



INSTALLATION INSTRUCTIONS

**Nos. 4080,
4080XL
ALARM LOGICENTERS**

GENERAL INFORMATION:

The No. 4080XL Alarm LogiCenter is a microcomputer controlled control panel that provides every important feature required for either a UL certified household fire/burglary or commercial local burglary alarm installation and more features than any prior Ademco control panel. The No. 4080 is a smaller version of the No. 4080XL that satisfies the UL requirements for a Listed household fire/burglary alarm system. The following listing of the LogiCenters' features will assist the reader in becoming familiar with the panels' capabilities.

A. Introduction:

1. **Six burglary zones, an emergency zone, and a fire zone...** all fully supervised two wire zones with end-of-line resistors.
2. **Zone independence on the six burglary zones**, with automatic bell shut off and subsequent restoration of protection for all intact zones.
3. **Alarm memory by zone.** Indication maintained until the system is reset.
4. **Built-in opening/closing** or armed/disarmed status supplementary output signal capability for external control.
5. **Built-in siren driver.**
6. **Three position function keyswitch** for Arming/Disarming and System Check/Reset as well as **built-in remote arming capability** via optional keyswitch remote stations (e.g.: No. 246) or (via No. 216 Adapter) No. 215 Digital Keypad Remote Station(s).
7. **Power supply with 6V, 5AH sealed lead-acid, non-venting, rechargeable battery** (No. 498) and plug-in transformer.
8. **Up to 45 hours of standby time**, dependent upon auxiliary load drawn from continuous current auxiliary power output terminals (see table in General Specifications).
9. **Very high regulated, continuous current DC output available** for powering auxiliary devices (up to 500mA at 6V).

B. Zone Inputs:

1. **Main Entry/Exit Delay (Zone 1):** a) Field Selectable entry delay of 15, 30 (maximum permissible entry delay per U.L. Std. 1023 for Household Burglary is 45 seconds) or 60 seconds and exit delay of 30, 60 (maximum permissible exit delay per U.L. Std. 1023 is 60 seconds) or 120 seconds. b) Accepts open and closed circuit devices. c) LED annunciation of zone status and alarm memory. d) Provision of remoteable "Away/Home" entry delay disable ("sleep") switch.
2. **Auxiliary Delay (Zone 2):** a) Permits delaying the activation of space protection and/or motion detection devices covering the area in which the control is located or the normal entry/exit path to/from the control. If this zone is violated subsequent to arming but prior to the entry zone being disturbed (for instance by intruders who stay behind or who enter via a zone other than the main entry/exit zone), the panel will alarm instantly. b) Accepts open and closed circuit devices. c) LED annunciation of zone status and alarm memory.
3. **Night (Zones 3,4):** a) Accepts open and closed circuit devices. b) LED annunciation of zone status and alarm memory. c) Normal response minimizes false alarms from swingers. Fast response option permits use of vibration sensors (e.g.: No. 11 Vibration Contact or No. 9 Glass Sentry).
4. **Day/Night (Zones 5,6):** a) Optional day trouble annunciation. Disturbance during disarmed period sounds built-in buzzer (and optional remote sounders) and lights zone's status annunciator LED. (To silence buzzer turn key-switch on panel momentarily to CHECK/RESET.) Disturbance during armed period causes immediate alarm. b) Accepts open and closed circuit devices. c) LED annunciation of zone status and alarm memory. d) Fast/slow response option.
5. **Fire (Zone 7):** a) 24 hour supervised circuit. b) Accepts open circuit devices. c) Trouble in the loop is annunciated by rapidly flashing STATUS LED and rapidly pulsing buzzer (and optional remote sounder). d) Automatic buzz back when trouble condition is cleared.
6. **Silent Emergency or Audible Panic (Zone 8):** a) 24 hour supervised latching circuit. b) Accepts open and closed circuit, momentary or lock-in type devices. c) Silent/Audible option.

C. Outputs:

1. **Built-in dual (slow pulse/rapid pulse) sound for panic-burglary/fire distinction), super loud siren driver** capable of 40 watts output (similar to No. 714) into up to 8 siren speakers of the No. 713 type. Powered by unregulated 12V. DC from the LogiCenter when A.C. is present and by 6V. DC when operating on standby battery power.
2. **DPDT Alarm Relay:** 2 sets of dry contacts, one set of which is used to power a bell if that sounding device is employed. The relay may be used instead as a reversing relay for central station/police connection to a Modularm or Mini-modularm.
3. **Siren and/or bell cutoff times are selectable** as 10 or 30 minutes or continuous until panel is disarmed (minimum permissible delay for commercial local burglary installations is 30 minutes per U.L. Std. 609).
4. **6V. DC continuous current output (500 mA maximum load) to power auxiliary devices** such as space protection products, remote arming stations, fire circuit w/smoke detectors. A separate interruptible (via SMOKE DETECTOR RESET switch) DC power output capable of supplying up to 250 mA (from the 500 mA total available current) is provided for smoke detectors.
5. **Opening and Closing signal supplementary output as well as individual zone outputs from all 8 zones and fire trouble, A.C. supervision and shunted zone closing outputs.** The closing signal output (high) is not activated until the entry/exit delay door is opened and closed. The opening signal output (low) is activated when the control is disarmed. A shunted zone output signal is produced (if applicable) only if and when a closing signal is produced.
6. **Built-in pre-alarm sounder** as well as output for optional remote sounders (such as No. 706) sounds during the entry delay if that zone is disturbed while the panel is armed and during the exit delay if one or more of the four non-delay burglary zones is disturbed or shunted [will sound exit buzzer warning for **2 seconds** if a zone(s) has been shunted or longer to signal that system must be turned off immediately to avoid alarm because a faulted zone(s) has not been shunted]. If a non delay burglary zone(s) is disturbed during exit, an immediate alarm will result.
7. **AC supervisory LED and buzzer.** Loss of AC will result in the buzzer sounding steadily and the LED being extinguished. **Note:** If desired, the buzzer on loss of AC can be permanently disabled by connecting the wire from terminal D3 to (-)DC (the wire from D1 or terminal B17). This will also suppress the "A.C. Power Loss" supplementary output.

D. Other Features:

1. **Automatic Bell Test and Subscriber Confidence Signal:** (Selectable) During arming, the bell (or siren) will sound automatically for 2 seconds (from the battery only) and again for 1/2 second at the end of the exit delay to indicate proper arming.
2. **Individual shunt switches for each of the six burglary zones** to provide the capability of user zone shunting, if desired.
3. **Quick test feature** permits installer to test delay times of entry/exit/bell cutoff in 1/10 or 1/60 of their normal time intervals.
4. **Zone terminal strip can be unplugged** with zone wiring intact to facilitate quick and easy replacement of circuit board, should it be necessary.
5. **Information window in cover of cabinet (which surrounds the LEDs and zone switches) is protected against physical attack.** An alarm that already has been tripped will continue if forced entry into the panel is attempted at this point.
6. **Automatic Low Battery Cut-off,** prevents deep discharge of battery by cutting off current drain from the battery should the voltage fall below approximately 4.8 to 5.5 volts.

PANEL DESCRIPTION: See Diagram 1.

A. Switches:

1. **SYSTEM: CHECK/RESET and ARM/DISARM KEYSWITCH:** This three position circular keyswitch (key removable only in center position) selects all four modes of operation of the control panel. This key, when rotated counterclockwise from the center position and left there, puts the system in the **SYSTEM: CHECK/RESET** mode of operation. When the key is returned to the center position, the system goes into the **DAY** mode. At this point, a momentary clockwise rotation (toggling) arms the system by putting it into the **NIGHT** (armed) mode of operation. A subsequent toggle action either returns the system to the **DAY** mode (if no disturbance occurred during the night), or to the **NIGHT MEMORY** mode (if a disturbance had occurred at night). If it is in **NIGHT MEMORY** mode, the system should be **RESET**, as explained above, in order to find out if the faulted zone(s) is still disturbed.

2. **BURGLAR ON/OFF (SHUNT) SWITCHES (Zone 1-6):** Each burglary zone can be individually shunted for various reasons **only** when the system is in the CHECK/RESET mode. In any other mode, these switches are inoperative.
3. **FIRE NORMAL/TROUBLE SWITCH (Zone 7):** An open circuit in the supervised fire detection loop can be temporarily ignored by placing this switch in the TROUBLE position and turning the function keyswitch momentarily to CHECK/RESET mode. This will silence the rapidly pulsating fire trouble buzzer. The system will buzz back, if this switch is still in the TROUBLE position when the loop is repaired. Switch must then be returned to NORMAL position and the function switch turned momentarily to CHECK/RESET. This switch does **not** prevent fire alarm conditions from being reported by sensors located **between** the open in the loop and the control panel.
4. **FIRE TEST/SMOKE DETECTOR RESET SWITCH (Zone 7):** This three position spring return slide switch (inside the cabinet) is normally in its center position. The alarm sounder circuitry associated with the fire protection can be tested by moving it momentarily to the FIRE TEST position. (The system must be subsequently reset by turning the function keyswitch momentarily to CHECK/RESET.) In the SMOKE DETECTOR RESET position, power to the smoke and combustion detectors is interrupted to permit them to reset if clear of smoke. This switch is active in all modes of operation of the system.
5. **EMERGENCY (PANIC) ENABLE/DISABLE SWITCH (Zone 8):** The emergency zone can be disabled by means of this switch **only** when the system is in the CHECK/RESET mode. In any other system mode this switch is inoperative.

B. LED Indicators:

1. **SYSTEM STATUS LED:** This red LED, located at the center of the panel, indicates the status of the system as follows:

LED

OFF:

FLASHING SLOWLY:
Buzzer silent.

ON STEADILY:

FLASHING SLOWLY:
Buzzer pulsing slowly.
Burglar Zone LED(s) lit.

FLASHING RAPIDLY:

System Status

The system is in CHECK/RESET or DAY mode. At least one of the zones is disturbed but not shunted by its zone switch. The system is **NOT** ready to be set for NIGHT (ARMED) mode of operation.

The system is in CHECK/RESET or DAY mode. Either all of the zones are intact or faulty zones are properly shunted. The system is ready to be set for NIGHT (ARMED) mode of operation.)

The system is in NIGHT (ARMED) mode of operation.

The system is in NIGHT MEMORY mode. An alarm had occurred during the just ended ARMED period, as evidenced by lit zone LED(s). See functional description, subsection D.

FIRE ZONE TROUBLE (open in fire loop). See PANEL DESCRIPTION Subsection B4.

2. **AC POWER LED:** This green LED is lit to indicate the presence of AC voltage at the panel's power input terminals. In case of power loss, this LED goes off and the buzzer sounds. To silence the buzzer the function keyswitch must be turned to CHECK/RESET momentarily. When power restores, the buzzer does not sound; but subsequent power loss will sound the buzzer again.
3. **BURGLAR ZONE LEDs (Zones 1-6):** Each zone has its own LED for circuit test purposes and zone annunciation.

System Mode

CHECK/RESET

DAY

NIGHT/NIGHT MEMORY

Burglar Zone LED Indication

LEDs show status of zones. If zone is disturbed, that zone's LED will light and buzzer will sound. If fault is cleared, LED will go out and buzzer will stop. If fault remains and zone shunt switch is activated (moved to OFF), buzzer will stop but LED will stay lit (and go out, if fault subsequently clears).

If a day zone is disturbed (Zone 5 and/or 6 if so selected), the zone LED will be lit and the buzzer will sound steadily. To silence buzzer, turn function keyswitch momentarily to CHECK/RESET. LED will stay lit until fault is cleared and keyswitch is turned momentarily to CHECK/RESET again.

Zones 1-4 LEDs are inoperative during day mode.

Once an alarm condition is detected, the LED corresponding to that zone will be lit until the system is reset via the function keyswitch.

4. **FIRE ZONE LED (Zone 7):** If a fire alarm condition occurs (fire loop shorted), this LED will be lit and the alarm sounding device will sound. The sounding device will silence if the function keyswitch is turned to and left in SYSTEM: CHECK/RESET, but the LED will stay lit until the loop returns to normal and the SMOKE DETECTOR RESET switch is activated. If a fire trouble condition occurs (loop open) during the disarmed period, the STATUS LED will flash rapidly and the buzzer will pulse while the trouble remains on the loop, as long as the fire zone NORMAL/TROUBLE switch is still in the NORMAL position. To silence the buzzer, move the NORMAL/TROUBLE switch to TROUBLE and turn the function keyswitch momentarily to CHECK/RESET. The buzzer will pulse again when the trouble is cleared, as a reminder to return the switch to NORMAL. Then silence the buzzer by turning the function keyswitch momentarily to CHECK/RESET.
5. **EMERGENCY (PANIC) ZONE LED (Zone 8):** If the AUDIBLE PANIC jumper is intact (see "CUT JUMPER" SELECTORS in next section), this LED will not light and the local alarm sounding device will not sound when the zone is disturbed. Only the Zone 8 SUPPLEMENTARY SIGNAL OUTPUT will be activated and the REMOTE ALARM LED within the cabinet will light. If the AUDIBLE PANIC jumper has been cut, this LED will light and latch on, the local alarm sounding device will sound and the Zone 8 SUPPLEMENTARY SIGNAL OUTPUT will be activated when the zone is disturbed.
6. **REMOTE ALARM MEMORY LED:** This LED (within the cabinet) lights and stays latched, the moment any one of the burglary zone supplementary signal outputs go high. This LED will stay on even when the system is in NIGHT MEMORY mode of operation, making it possible to verify that indeed a zone signal output was produced during the night. It will go off once the unit is RESET by turning the function keyswitch momentarily to CHECK/RESET. Also, during silent emergency and audible panic alarms, this LED will be energized.

C. "Cut Jumper" Selectors:

Note: Whenever any of the jumpers described below is cut, the cut ends of the jumper should be taped or otherwise insulated to prevent electrical contact with the chassis or other points.

1. **ZONE RESPONSE JUMPERS:** Each zone loop normally has a 250ms (millisecond) response time. This means that swingers, transients or momentary loop disturbances lasting less than 250ms will be ignored by the system. However, if a fast responding device is used in burglary zone 3, 4, 5, or 6, the ZONE RESPONSE jumper for that zone must be cut to change its operation to the fast response mode of 10ms. **Note:** To minimize the possibility of false alarms, fast response loops should not contain exposed metal contacts.

ZONE RESPONSE JUMPER

RESPONSE TIME (nominal)

Zone 3,4,5 and/or 6

UNCUT:	Normal (250ms)
CUT:	Fast (10ms)

2. **(AUXILIARY) RELAY SELECTION JUMPERS:** A DPDT relay with contacts rated for a 2A at 28V. DC/AC resistive load is provided on the panel. It can be selected to respond to burglary alarms and/or (on residential or non-UL commercial burglary installations only) fire alarms by means of the RELAY SELECTION jumpers. Two of the jumpers also control the panel's SIREN DRIVER.

When intact, the RELAY SELECTION jumpers perform the following functions (when a jumper is cut, the action described for that jumper is eliminated):

<u>Jumper</u>	<u>Action</u>
A:	Activates Auxiliary Relay on Burglary, Audible Panic Alarm and also (if selected) Automatic Bell Test.
B:	Activates Siren Driver Output (Rapid Pulse) on Fire Alarm.
C:	Activates Siren Driver Output (Slow Pulse) on Burglary/Audible Panic/Automatic Bell Test.
D:	Activates Auxiliary Relay on Fire Alarm.

On U.L. commercial burglary installations, use a bell connected to one set of the auxiliary relay contacts, as shown in Diagram 2. Do not use the Fire Alarm zone or Siren Driver Output terminals. Cut jumpers C and D. The bell will sound only on Burglary/Audible Panic/Automatic Bell Test.

On residential or non-U.L. commercial burglary installations only, examples for use of auxiliary relay a siren driver outputs are:

With bell and siren: For bell on Burglary/Audible Panic/Automatic Bell Test and siren (rapid pulsing) on Fire, cut jumpers C and D.

With siren only: For slow pulsing siren on Burglary/Audible Panic/Automatic Bell Test and rapid pulsing siren on Fire, leave all jumpers uncut.

Note: Jumpers A and B should not ordinarily be cut (if cut, the auxiliary relay will activate only on Fire Alarm and the siren driver output (slow pulse) will activate only on Burglary/Audible Panic/Automatic Bell Test.

3. DAY/NIGHT SELECT JUMPERS: Zone 5 and 6 can each be selected to be a DAY/NIGHT zone by cutting the DAY 5 and/or DAY 6 jumpers.

Any disturbance in that zone will result in a latching buzzer sound and zone LED light when the system is in the DAY mode; however, there will be NO supplementary output triggers produced. The system must be momentarily RESET to silence the buzzer and to release latched LED's. These zones will act as regular NIGHT zones when the system is in the NIGHT mode.

4. AUDIBLE PANIC JUMPER: The silent emergency zone (8) can be selected to be an audible panic alarm zone by cutting this jumper. In this case, this 24 hour zone will activate the local sounding devices (bell or siren) in case of alarm. **Note:** If "silent emergency" is used, the auxiliary relay cannot be used in a "polarity reversal" mode to send a silent emergency signal as that relay is not activated during a silent emergency.

5. ZONE RESTORE JUMPER: If this jumper is left intact, each zone can alarm only once for each arming of the system. The supplementary output trigger will go high when a zone goes into alarm and will go low only when the control is disarmed. If this jumper is cut, however, when a zone goes into alarm, the supplementary output signal for that zone will go high during the bell cutoff delay time. After that, the output signal will stay high if the zone is still disturbed and will go low if (or when) the disturbance has cleared. Another disturbance will retrigger an instant alarm and the supplementary output.

D. "Move Jumper" Selectors:

These options are selected simply by moving the appropriate jumper wire to the desired post. See Diagram 1.

1. EXIT (DELAY) JUMPER: An exit delay time of 30, 60 or 120 seconds can be selected. (On U.L. household burglary installations use 30 or 60 seconds; 60 seconds is the maximum allowed by U.L. Standard 1023).

2. ENTRY (DELAY) JUMPER: An entry delay time of 15, 30 or 60 seconds can be selected. (On U.L. household burglary installations use 15 or 30 seconds; 45 seconds is the maximum allowed by U.L. Standard 1023).

3. BELL CUTOFF JUMPER: A bell cutoff time of 10 or 30 minutes or NONE (no cutoff) can be selected. (On U.L. commercial local burglary installations (per U.L. Std. 609) use 30 min. or NONE.)

4. TIMER (DIVIDER) JUMPER: A means of fast system checkout is provided by this jumper. The + 10 or + 60 setting is used for accelerated testing of bell cutoff time, exit delay and entry delay only. It does not affect SHUNTED zone and FAULTED zone timed buzzer periods or "bell" test and subscriber confidence "ding" timed periods.

Example: With a selected bell cutoff time of 30 minutes, set the TIMER DIVIDER lead on + 60. Reset the system. After the system is armed, each contact in each zone can be tested by momentarily disturbing each contact, one at a time, and listening for a bell ring of 30 seconds each time the panel trips.

Important: At completion of testing this jumper must be returned to its NORMAL post.

5. AUTOMATIC BELL TEST JUMPER: An automatic "bell" test and subscriber confidence "ding" feature can be programmed into the burglar alarm system arming sequence by removing this jumper. The system will activate the burglary sounding device directly from the battery for 2 seconds before going into NIGHT mode of operation. Should there be no bell or siren sound, a low battery, blown fuse or improper bell loop wiring must be checked for. In addition, the burglary sounding device will be activated for 1/2 second at the end of the exit delay after the entry/exit door has been opened and closed during departure. It denotes that the system has been successfully armed. Failure to obtain this audible indication denotes a failure to arm and the premises should be re-entered to check the SYSTEM STATUS LEDs and zone LEDs to isolate and correct the cause of the failure.

FUNCTIONAL DESCRIPTION:

The system is designed with state-of-the-art techniques to maximize the simplicity and the ease of installation and operation. However, a careful study and thorough understanding of the system operation is strongly suggested.

A. System: Check/Reset Mode:

A counterclockwise rotation of the function keyswitch from its normal center position forces the system to go into this mode of operation. The system returns to DAY mode whenever this key is returned to center position from the SYSTEM: CHECK/RESET position.

a) When the unit is initially set up or b) When any of the jumper wire selections is changed or c) When any one of the shunt switches is desired to be activated, the function keyswitch must be turned to CHECK/RESET in order to re-initialize the system operating parameters. Once the system leaves this mode of operation, any other change in jumper wires and/or shunt switches will be ignored by the system.

If all the zones are properly set, the SYSTEM STATUS LED will flash. A faulty zone status can be determined and the zone can be subsequently either repaired or shunted only when the system is in this mode. Any zone which is disturbed (open, short or high loop resistance), is identified by the corresponding lit zone LED and the buzzer sound (except if the fire zone is shorted - fire alarm - there will only be the zone LED lit, with no buzzer, in order to be able to differentiate this from fire trouble). In any case, the SYSTEM STATUS LED will be off.

If a faulty zone is shunted without repair, the buzzer sound will stop and the SYSTEM STATUS LED will flash, even though the zone LED stays lit. In this way, the user can easily verify that the system had acknowledged the zone shunt command, especially in multiple faulty zone situations.

In this mode of operation, all the latched LED indicators will be cleared and local sounding devices (bells, sirens, etc.) will be silenced. All the supplementary output triggers will be inactive.

Also, the buzzer sound due to AC power loss can be silenced by momentarily switching into the SYSTEM: CHECK/RESET mode.

B. Day (Disarmed) Mode:

In this mode of operation, the zones which will be active are fire, emergency and, if selected to be DAY zones (see Day 5 and Day 6 jumpers), zones 5 and/or 6.

The DAY zones, if disturbed, will activate local and (optional) remote buzzers only and the corresponding zone LED will latch on. The buzzer can be silenced by momentarily switching into the SYSTEM: CHECK/RESET mode.

The buzzer will stay quiet when the system returns to DAY mode even though the zone is still disturbed (for example, a seldomly used warehouse door, when opened to load stock, need not sound the buzzer all the while it is open). However, once the zone restores, a subsequent disturbance will sound the buzzer again.

All the night zones will be inoperative.

The 24 hour EMERGENCY ZONE, if disturbed, will activate a supplementary output trigger immediately and will energize the local sounding device(s), if selected to be an AUDIBLE PANIC alarm zone (AUDIBLE PANIC jumper cut). If selected to be a SILENT alarm zone (AUDIBLE PANIC jumper intact), the zone LED will also be inoperative even though the supplementary output will be produced and the REMOTE ALARM LED will be activated. The system must be RESET (turn function keyswitch to SYSTEM: CHECK/RESET momentarily) in order to release the latching LEDs and supplementary output signal.

A broken fire loop (fire trouble) will result in a rapidly pulsing buzzer sound together with a rapidly flashing STATUS LED. The buzzer can be silenced by sliding the fire zone switch to TROUBLE position and going into the CHECK/RESET mode. The panel can now be brought into DAY mode (return function keyswitch to center position). If the zone restores (possibly after being repaired), while the fire switch is in TROUBLE position, a rapidly pulsing buzzer will sound back. The system must again be RESET by turning the keyswitch momentarily to CHECK/RESET.

When the TROUBLE condition is shunted, those fire detectors located between the break point and the panel can still trigger the system in case of FIRE ALARM.

The user, before arming the system at night, should observe the SYSTEM STATUS LED light. If the LED is off, it indicates the panel is not ready to be armed. At least one of the zones is faulted and is not properly shunted. The unit must be switched into SYSTEM: CHECK/RESET mode to find and repair or shunt the faulty zone(s).

C. Night (Armed) Mode:

A momentary clockwise toggling of the function keyswitch will change the burglar system from DAY into NIGHT mode operation (the fire and emergency system continue to be active as during the DAY mode). At this point in time, the burglar system may follow different paths of operation depending upon the jumper, switch and/or zone status. In any case, however, the SYSTEM STATUS LED on the panel, and on remote station(s), if used, will come on steadily, indicating that the burglar system is effectively armed for NIGHT mode of operation.

1. **TWO (2) SECOND SHUNTED ZONE BUZZER:** If one or more zones were shunted at the time of arming but all other zones were O.K. (flashing SYSTEM STATUS LED), a buzzer will sound a two second warning of this fact, which will precede any other possible audible or visual indications.

Timer "divide by" selection does not change this duration.

- 2. TEN (10) SECOND FAULTED ZONE BUZZER:** If one or more unshunted faulty burglary zones were present (SYSTEM STATUS LED off) at the time of arming (or if a fire trouble condition was present that had not been silenced via the fire zone's NORMAL/TROUBLE switch), a steady buzzer will sound a ten second warning before the local sounding device(s) are energized. There is ample time to disarm the system before the bell(s)/siren(s) go on; however, if the system is not switched back into DAY or SYSTEM: CHECK/RESET mode by the time a fifteen (15) second grace period elapses, from the activation of the local sounding devices (caused by an unshunted faulty burglary zone), the supplementary output trigger signals will be produced.

Timer "divide by" selection does not change this duration.

- 3. TWO (2) SECOND AUTOMATIC BELL (SIREN) AND BATTERY TEST FEATURE:** After the system is switched into NIGHT mode of operation (and following the two second shunted zone buzzer warning, if applicable), the burglar alarm sounding device (either bell or siren) will be activated (from the battery alone) for a period of two seconds, if this test feature option was selected (by removing the AUTOMATIC BELL TEST jumper). Otherwise, the panel will enter into the exit delay period quietly.

- 4. EXIT DELAY PERIOD:** Depending upon the jumper selection, the system will enter a 30, 60 or 120 second EXIT delay period (60 seconds is the maximum allowed by U.L. Std. 1023 for Household Burglary) during which time MAIN DELAY and AUXILIARY DELAY zone disturbances will be ignored. However, all of the other zones will be active and will trip the control panel immediately if faulted.

See SUPPLEMENTARY OUTPUT TRIGGER SIGNALS below for CLOSING output trigger information.

- 5. SUCCESSFUL ARMING (SUBSCRIBER CONFIDENCE) "DING":** If the panel was successfully armed and the automatic bell/siren test option was selected, a brief (about 1/2 second) burglary bell (or siren) sound will be heard when the exit delay period expires.

- 6. SUPPLEMENTARY OUTPUT TRIGGER SIGNALS:** In order to obtain the CLOSING supplementary output signal, the MAIN DELAY door must be opened and then closed while the system is still in the exit delay period. At this time the SHUNTED ZONE(S) supplementary output signal, if applicable, is produced (see "Supplementary Output Triggers" under INSTALLATION AND WIRING). It should be noted that if the MAIN DELAY zone is shunted, the CLOSING and/or SHUNTED ZONE(S) supplementary trigger will never be sent.

Once the system is in the regular NIGHT (armed) mode of operation, any disturbance in any of the zones except the MAIN DELAY Zone (1), results in the immediate activation of the local sounding device(s). The AUXILIARY DELAY Zone (2), if broken before the MAIN DELAY Zone, behaves like an immediate night zone.

If the unit is not disarmed within 15 seconds of the intrusion (within 15 seconds of the expiration of the entry delay period, if the MAIN DELAY Zone is disturbed), the supplementary output trigger corresponding to that zone is produced. The positive (+) trigger signal will stay high at least until bell cutoff occurs. At the end of this period, one of two responses will take place:

- a. If the ZONE RESTORE jumper has been cut,** the trigger signal will go low, if or when the zone restores itself. A subsequent disturbance in that zone trips the sounding device(s) once again and the supplementary output is retriggered.
- b. If the ZONE RESTORE jumper is intact,** that particular zone is locked out and its associated supplementary output trigger remains high until the unit is disarmed. Any subsequent disturbances will not activate the sounding devices.

- 7. ENTRY PERIOD:** Depending upon the jumper selection, the system will enter a 15, 30 (maximum permitted for household burglary per U.L. Std. 1023 is 45 seconds, and for local commercial burglary usage is 30 seconds) or 60 second ENTRY delay period if the MAIN DELAY zone (1) is broken first. At this time, any disturbance in the AUXILIARY DELAY zone (2) will also be ignored until the entry period expires, thus acting like another delay zone. Hence, it is ideal to hook-up the space protection devices covering the control panel to the AUXILIARY DELAY zone. It should be noted that, if the MAIN DELAY zone is shunted, a disturbance of the AUXILIARY DELAY zone following passage through the MAIN DELAY zone will cause an immediate alarm, since the MAIN DELAY zone passage is not seen by the system.

- 8. DISARMING THE PANEL:** When the system is disarmed, either from the panel itself or from a remote station, one of two different results may take place when the function keyswitch is turned momentarily to ARM/DISARM:

- a. If there was no intrusion during the armed period,** the system will switch into DAY mode directly.
- b. If there was an intrusion during the armed period,** the system will automatically switch into NIGHT MEMORY mode (see next paragraph).

D. Night Memory Mode:

A slowly pulsating buzzer sound from the control panel and from any remote station(s) will warn the user disarming the system that at least one of the burglar zones was disturbed during the armed period. The user

must come to the panel to see which zones were disturbed, as indicated by lit zone LEDs. The SYSTEM STATUS LED will also be flashing slowly. All the supplementary output triggers and the alarm sounding device(s) restore when the system goes into this mode of operation.

The system, once switched into SYSTEM: CHECK/RESET mode, will display only those zones which are currently still disturbed. All the latched zone LEDs and (if still energized) local sounding devices, will be cleared, together with the supplementary output trigger signals.

If the system is disarmed from a remote station and it is desired to clear a NIGHT MEMORY condition (slowly pulsing buzzer) without going to the panel, enter the **arming** code. The system will **not** arm, but the memory will be cleared and the system will be in the DAY mode.

INSTALLATION AND WIRING: See Diagram 2.

A. Installation:

1. Open the cabinet and remove the tamper plate and the printed circuit board assembly.
2. Mount the cabinet.
3. Connect the **WHITE flying leads** (from the rear of the PC board) to the "quick connect" terminals provided on the front and rear (closed circuit) tamper switches and replace the PC board in the cabinet. The tampers will be in Zone 6 when so connected and it is recommended that the zone be selected for DAY/NIGHT operation (cut the DAY 6 jumper). **Note:** If use of the tamper switches is not desired (residential or non-U.L. Std. 609 commercial burglary installations only) splice the WHITE leads together instead.
4. Replace the PC board in the cabinet. Leave the tamper plate off and proceed with wiring.

B. Terminal Block A:

This 20 position terminal block can be removed from the printed circuit board assembly without actually removing the wires connected to it. This enables quick field repair and/or easy PC board removal. All the protection loops (and some other status indicators) are connected to this terminal block and are continuously supervised.

Refer to Diagram 2 to connect the burglary protection, fire and emergency zones. Include open circuit and/or closed circuit contacts in each loop as indicated. If a zone is not used, connect a No. 606 (1000 ohm) End-of-Line Resistor directly across the zone terminals. Make sure each loop resistance, including the end-of-line resistor, is between 1000 and 1300 ohms by measuring before connecting to terminals.

<u>Terminals</u>	<u>Description</u>
A1-A2	MAIN DELAY (ZONE 1): This zone is disarmed during the DAY and armed at NIGHT after the exit delay. If disturbed at NIGHT, it will, after the entry delay, trip the alarm and produce a supplementary output trigger.
A3-A4	AUXILIARY DELAY (ZONE 2): This zone is disarmed during the DAY and armed at NIGHT after the exit delay; however, if broken at NIGHT, before the main delay zone, it will trip the alarm immediately . Otherwise, it will function like the main delay zone. Interior protection covering the area in which the control is located, or in the normal entry/exit path to/from the control (but not the entry/exit door) should be connected in this zone.
A5-A6 A7-A8	NIGHT (ZONE 3): These zones are disarmed during the DAY and armed at NIGHT; however, NIGHT (ZONE 4): there are no delay times associated with these zones.
A9-A10 A11-A12	DAY/NIGHT (ZONE 5): These zones, if selected to be Day/Night zones (jumpers DAY 5 and/or DAY/NIGHT (ZONE 6): DAY 6 cut), will only trip the buzzer during the day without producing supplementary output triggers. At NIGHT, they will act like regular NIGHT zones 3 and 4.
A13-A14	FIRE (ZONE 7): This 24 hour active zone, if broken, will result in a rapidly pulsating buzzer (FIRE TROUBLE) both on the panel and on any remote station(s) used. This trouble buzzer can be silenced via the FIRE NORMAL/TROUBLE switch and the function keyswitch. The FIRE TROUBLE supplementary output trigger will also be activated. However, if the zone is shorted at any time by a FIRE detection device, a latching 'FIRE ALARM' will be registered by the panel. The unit must be RESET to clear the fire alarm. The supplementary output trigger corresponding to FIRE ALARM is active 24 hours per day.
A15-A16	EMERGENCY (ZONE 8): This 24 hour active zone, if disturbed momentarily, will either respond as a SILENT EMERGENCY zone (AUDIBLE PANIC jumper intact) or as an AUDIBLE PANIC zone (jumper cut). In the former case, the local sounding device and the zone LED will be inactive; however, in either case, supplementary output triggers will be produced immediately and the REMOTE ALARM LED within the panel will latch on.

When an optional remote station (such as a No. 246) is used for remote arming/disarming of the system, its tamper switch should be connected to terminal A16 as shown in Diagram 2.

(Also see "A16 thru A20" below.)

A17 **REMOTE SYSTEM STATUS 1:** The LED return of an optional remote station (such as a No. 246) can be connected to this terminal to obtain remote station status indication, as shown in Diagram 2. (Also see "A16 thru A20" below.)

A18 **REMOTE SYSTEM STATUS 2:** See "A16 thru A20" below.

A19 **REMOTE BUZZER:** An optional remote sounder, such as a No. 706 MiniHowler, can be connected to this terminal and terminals A20 and B5 as shown in Diagram 2. (Also see "A16 thru A20" below.)

A20 **(-) FOR ACCESSORIES:** Negative (-) battery appears on this terminal. Only those external devices which carry low currents should be hooked-up to this terminal such as, remote STATUS LED, remote buzzer, etc. Do not connect bell to this terminal. (Also see "A16 thru A20" below.)

A16 thru A20 **OPTIONAL DIGITAL REMOTE STATION:** An optional No. 216 Adapter for No. 215 Digital Remote Station(s) may be connected to these terminals (and B4, B5 and YELLOW flying lead) as shown in Diagram 2. Refer also to the installation instructions accompanying the No. 216.

Note: Only late production models of the No. 216 Adapter, which are provided with a BLUE jumper near the center of their circuit board, may be used with the No. 4080/4080XL. The No. 216's BLUE jumper wire must be moved from its "Normal" position "A" (on the pin just below the point at which the BLUE wire emerges from the circuit board) to position "B" (on the pin located above and to the left of the BLUE wire's emergence point). In addition, the WHITE jumper on the No. 216's circuit board must be cut.

C. Terminal Block B:

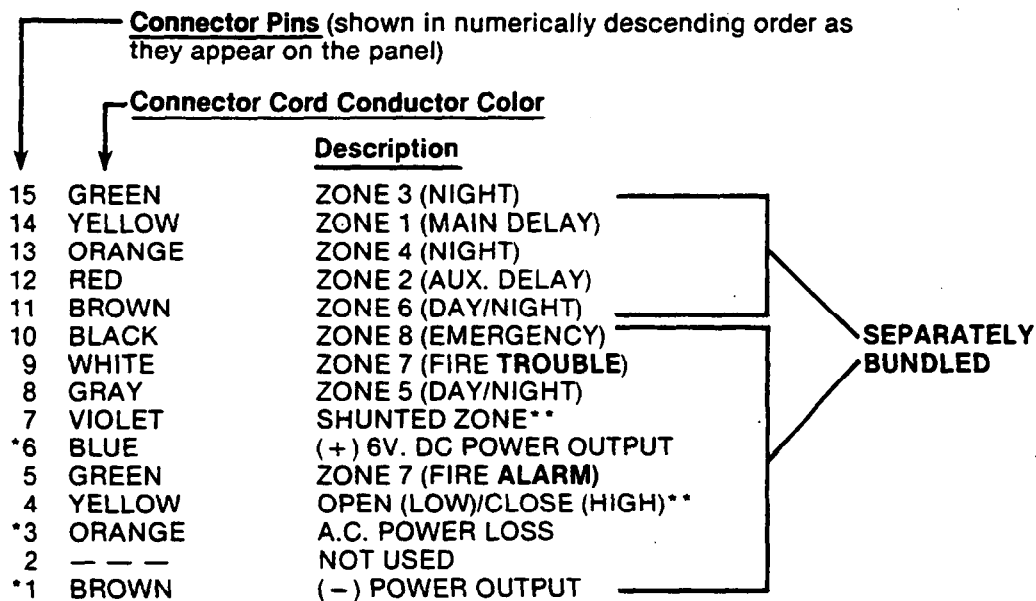
This 17 position terminal block is permanently secured to the PC board.

<u>Terminals</u>	<u>Description</u>
B1-B2	12V. AC INPUT: Connect the 12V. AC output of the No. 1324 transformer across these terminals. DO NOT plug the transformer in as yet.
B3	SIREN DRIVER POWER INPUT: The 4080/4080XL LogiCenter is equipped with a built-in siren driver. The power to the driver can either be supplied by the PC board (12V. DC unregulated or 6V DC regulated) from terminals B5 or B10 or externally (18V. DC maximum) for greater sound output.
B4	REMOTE ARM/DISARM: An optional momentary on/off keyswitch (e.g.: No. 246) can be connected between this terminal and terminal B5. Alternatively, this terminal may be used to connect an optional No. 216 Adapter for No. 215 Two Wire Digital Remote Station(s).
B5	+6V. DC (CONTINUOUS) AUXILIARY POWER, EXTERNAL: A continuous auxiliary voltage of 6V. DC (up to 500 mA total from terminals B5, B6 and D6) is available between this terminal and ground terminal B17, to be used for powering external peripheral devices (ultrasonic, photoelectric, infrared protection devices, etc.) This terminal also may be connected to a No. 216 Adapter for No. 215 Digital Remote Station(s).
B6	+6V. DC INTERRUPTED POWER: A continuous auxiliary voltage of 6V. DC (up to 250 mA of the B5/B6/D6 500 mA total) is available between this terminal and ground terminal B17: however, this output power will be interrupted when the SMOKE DETECTOR RESET switch (see Diagram 1) is activated. It is suggested, therefore, that smoke detectors or products-of-combustion detectors be powered from this terminal.
B7-B8	SIREN DRIVER OUTPUT: With an optional siren speaker connected, the built-in siren driver delivers 20 watts into 8 ohms when the panel's internal 12V. DC unregulated power supply is used (see terminal B3). If external 18V. DC is used to power the siren driver, an 8 ohm/40W siren speaker (such as a No. 713 siren speaker) should be used. Siren will pulse rapidly for FIRE alarms and (if RELAY SELECT jumper C is intact) slowly for BURGLARY/EMERGENCY.
B9	REMOTE ENTRY DELAY DISABLE: If this is desired, connect a closed switch between this terminal and ground (B17). Opening the switch will disable the entry delay period. If remote disabling is not desired, put a jumper between these terminals.

- B10** (+) 12V. DC UNREGULATED OUTPUT: If a siren speaker is to be used, connect this terminal to terminal B3 (unless an external power source is to be used ... see B3 above). If AC to the panel is lost, the output from these terminals will drop to 6V. DC. A siren, if used, will still be able to sound, but at lower volume.
- B11 thru B16** **BURGLARY/FIRE AUXILIARY RELAY CONTACTS:** The contacts may be used to control voltage to an alarm bell (as shown in Diagram 2) or as a phone line reversing relay to a central monitoring station Modularm or Mini-Modularm installation as shown in Diagram 4. See (AUXILIARY) RELAY SELECTION JUMPERS in the PANEL DESCRIPTION section for more information.
- B17** (-) DC OUTPUT: The negative (-) sides of items provided with auxiliary (B5), interrupted (B6) and unregulated (B10) power connect to this terminal.

D. Supplementary Output Triggers: See Diagram 2.

Twelve different supplementary output triggers are available from plug-in CONNECTOR BLOCK D. Each output as described below goes high (+ 6V. DC @5mA), when activated. Pins for providing 6V. DC power to the bell via the alarm relay are also provided on this connector block. A connector cord (No. SA4080-2) is available for making connections from this block to an external device.



CAUTION: To avoid possible short circuits, all connections to the external device should be made first, before the connector cord is plugged into the connector block.

*All supplementary output triggers **except these three** may be tied together electrically in any desired combination.

**Produced only subsequent to arming and opening and closing of the MAIN DELAY Zone.

E. Flying Leads:

Color	Description
WHITE	FOR FRONT AND REAR TAMPERS: Connected during cabinet installation (see Section A above). These leads are from Zone 6.
WHITE	
YELLOW	USE WITH (OPTIONAL) No. 216 as shown in Diagram 2.
RED (+)	BATTERY LEADS with connector: Do not connect to battery yet.
BLACK (-)	
GREEN	ELECTRONIC OUTPUT: LO (0V) while panel is armed, HI (+ 6V) while panel is disarmed. Enables the No. 1034 Zone Expansion Center to be used with the No. 4080/4080XL (see instructions with the No. 1034).

TESTING AND CHECKOUT:

These procedures are to be followed only after all wiring and connections described in the previous section have been completed. Position and cut appropriate jumpers as explained in the PANEL DESCRIPTION section.

A. System: Check/Reset Mode:

1. **Plug in the battery** (use only the No. 498 battery provided with the unit). No LEDs will light and the unit will remain de-energized until Step 2 is completed.
2. **Plug the transformer supplied into a 120V. AC outlet** that is energized 24 hours a day, and mechanically secure it in place. The green A.C. POWER LED should light and the unit should energize.
3. **Turn key to SYSTEM: CHECK/RESET.** There should be no buzzer sound and no lit red zone LED, provided that all zones are wired properly and doors, etc. are closed. The SYSTEM STATUS LED should flash indicating "Ready for Arming".
4. **Using a shorting wire, short each of the zones (except the fire zone) one at a time** to verify that the corresponding red zone LED lights and the buzzer sounds. The LED should remain lit but the buzzer sound should stop when the zone shunt switch for that zone is moved to OFF.
5. **Disconnect one of the fire zone wires.** The buzzer should pulse rapidly. Move the FIRE TROUBLE switch to TROUBLE. The buzzer should stop. Restore the zone by reconnecting the zone wire. The buzzer should pulse again indicating the "buzz-back" reminder. Return the FIRE TROUBLE switch to NORMAL.

B. Day Mode:

1. **Turn keyswitch to center position. Unplug the transformer.** The buzzer should sound and the A.C. POWER LED should go out. Silence the buzzer by momentarily switching into SYSTEM: CHECK/RESET mode. Return to DAY MODE (center keyswitch position). Plug the transformer back in. The A.C. POWER LED should light.
2. **Short both delay zones and both night only zones, one at a time.** Only the SYSTEM STATUS LED should go out.
3. **Short each of the day/night zones, one at a time.** If they have been selected for DAY ZONE operation, the buzzer should sound, the appropriate zone LED should latch ON and the SYSTEM STATUS LED should go out. These can be cleared by momentarily switching into SYSTEM: CHECK/RESET. If the zone(s) have not been selected for DAY ZONE operation, only the SYSTEM STATUS LED should go out.
4. **Short the emergency zone.** If SILENT EMERGENCY has been selected, only the REMOTE ALARM LED within the cabinet will light. If AUDIBLE PANIC has been selected, the zone LED and the local sounding device should latch on as well. These can be cleared by momentarily switching into SYSTEM: CHECK/RESET.
5. **Short the fire zone.** The latched LED and sounding device can be cleared only by resetting the system. Verify that the same results are obtained by using the FIRE TEST switch.

C. Night Mode:

1. **Switch into SYSTEM: CHECK/RESET.**
2. **Select TIMER "+ 10".**
3. **Select EXIT delay of 60 seconds.**
4. **Select ENTRY delay of 30 seconds.**
5. **Select BELL CUTOFF delay of 30 minutes.**
6. **Switch back into DAY and then, by turning the key momentarily clockwise, switch into NIGHT.** At the end of the EXIT delay (about six seconds) the alarm sounding device will "ding" (if AUTOMATIC BELL TEST was selected). Then short the MAIN DELAY zone momentarily. The buzzer should sound for the next 3 seconds or so (ENTRY delay) followed by the sounding of the local sounding device for burglary alarm. The delay zone LED will latch on when the alarm starts. The alarm will sound for 3 minutes and then silence itself.
7. **Switch into SYSTEM: CHECK/RESET.**
8. **Select TIMER "+ 60".**
9. **Shunt one of the DAY/NIGHT zones.**
10. **Switch into NIGHT MODE.** The buzzer should sound (shunted zone warning) for two seconds followed by (if selected) AUTOMATIC BELL TEST bell/siren sound for another two seconds. A short "ding" sound will follow at the end of EXIT delay, to indicate a successful arming (if AUTOMATIC BELL TEST was selected).
11. **Short each of the burglar alarm zones momentarily, one at a time, at intervals of more than 10 seconds.** Except for the zone that is shunted, the appropriate zone LEDs should light and the local sounding device

(bell/siren) should sound for about 30 seconds each time. If the ZONE RESTORE jumper was cut, each burglary zone can be retriggered once the bell shuts off. In any case, the ZONE LEDs should latch until the unit is RESET.

D. Night Memory Mode:

1. Try to switch into DAY mode by momentarily turning the key to ARM/DISARM position. The system will switch into NIGHT MEMORY mode instead.
2. The bell/siren should stop (if it was energized) and a slowly pulsing buzzer will draw attention to the fact that some alarm condition(s) took place during the night, as indicated by lit zone LED(s). The SYSTEM LED will also be flashing slowly.
3. Switch into SYSTEM: CHECK/RESET. Buzzer should stop and LED(s) will go out.

E. Final Connection and Setup:

1. Select TIMER "NORMAL".
2. Select desired BELL CUTOFF, ENTRY and EXIT DELAYS.
 - a .For a U.L. commercial local burglary installation (per U.L. Std. 609) set BELL CUTOFF not less than 30 minutes.
 - b .For a U.L. household burglary installation, (per U.L. Std. 1023) set ENTRY not longer than 30 seconds and EXIT not longer than 60 seconds.
3. Connect desired combination of supplementary output triggers.
4. Check all "cut-jumper" and "move-jumper" selections.
5. Refer to installation instructions for the No. 216 Adapter, if No. 215 Two Wire Digital Remote Stations are to be used with the system.

F. Turning System Over To Subscriber:

1. Fully explain the operation of the system to the subscriber by going through each of its features as well as the USER INSTRUCTIONS as shown in Operator's Manual P8169, 9/83 and the abbreviated user instructions on the nameplate of the unit and reproduced in Diagram 5 herein.
2. Describe to him the operation of each zone. Clarify which zones are used at night and which are used during the day.
3. Encourage him to find and remedy his own faulted loop when setting the alarm, by using SYSTEM: CHECK/RESET mode.

ACCESSORIES:

To supplement the function keyswitch control of the panel, up to 4 remote stations (e.g.: Nos. 246, 246R or 5246) may be used, connected directly to the panel (see Diagram 2).

Alternatively, coded pushbutton control of the panel is available with the No. 215 Two Wire Digital Remote Station (up to 4 can be used via a No. 216 Adapter).

The No. 349 Telephone Line Voltage Booster can be used to power leased phone lines through the panel's auxiliary relay contacts to Modularm or Mini-Modularm type remote monitoring systems. If the auxiliary relay is being used for bell sounding, the No. 346 Reversing Relay/Voltage Booster Module can be used instead of the No. 349.

If additional zoning capability is desired, one or more No. 1034 Four Zone Expansion Centers can be used to provide additional day/night and night zones to the system.

Complete information is contained in the individual installation instructions for the above.

The combination of accessories used may not draw more than 500 mA continuous current from the various power output terminals (B5, B6, and D6). Total current on alarm (including alarm sounding device) for these terminals and terminal B10 should not exceed 2.5 amperes.

SERVICING NOTE (No. 4080XL only):

For ease of access to devices (such as a supplementary communication device) that might be mounted within the cabinet, but behind the control chassis, it is NOT necessary to remove the control chassis. It is possible to swing the chassis outward, either from the left or the right side, without disturbing its wiring or its basic mounting orientation. This is accomplished by removing the six (6) screws that hold the chassis in place and by lifting either the left or right side slightly upward to free that side. The entire chassis can then be swung outward, pivoted on its opposite side mounting points, to permit access to any units mounted behind it.

GENERAL SPECIFICATIONS:

A. Physical:

	No. 4080	No. 4080XL
Width:	8.5" (22.5 cm)	12-1/2" (31.8 cm)
Height:	15.0" (38.1 cm)	17-1/4" (43.8 cm)
Depth:	3.5" (8.9 cm)	4-3/8" (11.1 cm)

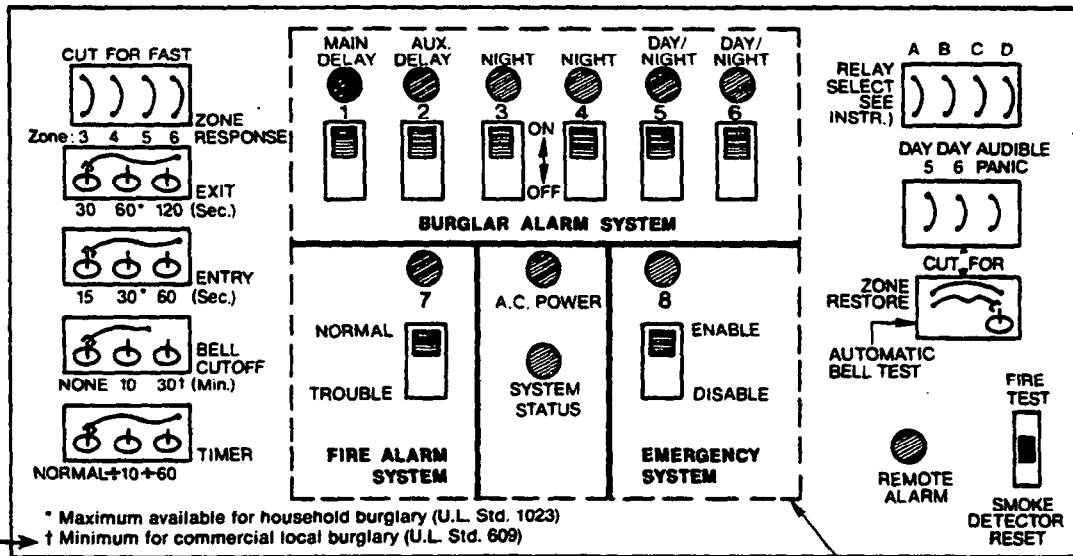
B. Electrical:

Input Voltage:	12VAC, from No. 1324, 30VA transformer	
Zone Resistance:	1000 ohms (min.), 1300 ohms (max.) (including 1000 ohm end-of-line resistor)	
Zone Response:	Normal: 250 milliseconds Fast: 10 milliseconds (Zone 3,4,5 and/or 6 only with ZONE RESPONSE jumper cut)	
Zone Current:	2.5 - 3.5 mA	
Supplementary Output Triggers:	6V. DC @ 5 mA each into 1000 ohms (min.) load	
Siren Driver Output:	12V @ 1.5A into 8 ohm speaker	
(+) 6V. DC Aux. Power, External:	500 mA (max. continuous)	500 mA max. total continuous
(+) 6V. DC Interrupted Power:	250 mA (max. continuous)	
Auxiliary Relay Contacts:	DPDT rated 2A @ 28V. DC/AC	
Standby Battery:	Rechargeable 6V, 5AH sealed lead acid battery (No. 498). Up to 45 hours standby (assuming that no peripheral devices are connected to the continuous current auxiliary power output terminals).	

2.5A max. total on alarm

MAXIMUM STANDBY TIMES WITH VARIOUS AUXILIARY CIRCUIT CONTINUOUS LOADS*											
mA:	0	50	100	150	200	250	300	350	400	450	500
Hrs.:	45	30	22	18	15	13	11.5	10	9	8	7

*In addition to control panel and loop currents.



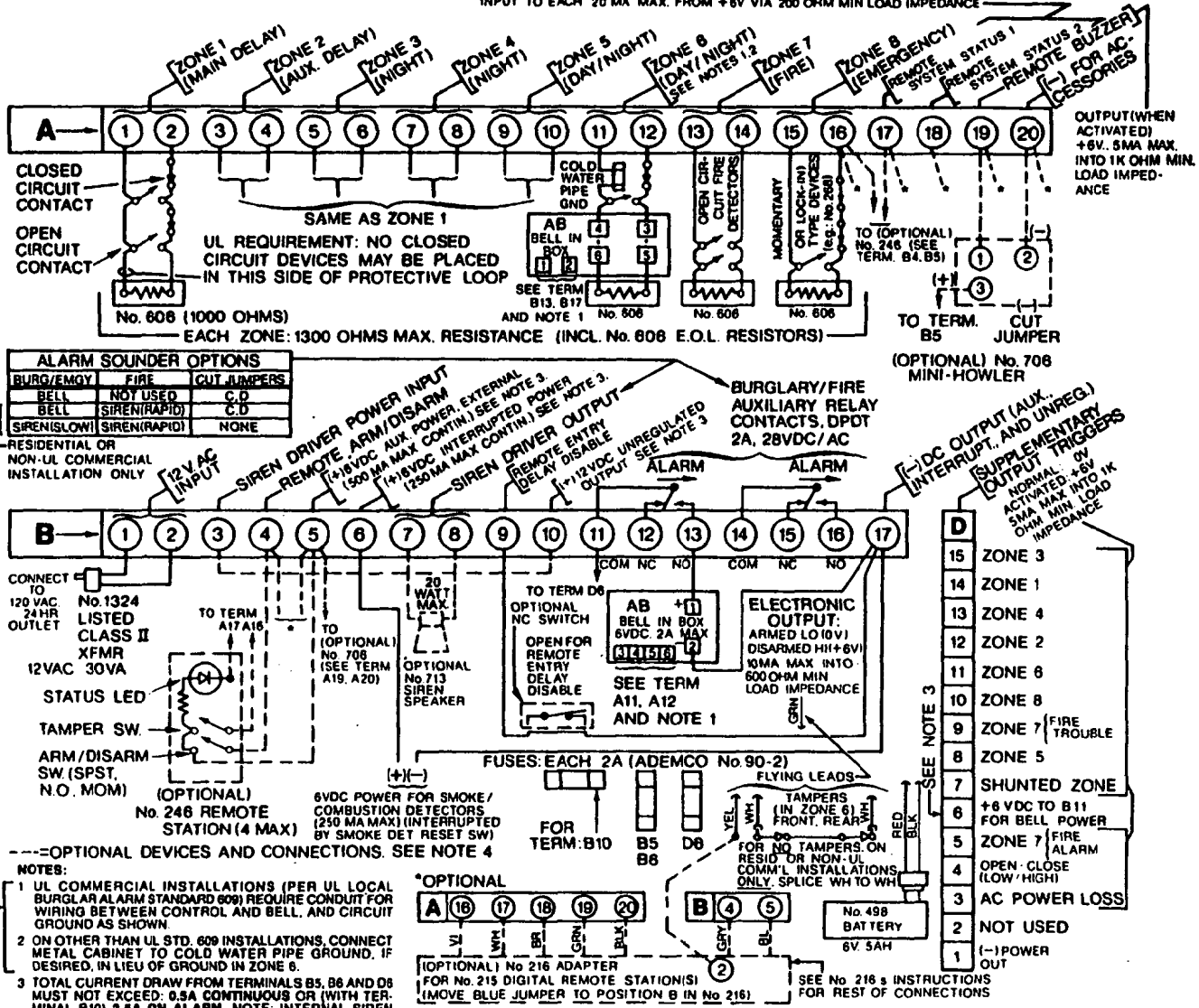
NOTE:
NOT APPLICABLE
TO NO. 4080

Diagram 1: SWITCHES, LEDS AND JUMPERS (No. 4080XL shown)
(No. 4080 is similar except as indicated.)

SUMMARY OF CONNECTIONS:

FOR COMPLETE INFORMATION REFER TO TEXT AND OPERATOR'S MANUAL P8169, 9/83
 ALL INTERCONNECTIONS MUST BE MADE USING U.L. LISTED LIMITED ENERGY CABLE. IF FIRE PROTECTION IS IMPLEMENTED, FOLLOW
 INSTALLATION REQUIREMENTS OF NFPA STANDARD No. 74 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

INPUT TO EACH 20 MA MAX. FROM +6V VIA 200 OHM MIN LOAD IMPEDANCE



SUPPLEMENTAL USER DATA:

Note: See the user instructions on the face of the cabinet door for information on lights, switches and conditions not described below.

BATTERY STANDBY CAPACITY: At least 7 hours (with a fully charged battery). Total continuous current drain of connected accessories (e.g.: space protection devices, smoke or combustion detectors, digital remote stations) must not exceed 500 mA. Battery will need replacement not more frequently than once every 5 years.

AC POWER LIGHT (Green): Lit when AC power is connected. Out when system is operating from standby power.

REMOTE ALARM LIGHT (Red): Lit when burglar or emergency alarm signal has been sent to a remote monitoring location. Will go out when keyswitch is turned momentarily to CHECK/RESET.

FIRE (ZONE 7) LIGHT (Red): Lit steadily during a FIRE ALARM condition (in conjunction with rapid pulsing siren). During a FIRE TROUBLE condition, SYSTEM STATUS LED flashes rapidly (in conjunction with rapid pulsing buzzer) but this LED lights only when keyswitch is turned to CHECK/RESET. See user instructions on face of cabinet.

FIRE TEST SWITCH: Use weekly to test fire circuit. Move momentarily to FIRE TEST position. Fire zone light will come on and rapid pulsing siren will sound until keyswitch is turned to CHECK/RESET. **IMPORTANT: Advise central monitoring location, if any, before conducting test.**

EMERGENCY (ZONE 8) LIGHT (Red): Lights during audible panic alarm (but NOT during silent emergency alarm) in conjunction with bell or slow pulsing siren. To reset, turn keyswitch momentarily to CHECK/RESET.

EMERGENCY (ZONE 8) ENABLE/DISABLE SWITCH: To ENABLE (zone will respond to emergency device activation) or DISABLE (zone will be unresponsive to device activation) turn keyswitch to CHECK RESET and move ENABLE/DISABLE switch to appropriate position.

**Diagram 2: SUMMARY OF CONNECTIONS (No. 4080XL shown)
 (No. 4080 is similar except as indicated.)**

No. 713 SPEAKERS					
POWER SOURCE TO SIREN DRIVER INPUT TERMINAL B3	ALLOWABLE SPEAKER CONFIGURATIONS, AND CURRENT ON ALARM				
	A	B	C	D	E
6VDC FROM TERM. B5 (SEE DIAG. 2, NOTE 3)	0.75A	1.5A	0.4A	0.75A	1.5A
12VDC FROM TERM. B10 (2 A MAX.)	1.5A	X	0.75A	1.5A	X
18VDC FROM EXTERNAL (NON-RECHARGEABLE) BATTERY	2A	X	1A	2A	X

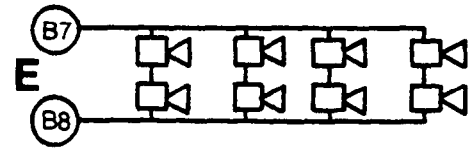
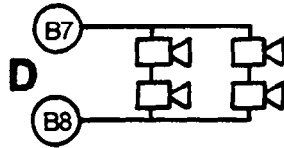
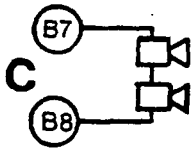
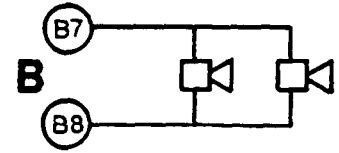
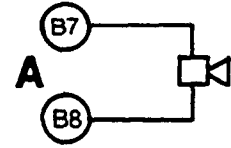
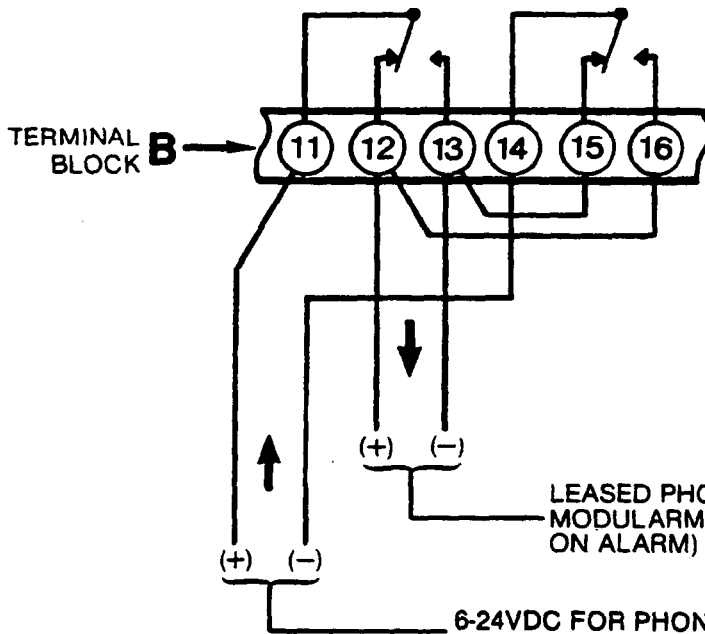


Diagram 3: ALTERNATIVE CONNECTIONS FOR No. 713 SIREN SPEAKERS
 (other Listed 8 ohm speakers may be used instead, with series resistors where appropriate.)



NOTES: FOR ACTIVATION OF RELAY ON PANIC ALARM, "AUDIBLE PANIC" JUMPER MUST BE CUT.
 DO NOT CUT AUTOMATIC BELL TEST JUMPER.

6-24VDC FOR PHONE LINE (MAY BE OBTAINED FROM TERMINALS B5 AND B7 BY USING UL LISTED No. 349 VOLTAGE BOOSTER.)

Diagram 4: ALARM RELAY CONNECTIONS FOR POLARITY REVERSAL CONNECTION TO LEASED PHONE LINE (IN LIEU OF LOCAL BELL)

DAY BELL (OR SIREN) = ALARM

RAPID PULSING SIREN: FIRE ALARM, EXIT IMMEDIATELY. CALL FIRE DEPT.

When source of alarm eliminated: 1) Depress SMOKE DETECTOR RESET switch within cabinet. 2) Silence alarm by turning keyswitch momentarily to CHECK/RESET.

BELL OR SLOW PULSING SIREN: EMERGENCY ALARM.

To silence, turn keyswitch momentarily to CHECK/RESET.

DAY BUZZER = FAULT

STEADY BUZZER, AC POWER LED OFF: System is on "battery". To silence, turn keyswitch momentarily to CHECK/RESET. Check plug-in transformer and/or for power failure.

STEADY BUZZER, ZONE 5 OR 6 LED ON: Day zone fault. To silence, turn keyswitch momentarily to CHECK/RESET. Find and correct fault.

PULSING BUZZER, SYSTEM STATUS LED FLASHING RAPIDLY: Fire loop fault (day mode). To silence: 1) Move FIRE SYSTEM SWITCH to TROUBLE. 2) Turn keyswitch momentarily to CHECK/RESET. When fault is corrected, buzzer will pulse again. To silence: 1) Return FIRE SYSTEM SWITCH to NORMAL. 2) Turn keyswitch momentarily to CHECK/RESET.

IF CAUSE OF TROUBLE CANNOT BE FOUND AND REMEDIED, CALL FOR SERVICE.

TO ARM AND EXIT:

ZONE SWITCHES SHOULD BE ON, SYSTEM STATUS LED MUST BE FLASHING. Otherwise, see PARTIAL ARMING before proceeding.

1. TURN KEYSWITCH CLOCKWISE MOMENTARILY TO ARM (or enter arming code at keypad).

SYSTEM STATUS LED will light steadily.

If Partial Arming is used, BUZZER WILL SOUND FOR TWO SECONDS.

IF BUZZER SOUNDS CONTINUOUSLY, IMMEDIATELY TURN KEYSWITCH CLOCKWISE MOMENTARILY TO DISARM (or enter disarming code at keypad) and see PARTIAL ARMING.

If Automatic Bell Test feature is used, BELL (OR SIREN) WILL SOUND FOR TWO SECONDS.

2. EXIT DELAY PERIOD BEGINS. REMOVE KEY AND EXIT AT ONCE through delay door.

IF BUZZER SOUNDS, DISARM SYSTEM IMMEDIATELY.

If Automatic Bell Test feature is used, BELL (OR SIREN) WILL "DING" AT END OF DELAY PERIOD TO CONFIRM SUCCESSFUL ARMING.

TO ENTER AND DISARM:

1. ENTER ONLY THROUGH DELAY DOOR
Buzzer indicates ENTRY DELAY PERIOD has begun.

2. BEFORE DELAY PERIOD EXPIRES, turn keyswitch clockwise momentarily (or enter disarming code at keypad).

3. BUZZER SHOULD STOP. SYSTEM STATUS LED SHOULD BEGIN TO FLASH (or go out, if a zone is open).

A PULSING BUZZER INDICATES AN ALARM HAS OCCURRED SINCE PANEL WAS ARMED. Lit Zone LED's show source of alarm. Turn keyswitch to CHECK/RESET. Buzzer will stop and LED(s) will go out, if fault(s) no longer present. LED will be lit on any zone presently faulted. BUZZER will sound steadily if any faulted zone is unshunted. If cause cannot be found and remedied, call for service.

PARTIAL ARMING:

IF A FAULT EXISTS IN SYSTEM WHILE DISARMED SYSTEM STATUS LED WILL BE OUT. Arming system in this state WILL CAUSE ALARM.

1. TURN KEYSWITCH TO CHECK/RESET
Zone LED(s) for faulted zone(s) will light and buzzer will sound.

2. FIND CAUSE AND CORRECT PROBLEM
(zone LED will go out and buzzer will stop) or call for service.

3. IF NECESSARY TO SHUNT (REMOVE) FAULTED ZONE(S) FROM SYSTEM AND ARM WITH BALANCE OF PROTECTION INTACT: While keyswitch is at CHECK/RESET, slide the zone switch(es) for the problem zone(s) to the OFF position. Buzzer will stop and SYSTEM STATUS LED will begin flashing. Faulted zone LED(s) will stay lit until keyswitch is returned to center position.

4. REPEAT EXIT PROCEDURE.

NEVER BYPASS OR SHUNT BURGLARY PROTECTIVE ZONES UNLESS ABSOLUTELY NECESSARY.

IMPORTANT: CALL FOR SERVICE AND HAVE SYSTEM RESTORED TO FULL CAPABILITY AS SOON AS POSSIBLE.

Diagram 5: USER'S INSTRUCTIONS, NOS. 4080, 4080XL

TO THE INSTALLER

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user is vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to insure the system's proper operation at all times.

FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is en-

couraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna

Relocate the computer with respect to the receiver

Move the computer away from the receiver

Plug the computer into a different outlet so that computer and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications helpful:

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00345-4.

ADEMCO

ALARM DEVICE MANUFACTURING CO.

A DIVISION OF PITTMAY CORPORATION

165 Eileen Way, Syosset, New York 11791

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ADDENDUM TO: INSTALLATION INSTRUCTIONS
for No. 4080

RE: USE OF OPTIONAL No. 216,
COMMUNICATOR CONNECTOR CORD,
DELETION OF No. 1034 REFERENCE

Please make the following additions and corrections to your copy of the No. 4080's installation instructions:

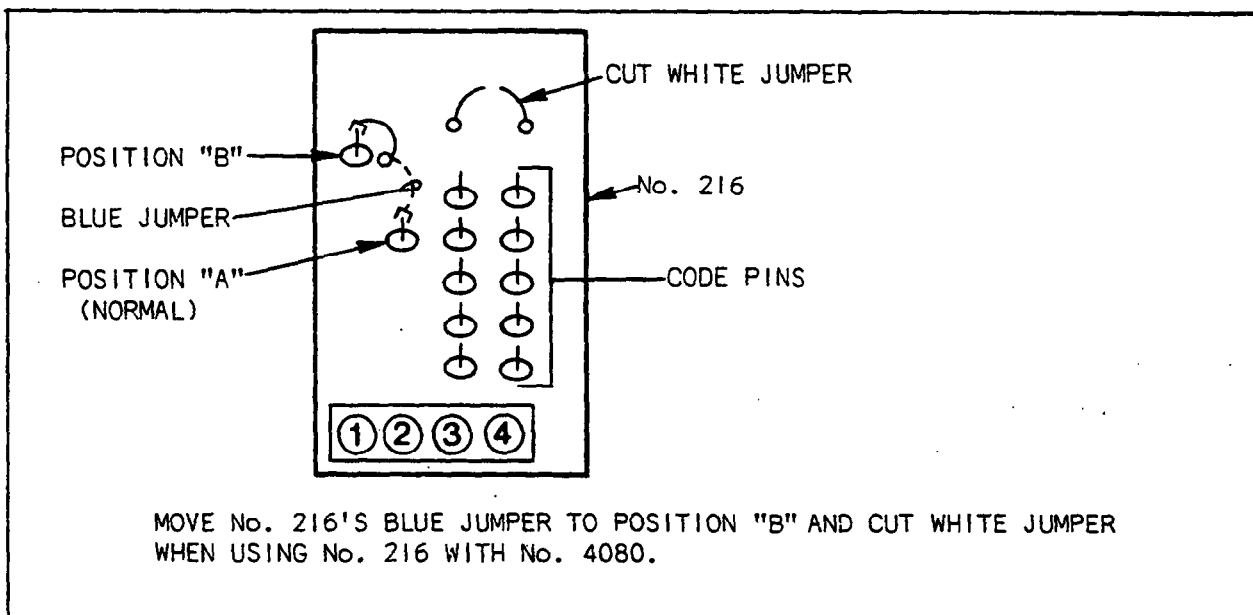
Page

Item

12

Add the following below the description to terminals "A16 thru A20":

Note: Only late production models of the No. 216 Adapter, which are provided with a BLUE jumper near the center of their circuit board, may be used with the No. 4080. The No. 216's BLUE jumper wire must be moved from its "Normal" position "A" (on the pin just below the point at which the BLUE wire emerges from the circuit board) to position "B" (on the pin located above and to the left of the BLUE wire's emergence point). In addition, the WHITE jumper on the No. 216's circuit board must be cut.



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Under Section "D. Dialer Trigger Outputs" change the Connector Cord wire color associated with Pin 8 to GRAY.

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Under Section "VI. ACCESSORIES" delete reference to the No. 1034 Four Zone Expansion Center. It cannot be used with the No. 4080.

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In Diagram 1, "(OPTIONAL) No. 216 ADAPTER" connection information, change: (MOVE BLUE JUMPER TO "4080 POST" IN No. 216) to read: (IN No. 216, MOVE BLUE JUMPER TO POSITION "B" AND CUT WHITE JUMPER)

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PROVED PERFORMANCE

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