch Chirp  
\*See Note 2

#### NOTE 1:

Additional programming required for reporting, see Blocks [36]&[56].

### 24 Programmable Output (PGM) Features 2

Default  
 OFF |  Zn 1 LED ON = Reserved  
 OFF |  Zn 2 LED ON = AUX  
 OFF |  Zn 3 LED ON = Panic  
 OFF |  Zn 4 LED ON = Test Timer

### 25 Programmable Output (PGM) Features 3

Default  
 OFF |  Zn 1 LED ON = AC Fail  
 OFF |  Zn 2 LED ON = Low Battery  
 OFF |  Zn 3 LED ON = \*Trouble  
 OFF |  Zn 4 LED ON = Armed  
\*See Note 3

### 26 Miscellaneous Features 2

Default  
 OFF |  Zn 1 LED ON = Momentary Keyswitch Arming  
 OFF |  Zn 2 LED ON = Reserved  
 OFF |  Zn 3 LED ON = Inhibit Fail to Communicate  
 OFF |  Zn 4 LED ON = Inhibit Low Battery Display

#### NOTE 2:

Cannot be programmed with any other Programmable Output (PGM) Feature.

#### NOTE 3:

Includes Bell Cut, Receiver Fail-to-Respond, Receiver Tamper, Receiver JAM, Transmitter Low Battery and Transmitter Supervisory Failure.









## Report Codes

### 60 Zone Report Codes

Zone 1 Alarm Code

(3)

Zone 2 Alarm Code

(3)

Zone 3 Alarm Code

(3)

Zone 4 Alarm Code

(3)

#### NOTE:

The second digit of the Report Code is the number of the zone that is reporting. For example zone 5 report code (default of 3) would be 35.

### 61 Point ID Report Codes

Zone 1 Alarm Code

(3)

Zone 2 Alarm Code

(3)

Zone 3 Alarm Code

(3)

Zone 4 Alarm Code

(3)

1	RESERVED
2	PANIC
3	BURGLARY
4	HOLDUP
5	GENERAL ALARM
6	RESERVED
7	GAS ALARM
8	HEAT ALARM
9	RESERVED
A	AUXILIARY
B	24 HOUR ALARM

### 62 Zone Codes

Zone 1, 2, 3, & 4 Restore Code

(E)

Zone 1, 2, 3, & 4 Trouble Code

(F)

### 63 System Report Codes

Keypad Panic 2 (  7F  \* )

(1) (1)

Keypad AUX (  8A  \* )

(2) (3)

Keypad Panic (  9P  \* )

(2) (1)

Test Timer

(F) (F)

AC Fail

(F) (9)

Low Battery

(F) (8)

\*Trouble

(F) (1)

\*See Note 1

### 64 System Restore Code

(E)

#### NOTE 1:

Includes Bell Cut, Receiver Fail-to-Respond, Receiver Tamper, Receiver JAM, Transmitter Low Battery and Transmitter Supervisory Failure.

### 65 Opening and Closing Code

(C) Closing Code

(B) Opening Code

### 66 Ambush Report Code

(2) (2)

## Enhanced Communicator Features

### 67 Telephone Number 1

Default

OFF |  Zn 1 LED ON = Opening after Alarm (Cancel Code)

OFF |  Zn 2 LED ON = Conditional Closing

OFF |  Zn 3 LED ON = Reserved

OFF |  Zn 4 LED ON = Reserved

### 68 Telephone Number 3

Default

OFF |  Zn 1 LED ON = Opening after Alarm (Cancel Code)

OFF |  Zn 2 LED ON = Conditional Closing

OFF |  Zn 3 LED ON = Reserved

OFF |  Zn 4 LED ON = Reserved

## Wireless

### Transmitters

71 Zone 1

72 Zone 2

73 Zone 3

74 Zone 4

RF ID #	Point												
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Enter the RF ID# located on the Transmitter and Key Fob labels.



RF ID # XXXXXX:X

Enter the point number to be associated with the zone. If only one point of GEM-TRANS2 is used, enter a **1** in this location. For GEM-GB, GEM-DT, GEM-PIR enter a **1** in this location.

### Keyfobs

81 Keyfob 1

82 Keyfob 2

RF ID #	AUX 1	AUX 2														
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#### AUX 1 & 2 Programming

- 1 Panic
- 2 AUX
- 3 Bell ON
- 4 PGM
- 5 Instant
- 6 Access on PGM
- 7 Full Set System
- 8 Interior

### Programming Example

Map point 1 of a window door transmitter, with RF ID# 0012B0:0 to Zone 3.

73 Zone 3    **0 0 1 2 B 0 : 0**    **1**

1. Enter Dealer Mode.
2. Enter **[RESET]** (beeps) **[7F]** **[3]** (beeps)
3. Enter **[0]** **[0]** **[1]** **[2]** **[\*]** **[2]** **[0]** **[0]**
4. Enter **[1]** (beeps)

↑  
Hexadecimal B Entry

Note: If the RF ID# in step 3 is not entered correctly the keypad will emit a 1 second tone indicating incorrect entry. Repeat steps 2 - 4 above.

### Hexadecimal Data Entry

To Enter a hexadecimal digit enter the following: A= **[\*]** **[1]**    B= **[\*]** **[2]**    C= **[\*]** **[3]**    D= **[\*]** **[4]**    E= **[\*]** **[5]**    F= **[\*]** **[6]**

## Downloading

### 90 Callback Telephone Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

### 91 Ring Count

--	--

(0) (9) Maximum Entry 15

### 92 Downloading Features

Default

Zn 1 LED ON = Ring Method

Zn 2 LED ON = Answering Machine override

Zn 3 LED ON = Function 6 ( Download) Download

Zn 4 LED ON = Reserved

### 93 Auto Download ID Number

--	--

## Dealer Programming

### 94 Dealer Code

--	--	--	--

(4) (5) (6) (7)

### 95 User 1 Code

--	--	--	--

(1) (2) (3) (4)

### 96 Dealer Options 1

Default

Zn 1 LED ON = Dealer Code Lockout

Zn 2 LED ON = User 1 Code Lockout

Zn 3 LED ON = Reserved

Zn 4 LED ON = Reserved

### 97 Dealer Options 2

Default

Zn 1 LED ON = \*International Dialing Protocol

Zn 2 LED ON = \*Invert Bell Output

Zn 3 LED ON = System Trouble Auto Reset

Zn 4 LED ON = User 1 Code-Program only

\*See Note 1

### 98 Number of Re-Dials

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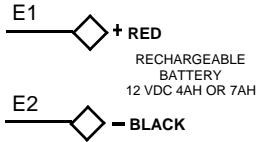
(9)

#### NOTE 1:

International Features

# GEM-P400 WIRING DIAGRAM

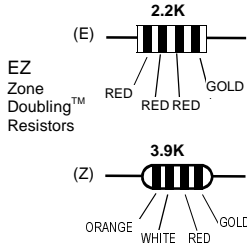
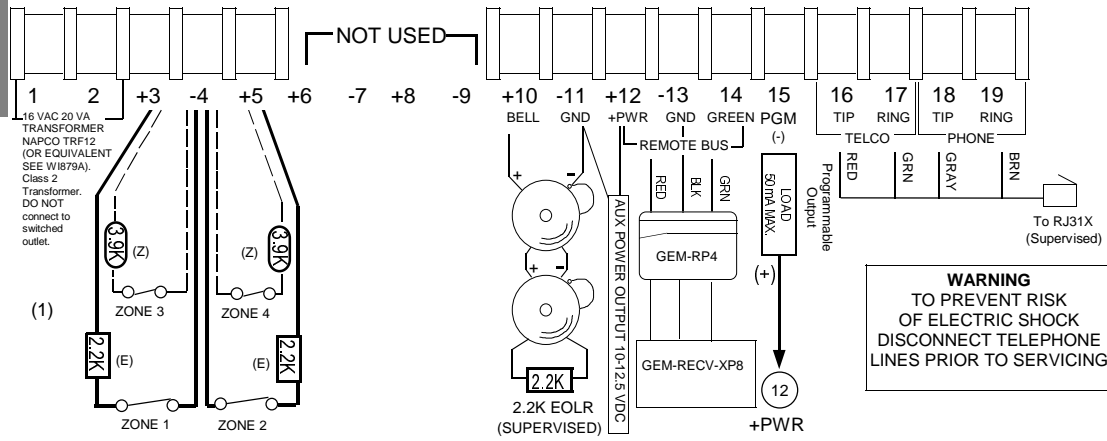
(REFER TO INSTALLATION INSTRUCTIONS WI879A)



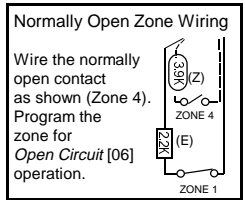
RESIDENTIAL BURG (4 HOUR STANDBY) <sup>(2)</sup>  
COMBINED STANDBY = 350 mA BELL = 2.0 AMP

ALL OUTPUTS ARE CURRENT LIMITED

COLD WATER GROUND CONNECTION  
USE ONLY COLD-WATER PIPE OR BURIED GROUND ROD. USE AT LEAST #16 AWG WIRE.



- (1) ALL ZONE RESISTORS MUST BE INSTALLED, EVEN IF ZONE IS NOT USED.
- (2) COMBINED STANDBY = KEYPAD CURRENT + AUX POWER CURRENT + PGM CURRENT.



**WARNING**  
TO PREVENT RISK OF ELECTRIC SHOCK DISCONNECT TELEPHONE LINES PRIOR TO SERVICING