

TERMINALS	DESCRIPTIONS
1 & 2	Low Voltage Input: Use 12V 20VA U.L. listed transformer. Connect transformer output to terminals 1 & 2. LED indication for power.
3 & 4	Closed Protective Circuit: Zone 1. Instant loop that may be bypassed with the zone switch on panel.
5 & 6	Closed Protective Circuit: Zone 2. Instant loop that may be bypassed with the zone switch on panel.
7 & 8	Delay Loop: Wire closed delay circuit to these terminals.
5 & 8	Open Protective Circuit: (mats, etc.).
9 & 10	24 Hour Panic: Open circuit-a closure on this circuit will cause the bell to ring. It can be reset by the reset switch or the key station by energizing the key two times in the un-armed condition or once in the armed condition.
11 & 12	Bell Output: 6 volts on burglary or panic. 11(+), 12(-). Max. load 1 AMP.
13 & 14	Bell Output: 6 volts on fire. 14(+), 13(-). Max load 1 AMP.
15 & 16	Open circuit contact that closes when burglary or panic circuit is tripped. Can be used for dialer, siren or any electrical circuit up to 3 amps at 30V.
17 & 18	Open circuit contact that closes when fire circuit is tripped. Can be used for dialer, siren or any electrical circuit up to 3 amps at 30V.
19 & 20	Sonalert: Early warning indication for entrance-exit circuit. 19(+). Do not exceed 5 ma draw on these terminals. #515 only.
21 & 22	Open Fire Circuit: Wire thermostats in parallel-a closure on this circuit will cause a voltage to appear on terminals 13-14 and the dry contacts 17 & 18 to close. EOL resistor 470 ohms (see page 4).
20 & 22	Smoke Detector Output: Continuous 6 volt output. Momentarily pushing reset switch (lower right) will interrupt power and reset the smoke detectors. 22(+). NOTE: The total current available on the panel is 3 amps. Use #617 for up to 5 smoke detectors.
23 & 24	Fire Supervision Sonalert 24(+), 23(-).
25 & 26	Green LED Circuit: Use LED's only-indicates condition of protective circuit. LED off indicates that the protective circuit is open. LED on indicates that system may be armed.
25 & 27	Red Light Circuit: LED's or incandescent lamps may be used-indicate status of system. Red light (LED) on indicates system is armed.
25 & 28	Spring-loaded open key switch or open circuit push button, (momentary closure): Used to switch the control panel from green light (stand-by) to red light (armed). NOTE: Since terminal 25 supplies B+ to the key, green LED and red light circuits, only four (4) wires are required for a remote station. Remote stations may be made tamper-proof by using a five (5) wire cable. Place a normally open tamper button behind the remote station & wire one side of the button to terminal 10 & the other side to terminal 25.
Term. 25	SECONDARY CIRCUIT-"BACK-UP PROTECTION"-Open circuit devices in parallel, active only after instant loop is tripped and remains open after bell cut-off. Use for interior protection. A closure on this circuit after it is activated will cause the panel to go into alarm.

EXIT AND ENTRANCE ADJUSTMENT PROCEDURE:

1. Turn exit pot fully counter-clockwise.
2. Turn entrance pot fully clockwise.
3. Test delay loop by putting a voltmeter or sonalert on terminals 19 & 20. Close all the protective and delay loops (green light on) & set the system to the "armed" (red light) condition. Now open the delay door or remove the connection to terminal 7. 5-6 volts should appear across terminals 19 & 20 or the sonalert should sound. This indicates that the delay loop is operating correctly. Disarm the system.
4. Exit time is set for the desired delay period by turning the pot clockwise. A $\frac{1}{2}$ turn of the pot will be about 20-30 seconds. Start timing the exit delay as soon as the system is "armed". Now open the delay door or remove the connection to terminal 7. Once again, wait for 5-6 volts to appear across terminals 19 & 20 or the sonalert to sound. This period is the exit time. Should more time be required, turn the pot further clockwise and repeat this procedure.
5. Entrance Time: From the time the sonalert comes on or 5-6 volts appear on terminals 19 & 20, to the time the bell rings is the entrance time. With the pot fully clockwise, the entrance time is set to maximum. To decrease the time, turn the pot counter-clockwise. NOTE: For accurate entrance timing, the delay loop must be closed during the entrance cycle, IE: After the sonalert sounds or voltage appears on 19 & 20, close the connection to 7 or close the delay door & continue timing until the bell sounds.
6. Each trimpot is adjustable from 0-2 minutes.

BELL CUT-OFF/RECYCLE TIME ADJUSTMENT:

The built-in recycle/bell cut-off time is pre-set for 30 seconds. Jumper J1 when cut will provide a 15 minute time and with jumpers J1 & J2 cut, the time will be 30 minutes. This timing circuit will completely recycle the control if all the loops are restored after the bell has cut off. If the loop remains open, the bell will cut off, but the system will not recycle. The red LED on the front of the control instrument will light to show that a loop is still violated after bell cut-off.

U.L. REQUIREMENTS:

1. Maximum entrance time is 15 seconds, maximum exit time is 1 minute.
2. Minimum time for recycle/cut-off is greater than 4 minutes after J1 is cut.

OPERATION, TESTING AND MAINTENANCE PROCEDURE

1. A/C pilot light should be on at all times; if it is out, check outlet and A/C power. DO NOT CONNECT TO A RECEPTACLE CONTROLLED BY A SWITCH.
2. Alarm - In the event of a fire alarm, the unit must be reset using the reset switch.
3. Alarm Silence - Unit may be silenced by holding reset switch in reset mode. If alarm continues after releasing switch, reinspect entire house for possible fire.
4. Trouble - A trouble condition will be sounded if there is a defect in the fire alarm system.
5. Trouble Silence - The audible signal may be silenced using the switch on the plate; in the silence mode, the light will be on.
6. Off - Normal position of switches - described in #5, light on the trouble indicator will be on.
7. LED and Fuse Replacement - Only exact replacement LED's should be used; consult your installing company.
8. Battery Maintenance and Replacement - The battery supplied with this unit does not require any regular maintenance under normal conditions. It will last for 3 years. Should replacement be necessary, only an exact replacement should be used. Your installing company has these in stock.
9. Use this space to fill in the installing company name, address and phone number:
10. Maintenance Recommendations - This control unit was manufactured under rigid quality standards and the system complies with all U.L. requirements for its intended use. Maintenance is best performed by your installing company with trained service personnel. Call them when your alarm system needs servicing. This unit is intended to be installed in accordance with the requirements of N.F.P.A. Standard #74 and the two local authorities having jurisdiction.

ADDITIONAL NOTES:

The National Fire Protection Association publishes a standard for household fire warning equipment, NFPA #74; their address is:
470 Atlantic Ave., Boston, MA 02210.

Testing of the system should be performed once a week in both the A.C. on and stand-by battery modes. Your neighbors' cooperation and understanding is important. They play a very important role when you are away. Advise them that you do have a system and to notify the proper authorities should they hear your alarm system sounding. OPTIONS which provide for remote signaling to the police department may be added quite simply. Call your installing company for details.

A thoroughly dependable and easy to operate home burglar/fire alarm system. The control instrument uses a low voltage transformer and transfers to battery operation in the event of a power failure. This procedure is reversed when the A.C. power is restored.

Convenient remote control stations Model #'s 501L & 502L, are used to turn the burglary alarm "off" & "on." The master bedroom is usually a good place for this remote. Additional remotes may be added at any time, being certain not to exceed the maximum allowable current (150 ma) available. The remote control station consists of red & green LED's & a key lock push button.

When all of the protected openings are secure, the green LED's will be lit on all the remotes. This indicates that the system may be turned on. By momentarily activating the key switch or push button, the system is turned "on;" this lights all the red LED's on all the remotes indicating the system is on. By activating key switch again, the system and red LED's are "off."

The system has built-in exit and entry delay to permit access to the home without activating the alarm.

The control instrument will accept closed or open circuit devices. If a panic button is used, a simple tap on the button sounds the alarm 24 hours a day. It can be reset from the remote station or the reset switch inside the panel.

A completely supervised fire alarm system may be used with this control instrument. The fire alarm system operates 24 hours a day. Any number of U.L. listed thermostats may be used. There is also a provision for powering smoke detectors (Models 616,617), or the listed equivalent. Separate terminals are provided for warning horn, so that the owner can distinguish between a burglary or fire alarm.

This control instrument is provided with a charging circuit & rechargeable gel-cell (4 AH). The A.C. pilot light provides a continuous indication that the A.C. is on. If this light is out, check that the transformer is plugged in. In addition, this instrument is protected by a fuse.

A fire trouble remote is provided to notify the occupants that there is a problem with the fire alarm circuit. The audible trouble indicator will sound & may be silenced using the switch on the face of the remote (676). The light will come on to indicate switch is in the silent mode.

Sounding

Devices: Horn for burglary and bell for fire or vice-versa.
HORN: Use #33-6MFG-Wheelock Signals, Inc. (3 Max.)
BELL: Use one listed bell at 750 ma.

Sounding devices listed for use in burglar alarm system battery capacity for emergency stand-by: must be at least 4 hours at 500 ma. load in stand-by. All wire used for installation must be listed.

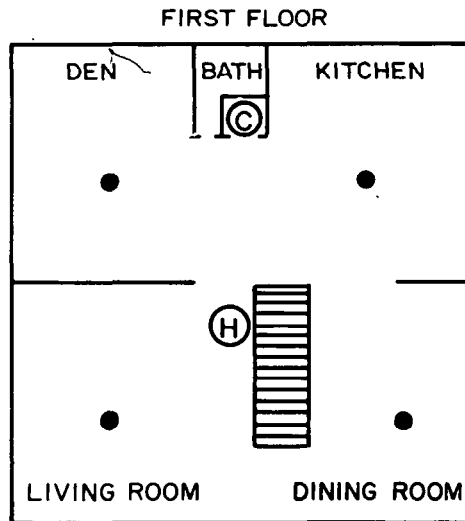
Max. Alarm Load: Terminals 9-10 Burglary - 1 AMP
Terminals 20-21 Fire - 1 AMP

Use 18 AWG wire for leads to sounding devices.

NOTE: This unit was made for installation by experienced alarm installers only. Max. normal load is 300 ma. when using 40VA. Outside remote must be tamperproof. Use listed switch in deep duplex box.

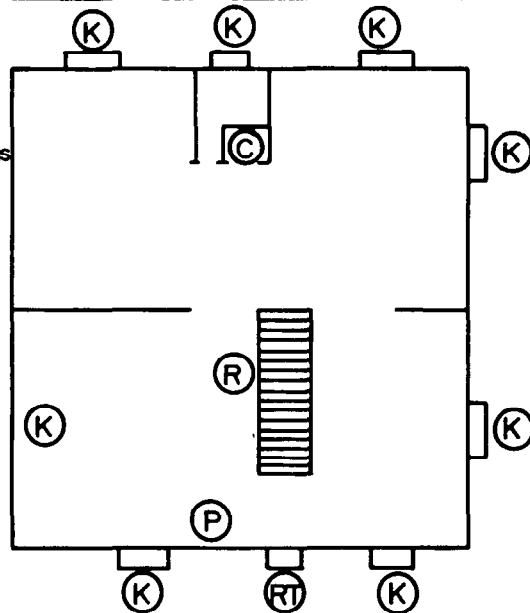
TYPICAL INSTALLATION LAYOUT - FIRE

NOTE: Alternate locations may be required for the devices indicated.

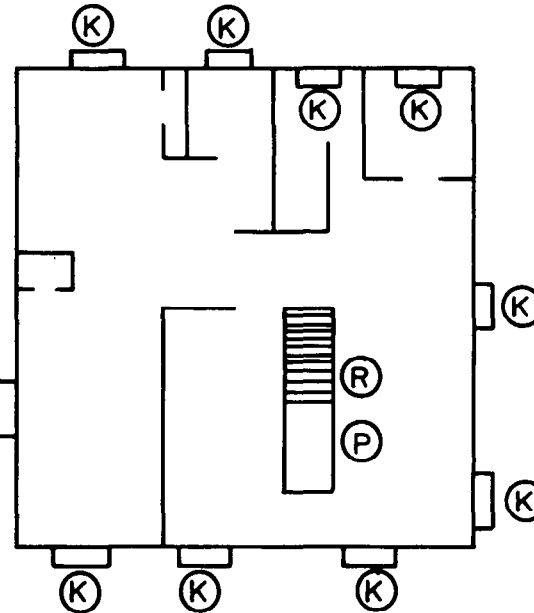
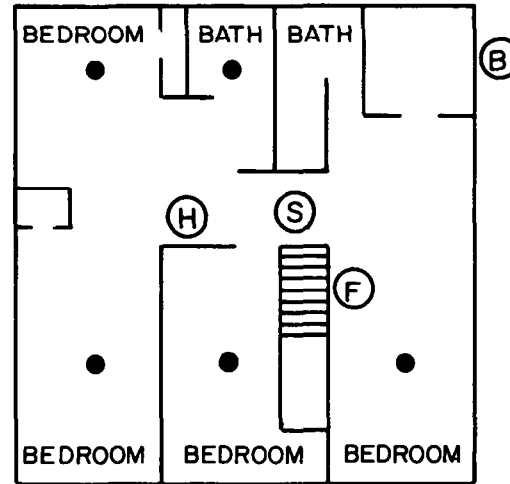


TYPICAL INSTALLATION LAYOUT - BURGLARY

NOTE: All perimeter openings below 18' should be provided with protection.



SECOND FLOOR



LEGEND:

- Ⓢ - CONTROL
- Ⓜ - HORN
- Ⓛ - BELL
- Ⓢ - SMOKE DETECTOR
- - THERMOSTATS
- Ⓢ - FIRE TROUBLE REMOTE
- Ⓜ - CONTACTS
- Ⓛ - REMOTE ON/OFF
- Ⓢ - PANIC BUTTON
- ⓁⓈ - REMOTE ON/OFF w/TAMPER

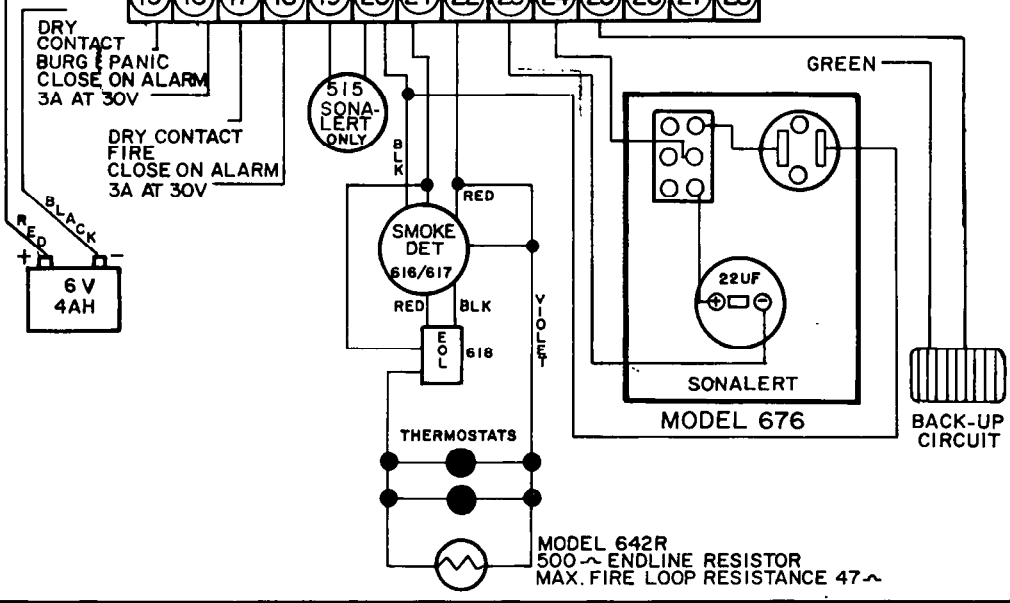
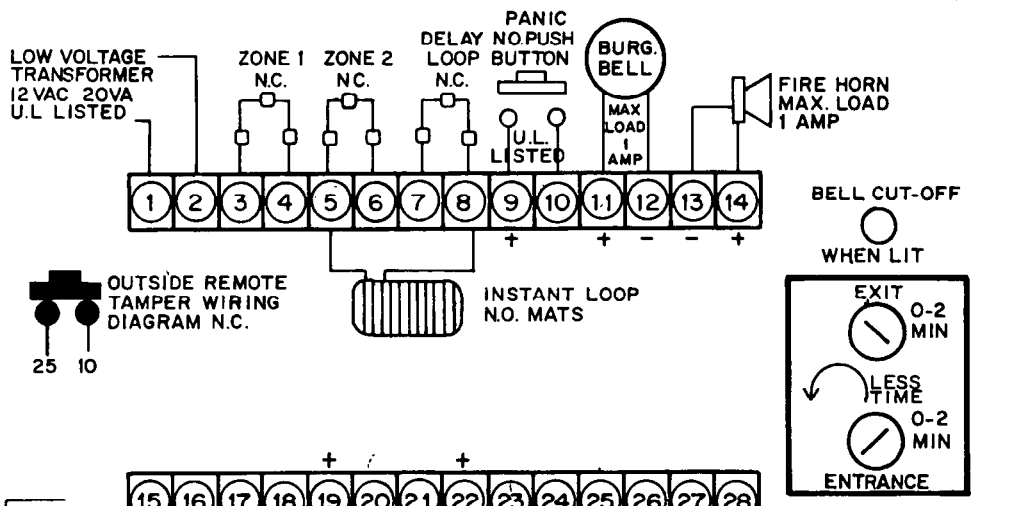
PREPARATION & EDUCATION ARE OF PRIME IMPORTANCE IN FIRE PREVENTION... ESTABLISH A HOUSEHOLD EMERGENCY EVACUATION PLAN IN THE EVENT OF FIRE:

1. Evaluate possible escape routes from your home.
2. Select 2 escape routes from each room.
3. Rooms on the second floor should have a rope ladder. (Be sure it will reach the ground.)
4. Draw a rough sketch of your escape plan so that everyone is familiar with it.
5. Practice your escape plan to assure that everyone know what they have to do.
6. Establish a meeting place outside where your family is to report.
7. Advise the local fire authority that you have installed a fire alarm system. Enter their phone number here:

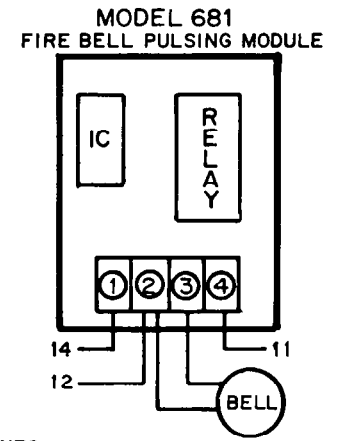
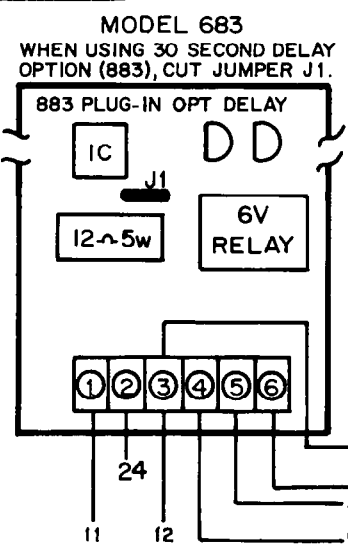
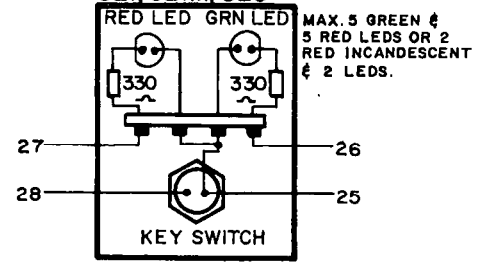
Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows:

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.

NOTE: Approval does not extend to the burglar alarm functions or equipment.



MODELS 501,521D,526D
521, 521M, 526



- Q1 = DC Voltage Out
- Q2/Q3 = Regulator
- Q4 = Green Light or Loop Indicator
- Q5 = Bell Ringing Transistor
- Q6 = Supervise Fire Circuit
- K1 = Bell Relay
- K2 = Ratchet Relay
- K3 = Bell Cut-off Relay
- K4 = Fire Relay
- IC1 = Cut-off Time Exit/Entrance Time
- IC2 = Panic/Sonalert/Recycle Loop Condition/Cut-off Activation

