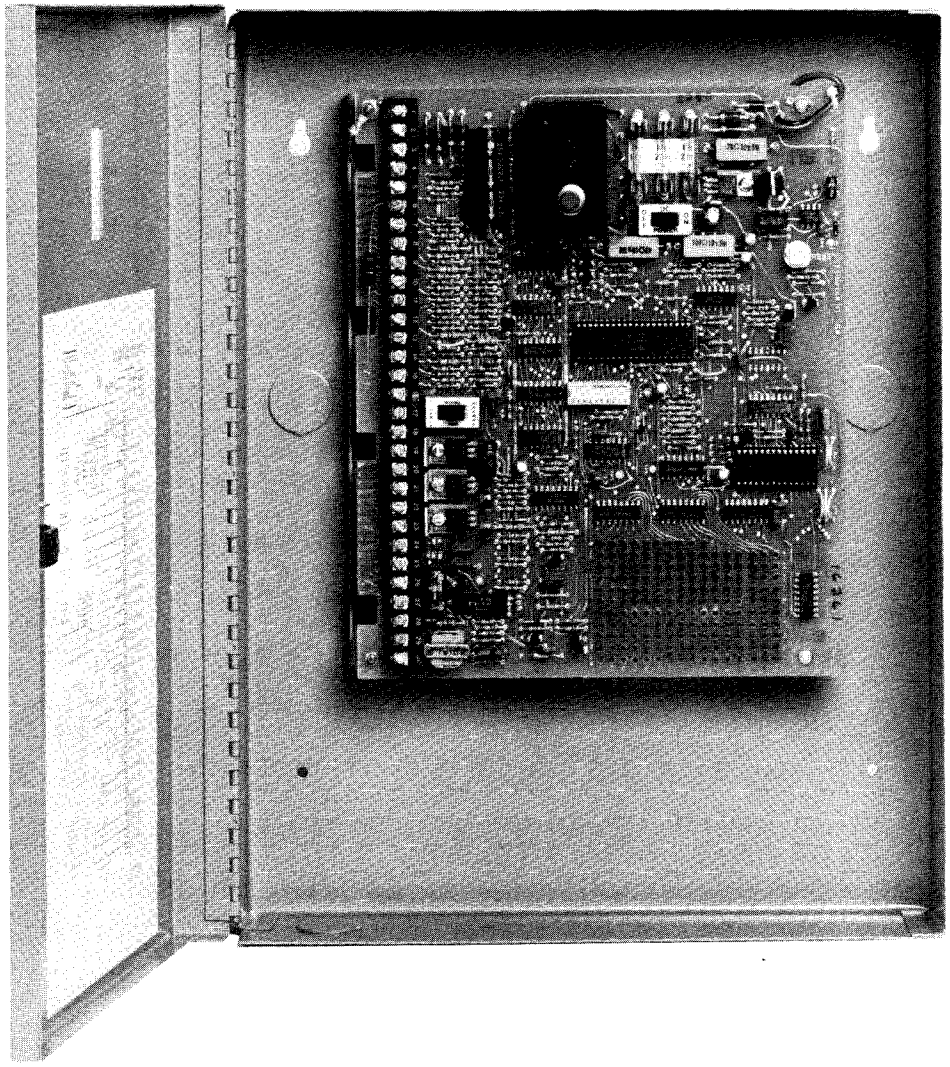
MODEL 2620
(with Interior & 4 Channels)
DELUXE CONTROL/COMMUNICATOR



INSTALLATION MANUAL

SILENT KNIGHT
SECURITY SYSTEMS
DIVISION OF WAYCROSSE, INC.

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TELEPHONE: 612/566-0510
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P/N 150111 8-83

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IMPORTANT: Silent Knight products should be tested every month (under no circumstances less than every three months) to insure complete and proper operation and proper input and output connections.

LIMITED WARRANTY

Silent Knight Security Systems warrants that the products of its manufacture shall be free from defects in materials or workmanship for one year from the date of invoice if such goods have been properly installed, are subject to normal proper use, and have not been modified in any manner whatsoever. Upon return of the defective product to the nearest Silent Knight dealer, Silent Knight will, at its sole discretion, either repair or replace, at no cost to the customer, such goods as may be of defective material or workmanship. Customers outside the United States are to return products to their distributor for repair.

SILENT KNIGHT SECURITY SYSTEMS SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM LOSS OF PROPERTY OR OTHER DAMAGE OR LOSSES OWING TO THE FAILURE OF SILENT KNIGHT SECURITY SYSTMS PRODUCTS BEYOND THE COST OF REPAIR OR REPLACEMENT OF ANY DEFECTIVE PRODUCTS.

SILENT KNIGHT SECURITY SYSTEMS MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY AND NO OTHER WARRANTY, ORAL OR WRITTEN, EXPRESS OR IMPLIED, BEYOND THE ONE YEAR WARRANTY EXPRESSLY SPECIFIED HEREIN.

2620 INSTALLATION MANUAL

INTRODUCTION

The Model 2620 is a complete four-alarm control panel combined with a Digital Communicator which will automatically dial up a central message receiving station and report the alarm conditions and the client's account number.

In addition to reporting the four alarm conditions, the Model 2620 will also report a "Low Battery" condition (self-initiating), "Trouble" in the Fire Circuit, a "Test," "Opening/Closing," "Restore-to-Normal," and an optional Interior Intrusion report.

POWER REQUIREMENTS

The Model 2620 is powered from a U.L. Listed Class II, 16.5 volt 35 VA transformer that plugs directly into a conventional 120 volt AC, 60Hz wall outlet. This transformer provides up to 2.0 amps of current at 12 volts DC. That power is sufficient for the 2620, its accessories and the charging current for one Model 6812 battery.

Figure 1 shows a representation of the printed circuit board of the 2620. This printed circuit board contains the switches, fuses and indicators needed to set-up, monitor, reset, and protect the system.

ALERT TONE VOLUME CONTROL

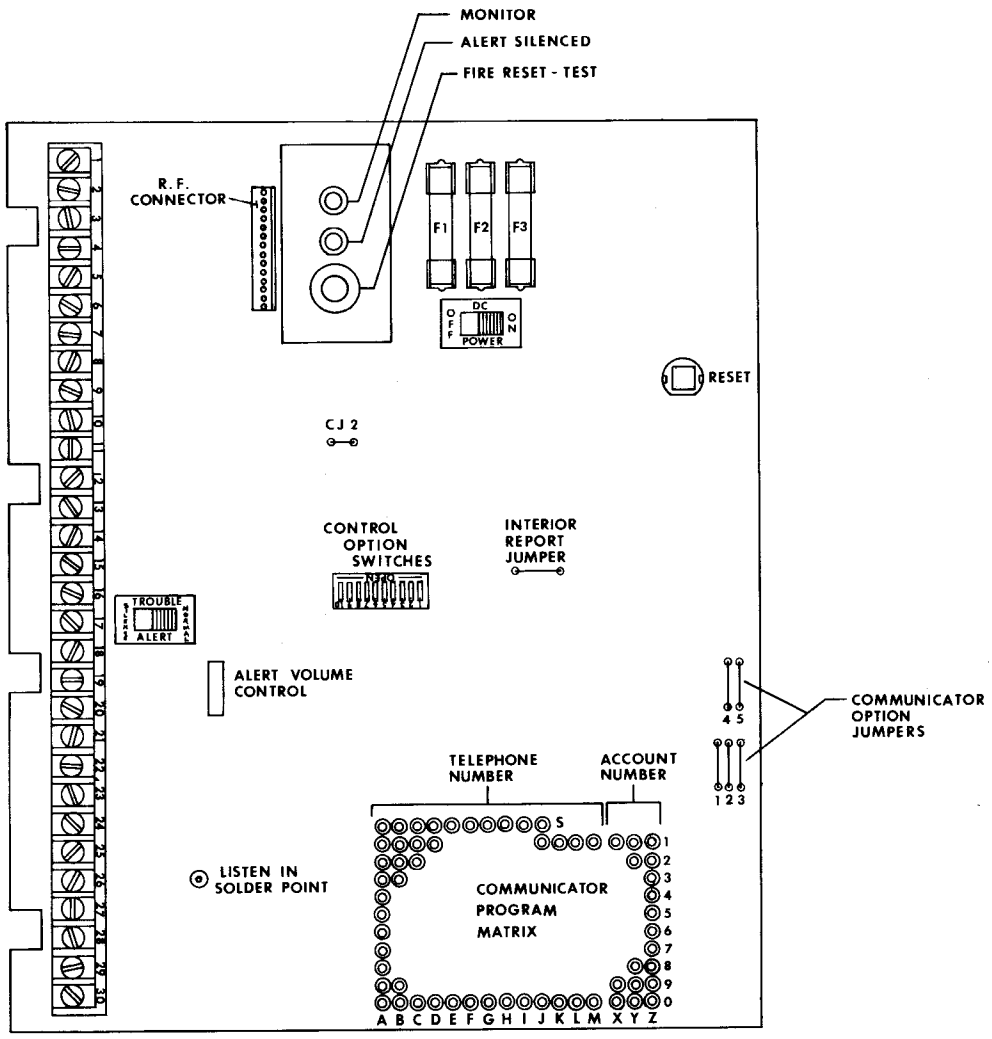
The Entry Delay Tone and Fire Trouble Alert Tone Volume can be adjusted (louder or softer), with the variable control shown in figure 1. The Entry Delay Tone and Fire Trouble Alert Tone cannot be adjusted independently.

ACCESSORIES

2180 - 8-zone annunciator. (Required when using models 7480 and 7580).
6812 - Heavy-duty 12-volt 4.5 AH rechargeable sealed battery.
7140 - Line reversing relay.
7150 - Telephone line monitor.
7170 - "Ground Start" module.
7230 - Remote mechanical key plate with "Ready" and "Armed" LEDs.
7331 - Remote digital key pad with speaker.
7360 - Audio Listen-in module. (Use model 7380 for mic pick-up.)
7430 - Remote digital key pad with two "panic" buttons and speaker.
7530 - Remote digital key pad with one "panic" button, interior control switch, interior zone status LED, and speaker.
7480 - Remote digital key pad with two "panic" buttons, speaker, and 8-zone display.
7580 - Remote digital keypad with one "panic" button, interior control switch, interior zone status LED, speaker, and 8-zone display.
7620 - Smoke detector.
7810 - Low temp. (furnace failure) detector.
7860 - Dialer connect cord to RJ31X.
7740 - Heavy-duty siren horn (30 W).

MODEL 2620 IS CALIFORNIA FIRE MARSHAL APPROVED

- California fire marshal listed 7165-559:100



MONITOR LIGHT

The monitor light is normally ON and will remain so unless one or more of the following occurs:

AC power failure (light OFF).
DC power failure (light OFF).
Fire loop "Trouble" (light OFF).

ALERT SILENCED LIGHT

This light is used to indicate the status of the Trouble/Alert switch. If the Trouble/Alert switch is in the "Normal" position, the Alert Silenced Light will be OFF. If the Trouble/Alert switch is in the Silenced position, the Alert Silenced Light will be ON.

FIRE RESET/TEST SWITCH

This is used to perform the following functions:

Reset Smoke Detectors
Reset the Fire Circuit
Test the Fire Circuit
Test the Battery
Test the Digital Communicator

FUSE F1

This fuse provides over-current protection for the smoke detectors, accessories, and alarm loops (1.5 amp).

FUSE F2

This fuse provides over current protection for all light and indicator outputs and the internal speaker outputs (2.5 amp).

FUSE F3

This fuse provides over-current protection for the external speaker output (2.5 amp).

TROUBLE/ALERT SPEAKER SWITCH

This switch is used to silence the "Trouble" alert tone which will sound if the Fire loop becomes defective. Moving the switch to the Silenced position, silences the "Trouble" alert tone and turns ON the Alert Silenced light. *NOTE:* When this switch is in the Silenced position, the entrance alert and touch pad annunciator will also be silenced.

RESET SWITCH

The primary function of the Reset Switch is to erase a previously entered "Arm" and "Disarm" code so that a new set of codes may be entered. To program a new "Arm" and "Disarm" code, proceed as follows: (*NOTE:* for purposes of this manual, only models 7331 and 7530 are discussed.)

1. Momentarily depress the Reset switch.
2. Go to the nearest Model 7331 or 7530 (the "Ready" light should be blinking).
3. Depress the digit desired for "Arming" (press once only).
4. Depress, IN ORDER, the four digits to be used for "Disarming."
5. The "Arm" and "Disarm" codes are now entered and the "Ready" light should be steady.

OPTION SWITCHES 1 THROUGH 10

The modes of operation in which the Model 2620 can be configured are many and varied. Each switch and the mode of operation it provides are described in the following paragraphs. *NOTE:* When the rocker of each individual switch is depressed in the direction of the word OPEN the switch will be open or in the OFF position. In the opposite direction it will be closed or in the ON position.

NOTE: Any time a switch position is changed, the control processor must be reset by pushing the reset button shown in figure 1 page 2.

SWITCH (1) RESET/SHUTDOWN (All Channels)
SWITCH (4) RESET/SHUTDOWN (Fire Channel)

The reset and shutdown options are integrated and cannot be controlled separately. This means that you cannot select just reset or just shutdown. If you select one you are selecting both. Switch (1) is used to select reset/shutdown for all channels and Switch (4) is used to control reset/shutdown for the Fire channel. The three modes in which the 2620 may be configured for reset/shutdown are stated in the following:

ALL channels reset and shutdown:
Switch (1) OPEN, Switch (4) OPEN
All channels EXCEPT fire reset and shutdown:
Switch (1) OPEN, Switch (4) CLOSED
NO channels reset or shutdown:
Switch (1) CLOSED, Switch (4) CLOSED

SWITCH (2) AND (3) EXIT/ENTRANCE DELAY

There are three times available for the Exit/Entrance Delay which are selected using combinations of Switches (2) and (3). Position these switches for the different times as stated in the following:

15 seconds — Switch (2) OPEN, Switch (3) OPEN
30 seconds — Switch (2) CLOSED, Switch (3) OPEN
60 seconds — Switch (2) OPEN, Switch (3) CLOSED

SWITCH (5) OPENING/CLOSING REPORTING

If you wish to report to the Central Station whenever the system is "Armed" or "Disarmed" (opening/closing) place Switch (5) in the OPEN Position and CUT Jumper 5. (Digital Communicator options page 4.)

NOTE: The Model 2620 will report a code 9 for "opening" (Disarming) code 4 for "Closing" (Arming). No other steps need be taken for opening/closing—it is all automatic.

SWITCH (6) and (9) DIGITAL OR MECHANICAL KEY

The 2620 will work with a Digital Key (Models 7331 and 7530), a Mechanical Key (Model 7230), or any combination of the same. With Switch (6) OPEN, and Switch (9) OPEN the 2620 will work with the Digital Key only. With Switch (6) CLOSED and Switch (9) CLOSED the 2620 will work with a Mechanical Key or a combination Mechanical/Digital Key.

NOTE: If using both Mechanical/Digital Keys, digits 8 and 9 of the 7331 and 7530 cannot be used. Do not connect white wire of the 7331 and 7530 to terminal 14 of the 2620. Do not use mechancial keys with digital keys on systems using the interior circuit.

SWITCH (7) SILENT EMERGENCY ALARM

If it is desired to have the Emergency channel silent (no audible alarm), move Switch (7) to the CLOSED position.

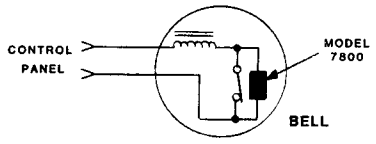
SWITCH (8) RESET/SHUTDOWN TIME

Switch (8) is used to determine the amount of time the Model 2620 will be in alarm before it will attempt to reset or, if it cannot be reset, shutdown. With Switch (8) in the OPEN Position the reset/shutdown time will be 5 minutes. If in the CLOSED Position, the reset/shutdown time will be 15 minutes.

SWITCH (9) (See Switch 6)

SWITCH (10) EXTERNAL SPEAKER OR BELL

If external speakers are to be used, place Switch (10) in the OPEN Position. If an external bell is to be used, place Switch (10) in the CLOSED Position. *CAUTION: BE SURE SWITCH (10) IS NOT IN THE CLOSED POSITION IF SPEAKERS ARE CONNECTED.*



CAUTION: When using a BELL with this equipment the attached transient suppressor (Model 7800) must be soldered directly across the contacts as shown above:

DIGITAL COMMUNICATOR

OPERATION

When activated, the communicator will dial the telephone number of the alarm Receiver. When the Receiver has answered the call, the Communicator will transmit a three (3) digit location code (account number) and a one (1) digit alarm code. The combination of the three (3) digit account number and one (1) digit alarm code is called a "code group."

REPORTING

The Communicator will report either the Silent Knight/Ademco format or the Sescoa/Franklin/DCI format.

The Alarm codes transmitted by the Communicator are as indicated on page 4.

The dialing and data transmission occur in the following sequence:

1. Channel input activation.
2. The communicator seizes the telephone line and listens (checks) for dial tone.
3. Upon detection of dial tone, the communicator, will dial. If dial tone is not present the Communicator will begin dialing after 24 seconds. During this time it will have attempted to clear the telephone line connection (anti-jam) by performing an on-line/off-line operation.
4. Acknowledgement is received indicating that the alarm Receiver has answered the call.
5. Data is transmitted.
6. "Kiss-off" signal is received, indicating that the alarm Receiver has decoded, compared and displayed two (2) identical "code groups."
7. If more than one alarm input is active, the next alarm "code group" wil be transmitted. This will continue until all the alarms have been reported and "Kissed-off."
8. Final "Kiss-off" after all alarms are reported causes the Communicator to hang-up (shut-down).

	Silent Knight/ Ademco Format	Sescoa/Franklin/ DCI Format
Channel 1 (Intrusion)	Code 1	Code 3
Channel 1 (Optional Interior Report)	Code 1-5[1]	Code 3-5[1]
Channel 2 (Fire)	Code 2	Code 1
Channel 3 (Emergency)	Code 3	Code 2
Channel 4 (Auxilliary)	Code 4	Code 6
CLOSING	Code 4[2]	Code 6[2]
Low Battery	Code 8	Code 8
"Trouble" in the Fire loop	Code 8	Code 8
Restore-to-Normal	Code 7[3]	Code 7[3]
Test	Code 9	Code 9
OPENING	Code 9	Code 9

NOTE: 1. If Interior Report Jumper (see fig. 1) is cut, a code (1-5) Silent Knight, (3-5) Sescoa, will be transmitted whenever the interior portion of the intrusion system is activated.
2. An Intrusion alarm activating a communicator programmed for opening/closing, will be reported as (1-4) or (3-6), depending on the communication format. This indicates that the system is in intrusion alarm, and still armed (closed). A system cannot be programmed for opening/closing reports if channel 4 is being used for auxilliary alarm reports.
3. Restore to normal on channel 2 is reported as code (7-9).

OPTIONS (Digital Communicator)

There are six communicator option jumpers. Five of the jumper options labeled 1 thru 5 (figure 1) determine the operation of the communicator. These options are described in the following: One is labeled interior report option jumper (figure 1).

Jumper 1 (Restore-To-Normal)
Jumper 1 IN NO restore-to-normal reporting
Jumper 1 OUT restore-to-normal reporting

Jumper 2 (Latching/non-latching)
Jumper 2 IN NON-latching
Jumper 2 OUT latching

Latching means that the communicator will report an alarm (once activated) even if the control section is reset. *NOTE:* If Jumper 1 (restore-to-normal) has been cut, the Communicator will re-dial after it receives Kiss-off and report a restore-to-normal.

Jumper 3 (Silent Knight or Franklin/Sescoa Formats)
With this jumper left (IN) the 2620 will report alarm conditions to Silent Knight and Ademco receivers in the Standard format.

With this jumper (OUT) the 2620 will report alarm conditions to Sescoa, Franklin, and DCI receivers.

Jumper 4 (Standard or FSK Transmission)
With this jumper left (IN) the 2620 will report the alarm data in the standard format for Silent Knight and Ademco receivers as stated for Jumper 3.

With this jumper (OUT) the 2620 will report the alarm data in FSK (Frequency shift keying) and report only to a Silent Knight Model 8520 and then *only* if the 8520 is equipped with the FSK receiver board #5.

Jumper 5 (Opening/Closing)
Jumper 5 IN No Opening/Closing reporting
Jumper 5 OUT Opening/Closing reporting (Switch 5 must also be in the OPEN Position)

Arming the system will cause the communicator to report a closing.

INTERIOR REPORT JUMPER

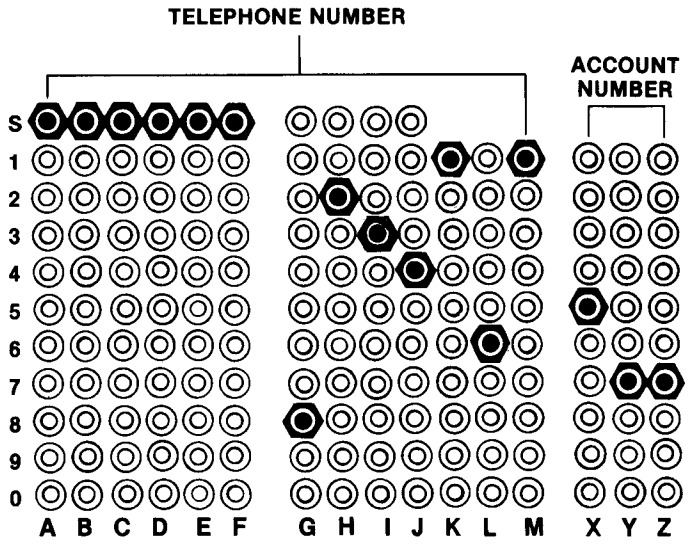
Cutting this jumper will enable the communicator to report a special code for Interior Intrusion alarms.

PROGRAMMING THE DIGITAL COMMUNICATOR

PROGRAMMING THE DIGITAL COMMUNICATOR

The dialer can be programmed to dial as many as thirteen (13) digits or as few as three (3) digits. Programming is as follows:

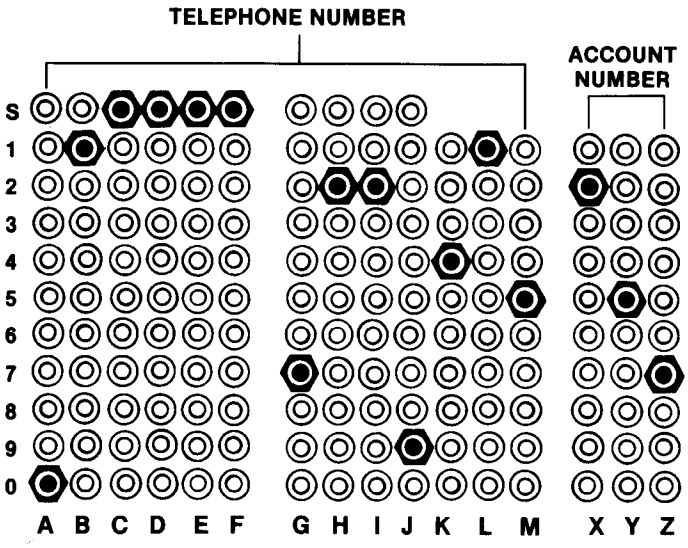
The central station telephone number and the client's account number are selected in the columns A through M and X through Z. If the usual 7-digit telephone number is used, it must be programmed in columns G through M. The account number is always placed in columns X,Y, and Z.



EXAMPLE: 823-4161, Act. 577

If a telephone number containing more than 7 digits is used, the first digit must always go in column A. The last 7 digits go in columns G through M.

*NOTE:*Always insert a program screw in the S or (skip) column whenever a number in that column is not used.



EXAMPLE: 01-722-9415, Act. 257

DIGITAL COMMUNICATOR TELEPHONE LINE CONNECTION

Before connecting this device the telephone company must be notified and provided with the following information:

1) Manufacturer (Silent Knight)
b) Model number — 2620
c) F.C.C. registration number (AC698R-69183-AL-R)
d) Ringer equivalence—O.OB
e) Type of jack (to be installed by the telephone company) RJ31X

NOTE: The telephone company must also be notified if this device is permanently disconnected!

This device may not be directly connected to coin telephone or party line services.

The telephone company, under certain circumstances, may temporarily discontinue service and/or make changes in its facilities and services which may affect the operation of this device; however, the telephone company is required to give adequate notice in writing of such changes or interruptions.

This device cannot be adjusted or repaired in the field; in case of trouble with the device, notify the installing company or return to:

Silent Knight Security Systems
1700 Freeway Boulevard North
Minneapolis, Minnesota 55430

Figure 2 shows telephone line connection between the 2620 and the RJ31X via the Model 7860 Connector Cord.

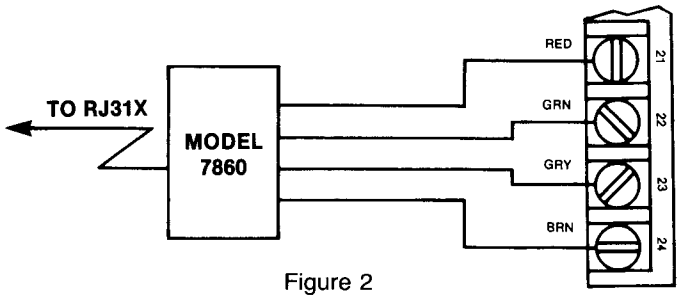


Figure 2

MODEL 6812 STANDBY BATTERY

The Model 6812, rechargeable battery is a sealed, electrolyte battery. Maximum charging rate of a fully discharged battery is 700 ma. Nominal trickle charge current is 5ma. One set of battery cables is attached to each 2620 P.C. Board for connection of the 6812 battery.

CAUTION: Careful observation of polarity is important. The red wire goes to positive (+); black wire to negative (−). Connecting these wires in the reverse will result in damage to the 2620.

The current drain for each of the remote modules and accessories which require standby power from the 6812 battery is shown in Table 1.

TABLE 1

Model	Current (MA.)
7530	60
2620	75
7331	42
7230	42
7620	5

To determine the current load of a 2620 system, add all the current drains of all the remote modules as shown in Table 1. The standby time can then be calculated from Figure 3 which shows the expected hours of standby for various current loads using one (1) 4 amp hour 12 volt battery (Model 6812).

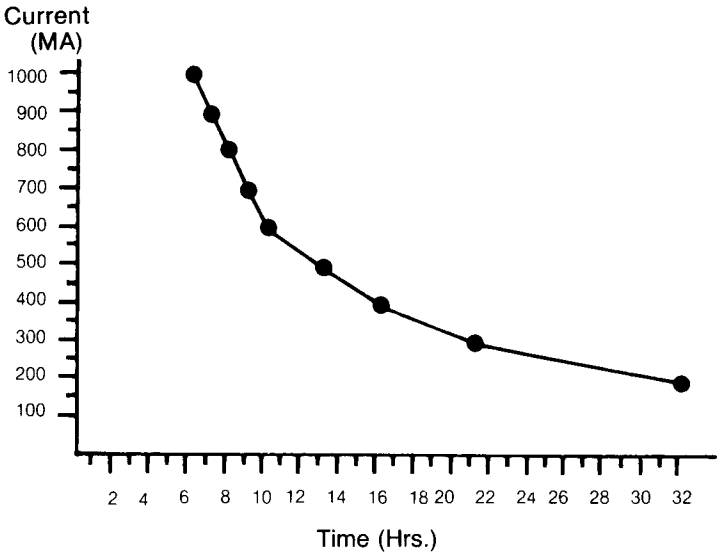


Figure 3

MODEL 7890 LIGHTNING KIT

In areas where transient energy and lightning damage is likely, it is essential that the 7890 Lightning Kit be used in the AC/transformer input circuit. Instructions for use and connections are provided on page 17.

DIGITAL KEY OPERATION (Models 7331 and 7530 Remote Modules)

SWITCH OPTIONS

Switch (6) OPEN: Switch (9) OPEN. (See Page 3.)

PROGRAMMING

Check that the loop jumpers and 1K resistor are in place.

Switch the DC power switch "ON." Ready light on Remote Module begins blinking.

You now have approximately one minute to program the Arming/Disarming codes. If you do not enter these codes, the 2620 will automatically program itself to a default code of a digit (5) for arming and digits 1-2-3-4 for disarming. The 2620 will also attempt to Arm itself at this time. If it cannot Arm because an input is active it will immediately go into an Intrusion alarm. To program the Arm and Disarm codes proceed as follows:

a. Go to the Remote Module and press the digit desired for Arming (press once only). Each time a digit is pressed the speaker will emit a momentary tone.

   NOTE: The arming digit may be used in the Disarm code, but not twice in sequence.

b. Press, in order, the four digits to be used for Disarming. Ready light stops blinking, CODES are entered.

READY LIGHT

The "Ready" light will be lit unless one or more of the following occur:

1. Sensor (Sensors) in the Exit/Entrance loop is active (Light OFF).
2. Sensor (Sensors) in the Instant loop is active (light OFF).
3. The System Armed Light is lit (Light OFF).
4. The Digital Communicator is reporting (light BLINKING).
5. The Arm/Disarm codes have not been entered (light BLINKING).

SYSTEM ARMED LIGHT

The System Armed light will light when the "Arm" code is entered (provided the Ready light is lit) and will turn off when the "Disarm" code is entered.

When the System Armed light is lit it indicates that the Exit/Entrance loop and Instant loop are active and that a violation of any of these loops will cause an "Intrusion" alarm. *NOTE:* If the System Armed light is lit and an "Intrusion" alarm occurs the System Armed light will begin blinking and remain so until a "Disarm" code is entered—even if a reset or shutdown has occurred.

INTERIOR LIGHT (Model 7530)

The Interior light will change state each time the Interior touch switch is pushed. When the Interior light is ON it indicates that the interior loop sensors will be active when the system armed light is ON.

MECHANICAL KEY OPERATION (Models 7230)

SWITCH OPTIONS

Switch (6) CLOSED: Switch (9) CLOSED. (See Page 3.)

READY LIGHT

The "Ready" light for Mechanical Key, is the Green light on the 7230. See description for "Digital Key Ready Light".

SYSTEM ARMED LIGHT

The System "Armed" light (Red light on 7230) will change state each time a momentary closure is made between terminals 14 and 4 of the 2620. However, the System "Armed" light will not light if the "Ready" light is not lit.

GENERAL SYSTEM DESCRIPTION (Inputs)

INTRUSION INPUTS (Channel 1)

The Intrusion channel receives inputs from four circuits: The Instant loop, the Exit/Entrance loop and the Panic/Tamper and Interior loop. The following paragraphs describe these inputs.

INSTANT LOOP INPUT (See Figure 4, Page 16)

The instant loop accepts either normally-open and/or normally—closed sensors as input devices. The Instant loop is not a continuously active 24-hour circuit. The client arms or disarms the circuit at will.

Activation of an instant loop input sensor will not cause an alarm condition unless the instant loop is armed. Conversely, one cannot arm the system unless the sensors are in their armed positions.

EXIT/ENTRANCE LOOP INPUT (See Figure 5, Page 16)

The exit/entrance loop accepts either normally-open and/or normally-closed sensors as input devices. This loop is not active 24 hours a day, but is armed or disarmed whenever the Intrusion circuit is armed or disarmed. Conversely, one cannot arm the system unless the exit/entrance sensors are in their armed positions.

The exit/entrance loop contains the built-in alarm delay that allows clients a brief time to enter or exit the building without seting off an alarm. For example, to exit the building, the client arms the system and then has either 15, 30, or 60 seconds to close the exit door behind him as he leaves (refer to switch options (2) and (3), page 3, for delay time selection). If the delay time expires before the exit door is closed, the Intrusion alarm sounds.

PANIC/TAMPER LOOP INPUT (See Figure 6, Page 16)

The Panic/Tamper input accepts normally-open sensors only. The Panic/Tamper input is active 24 hours a day.

INTERIOR LOOP INPUT (See Figure 10, Page 16)

The interior loop input accepts either normally-open and/or normally-closed sensors as input devices. This loop is not active 24 hours a day but is enabled or disabled via the Model 7530 touch switch labeled Interior. When the Interior Enabled light is lit the interior loop will be active, but only when the intrusion loop is armed. When Interior Enabled light is not lit the interior loop is disabled regardless of the armed status. If the interior loop is in an alarm position when enabled this condition will disable the arming of the intrusion loop.

The interior loop input operates independently from the perimeter loop input. This feature enables the interior loop to activate the Intrusion alarm again even though the perimeter loop has been violated and the 2620 has shut down the alarm sirens. This feature prohibits an intruder from re-entering the protected premises without creating another alarm.

NOTE: If jumper CJ2 (see figure 1) is INTACT, the interior loop may be activated or deactivated regardless of the armed or disarmed status. If jumper CJ2 is cut, the interior loop status may be changed only if the system is disarmed.

FIRE INPUT (Channel 2) (See Figure 7, Page 16)

The Fire channel accepts input on a 24-hour basis to give early fire warning. This channel is fully supervised and an alarm will automatically sound a warning if a wire in the loop is cut, breaks or is shorted to the system ground. The Fire channel accepts normally-open heat and/or smoke detectors as input devices. This channel is a latching circuit and stays active once activated by a momentary closure of an input device.

EMERGENCY INPUT (Channel 3) (See Figure 8, Page 16)

The Emergency channel input is also active on a 24-hour basis, and is a latching circuit. The input devices on this channel are normally-open only. Typical use of the Emergency channel is to summon immediate medical attention, or to call help in some other emergency.

AUXILIARY INPUT (Channel 4) (See Figure 11, Page 16)

The Auxiliary channel input is also active on a 24-hour basis, and is a latching circuit. The input devices on this channel are normally-open only.

GENERAL SYSTEM DESCRIPTION (Outputs)

The following paragraphs describe the alarm outputs and the power supplied to each device in the circuit. The output circuitry is current-limited and fused to prevent disabling of the system by shorting of the external wiring. The 2620 generates three distinct alarm tones for each of the 4 channels.

INTERNAL SPEAKERS PLUS ALERT (Terminal 16)

The Internal speaker output generates a pulsed 12 VDC output for driving the internal speakers such as is on the Model 7331. This output also generates the entrance alert tone, the fire "Trouble" tone and the Touch Pad Annunciator tone. (The maximum current available is 1.5 amps).

EXTERNAL SPEAKER OR BELL (Terminals 3 and 17)

The external speaker output generates the alarm tones (pulsed 24 volts DC) for use with a speaker or, if a bell is used, a steady or switched 24 volts DC (depending on which channel is in alarm). If a bell is used in the system, use only a 12 volt DC unit rated at .35 amps or LESS.

CAUTION: When using a BELL with this equipment the attached transient suppressor (Model 7800) must be soldered directly across the contacts. The maximum current available is 1.5 amps.

SYSTEM "ARMED" LIGHT OUTPUT (Terminal 19)

The system "Armed" output will provide a 12 VDC output at .25 amps whenever the Intrusion channel is "Armed." This output will pulse if "Armed" and the Intrusion channel is violated and remains pulsing until the system is disarmed.

READY LIGHT OUTPUT (Terminal 20)

the Ready light output will provide a 12 VDC output at .25 amps whenever the two loops to the Intrusion channel are in their normal (not active) state. If using the Digital Key, this ouput will be pulsing whenever the Model 2620 has not been programmed for the "Arming" and the "Disarmin" codes. In addition, this ouput will be pulsing if the Digital Dialer is reporting to the central message receiving center and will continue to pulse until the message is received and "Kissed-off" by the receiver.

INTERIOR LIGHT OUTPUT (Terminal 27)

The Interior light output will provide a 12 VDC output at .25 amps whenever the interior sensors are enabled by pressing the Interior touch switch on the Model 7530.

STROBE LIGHT OUTPUT (Terminal 26)

The Strobe Light output will provide a 12 VDC output at .5 amps whenever any of the 4 types of alarms are active. This output is also used to Latch the Zone Display on the Model 2180 during Intrusion alarms.

MODEL 2620 INSTALLATION PROCEDURES

Installation of the 2620 usually proceeds in two steps: (1) pre-installation set-up of the 2620 Control Panel, and (2) field wiring of the modules and accessories to the 2620 at the installation site.

PRE-INSTALLATION SET-UP

Pre-installation set-up is usually done in the shop before going to the site. Pre-installation set-up includes the following steps;

1. Unpacking of the 2620 components and the careful checking of them for damage. *NOTE:*Damage must be reported within 10 days to the carrier that delivered the system. Silent Knight is not responsible for damage that occurs in shipment.
2. Selection of the Option switches 1 through 10 (see the description of option switches located on Page 3 of this manual).
3. Optional shop-test of the 2620 Control Panel.

CAUTION: The printed circuit boad of the 2620 contains MOS micro-circuit components that are subject to damage by electrostatic charges. The enclosure of the 2620 and the protective wiring circuits protect these circuits in normal operation. But, when the circuit board is being programmed for option selection, care must be taken not to touch the circuit board without touching a hand, or a metal tool, to the ground wire of the 2620. This removes any charge that may have accumulated from walking across a carpet, etc.

*NOTE:*All cable used to field-wire the remote modules, unless otherwise noted, is to be at least 22 gauge, jacketed cable. Likewise, all sensors on the input loops are to be connected with 2-conductor 22 gauge cable. Cables should carry appropriate UL listing if applicable.

Table 2. 2620 Wiring/Testing Procedure

2620 CONTROL PANEL INSTALLATION

1. Select a good location.	Consider the following factors: - Lack of temperature extremes and freedom from moisture. - Accessibility to "Main Drop" wiring runs. - Mounting surface (use of plywood interface when mounting on concrete). - Location well within secured area. - Customer accessibility for testing and resetting.
2. Mount the 2620.	a. Mounting on interior walls. When mounting on interior walls use appropriate screw anchors in plaster. b. Mounting on concrete. When mounting on concrete, especially when moisture is expected, attach a piece of ¾ inch plywood to the concrete surface and then attach the 2620. c. Mount any other desired components (such as optional power sources, terminal strips, 7150, etc.) to the plywood interface. d. Mount the 2620 in a location not subjected to high temperatures. Temperatures above 100°F adversely affect the 6812 battery.
3. Turn off the DC power switch	
4. Mount the transformer (Model 9220, 16.5 VAC 60 Hz, 35 VA). For lightning protection, connect the 7890 Lightning Kit following the specific instructions on page 17.	a. Wire the transformer to terminal 1 and 2 on the 2620 control panel (all references to "terminals" in these procedures refer to terminal screw positions on the 2620 control panel). Use 18 ga. or larger shielded wire, ground the shield as shown in Fig. 12. (SK #9021 is recommended.) b. Screw out the screw on the faceplate of a wall outlet, plug in the transformer, and fasten the transformer to the output using the screw provided.
5. Attach jumper wires if not already installed.	The control panel was shipped without jumper wires installed, the following terminals must be jumped together, with a piece of insulated wire, in order to test the system: Terminals 7 to 8, terminals 9 to 10, and terminals 28 to 29.
6. Connect a resistor between terminals 4 and 6.	If not already connected, attach a Model 7630, 1,000 ohm. resistor (brown, black, red) between terminals 4 and 6.
7. Connect a 6812 battery. **CAUTION:** Observe polarity of the battery.	a. Connect 6812 battery to battery cables. *STOP:* Observe battery polarity Red to plus (+); Black to minus (−). b. If the transformer is connected, the battery will charge automatically with the DC power switch on or off.

7331 DIGITAL KEY MODULE INSTALLATION (Figure 9)

1. Install the 7331 Key Module(s).	Installation Requirements: A 10-conductor cable is required to wire each 7331 to the 2620 control panel. Each 7331 requires 42 ma of current. Connect each 7331 to 2620 as follows:

Table 2. 2620 Wiring/Testing Procedure (Cont.)

7331 DIGITAL KEY MODULE INSTALLATION (Cont.)

- Orange Wire to terminal 4
- Black Wire to terminal 18
- Brown Wire to terminal 11
- Yellow Wire to terminal 20
- Red Wire to terminal 19
- Purple Wire to terminal 16
- Green Wire to terminal 12
- Blue Wire to terminal 13
- White Wire to terminal 14

7530 DIGITAL KEY MODULE INSTALLATION (Figure 9)

1. Install the 7530(s).

Installation requires a 12-conductor cable from each 7530 to the 2620. Connect the cable as follows:

- Brown wire to terminal 11
- Green wire to terminal 12
- Blue wire to terminal 13
- Tan wire to terminal 27
- White wire to terminal 14
- Gray wire to terminal 25
- Black wire to terminal 18
- Pink wire not used
- Purple wire to terminal 16
- Yellow wire to terminal 20
- Red wire to terminal 19
- Orange wire to terminal 4

FIELD TEST (2620 with 7331 and/or 7530 Remote Module)

2620 CONTROL PANEL TEST

PROGRAMMING

1. Check that the loop jumpers and 1K resistor are in place.

2. Switch the DC power switch "ON." — Ready light on Remote Module begins blinking.

3. You now have approximately one minute to program the Arming/Disarming codes. If you do not enter these codes the 2620 will automatically program itself to a default code of a digit (5) for arming and digits 1-2-3-4 for disarming. The 2620 will also attempt to Arm itself at this time. If it cannot Arm because an input is active, it will immediately go into an Intrusion alarm. To program the Arm and Disarm codes proceed as follows: — Each time a digit is pressed the speaker will emit a momentary tone.

NOTE: The Arming digit may be used in the Disarm code, but not twice in sequence.

a. Go to the Remote Module and press the digit desired for Arming (press once only).

b. Press, in order, the four digits to be used for Disarming. — Ready light stops blinking, CODES are entered.

7331 AND 7530 DIGITAL KEY MODULE TEST

1. Enter the ARM Code. (Press arming digit twice.) — The system-armed light on all key modules should light.

2. Open the jumper between 7 and 8. — The system should to into an immediate intrusion alarm as follows:

   - All speakers sound an alarm tone, as does the speaker built into the Remote Module.

3. Re-attach the jumper between terminals 7 and 8.

4. Enter the DISARM Code. — The alarm resets and the system armed light of the Remote Module goes off.

5. Repeat this test for each Remote Module in the system.

6. On the Model 7530 press and hold the emergency button for at least one second. — The emergency alarm should sound (if audible). Enter your disarm code to reset the alarm.

Table 2. 2620 Wiring/Testing Procedure (Cont.)

INTRUSION CIRCUIT INSTALLATION

1. Install all normally-open and normally-closed instant circuit sensors (see Figure 4).	1. Disarm the system. b. If using the normally-closed sensors in the instant circuit, remove the jumper from between to terminals 7 and 8. c. Connect the normally-closed sensor loop to terminals 7 and 8. d. Connect the normally-open exterior circuit sensors to terminals 8 and 18.
2. Install all exit/entrance circuit sensors. (See Figure 5).	a. If using normally-closed Exit/Entrance circuit sensors, remove the jumper from between terminals 9 and 10 and connect the sensors to terminals 9 and 10. b. Connect all normally-open Exit/Entrance sensors to terminals 10 and 18.
3. Install fire bell (optional). Bell or external speakers may be used but NOT BOTH.	a. Place option switch 10 in the CLOSED position. (If a bell is to be used.) b. Connect fire bell (12-volt bells only) to terminals 3 and 17. c. Connect a Model 7800 Suppressor across the bell points to suppress any feed-back noise that could influence the speaker or key circuits.
4. Install all normally-closed and normally-open interior circuit sensors. These are switched in and out of the intrusion loop by the interior switch located on the Master Module (and will be active whenever intrusion circuit is armed and the interior light is lit). (See Figure 10.)	Connect the normally-closed interior circuit sensor loop to terminals 28 and 29. Remove the jumper from terminals 28 and 29. Connect the normally-open interior circuit sensors to terminals 18 and 28.
5. Install all external speakers.	a. Place option switch 10 in the OPEN position. b. Connect all speakers to terminals 3 and 17.
6. Turn ON DC Power switch.	

FIELD TEST (INTRUSION CIRCUIT)

1. Go to a Remote Module location. Enter ARM and DISARM codes.	a. The Ready light should stop blinking.
2. ARM the system. *NOTE:* If the Ready light is not on, the instant intrusion circuit or the exit/entrance circuit is faulty. Recheck all sensors for proper closing. To isolate a problem, disconnect the suspected circuit from the 2620 control panel and replace it with a jumper. Continue this procedure until the problem circuit is isolated. Then recheck the wiring, sensors, and attachments until the problem circuit is corrected. DO NOT PROCEED WITH THE REST OF THIS TEST UNTIL PROPERLY CLOSED INSTANT CIRCUIT IS OBTAINED.	
3. DISARM the system.	The system disarms.
4. To test individual sensors, open a door or window in the instant circuit and leave it open.	

Table 2. 2620 Wiring/Testing Procedure (Cont.)

FIELD TEST (INTRUSION CIRCUIT) (Cont.)

5. Enter the ARM code.	The system should NOT arm.
6. Close the door or window.	
7. Repeat this test using different doors and windows until all instant loop sensors are checked.	
8. Reset all sensors to the armed position.	
9. ARM the system.	All system-armed lights should light.
10. Open one of the sensored doors. The system should go into an Intrusion alarm.	a. All built-in speakers on the Remote Modules emit an alarm tone. b. All external speakers and bells emit a continuous alarm tone. c. The system-armed light flashes. d. The ready light should blink.
11. Enter the DISARM code.	The alarm shuts off.

EXIT/ENTRANCE DELAY TEST

1. ARM the system.	
2. Open and close a door in the exit/entrance loop and wait until the exit delay time expires.	The system should NOT go into Intrusion alarm.
3. DISARM the system.	
4. Repeat the test for each door in the exit/entrance loop.	
5. ARM the system.	
6. Open a door in the loop and leave it open.	
7. After the delay time expires (time selected for Option Switches 2 and 3) the Intrusion alarm should sound.	An Intrusion alarm occurs, all system speakers and bells emit an alarm and the system-armed light flashes.
8. DISARM the system.	The system disarms.
9. ARM the system and wait until the exit delay time elapses.	
10. Open a door in the loop.	The exit/entrance tone should sound.
11. Let the exit/entrance tone sound until the exit/entrance delay again elapses.	An intrusion alarm should sound.
12. Repeat step 11, but DISARM the system while the exit/entrance tone is still sounding.	The exit/entrance tone should shut-off and no Intrusion alarm should sound.

Table 2. 2620 Wiring/Testing Procedure (Cont.)

FIELD TEST (INTRUSION CIRCUIT) (Cont.)

INTERIOR CIRCUIT TEST

1. Press Interior touch switch on 7530. This adds the interior protection circuit devices (such as pressure mats) to the exterior protection circuits.	Interior Enabled light on 7530 turns on. If the Ready light turns off at this time it indicates that sensor in the Interior circuit is in an alarm state. System will not arm until corrected.
2. ARM the system.	The system armed lights turn on.
3. DISARM the system.	The system armed and interior lights turn off.
4. Press Interior touch switch.	Interior light turns on.
5. Place an object, such as a chair on a pressure mat.	Ready light turns off.
6. Attempt to ARM the system.	The system should not arm.
7. Repeat this test for all pressure mats on the system.	

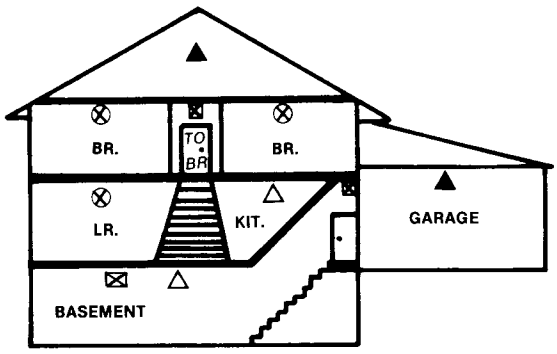
FIRE CIRCUIT INSTALLATION (See Figure 7)

GENERAL FIRE CIRCUIT INFORMATION: Fire circuit wiring consists of a pair of wires connecting terminals 4 and 6 of the 2620 with all fire circuit devices, and ending with an end-of-line resistor (see Figure 7). Any interruption of this current produces a trouble signal. Problems that can cause current interruption are: faulty fire circuit wiring, faulty detector connections and faulty smoke detector operation. It is important, therefore, that the fire loop pair be brought to and from each device, and that the loop characteristic be maintained in order to provide maximum supervision. This means that a fire detector located a distance from a main wiring run requires four conductors (2 out, 2 back). A smoke detector requires the same wiring (supervisory contacts in series with the fire loop, alarm contacts in parallel) plus the addition of two conductors to supply power that may be "dead-ended."

A short across the wires of the fire circuit (as in the case of a heat detector activating) produces a fire alarm.

CAUTION: Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows:

A smoke detector installed in each separate sleeping area (the vicinity of, but outside of the bedrooms), and heat or smoke detectors in living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements, and attached garages.



☒ Smoke detectors for minimum protection

⊗ Smoke detectors for additional protection

△ 135°F heat activated detectors

▲ 190°F heat activated detectors.

Typical installation layout of a Fire Security System.

IMPORTANT: Rate-of-rise sensors should be installed in areas of even temperature as they respond to temperature increases of 15°F, or greater, per minute. (Refer to *Standard for Household Fire Warning Equipment*, NFPA No. 74-1972.)

1. Install all normally-open fire sensors (see Figure 7).
   a. Connect all sensors, including the 7620 smoke sensors, in a single parallel circuit with a 1,000 ohm resistor connected across the last sensor. (Use the resistor shipped with the system, which was connected to terminals 4 and 6 during the initial system tests.) Refer to Figure 7 throughout this procedure.
   b. Wire any fire-stats and smoke detectors so that the supervisory leads are connected in the series with the fire loop and the alarm leads are connected in parallel.

Table 2. 2620 Wiring/Testing Procedure (Cont.)

FIRE CIRCUIT INSTALLATION (Cont.)

c. **7620 Smoke Detector Installation Requirements:** At least a 3-conductor cable is needed to wire each 7620 to the fire loop and power supply. Each 7620 requires 5 ma of current.

Connect each 7620 as follows:

- Red and one Purple/White to terminal 4.
- Black Wire to terminal 18.
- Connect the remaining Purple Wire to the next Smoke or Heat detector, or if it is the last sensor in the fire loop, connect it to terminal 6.

d. Connect this entire circuit to terminals 4 and 6. *NOTE:* If the system does not include a fire circuit, leave the 1,000 ohm resistor between terminals 4 and 6.

FIELD TEST (TROUBLE SIGNAL, 7620)

TROUBLE SIGNAL (FIRE LOOP) TEST

1. Remove one of the wires from the end-of-line resistor.	a. A trouble alert signal (steady, but less loud than an alarm tone). b. The monitor light on the 2620 should go off.
2. Move the monitor speaker switch on the 2620 to OFF.	a. The alert tone should stop. b. The "Alert Silenced" light should come on.
3. Re-connect the wire to the sensor and restore the monitor speaker switch to ON.	a. The monitor light should come back on. b. The "Alert Silenced" light should then go off.

7620 SMOKE DETECTOR TEST

1. Hold the smoldering end of a piece of cotton rope, or a cigarette, three inches from the 7620 and allow the smoke to flow into the detector.	After 20 to 25 seconds, a fire alarm should sound as follows: All built-in speakers, all external speakers, or the bell in the system should sound an alarm tone.
2. Clear the smoke detector by fanning fresh air into it for 20 to 25 seconds.	
3. If the 7620 is used in the latching mode, you must reset it manually by pressing the Fire reset/test switch on the 2620 control.	Both the 7620 and the 2620 control panel will be reset. All alarm conditions shutdown.
4. Repeat this test for all 7620's.	
5. Go back to the 2620. Press the red Fire test switch and hold.	a. The system should go into a fire alarm as follows: - The speaker in the 7331 and/or 7530 sounds a Fire alarm. b. WEAK BATTERY: If the fire alarm sounds for only a few seconds and then fades out, the 6812 battery is weak. Either replace the battery, or allow it to charge longer.
6. Turn off the alarm by releasing the fire test switch.	The alarm turns off, and the channel resets.
7. Turn *OFF* DC power switch to reset Digital Dialer.	

FIELD TEST (PANIC/TAMPER/EMERGENCY CIRCUIT)

PANIC/TAMPER INPUT TEST

1. Attempt to violate the system by removing a panic/tamper-monitored device from the wall where it is mounted.	An Intrusion alarm should sound.
2. Return the sensor to its original armed position.	
3. DISARM the system.	The alarm should shut off.
4. Repeat this test for each sensor in the panic/tamper loop.	

EMERGENCY INPUT TEST

1. Jumper the contacts of the emergency sensor.	An Emergency alarm should sound.
2. DISARM the system.	The alarm should shut off.

AUXILIARY INPUT TEST

1. Jumper the contacts of the Auxiliary sensor.	An Auxiliary alarm should sound (same as Emergency).
2. DISARM the system.	The alarm should shut off.

FIELD TEST (Digital Dialer)

DIGITAL COMMUNICATOR TEST

1. Notify the central message receiving point that you are making at test.	*NOTE:* Whenever the 2620 is reporting, the Ready light will be blinking on the 7331, 7530, or 7230. When the 2620 has received "Kiss-off," the Ready light will be on steady, or off entirely.
2. Perform a test on each system component as described earlier. Allow the alarm to sound until the Ready light stops blinking.	An appropriate alarm should sound for the type of test performed (specifically: fire, intrusion, emergency, or auxiliary.)
3. Shut OFF the alarm.	
4. Call the central message receiving point for results of the test.	

OPENING/CLOSING TEST

1. Place switch option (5) in the open position and cut jumper 5.	
2. Arm the intrusion circuit and wait until the ready light stops blinking.	The 2620 transmits a closing message to the central message receiving station (Code 4).
3. Cause an intrusion alarm and wait 45 seconds before disarming the system.	The 2620 transmits an intrusion alarm (Code 1). See Note #2 on page 4.
4. Disarm the system and wait until the Ready light stops blinking.	The 2620 transmits an opening message to the central message receiving station (Code 9).

Table 2. 2620 Wiring/Testing Procedure (Cont.)

5. DISARM the system.	The System-Armed light turns off.

FIELD TEST (Automatic Attempt-to-Reset/Automatic Shutdown)

AUTOMATIC SHUT-DOWN

1. ARM the system.	
2. Open a door in the Instant loop and leave it open.	An Intrusion alarm should sound.
3. Let the Intrusion alarm sound for 5 or 15 minutes (depending on Option Switch 8). At that time the system should automatically shut-down the audible alarm only.	Audible alarm shuts off after 5 or 15 minutes of alarm. The System-Armed light will be blinking.
4. DISARM the system.	

TEST FREQUENCY

The installed 2620 should be tested periodically according to the following schedule:

Fire	Weekly
Intrusion	Monthly
Emergency	Monthly
Heat and Smoke Detectors	Every 6 Months
Attempt-to-Reset and Attempt-to-Shut-Down	Annually

FIELD TEST (Fire Reset/Test Switch)

1. Press and HOLD for a minimum of 10 seconds, the Fire Reset/Test Switch.	Fire alarm should sound at all built-in and external speakers (or bell). *NOTE:* The Fire Reset/Test Switch disconnects the AC portion of the 2620's power supply in order to test the battery. If the Fire alarm does not come on when the switch is pressed this indicates that the battery is either not connected, not charged or is defective.
2. Release the Fire Reset/Test Switch.	Fire alarm will turn off. Digital Dialer will begin dialing to report a test code. This will be indicated by the Ready light which should be flashing on and off. When the receipt of message (Kiss-off) is received from the central message station the Ready light stops flashing and will be on steady.

FIELD TEST (Automatic Attempt-to-Reset/Automatic Shutdown)

AUTOMATIC ATTEMPT-TO-RESET

1. Disable the bell and speakers except on the 7331 or 7530, by temporarily removing connections from terminal 17.	
2. ARM the system.	
3. Open and then close a door in the intrusion loop.	An intrusion alarm should sound.
4. Wait 5 or 15 minutes (depending on position of Option Switch 8).	The alarm should shut-off. The system-armed light should remain on but will be blinking.

NOTE: For the purposes of this manual, Normally Closed contact refers to a switch whose contacts conduct when in the non-alarm state and do not conduct when in the alarm state. A switch, which by itself is normally open, becomes normally closed if it is installed so that it is closed when its zone is secure. Conversely, Normally Open contact refers to a switch whose contacts do not conduct when in the non-alarm state and do conduct when in the alarm state.

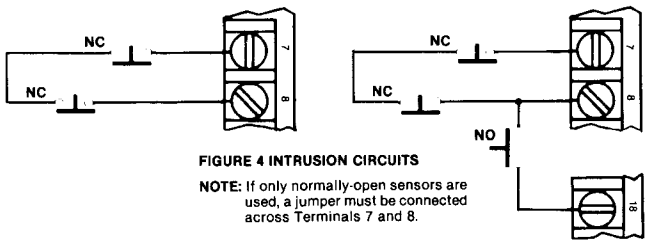


FIGURE 4 INTRUSION CIRCUITS

NOTE: If only normally-open sensors are used, a jumper must be connected across Terminals 7 and 8.

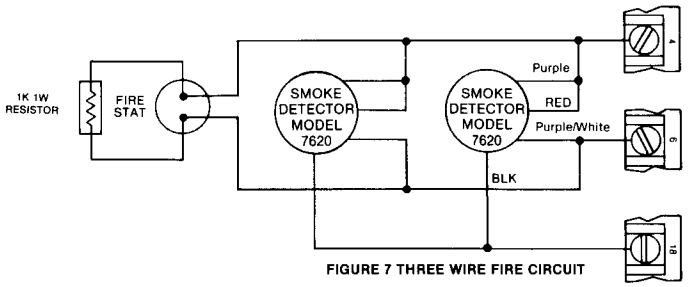


FIGURE 7 THREE WIRE FIRE CIRCUIT

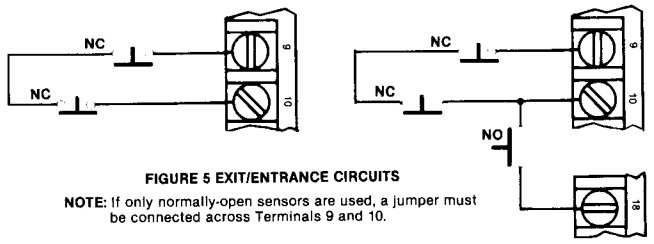


FIGURE 5 EXIT/ENTRANCE CIRCUITS

NOTE: If only normally-open sensors are used, a jumper must be connected across Terminals 9 and 10.

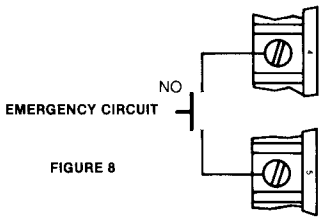


FIGURE 8

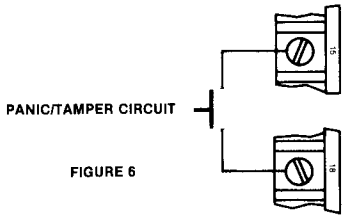


FIGURE 6

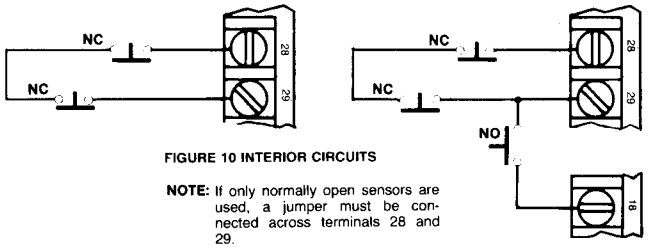


FIGURE 10 INTERIOR CIRCUITS

NOTE: If only normally open sensors are used, a jumper must be connected across terminals 28 and 29.

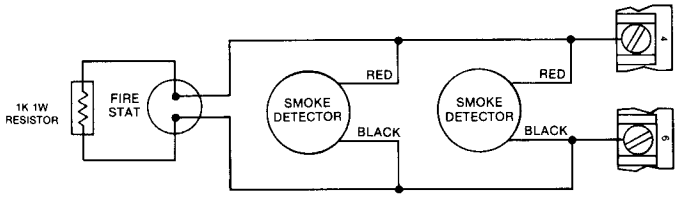


FIGURE 7 TWO-WIRE FIRE CIRCUIT ONLY

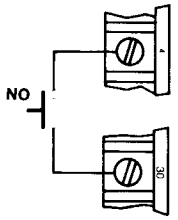


FIGURE 11 AUXILIARY CIRCUITS

INSTRUCTION SHEET

MODEL 7890 TRANSIENT-SURGE PROTECTOR

The Model 7890 Protector, when properly installed with shielded two-conductor cable, will clamp the AC output of the Class II transformer (Model 9220) of the Silent Knight control panels. It reduces transient voltages frequently present on the power lines—caused by lightning and other sources—to manageable levels.

The AC power lines are the most common source of transient/lightning damage in alarm systems.

The Model 7890 consists of two bi-polar transient suppressors with lugs at its connecting points.

CAUTION: Before connecting, verify that the center ground pin in the AC switch, to which the transformer is to be connected, is grounded to earth ground. This can be checked by measuring the AC voltage between the ground pin and EACH side of the outlet. There must be an identical voltage between one side of the outlet to the ground pin and from one side of the outlet to the other—approximately 117 VAC.

If these voltages are not identical the outlet does not have an earth ground and must be grounded by running a #18 gauge wire from the outlet to a good ground; for example, a cold water pipe.

WIRING

1) With the transformer unplugged, connect the open ends of the 7890 to the two AC screws of the transformer. Connect the common end of the 7890 to the screw marked GRD on the transformer.

2) Connect the shielded cable as shown; the black and white wires to the AC output screws and the shield to the screw marked GRD.

CAUTION! BE SURE THE SHIELD CONDUCTOR CANNOT COME IN CONTACT WITH THE AC OUTPUT SCREWS.

3) Connect the other end of the shielded cable to the control panel; the black and white wires to the AC input, and the shield to the *earth ground* (the same point as the green ground wire in the panel).

4) Plug in the transformer and securely fasten the mounting tab to the center mounting screw on the AC cover.

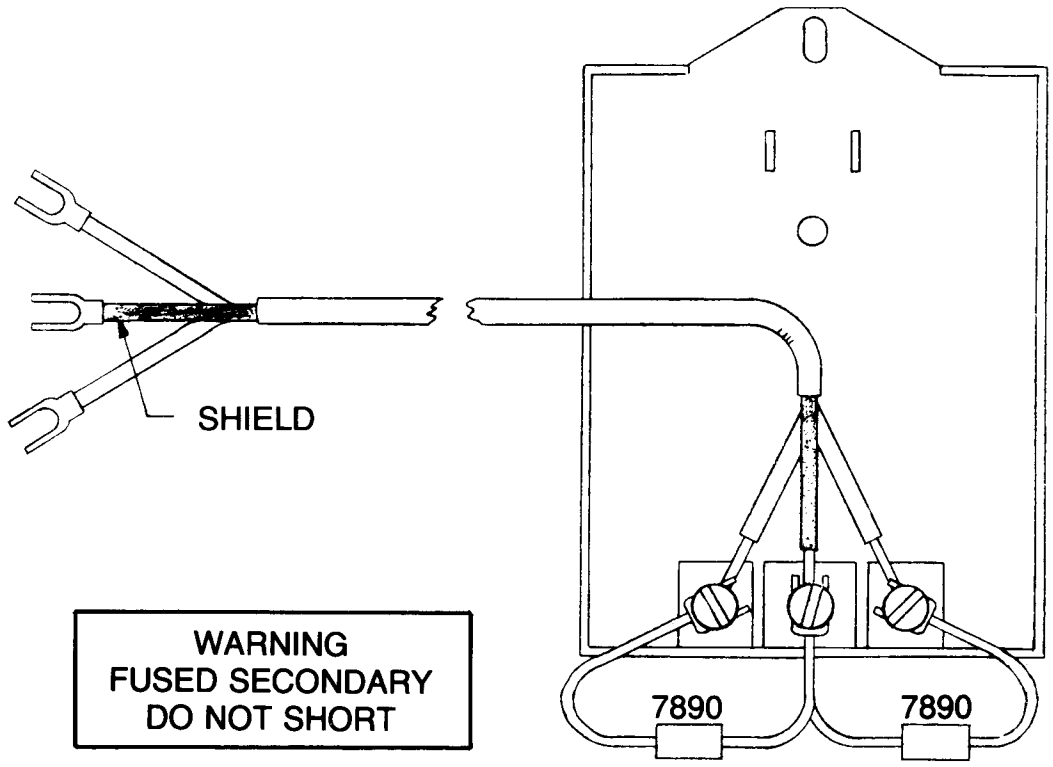
CAUTION—TO REDUCE THE RISK OF ELECTRICAL SHOCK, DISCONNECT POWER TO THE RECEPTACLE BEFORE INSTALLING OR REMOVING THE UNIT. WHEN REMOVING RECEPTACLE COVER SCREW, COVER MAY FALL ACROSS PLUG PINS OR RECEPTACLE MAY BECOME DISPLACED.

USE ONLY WITH DUPLEX RECEPTACLE HAVING CENTER SCREW.

SECURE UNIT IN PLACE BY RECEPTACLE COVER SCREW.

CAUTION—TO REDUCE RISK OF FIRE OR ELECTRICAL SHOCK, CONNECT DIRECTLY TO A GROUNDING RECEPTACLE—3 PRONG.

IMPORTANT: DO NOT USE THE 7870 TELEPHONE LINE TRANSIENT SUPPRESSOR IN PLACE OF THE 7890 (OR VISA VERSA). A SHORT CIRCUIT WILL RESULT.



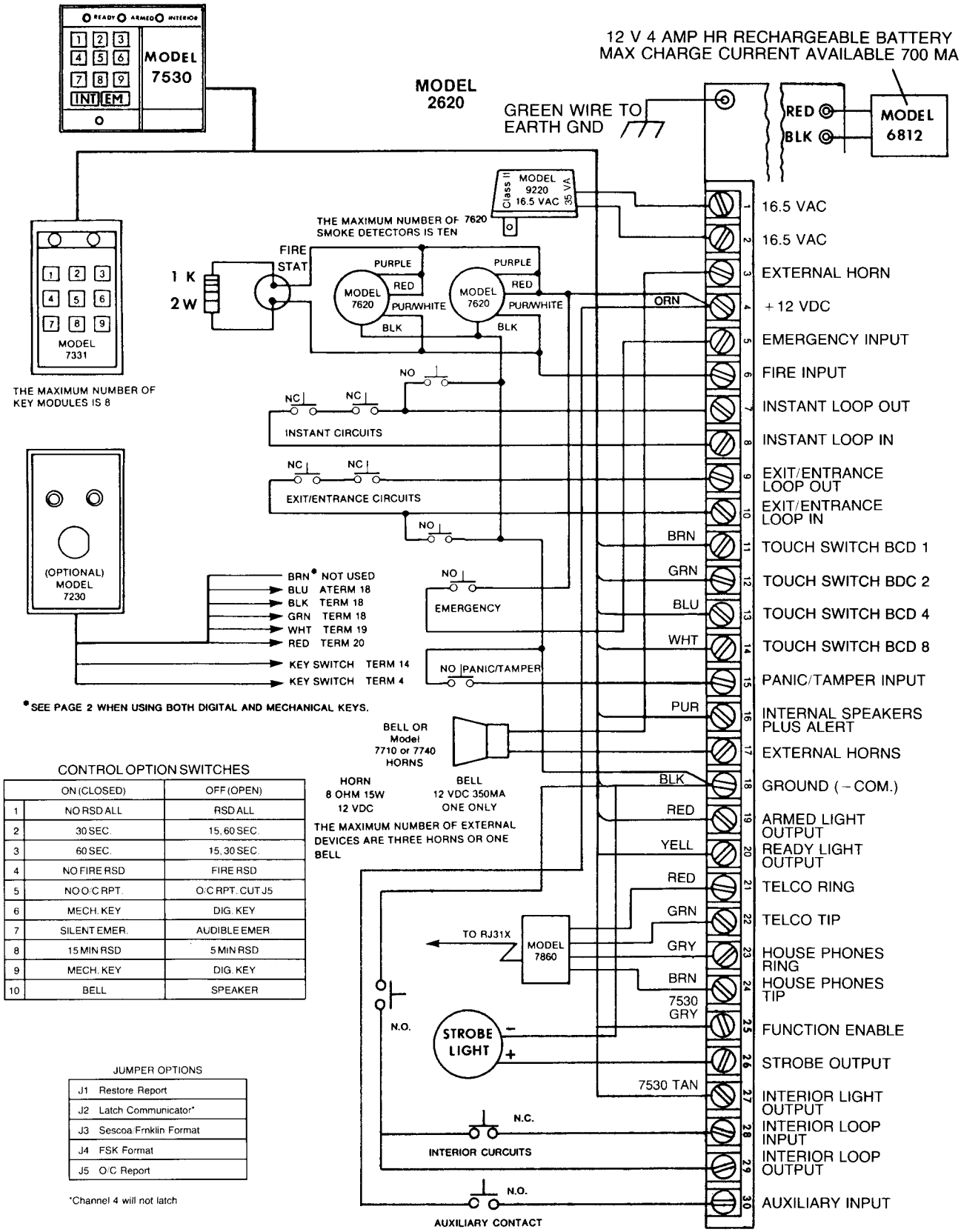

MODEL 7530
READY ARMED INTERIOR
INT EM
12 V 4 AMP HR RECHARGEABLE BATTERY
MAX CHARGE CURRENT AVAILABLE 700 MA
MODEL 2620
GREEN WIRE TO EARTH GND
RED
BLK
MODEL 6812
Class II MODEL 9220 16.5 VAC 35 VA
THE MAXIMUM NUMBER OF 7620 SMOKE DETECTORS IS TEN
FIRE STAT
1 K 2W
PURPLE
RED
PUR/WHITE
BLK
MODEL 7620
MODEL 7331
THE MAXIMUM NUMBER OF KEY MODULES IS 8
NO
NC
INSTANT CIRCUITS
EXIT/ENTRANCE CIRCUITS
(OPTIONAL) MODEL 7230
BRN* NOT USED
BLU ATERM 18
BLK TERM 18
GRN TERM 18
WHT TERM 19
RED TERM 20
KEY SWITCH TERM 14
KEY SWITCH TERM 4
EMERGENCY
PANIC/TAMPER
*SEE PAGE 2 WHEN USING BOTH DIGITAL AND MECHANICAL KEYS.
BELL OR Model 7710 or 7740 HORNS
HORN 8 OHM 15W 12 VDC
BELL 12 VDC 350MA ONE ONLY
THE MAXIMUM NUMBER OF EXTERNAL DEVICES ARE THREE HORNS OR ONE BELL
CONTROL OPTION SWITCHES
ON (CLOSED) OFF (OPEN)
1 NO RSD ALL RSD ALL
2 30 SEC. 15, 60 SEC.
3 60 SEC. 15, 30 SEC.
4 NO FIRE RSD FIRE RSD
5 NO O/C RPT. O/C RPT. CUT J5
6 MECH. KEY DIG. KEY
7 SILENT EMER. AUDIBLE EMER.
8 15 MIN RSD 5 MIN RSD
9 MECH. KEY DIG. KEY
10 BELL SPEAKER
JUMPER OPTIONS
J1 Restore Report
J2 Latch Communicator*
J3 Sescoa/Franklin Format
J4 FSK Format
J5 O/C Report
*Channel 4 will not latch
TO RJ31X
MODEL 7860
N.O.
STROBE LIGHT
N.C.
INTERIOR CIRCUITS
N.O.
AUXILIARY CONTACT
1 16.5 VAC
2 16.5 VAC
3 EXTERNAL HORN
4 +12 VDC
5 EMERGENCY INPUT
6 FIRE INPUT
7 INSTANT LOOP OUT
8 INSTANT LOOP IN
9 EXIT/ENTRANCE LOOP OUT
10 EXIT/ENTRANCE LOOP IN
11 BRN TOUCH SWITCH BCD 1
12 GRN TOUCH SWITCH BDC 2
13 BLU TOUCH SWITCH BCD 4
14 WHT TOUCH SWITCH BCD 8
15 PANIC/TAMPER INPUT
16 PUR INTERNAL SPEAKERS PLUS ALERT
17 EXTERNAL HORNS
18 BLK GROUND (-COM.)
19 RED ARMED LIGHT OUTPUT
20 YELL READY LIGHT OUTPUT
21 RED TELCO RING
22 GRN TELCO TIP
23 GRY HOUSE PHONES RING
24 BRN HOUSE PHONES TIP
25 7530 GRY FUNCTION ENABLE
26 STROBE OUTPUT
27 7530 TAN INTERIOR LIGHT OUTPUT
28 INTERIOR LOOP INPUT
29 INTERIOR LOOP OUTPUT
30 AUXILIARY INPUT

FIGURE 9

SILENT KNIGHT MODEL 2620 TERMINAL STRIP DESCRIPTION

Terminals

1 & 2 Low Voltage A.C. Input 18 V.A.C. typical.
3 Ext. speaker Power. +20 V.D.C. when A.C. is present 12 V.D.C on Battery. Protected by Fuse F3.
4 +12 V.D.C. continuous. Protected by Fuse F1 switched by Fire Reset/Test switch.
5 Channel 3 input. +12 V.D.C. required to activate.
6 Channel 2 (Fire) Input. Positive +15 V.D.C. when Fire Circuit is terminated in 1K resistor. +12 V.D.C. required to activiate.
7 Instant Burglary Loop out. +12 V.D.C. continuous limited for short circuit protection.
8 Instant Burglary Loop Input. +12 V.D.C. when circuit is closed.
9 Entry Exit Loop Out. +12 V.D.C. continuous current limited for short circuit protection.
10 Entry Exit Loop Input. +12 V.D.C. when circuit is closed.
11 Key Line Input. +12 V.D.C. when digit 1 is depressed.
12 Key Line Input. +12 V.D.C. when digit 2 is depressed.
13 Key Line Input. +12 V.D.C. when digit 4 is depressed.
14 Key Line Input. +12 V.D.C. when digit 8 is depressed.
15 Tamper Input. +12 V.D.C. continuous. Switched to common negative to activate.
16 Internal speakers Output. + 6 V.D.C. during pre-warming tone, trouble tone or code entry. +12 V.D.C. during alarm.
17 Ext. speaker Output. Switched negative modulated during alarm.
18 Common negative.
19 Armed Light Output. +12 V.D.C. when system is armed.
20 Ready Light Output. +12 V.D.C. when system is not armed and protective circuits are closed.
21 Telephone Line Input (Ring)
22 Telephone Line Input (Tip)
23 House Telephone Line Output (Ring 1)
24 House Telephone Line Output (Tip 1)
25 Function enable for 7430 & 7580 +12 V when interior or emergency button is depressed.
26 Strobe Light Output. +12 V.D.C. 500 ma when in alarm.
27 Interior Light Output +12 V.D.C. when interior circuit is enabled.
28 Interior loop input +12 V.D.C. when circuit is closed.
29 Interior loop output +12 V.D.C. continuous, current limited.
30 Auxiliary input (channel 4) +12 V.D.C. required to activate.

ACCESSORY LIMITS

Model #	*Quantity*	
7331	8*	42 ma. each
7430	8*	42 ma. each
7530	8*	60 ma. each
7480	3*	394 ma. each (w/8-zone leds on)
7580	3*	458 ma. each (w/8-zone leds on)
7620	10	
7740	3	
BELL	1	

*Example: A Model 2620 may be interconnected to (4) 7430 and (1) 7580, but not to (8) 7430 and (3) 7580.

KEEP THIS INSTALLATION MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE.

IF THERE ARE ANY QUESTIONS CONCERNING THIS EQUIPMENT, CALL SILENT KNIGHT'S CUSTOMER SERVICE DEPARTMENT.
(612) 566-0510