

SpotCell™ Automatic Dialer System

Overview

All SpotCell adaptive repeaters now come equipped with built-in alarming capabilities which have been designed to be compatible with industrial-grade alarm monitoring equipment as well as standalone auto-dialers. This provides immediate SpotCell alarm notification to remote users using a regular telephone line.

The alarming interface consists of a solid-state, low voltage, optically isolated, form 'B' type contacts (i.e., normally closed / open on alarm). The form 'B' fail-safe type configuration enables alarms to be tripped in case of power failure in addition to fault conditions.

The following outlines the general steps required to configure the SpotCell automatic dialer system. This is followed by appendices describing specific automatic dialer systems.

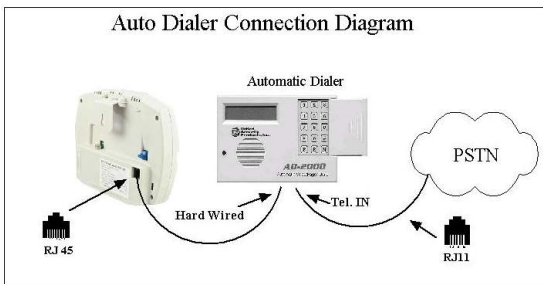


Figure 1- Auto Dialer Connection Diagram

Configuration requires connection from the SpotCell coverage unit (CU) to the auto dialer and from the auto dialer to the telephone wall jack.

Required Cables

1. RJ45 to 2 wire cable (CU to auto dialer connection)

Note: The two wires are 5 and 6 of the RJ-45 cable (figure 2)

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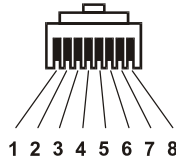


Figure 2- RJ-45 cable

2. RJ11 cable (auto dialer to telephone jack connection)

Connection Details

1. Connect the RJ45 cable to the CU.
2. Connect the 2 wires to the appropriate sensor input channel on the auto dialer.

Note: For information on sensor input channels, see specific auto dialer product documentation.

3. Using the RJ11 cable, make a connection from the "Tel IN" jack of auto dialer to the wall jack
Note: The PSTN connection can also be hardwired; see specific auto dialer product documentation.

4. Connect power to the auto dialer

The auto dialer must now be programmed (see appendices). Once the auto dialer is programmed, an alarm generated by the SpotCell CU will result in the programmed number(s) being dialed.

Alarm Conditions

The following will produce an alarm condition on the SpotCell CU:

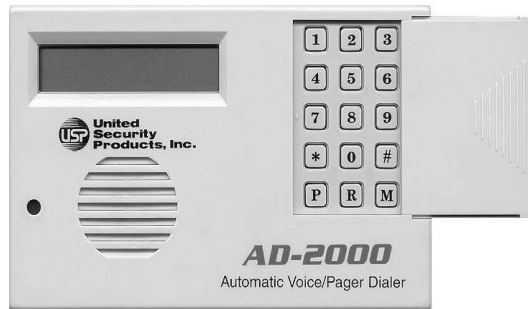
Power alarms: power failure, hardware failure.

Spectrum alarms: low RSSI, high RSSI and high adjacent signal.

Appendix A- United Security Products AD-2000

Overview

The following outlines configuration information specific to the United Security Products AD-2000 auto dialer.



AD2000 Features

The AD2000 dialer has the following features:

- 4 voice message alarm zones.
- Calls up to 8 telephones, pagers, or cell phones.
- Automatically redials busy or unanswered numbers.
- Built in line seizure.
- Remote turn off feature allows termination of activated channel.
- EEPROM memory retains program despite power loss.
- Listen in verification permits 2-way voice communication.

Note: The AD2000 has 4 alarm contact inputs that can support 4 different SpotCell CUs.

Configuration

Before the automatic dialer can be used it must first be configured.

A look at the Keypad

NUMERALS: Press these keys to enter telephone numbers and other programming information. A maximum of 50 digits can be input in each phone/pager location.

P: Press this key to program in a pause. Each “P” provides a 2-second pause.

R: Press this key to record the combination of identification and directional outgoing messages (OGMs). The total elapsed OGM time cannot exceed 51 seconds.

M: Press this key to change the Mode of the dialer, in sequence:

PROGRAM > TEST > OPERATE > OFF.

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First Time Installation to Initialize Dialer

STEP 1 Apply power to the unit. The LCD will read: NOT PROGRAMMED PRESS KEYPAD #1.

STEP 2 Press 1. The LCD will change to read: USP AD2000 X.X

then: PROGRAM: NUMBERS

then: SELECT: 1-8

0(DONE)

Programming Example for Quick Setup

Before programming the dialer, study the example shown in the “Sample Program Planner” section of this appendix.

This sample demonstrates programming in one telephone number, two numeric pager numbers, two attempts, two repeats, an ID plus two additional OGMs, and channels 1 and 4.

Once you understand the setup, use the blank “Program Planner” sheet in this appendix to begin programming your dialer. We recommend making several blank copies of the “Program Planner” before beginning the process.

STEP 1 Press M repeatedly until the LCD reads: USP AD2000 X.X, wait a few seconds until LCD reads: Program: Numbers; 1(yes) 2(no). Press 1.

STEP 2 When the LCD reads SELECT 1-8, press 1 to install the first phone number in location 1. Press 2 to indicate no pager; then press, in sequence, (fictitious) phone number 2345678 followed by the “*” sign to store the programming process for that number.

STEP 3 Press 5 to install the second phone number in location 5; press 1 to indicate numeric pager; then press’ in sequence, 3456789PP4455# followed by the “*” sign. The first seven digits represent the pager number dialed; each P stands for a 2-second pause; the next four digits followed by the # sign represent the pager code and the * stores the programming process for that number. Now press 6 to install the third phone number in location 6 and press 1 to indicate numeric pager. Press, in sequence, 3456789PP5544# followed by the “*” sign.

STEP 4 Press 0 to exit PROGRAM NUMBERS.

STEP 5 At the PROGRAM: T-LINE prompt, press 1 (yes) to program. Press 1 to choose tone; press 2 to indicate no PBX; press 2 to program in two dialing attempts per emergency number called; press 2 to program in two message repeats for each call.

STEP 6 Press 1 (yes) to PROGRAM OGM(S). Press 2 three times to Scroll to option #4: ID, 2 OGMs; press 1 to program in an ID message and two specific outgoing messages (OGMs).

STEP 7 Using a prepared script and speaking six-to-eight inches from the dialer’s microphone on the front of the unit, press R when you are ready to enunciate your 15-second identification message and your two 18-second messages. Dialer automatically prompts to next OGM. Make OGM1 a message informing the receiving party of the cellular repeater fault. Make OGM2 a message to dispatch a technician to the site.

STEP 8 Press 1 to play back all recorded messages; press 1 again to accept.

NOTE: DIALER LCD WILL ONLY SHOW PROGRAMMED NUMBERS AND OGM OPTIONS.

STEP 9 Press 1 to PROGRAM CHANNELS.

STEP 10 Press 1 to program Channel 1. Press 1 to ENABLE. Press 1 then enter 60 then press “*” for a 60-second EXIT delay; press 1 then enter 60 then press “*” for a 60-second entry delay.

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Now press 2 for NORMALLY CLOSED and then 2 for CONTINUOUS activation. Press 1 to select phone/pager number 1 to be dialed. Press 1 again to select phone/pager number 5 to be dialed. Press 2 to **not** select phone/pager number 6 to be dialed. Press 1 to select OGM1 to be delivered and press 2 to **not** select OGM2 to be delivered. Press 1 to accept the channel configuration.

STEP 11 Press 4 to program Channel 4. Press 1 to ENABLE. Press 1 then enter 60 then press “*” for a 60-second EXIT delay; press 1 then enter 60 then press “*” for a 60-second entry delay.

Now press 2 for NORMALLY CLOSED and the 2 for CONTINUOUS activation. Press 1 to select phone/pager number 1 to be dialed. Press 2 to **not** select phone/pager 5 to be dialed. Press 1 to select phone/pager number 6 to be dialed. Press “2” to **not** select OGM1 to be delivered and press 1 to select OGM2 to be delivered. Press 1 to accept the channel configuration.

STEP 12 Press 0 to exit PROGRAM: CHANNELS.

STEP 12 Press M to exit programming mode.

Your AD2000 is now programmed.

Sample Program Planner

Program: Numbers:

Site:		AD2000 Program Planner		Date:
Number	Pager		Telephone Number (exclude PBX Digit, include numeric pager code)	Name of Party to be reached
	Yes	No		
1		✓	2345678	John Johnson's House
2				
3				
4				
5	✓		3456789PP4455#	John Johnson's Pager – Cellular repeater Code
6	✓		3456789PP5544#	John Johnson's Pager – Dispatch technician to site Code
7				
8				

Program: T-Line

Tone	Pulse	PBX		Attempts	Message Repeat
		On	Off	1 Through 9	1 Through 3
✓			✓	2	2

Program: Out Going Messages

Option	Style	Briefly Describe Type of Voice Message(s)
1	NO OGM	
2	1 OGM	
3	2 OGMs	
✓ 4	ID + 2 OGMs	ID: Site ID SW1, 1 Hines Rd. Ottawa OGM1: Cellular Repeater Fault OGM2: Send technician to site to verify
5	3 OGMs	
6	ID + 3 OGMs	
7	4 OGMs	
8	ID + 4 OGMs	

Program: Channels

CH	Enable		Exit Delay (Sec)			Entry Delay (Sec)			Activation				Dial Number								Play OGM			
	Yes	No	Yes	No	0 - 199	Yes	No	0 - 199	NO	NC	MOM	CONT	1	2	3	4	5	6	7	8	1	2	3	4
1	✓		✓		60	✓		60		✓		✓	✓				✓				✓			
2		✓																						
3		✓																						
4	✓			✓	60		✓	60		✓		✓	✓					✓				✓		

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Program Planner Sheet

Program: Numbers:

Site:		AD2000 Program Planner			Date:
Number	Pager		Telephone Number (exclude PBX Digit, include numeric pager code)	Name of Party to be reached	
	Yes	No			
1					
2					
3					
4					
5					
6					
7					
8					

Program: T-Line

Tone	Pulse	PBX		Attempts	Message Repeat
		On	Off	1 Through 9	1 Through 3

Program: Out Going Messages

Option	Style	Briefly Describe Type of Voice Message(s)
1	NO OGM	
2	1 OGM	
3	2 OGMs	
4	ID + 2 OGMs	
5	3 OGMs	
6	ID + 3 OGMs	
7	4 OGMs	
8	ID + 4 OGMs	

Program: Channels

CH	Enable		Exit Delay (Sec)			Entry Delay (Sec)			Activation				Dial Number								Play OGM			
	Yes	No	Yes	No	0 - 199	Yes	No	0 - 199	NO	NC	MOM	CONT	1	2	3	4	5	6	7	8	1	2	3	4
1																								
2																								
3																								
4																								

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