
Section 7

Normal Operation

The optional Model 5230 Remote Annunciator provides annunciation of trouble and alarm conditions, and can be used to program the system. Key functions for both the Model 5230 (Figure 7-1) and the 5204 built-in touchpad (Figure 7-2) are described in Section 7.1. Section 8 explains how to program the 5204 using the Model 5230.

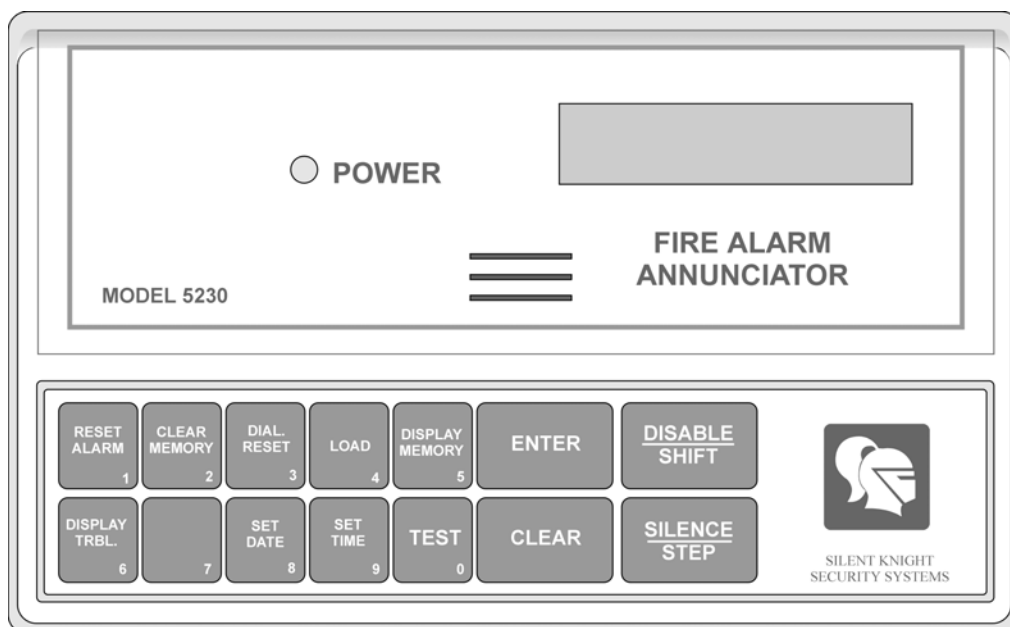


Figure 7-1 Model 5230 Remote Annunciator

The Model 5230 Remote Annunciator has a liquid crystal display (LCD) for displaying English-language messages. If the 5204 is not being programmed, the LCD cycles through all messages that are applicable at the time, showing a different one every 1.5 seconds. Refer to Section 9.3 for more information on troubleshooting messages.

When AC power is being supplied, and the battery is fully charged, the POWER LED glows steadily. If the POWER LED is flashing, the AC power has been removed or the backup battery is low. If neither AC nor battery power is being supplied, the POWER LED is off.

The audio transducer buzzer produces short beeps to annunciate keystrokes. It also emits a long, high-pitched tone to denote a trouble condition or to indicate that an annunciator function has been entered incorrectly (see Section 7.1).

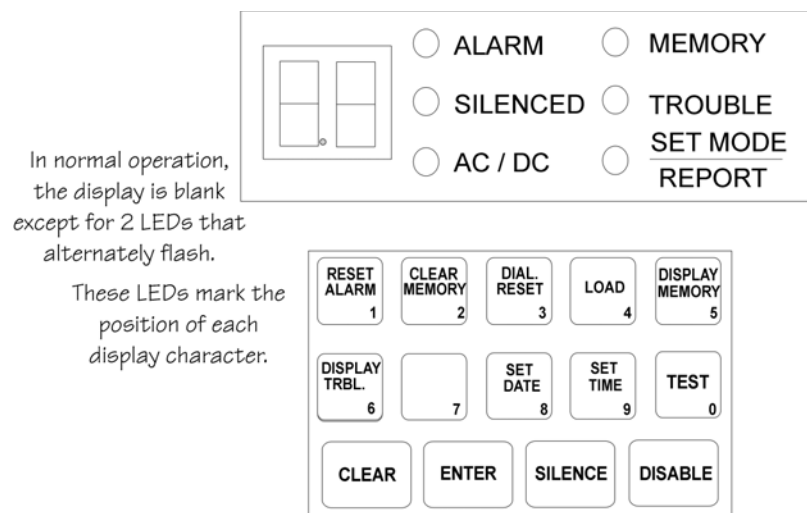


Figure 7-2 Built-in Touchpad

7.1 Built-in Touchpad and Model 5230 Annunciator Operation

To operate the 5204, you must use either the built-in touchpad or the Model 5230 Remote Annunciator. This annunciator functions the same as the internal touchpad except for the STEP key. The installer uses this key to step through programming options (see Section 8.3).

Following are the basic operating functions. Note that if no keys are pressed for 15 minutes while in program mode, the system will time out and resume normal operation.

The message TRY AGAIN appears on the 5230 display if you do not press any keys for 5 seconds while accessing a function, or, if you attempt to access a function before exiting from another function.

In the following table, Code 0 refers to the installer's code (factory programmed as 5204). Code 1 refers to the operator's code (factory programmed as 1111). These two codes are described in Step 45 and Step 46 of Step Programming (see Section 8.4.1).

Note: A valid operating code is always required when using the 5230.

Table 7-1: Touchpad Operations

































To:	Press:		Additional Information
	5230 Annunciator	Built-in Touchpad	
Clear			Enables you to start again if you enter the wrong keystrokes. If you enter a function incorrectly on the 5230, the annunciator's PZT buzzer will emit a long, high-pitched tone.
Test the system	  + code 0 or 1	 	The system will test the 4180 outputs, the built-in touchpad LED display, signaling devices, sirens, and communicator.
Reset alarms (or smoke detectors)	  + code 0 or 1	  + code 0 or 1	After a smoke alarm has been triggered, this function removes smoke detector power for the programmed length of time (as determined by the smoke detector). This allows the smoke detector to sense new alarm conditions.
When a trouble condition occurs and you reset the alarm, the trouble condition is stored in memory until you <u>clear</u> the alarm memory. If you do not clear the alarm memory, the trouble condition is displayed the next time a trouble condition occurs, implying incorrectly that more than one trouble condition exists.			
Clear alarm memory	  + code 0 or 1	 	Clears all data out of alarm memory and resets the 4180. (This function removes all memory of alarms.)
Reset the dialer	  + code 0	  + code 0	Aborts an in-progress call to the central station.
Initiate download	  + code 0	  + code 0	Starts the downloading process. Exit the DOWNLOADING mode by pressing CLEAR CLEAR.
Display alarm memory	  + code 0 or 1	 	Displays the current alarm memory. (It is recommended that you clear alarm memory after displaying it.)
Display troubles	  + code 0 or 1	 	Displays trouble conditions.
Silence trouble or alarm conditions	 + code 0 or 1		Silences signaling devices that are in trouble or alarm. (On-board beeper and local annunciators continue to sound until serviced. See Section 9.1 for more details.)

Table 7-1: Touchpad Operations













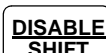





























To:	Press:		Additional Information
	5230 Annunciator	Built-in Touchpad	
Fire drill	<p>   + code 0 or 1</p> <p>To end a fire drill:  + code 0 or 1</p>	<p>   + code 0</p> <p>To end a fire drill: </p>	Causes the system to sound an alarm and report a FIRE TEST.
Set time	<p> </p>	<p> </p>	Enter time in military time..
<p>The SET MODE LED will turn on and the built-in touchpad display will flash 9- indicating that you are in the SET TIME mode.</p> <p>Note: The 5204 powers up in the SET TIME mode, with 9- showing on the display. If you wish to set the time at this point, it is not necessary to press the 9 ENTER (code) key sequence. Simply key in the appropriate digits. To exit the SET TIME mode, press ENTER.</p>			
Disable/Enable (shunting / unshunting)	<p>(Zone #1-4) +  + code 1 or 0</p>	<p>(Zone #1-4) +  + code 1 or 0</p>	Disables a zone (prevents it from responding to an alarm condition) or reactivates a disabled zone. When you disable, a trouble buzzer will sound.
<p>Note: If the dialer is busy, modes 22, 25, and 27 are disabled. If you are in mode 22, 25, or 27, the dialer is disabled.</p>			
Walk test	<p>   + code 0 (factory programmed as 5204)</p> <p>To exit press:    </p>	<p>   + code 0 (factory programmed as 5204)</p> <p>To exit press:    </p>	Enables you to test the system. When you enter this mode, the LCD will indicate that you are in the Walk Test mode. When a zone is violated, the signaling device outputs will become active for approximately 6 seconds.
Zone Trouble-shooting mode	<p>   + code 0</p> <p>To exit press:    </p>	<p>   + code 0</p> <p>To exit press:    </p>	Enables you to locate and correct problems. The use of this mode is described in Section 9.2.2.

Table 7-1: Touchpad Operations

To:	Press:		Additional Information
	5230 Annunciator	Built-in Touchpad	
Step Programming mode	<p>CLEAR MEMORY 2 7 ENTER + code 0</p> <p>To exit press:</p> <p>SILENCE STEP SILENCE STEP</p> <p>CLEAR CLEAR</p>	<p>CLEAR MEMORY 2 7 ENTER + code 0</p> <p>To exit press:</p> <p>SILENCE SILENCE CLEAR CLEAR</p>	Enables you to program 5204 options stored on the EE-PROM. Refer to Section 8.3 for instructions on using mode 27.

7.1.1 Operating Modes

The following table describes which codes can access operating modes during alarms:

Operating Mode		Allowed During Alarm	Code Required	
			On 5230	On Built-in Touchpad
00	System test	No	Code 0 or 1	None
01	Reset alarm	Yes	Code 0 or 1	Code 0 or 1
02	Clear alarm memory	No	Code 0 or 1	None
03	Dialer reset	Yes	Code 0	Code 0
04	Download	No	Code 0	Code 0
05	Display alarm memory	No	Code 0 or 1	None
06	Display troubles	No	Code 0 or 1	None
09	Set time	No	Code 0 or 1	Code 0 or 1
2B	Silence mode	Yes	Code 0 or 1	None
20	Fire drill	No	Code 0 or 1	Code 0 or 1
22	Walk test	No	Code 0	Code 0
27	Program	No	Code 0	Code 0
25	Troubleshooting	No	Code 0	Code 0
E0	Disable/enable zone	Yes	Code 0 or 1	Code 0 or 1

7.1.2 Built-in Touchpad Display Codes

The built-in touchpad display shows the zones in which a trouble or alarm condition is occurring. It also displays two-digit codes that represent a variety of conditions, as an aid in troubleshooting the system. These codes are listed below.


The following table describes the codes that appear on the built-in touchpad:

Display	Explanation
0	Fire drill (with ALARM, ALARM MEMORY, or TROUBLE LED).
1 through 4	Zone numbers (with ALARM, ALARM MEMORY, or TROUBLE LED). A “c” in front of the number indicates a supervisory sprinkler zone.
E7	Indicates trouble with the EEPROM memory.
F0 F1 through F3	5230 annunciator power trouble. Indicates trouble with a particular annunciator.
A1 through A2	Indicates trouble with a particular bell output.
P3	P3 indicates a short between Earth Ground and Common Ground. To determine the location of the short, remove field wiring circuits until the control returns to normal operation. See Section 9.2.
P4	P4 indicates a short between Earth Ground and loop or bell power. To determine the location of the short, remove field wiring circuits until the control returns to normal operation. See Section 9.2.
P0	Indicates that the printer is out of paper.
dc Ac dF	Low battery condition. Low AC condition. Dialer failed to communicate or Data lost during an attempt to transmit data to the central station.
L1 L2	Phone Line 1 Fault Phone Line 2 Fault
-0 -2 -4 -5 -6 -7 -8 -9	Fire drill Walk test Downloading Zone test HEX PROGRAMMING mode STEP PROGRAMMING mode SET DATE mode SET TIME mode
2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-	User must enter a code to perform the desired function with these prompts.

7.1.3 Silencing the System

To silence a trouble, press SILENCE.

To silence an alarm, follow these steps:

1. Disable the zone by pressing (zone number) + DISABLE + code 1 or 0.
2. Reset the system by pressing  ENTER + code 1 or 0.
3. The zone is now in trouble because of the disabled zone and can be silenced in the normal way by pressing SILENCE.

See Section 9.1 for related information.

7.1.4 LED Indicators

Six light emitting diodes (LEDs) appear in the 5204 cabinet window.



LED	Status	Condition
ALARM (red)	OFF	No alarm condition exists.
	ON	A fire alarm condition exists in the zones shown on the touchpad.
SILENCED (yellow)	OFF	An alarm or trouble has not been silenced.
	ON	An alarm or trouble condition exists and the audible annunciators have been silenced.
AC / DC (green)	OFF	Panel has lost all power.
	ON	Panel is running on AC and battery power (normal condition).
	FLASHING	Panel is running on battery power only or AC power only.
MEMORY (yellow)	OFF	No information is stored in alarm memory.
	ON	An alarm condition has been reset.
TROUBLE (yellow)	OFF	No trouble condition exists.
	ON	A trouble condition exists.
<u>SET MODE</u> (yellow) REPORT	OFF	Normal operating mode and not reporting.
	ON	System is in a SET (TEST or PROGRAM) mode.
	FLASHING	System is reporting

7.2 System Testing

System testing includes fire drills, zone testing, and 24-hour automatic tests.



7.2.1 Fire Drills (Mode 20)

You can run fire drills using either the built-in touchpad or the Model 5230 touchpad. To

initiate a fire drill, press   ENTER + code 0 or 1. The system will sound an alarm and report a fire test. To end the fire drill, press SILENCE) + code 0 or 1.

7.2.2 Walk Test (Mode 22)

The Walk Test mode enables you to test individual sensors.

To enter the Walk Test mode, press   ENTER + code 0 (factory-programmed as 5204). The LCD will indicate that you are in the Walk Test mode. When a zone is violated, the bell outputs will become active for approximately six seconds. During a walk test, smoke verification is disabled. Follow the manufacturer's directions for testing smoke and heat detectors. To violate a waterflow detector, open the waterflow valve.

Zones can be disabled individually to facilitate testing and troubleshooting. Disabled zones will NOT be tested. If no zones are tripped during the Walk Test (or keys pressed) for 15 minutes, the system will time out and resume normal operation.

To exit Walk Test mode, press STEP STEP CLEAR CLEAR. If using the built-in touchpad, press SILENCE SILENCE CLEAR CLEAR.

7.2.3 Automatic Self Test

The Model 5204 lets you select the time of day to send the 24-hour automatic test signal to the central station.

The Auto Test (Dialer test sent automatically at specified times) also sends all unrestored events, as now required by UL. Events listed before AUTO TEST on the printout at the central station are new events. Events listed after AUTO TEST are old events that have not been restored.

7.2.4 Watchdog Circuit

During normal operation, the control microprocessor of the 5204 is constantly running programs to check inputs and carry out other routine functions. If this program stops running for some reason, the watchdog circuit will automatically attempt to resume normal operation by resetting the microprocessors. Each time the watchdog circuit initiates a reset signal, it will also sound the audible trouble signal for approximately four seconds.