SPECIFICATIONS

Control Panel Specifications

12 zones including:

- 8 fully programmable supervised zones (End-of-Line resistors) including Fire Zone capability
- 1 Auxiliary Normally Open or Normally Closed Zone
- 3 keypad activated zones

Audible alarm output:

- Bell output
- 700 mA, fused at 5 A, 11.0 - 13.8 VDC
- Steady or pulsed output
- Normal or inverted output

EEPROM memory:

- Does not lose codes or system status on complete AC and battery failure

4 Programmable outputs:

- Transistor switch sinks 50 mA to ground. Operation controllable through program options

Powerful 1.5 amp regulated power supply:

- 400 mA auxiliary supply, 11.0 - 13.8 VDC
- Separately fused for battery, keypad/auxiliary supply and bell output
- Supervision for loss of AC power, low battery
- Internal clock locked to AC power frequency

Switched Smoke Detector Supply Output:

- Controlled by keypad [✷][4] command

Battery Required:

- 12 volt 4 Ah minimum rechargeable gel-cell or sealed lead-acid battery

Transformer Supplied:

- 16.5 VAC, 40VA

Dimensions:

- 11" × 11.8" × 3.3" deep (279 × 300 × 84 mm)

Weight:

- 6.5 lbs (3 kg)

Remote Keypad Specifications (PC2550RK)

- Four wire (QUAD) hook-up
- Nominal current draw: 60 mA
- Up to 3 keypads per system (recommended). Maximum 5 keypads per system; refer to Keypad and Fire Circuit Wiring Information
- Built-in piezoelectric buzzer
- Full annunciation of zones and system status
- Dimensions 5.5" × 4.5" × 1" deep (140 × 114 × 25 mm)

Output Voltage Specification

Typically, with normal AC in and a fully charged battery, the output voltage will be 13.8 VDC. With AC off and a discharged battery, the voltage will drop to 10 volts. Devices that require power from the control panel should be capable of normal operation over the voltage range of 10 to 14 VDC.

Digital Communicator Specifications

- 92 reporting codes
- Transmits all 10 BPS and 20 BPS single line and extended formats
- Radionics Rounds and Radionics Parity formats
- DTMF fast Scantronics slot format
- Sur-Gard 4/3 DTMF with Parity
- Ademco Contact ID
- Semidigit Pager Format
- Sescoa Superspeed format
- 3/1, 4/2 and hexadecimal numbers
- DTMF and Pulse dialing
- DPDT line seizure
- True dial tone detection
- Anti-jam feature
- 3 telephone numbers and 3 account codes
- Split reporting of selected transmissions to each telephone number

FEATURES

Keypad Programming

The PC2580 features a default program so it is operational with a minimum of programming. The PC2580 is completely programmable from the keypad. The panel uses EEPROM memory so that all information is retained even if the system loses both AC and battery power.

Multiple Level Static/Lightning Protection

The PC2580 has been carefully designed and tested to provide reliable service. It is built to take static and lightning induced surges and keep on working. Multiple level surge filters are on all zone inputs, the power supply, the keypad connections, the bell output, the auxiliary power supply and the telephone interface. A special "ZAP-TRAC" circuit board configuration catches high voltage impulses right at the wiring terminals. Protective ground planes surround sensitive areas preventing the spread of damaging voltage surges. Metal Oxide Varistors (MOVs) are placed in all the critical areas to further reduce impulses to safe levels.

"Watchdog Monitor" Circuit

Even when all precautions are taken so that voltage surges do not cause damage to the control panel, it is possible to cause temporary disruption to the operation of the microprocessor causing it to lose track of the program sequence. The PC2580 is equipped with an external "Watchdog Monitor" circuit which continually checks the microprocessor's program execution.

System Supervision Features

The PC2580 continuously monitors a number of possible trouble conditions, including:

- Double end-of-line resistor zone supervision to allow for both tamper and alarm detection
- Keypad Tamper Supervision (with LED625T or LCD600T Keypads)
- An active battery supervision circuit that periodically tests the battery under load
- A loss of the AC power supply
- A supervised circuit trouble condition
- A telephone line monitoring circuit
- A bell circuit failure indicates open circuit or fuse failure
- A test code feature which transmits a communicator test code to the monitoring station at a selected time during the day. The test code can be sent at intervals from 1 to 99 days. It can also be sent every hour on the hour, or every 15 minutes while armed
- A bell/siren/communicator test feature which can be activated from the keypad
- Telephone Line Monitoring (TLM) restoral transmission
- 128-event Event Buffer

Advanced Features

- EEPROM memory retains all data even on complete AC and battery failure. System powers up in last armed or disarmed state before power loss
- All programmable zones may be selected as one of 10 different types including: Delay, Auxiliary Delay, Instant, Interior, Interior Delay, Interior with Home Away, Delay with Home Away, and 3 types of 24-hour emergency and supervisory circuits
- Keypad programming of up to 17 Access Codes
- Zone bypassing from the keypad
- Individual zone and system function indicators on keypad
- 2 keypad activated utility output functions for operating lights, door openers, cameras or other devices
- Optional keypad status light timeout

INSTALLATION

Bench Testing

The following items are required for bench testing:

• 1 Single Pole Single Throw (SPST) switch,

• 1 Single Pole Double Throw Centre-Off (SPDT) switch

• 2 5600Ω resistors.

Bench Testing Set-up

• One of the outer leads (A) of the SPST switch is connected to the "COM" terminal closest to the zone being worked on.

• The common lead of the SPST (B) is shorted to the outer lead (D) of the SPDT switch.

• One 5600Ω resistor is connected between the two outer leads of the SPDT switch (D to F).

• The other 5600Ω resistor is connected from the common lead to the outer lead of the SPDT (E to F).

• The common lead of the SPDT switch (E) is connected to the zone terminal being worked on.
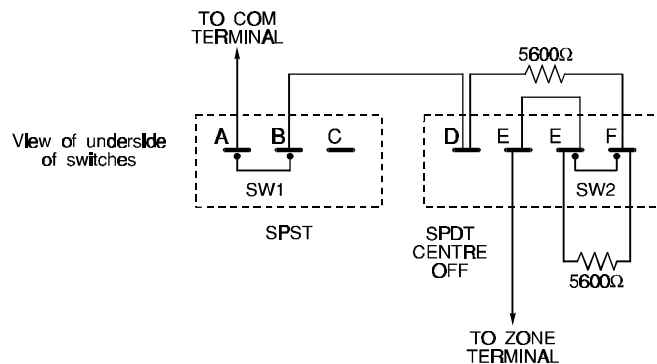
The normal condition exists when the SPST switch is shorting leads A to B and the SPDT switch is shorting leads E to F. Below are the zone status conditions and switch settings:

• Switch 1 on AB and switch 2 on EF is a Restoral condition (5600 Ohms)

• Switch 1 on AB and switch 2 on EE is an Alarm condition (11200 Ohms)

• Switch 1 on BC is a Tamper condition (open)

• Switch 2 on DE is a Tamper condition (short)

Zone Connections for Bench Testing

Connect the four keypad wires to the control panel as shown in the Hook-up Diagram in the back of this manual.

To completely test the PC2580 and communicator data, it is necessary to connect the system to a digital receiver through a telephone line connection or by connecting the telephone terminals on the PC2580 to a digital communicator test set such as the DSC DTS-1. The DSC DTS-1 digital communicator test set is an inexpensive unit which can simulate the telephone system dial tone and the receiver handshake and kiss-off tones, as well as display the data transmitted by a digital communicator. Also, the DTS-1 has a "listen-in" feature which makes it ideal for monitoring the transmission between communicator and receiver when the PC2580 is connected to the telephone line.

If you are using a DTS-1, connect the red and green telephone clips to the "A" and "B" terminals and connect the red and black power clips to the "AUX [+]" and "AUX [-]" terminals on the PC2580. When power is applied to the system, press the local-line button on the DTS-1 and observe the display window. The "local-line" indicator should be in the local position.

For testing purposes, connect a small buzzer to the "BELL [+]" and "BELL [-]" terminals to indicate when the system is in alarm.

Connect a 16.5 VAC, 40 VA transformer to the "AC" terminals. Before plugging in the transformer be sure the circuit board is not resting on anything metallic which may cause a short circuit.

NOTE: THE PC2580 WILL NOT START UP IF "AC" IS OFF.

When power is first applied to the system, the keypad lights will come ON and the sounder connected to the BELL terminals will sound briefly. The "Armed" light may be ON or OFF the first time power is applied to the system. The last armed/disarmed condition is stored in the EEPROM memory so the system will always power up in the last armed/disarmed state. If the "Armed" light is ON, enter the default Master Code [1234] to disarm the system. If the keypad is not active, check for the presence of AC power at the "AC" terminals, check the keypad connections and check the fuses on the control panel.

If all the zones are properly connected with double end of line resistors all of the Zone Lights will be OFF. Note that the system will arm only if all zones are properly connected with double end of line resistors so that the "Ready" light is ON. **NOTE:** The Fire Zone only requires a single end-of-line resistor. The keypad should beep several times to indicate acceptance of the Master Code. Enter the Master Code to arm or disarm the system.

Refer to the "Keypad Functions" section of this manual or the Instruction Manual and enter commands on the keypad to become familiar with the different commands. Refer to the Programming Guide and enter a sample program to become familiar with the programming commands.

Mounting the Control Panel

Select a dry location close to an unswitched 240VAC earthed supply and close to the telephone connection.

Remove the printed circuit board, mounting hardware and keypad from the cardboard retainer inside the cabinet. Locate the desired placement of the cabinet. Before attaching the cabinet to the wall, press the five nylon printed circuit board mounting studs into the cabinet from the back. ***Ensure that the mounting studs are firmly and properly seated; push the studs into position until they click into place.***

Mark the mounting holes on the wall. Drill the appropriate hole size and insert wall plugs into the holes. Next, using #8x1" round headed screws (or equivalent) secure the cabinet to the wall. Pull all cables into the cabinet and prepare them for connection before mounting the circuit board to the back of the cabinet. Press the circuit board down onto the mounting studs.

Hook-up Procedure

Interconnection circuits should be such that the equipment continues to comply with the requiremnents of IEC950 when like circuits are connected to each other. For example, TNV (telephone network) circuit should be connected to the TNV circuit, SELV (zoned) circuits should be connected to SELV.

DO NOT connect transformer or battery until all other wiring has been connected. Refer to "Power-up Procedure" for instructions on applying power to the system.

Connect zone cables to zone inputs and put double end of line resistors on any unused zones. Connect power wires for motion detectors to the auxiliary supply.

Install the keypads and connect the keypad leads to the keypad terminals. Connect an RJ31-X cord to the telephone terminals. Do not yet insert the plug into the telephone jack.

Connect a bell or siren to the "BELL [+]" and "BELL [-]" terminals. Observe correct polarity for sirens and polarized bells. Connect a 1000Ω ½W resistor across the terminals to prevent a trouble condition from being indicated if the bell circuit is not to be used.

The wiring must be fixed/routed so as to prevent the telephone network wiring and all other wiring from crossing each other.

NOTE: All holes in metal which have insulated wires passing through them should have bushings to prevent insulation breakdown.

Terminal Connections

AC Power Terminals

Use only the supplied transformer to supply AC power to the PC2580. The transformer must be connected to an unswitched fused spur unit installed in accordance with current IEE regulations. The metal cabinet must be earthed and the integrity of this connection confirmed prior to application of mains power.

NOTE: In order to comply with safety requirement IEC950, ensure that when the mains cabling enters the alarm panel, it is securely clamped to prevent it from being removed.

Caution: If the neutral in the main supply is not readily identifiable, then an appropriate disconnect device that has a contact separation of at least 3mm and disconnects both poles simultaneously, must be used.

If an AC failure occurs, it will be displayed as a trouble on the keypad; see "Keypad Functions, [✱][2] Trouble Conditions". The trouble condition can also be transmitted to the monitoring station; see Programming Sections [16] and [17] for Alarm and Restore Codes, and Programming Section [19] for AC Transmission Delay.

Auxiliary Power Terminals: AUX+ and AUX-

Two "AUX" terminals are provided to ease wiring congestion at these terminals. The auxiliary power supply can be used to power motion detectors and other devices requiring 12 VDC. 400mA 12 VDC is available from the "AUX+" (positive) and "AUX-" (negative) terminals when the PC2580 is used with one keypad. For each additional keypad the auxiliary supply rating must be reduced by 60mA. The auxiliary supply is fused with the keypad supply at 1 amp. An auxiliary fuse failure trouble can be transmitted to the monitoring station; see Programming Sections [16] and [17].

Switched Auxiliary Power Terminals: SW AUX and AUX-

The switched auxiliary supply can be switched off momentarily from the keypad (see "Keypad Functions [✱][4]"). The "SW AUX" terminal is positive and the "AUX-" terminal negative. The 400 mA auxiliary supply rating must be reduced by any current taken from the switched auxiliary supply. The switched supply shares the same fuse as the auxiliary supply.

Bell/Siren Terminals BELL [+] and BELL [-]

These terminals are for powering bells or other devices requiring the application or removal of voltage on alarm. The bell output is fused for 5A. When connecting sirens (speakers with a built-in siren driver), be sure to observe the correct polarity. Connect the positive lead to the BELL [+] terminal and the negative lead to the BELL [-] terminal. When using self-activating (SAB) or self-contained (SCB) devices, refer to the connection diagram in the back of this manual for wiring instructions.

If no siren or bell is used, connect a 1000Ω resistor between BELL [+] and BELL [-].

The bell/siren alarm output is pulsed (1 second ON 1 second OFF) when an alarm is created by the [F] keypad zone, by the FIRE zone, or when the Bell Pulse option is enabled in Section [21] Zone Light 6. The Bell output can also be programmed to be inverted; refer to Programming Section [21] Zone Light 7.

Keypad Terminals: RED, BLK, YEL and GRN

Connect the four keypad leads to these terminals. When connecting more than one keypad, use only "star" wiring (that is, connect in parallel across the keypad terminals at the control panel). The keypad red and black power supply terminals are fused through the auxiliary fuse.

Programmable Outputs: PO1, PO2, PO3 and PO4

The PC2580 provides 4 programmable outputs. The operation of PO1 and PO2 depends upon which option is selected in the programming table. See the Programming Section [31]. PO3 and PO4 can be programmed for different operations in the "Third System Option Code" Section [22]. Terminals PO1 to PO4 are 50mA maximum switches to ground. A 100 Ohm current limiting resistor is connected in series. A small relay, a buzzer or other DC operated device may be connected between the 12VDC "AUX+" (positive) terminal and any one of the "PO" (switched negative) terminal on the main board.
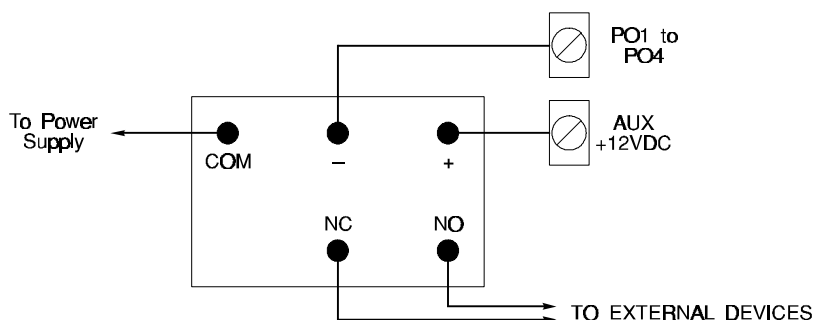
Auxiliary Input Terminal: AUX IN (also Key Arming)

The "AUX IN" input terminal is a 24-hour zone that can be programmed for normally open or normally closed operation; refer to Programming Section [25] Zone Light 1. It can be programmed from the keypad to be silent or audible. There is no keypad display for the "AUX IN" input. An alarm on this input is created by applying a positive voltage or by closing a contact between the "AUX IN" terminal and the positive auxiliary supply. Refer to Programming Section [15] for instructions on programming the AUX IN alarm and restoral codes.

The "AUX IN" terminal can also be used as a momentary key arming/disarming input. Refer to Programming Section [31] for a list of options for the "AUX IN" terminal.

Zone Input Terminals Z1 to Z8

Zone inputs Z1 to Z8 are supervised Double End Of Line resistor circuits. Double EOL resistor circuits give zones the capability to detect tamper conditions. A tamper condition can be either a short or open on a zone. The normal condition is 5600 Ohms. The Alarm condition is 11200 Ohms. The tamper resistor is placed between the tamper contact and the alarm contact. This configuration will allow the system to detect zone tampers (zone open or shorted), zones in alarm (alarm condition of 11200 Ohms), and restored zones (normal condition of 5600 Ohms). Refer to the Hook-up Diagram for normally closed and normally open contact connections.

Telephone Terminals: A, B, C, D, and E

The wires from the telephone socket are connected to these terminals in the following way.

A	Blue with White rings	Incoming line from
B	White with Blue rings	telephone company
C	Green with White rings	Outgoing line to
D	White with Green rings	house telephone(s)
E	Telephone Ground	

NOTE: If you do not connect the PC2580 to the phone lines, connect the E terminal to the COM terminal.

Battery Connections

Do not connect the battery or AC power until the wiring is complete. Connect the red battery lead to the positive battery terminal and the black lead to the negative battery terminal. If the connection is made in reverse the battery fuse will blow. The small potentiometer below the heat sink can be used to adjust the battery charging voltage. It is factory adjusted for 13.8 volts and normally needs no adjustment.

Keypad Installation

Mount the keypads near the Entry-Exit Doors. The PC2550RK keypad has red, black, green and yellow leads on the back. Connect these four leads to the four keypad terminals on the control panel using four core alarm cable. Up to three keypads may be connected to one PC2580. Refer to the Keypad and Fire Circuit Wiring Information in the back of this manual. Connect all green wires from the keypads to the "GRN" terminal on the panel. Connect all yellow wires from the keypads to the "YEL" terminal on the panel. Connect all red wires from the keypads to the "RED" terminal. Connect all black wires from the keypads to the "BLK" terminal.

The following DSC keypads are also compatible with the PC2580:

- LED625
- LED625T
- LCD600
- LCD600T

Consult your DSC dealer for information regarding these keypads and required software versions.

Power-up Procedure

If the keypads are located a distance from the control panel, install an extra keypad temporarily at the control panel during power up and testing. An extra keypad with a short length of cable and alligator clips attached is helpful for testing and programming systems.

Connect the battery. Connect the red battery lead to the positive (+) terminal, and the black battery lead to the negative (-) terminal. Apply AC power and wait approximately 5 seconds.

Enter a few keypad commands and open a zone to be sure that the control panel and keypad are responding to signals. If the keypad does not respond and there are no indicators ON, check for AC voltage at the "AC" terminals. If there is 16 VAC present, check that the keypad wiring is correct and check the keypad/auxiliary supply fuse. If the keypad/auxiliary supply fuse is opened, check for a short between the keypad red and black wires before replacing the fuse.

NOTE: THE PC2580 WILL NOT START UP IF AC IS OFF.

Testing The System

See Installer's test, [✱][6][Master Code][0], or perform the following. Ensure the system is connected to a working telephone line. If a DTS-1 is being used to monitor communicator transmissions, connect as described in "Bench Testing" section and place the DTS-1 in the "line" mode by pressing the "LINE/LOCAL" button. Arm the system, wait for the Exit Delay to expire, and trip a detector on an instant circuit. Wait for the communication to complete. Disarm the system and check with the monitoring station to confirm the transmission. Perform additional transmissions required by the monitoring station.

Check the "Trouble" light; if it is ON, press [✱] then [2] to determine if there is a system trouble. Refer to Trouble Display in the Keypad Commands section of this manual for information on the various trouble conditions.

Instructing the End User

Fill out the system reference guide in the PC2580 Instruction Manual. Be sure to indicate which section of the manual apply to the user's system and make additional notes if necessary.

Describe the system to an authorised user. Describe arming and disarming procedures. Describe the basic keypad functions. Assist the user in working through examples of each type of command.

Provide the user or users with the Instruction Manual and instruct them to read the manual to become familiar with operation of the system.

Instruct the user to test the system on a regular basis as described in the Instruction Manual. The Master Code should be changed from the default setting and recorded in the Instruction Manual.

GUIDELINES FOR LOCATING SMOKE DETECTORS

Experience has shown that all hostile fires in family living units generate smoke to a greater or lesser extent. Experiments using typical fires in family living units indicate that detectable quantities of smoke precede detectable levels of heat in most cases. For these reasons, the Smoke Detectors Act (1991) requires smoke detectors to be installed on each floor of the family unit.

The following information is for general guidance only and it is recommended that the Smoke Detectors Act (1991) be consulted at your local library and that the smoke detector manufacturer's literature be referred to for detailed installation instructions.

It is recommended that additional smoke detectors beyond those required be installed for increased protection. The added areas include: basement, bedrooms, dining rooms, furnace room, utility room and hallways not protected by the required detectors.
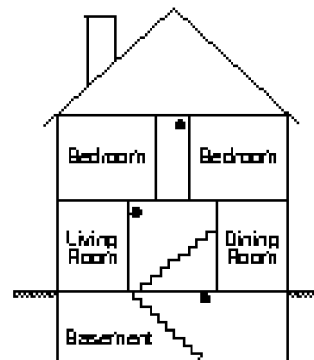
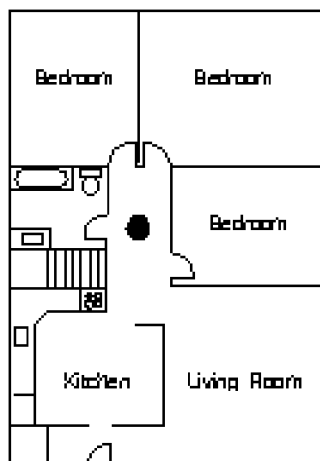*Figure 3:   A smoke detector should be located on each story of the living unit.*

Figure 1: A smoke detector should be located between the sleeping area and the rest of the family unit.
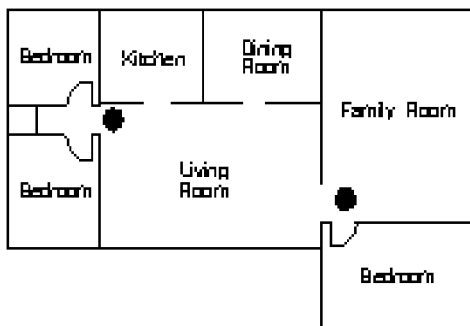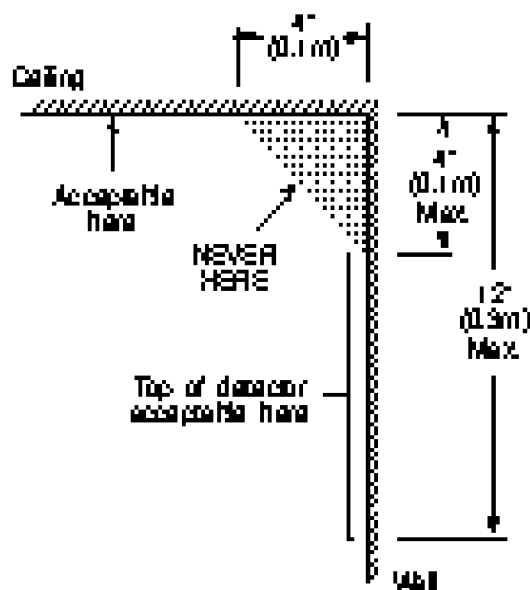
Figure 2: In family living units with more than one sleeping area, a smoke detector should be located to protect each sleeping area.

NOTE. Measurements shown are to the closest edge of the detector.

Figure 4:   Smoke Detector mounting and "Dead" Air Space. The smoke from a fire generally rises to the ceiling, spreads out across the ceiling surface and begins to bank down from the ceiling. The corner where the ceiling and wall meet is an air space into which the smoke may have difficulty penetrating. In most fires, this "dead" air space measures about 4 in. (0.1m) along the ceiling from the corner and about 4 in. (0.1m) down the wall as shown in Figure 4. Detectors should not be placed in the "dead" air space.

KEYPAD FUNCTIONS

Introduction

The PC2550RK remote keypad provides complete information and control of the PC2580. The system can be completely programmed from the keypad. The eight Zone Lights and the "Fire" light provide alarm and status indication for the alarm circuits. The six function lights guide the user in operating the system. The built-in sounder lets the user hear correct key entries and other alert signals. The 12-digit keypad is used for code entry and other programming functions. All keypad entries are made by pressing one key at a time.

The keypad is normally in the "Ready" mode. In the "Ready" mode, the Zone Lights will indicate zone status. When all zones are closed, the "Ready" LIGHT will be ON. The system can be directed to perform system functions such as zone bypassing, displaying trouble conditions, displaying alarm memory and programming by entering one of the [✱] commands described below. Pressing the [#] key or not making any key entry for more than 2 minutes will return the keypad to the "Ready" mode.

Master Code

The default Master Code is "1234". The Master Code is used for arming and disarming the system, for programming up to fifteen additional Access Codes using the [✱][5] command, and for entering other user functions using the [✱][6] command. The user can change the Master Code, or the installer can program the system to prevent the user from changing the Master Code; refer to Programming Section [23] Zone Light 5. The PC2580 uses non-volatile memory to ensure that the Access Codes will not be erased from the system even if all power is removed from the system.

Second Master Code

The PC2580 features a Second Master Code. In the default setting, the Second Master Code is not programmed. The Second Master Code may only be changed by the installer. Note that the same Closing and Opening Codes are transmitted for both the Second Master Code and the regular Master Code.

Installer's Code

The default Installer's Code is "2580". The Installer's Code is used with the [✱][8] Programming Command to perform system programming. The Installer's Code may be changed by the installer.

Arming the System

Check to see if the "Bypass" or "Trouble" light is ON before arming the system. If the "Bypass" light is on, use the [✱][1] command to determine which zones are bypassed. When arming the system with bypassed zones, be sure that all zones are bypassed intentionally. Refer to Bypassing Zones for more information. If the "Trouble" light is on, use the [✱][2] command to determine what trouble conditions are present. Refer to Displaying Trouble Conditions for more information.

Close all protected doors and windows and stop movement in areas covered by motion detectors. Check to see that the "Ready" light is ON (the "Ready" light will be ON when all zones are closed). The system cannot be armed unless the "Ready" light is ON. Enter a 4-digit Access Code. As each digit is entered, the keypad sounder will beep. If the Access Code is entered incorrectly, the keypad will sound a single long error tone. If the code is entered correctly but the "Ready" light was not ON, the keypad will beep quickly and then sound a steady tone.

When a valid Access Code is entered, the "Armed" light will come ON and the keypad will beep quickly. If Entry/Exit Urgency is enabled, the keypad will sound a pulsing tone during the Exit Delay. The pulsing tone will quicken during the last 10 seconds of the Exit Delay to warn that the Exit Delay is about to expire.

Exit the premises through the designated Exit-Entry Door. At the end of the Exit Delay, all keypad lights other than the "Armed" light will be shut OFF. Refer to Programming Section [19] for instructions on how to change the Exit Delay. Also refer to "Quick-Arm" and "At Home Arming".

Disarming the System

Enter the premises through the designated Entry-Exit Door. The keypad will sound a steady tone; for the last 10 seconds of the Entry Delay, the keypad will sound a pulsed tone to indicate that the system should be disarmed. (The pulsing Entry Delay tone may be disabled in Programming Section [25] Zone Light 2).

Go to the keypad and enter an Access Code. If an error is made entering the code, press the [#] key and enter the code again. The "Armed" light will be shut OFF and the keypad sounder will be silenced. A valid Access Code must be entered before the Entry Delay expires, or an alarm may be generated. If an alarm occurred while the system was armed, the "Memory" light and the Zone Light for the zone that went into alarm will FLASH and continue flashing for 2 minutes. Press the [#] key to cancel the flashing display and return the system to the "Ready" mode.

Auto Bypass / Home Away Arming

Home-Away Arming is a convenience feature for the user who wishes to remain at home while the system is armed. With this feature, the Home-Away zones do not have to be manually bypassed. Refer to Programming Section [18]

Zone Definitions for information on the "Home Away" zone definition.

To use Home-Away arming, enter an Access Code to arm the system and do not activate the Entry-Exit Zone. At the end of the Exit Delay, the system will arm with the interior "Home Away" zones automatically bypassed.

The "Bypass" light will come ON immediately when the Access Code is entered. The "Bypass" light will remain ON until a delay zone is opened, or until the [✱][1] command is entered to reactivate bypassed Home Away zones.

To reactivate the Home Away zones that have been automatically bypassed, press [✱][1]; the "Bypass" light will be shut OFF. The [✱][1] command provides a quick method of fully arming the system before retiring for the night.

Bypassing Zones: [✱]+[1]

NOTE: At no time can any armed zone be bypassed.

A bypassed zone will not cause an alarm. If a zone is bypassed, the system may be armed ("Ready" light will be ON) even if the zone is open. Use zone bypassing when access is needed to part of the protected area. Also, damaged wiring or devices on a zone may be temporarily bypassed until repairs can be made so that the rest of the system can be armed.

If the "Bypass" light is ON before arming the system, the [✱][1] command should be used to see which zones are bypassed. When arming the system with bypassed zones, be sure that all zones are bypassed intentionally. Zone bypasses are automatically cancelled when the system is disarmed.

To bypass zones, enter [✱][1] and the zone number(s) to be bypassed. One digit must be entered for each zone number to be bypassed. For example, enter [1] for Zone 1, [2] for Zone 2, and so on. As zone numbers are entered, the Zone Lights will come ON to indicate which zones are bypassed.

To remove the bypass from a zone, enter that zone's number, and its Zone Light will be shut OFF.

To remove all bypasses, enter [✱][1][0][#]; all Zone Lights will be shut OFF.

To recall the last set of bypassed zones, press [9]. The Zone Lights for the last set of bypassed zones will come ON. If the same set of zones are bypassed frequently, the recall feature can be used instead of having to enter the number of each zone.

After all bypassing is completed, press [#] to return to "Ready".

If no keypad entry is made for more than 2 minutes, the keypad will return to the "Ready" mode. If the keypad returns to the "Ready" mode, re-enter the [✱][1] Bypass Command to bypass zones.

The PC2580 may be programmed to prevent certain zones from being bypassed. If a zone cannot be bypassed, its Zone Light will not come ON when the bypass command is used. Refer to Programming Section [36] for instructions on programming the Bypass Mask.

The PC2580 may be programmed to require an Access Code to be entered to bypass zones. Refer to Programming Section [23] Zone Light 4. In systems that use Split Arming, an Access Code may only bypass zones in the side to which the code is assigned. Also, Access Codes may be programmed so that they may not be used to bypass zones. Refer to the Access Bypass Mask instructions in Programming Sections [37] and [38].

All zones can be bypassed by the installer by entering installer's mode.

Displaying Trouble Conditions: [✱]+[2]

The PC2580 continuously monitors a number of possible trouble conditions. If one of these conditions occurs, the "Trouble" light will come ON and the keypad will sound two short beeps every 10 seconds. Press the [#] key to silence the keypad sounder; the "Trouble" light will remain ON until the trouble is cleared.

Trouble conditions can be transmitted to the monitoring station; refer to Programming Sections [16] and [17] for Trouble Alarm and Restoral reporting codes.

Enter [✱][2] to display trouble conditions. The Zone Lights indicate the following trouble conditions:

1 Low stand-by battery

2 Mains (AC) power failure

3 Keypad Tamper trouble

4 Telephone line trouble

5 Unsuccessful communication attempt with monitoring station

6 Bell circuit failure

7 Smoke detector zone trouble

8 Loss of time on internal clock

Press [#] to return to "Ready".

1 **Low Battery:** A battery trouble will be displayed and can be reported if the battery is weak, disconnected or the battery fuse is open. The battery trouble display is latching, and can only be cleared by correcting the low battery condition and then entering an Access Code.

2 **Mains AC Power Failure:** There is no audible annunciation on mains AC power failure. The "Trouble" light will come ON, but the keypad will not sound until there is a low battery condition. An AC Failure Transmission Delay can be programmed for 1 to 255 minutes; refer to Programming Section [19].

3 **Keypad Tamper Trouble:** The Keypad Tamper function is enabled in Section [26] with Zone Light 4. If the LED625T or LCD600T keypads are removed from their wall mounts, a keypad tamper will be annunciated and displayed on the keypad. If programmed in Section [16], a Keypad Tamper Reporting Code will be transmitted. When a keypad tamper trouble is initiated, the system may be disarmed but not armed. The "Ready" light will remain OFF until all keypads are returned to their mounting plates and the [✱][8][Installer's Code][#] or [✱][6][Service Code] command is entered to reset the system. Keypad Tampers will be indicated with Zone Light 3, but Keypad Tampers will not be stored in the Trouble Memory.

4 **Telephone Line Trouble:** A telephone line trouble is generated when the line voltage drops below 3 volts for more than 30 seconds. It generates a keypad trouble display when the system is disarmed, and sounds a local alarm when the system is armed. See Section [21] for options.

5 **Unsuccessful Communication:** If the digital communicator is unsuccessful in communicating with the monitoring station after the maximum number of attempts to each telephone number that is to be tried, a trouble is generated. If a later attempt to communicate is successful the trouble is cleared. In Section [22] Zone Light 5, the trouble can be programmed to be audible (bell will sound) or silent (bell will not sound). FTC (failure to communicate) and FTC Restore are logged to the event buffer.

6 **Bell Circuit Failure:** If the bell fuse is open or the bell circuit is open, a keypad trouble and a trouble transmission are generated.

7 **Smoke Detector Zone Trouble:** If a Fire zone is open, a keypad trouble and a trouble transmission are generated. A trouble on the Fire Zone will unconditionally initiate an audible indication on the keypad. This means that even if any other previous trouble has been silenced, a Fire Zone trouble will cause the keypad to sound.

8 **Loss of Internal Time:** When the PC2580 is powered up or reset, the internal clock needs to be set to the correct time. This trouble is cleared when the trouble display is viewed and exited, or when an attempt is made to reset the internal clock. See [✱][6] User Function Commands for instructions on resetting the clock.

If [9] is pressed while in the View Troubles mode, the most recent trouble will be displayed on the Zone Lights. This trouble memory feature is useful as a diagnostic aid when installing and servicing the PC2580.

Alarm / Tamper Memory Display: [✱]+[3]

Enter [✱][3] display alarm memory. The "Memory" light will FLASH and zones that went into alarm during the last armed period will be displayed on the Zone Lights (this is first, or most recent, level of alarm history).

In addition to the most recent alarm memory, there are two other history levels. After entering the Memory Display mode, press [9] to display the two previous levels of alarm history. Each time [9] is pressed the keypad will beep 1, 2 or 3 times to indicate which history level is being viewed; 1 beep indicates the most recent event history, 2 beeps indicates the second history level, and 3 beeps indicates the last history level. When finished viewing alarm history, press [#] to return to "Ready".

If you press [✱][3][0], the zones that went into tamper will be displayed on the zone lights. The tamper memory is cleared when you arm, enter Installer's Programming or press [✱][6][Service Code].

When the system is armed, the last history level is cleared, and the most recent alarm memory moves to the second history level. Note that the "Memory" light will only come ON when there was an alarm during the last armed period.

Switched Auxiliary Supply Control: [✱]+[Hold Down 4]

To interrupt the switched auxiliary power supply, press [✱] then hold down [4] for the desired interrupt time. When [4] is released, the system returns to the "Ready" mode and the switched auxiliary supply is restored.

User Programming Command: [✱]+[5]+[Master Code]

The [✱][5] programming command allows the user to program Access Codes 2 through 16. The First Access Code is the Master Code, which the installer may choose to not allow the user to program. The factory default for the Master Code is "1234". The 16th Access Code may be changed from a regular code into a One-Time Use Code; refer to Programming Section [23] Zone Light 6. The One-Time Use code allows an individual, such as a service person, to disarm and then re-arm the system. After the code is used, it is erased and will no longer work on the system.

NOTE: The One-Time Use code is only cleared when it is used to arm the system. If the Quick-Arm command [✱][0] is used to arm, the One-Time Use code will not be erased.

Programming Access Codes:

Enter [✱][5][Master Code] to enter the Access Code Programming Mode; the "Program" light will begin to flash. The Zone Lights will indicate the status of the first 8 Access Codes.

Zone Light	Access Code Status
OFF	Code not programmed
Steady	Code programmed
Flashing	Code being programmed

Upon entering this Programming Mode, Zone Light 1 will be ON to indicate that the Master Code is programmed with the Factory Default Code. The Master Code may be changed here or in Programming Section [33] if the installer chooses to disable user-changing of the Master Code.

Changing or Adding a Code

To change Access Codes 1 to 8, enter a number from [1] to [8].; the corresponding Zone Light will begin to flash. Enter the new 4-digit Access Code. Do not use the [✱] key or [#] key when entering the Access Code. After the code is entered, the keypad will beep 3 times and the Zone Light will remain ON. If you are changing an existing code, the new code will simply replace the old one. If you wish to program another code, press the number key for the code to be programmed and enter the new 4-digit code.

To change Access Codes 9 to 16, press [9]. Zone Lights 1 through 8 will now represent Access Codes 9 through 16, and the "Ready" and "Armed" lights will FLASH to indicate that codes 9 through 16 are being programmed. Select a code for programming and enter the new code as described above.

Press [9] again to return to programming Access Codes 1 through 8, or press [#] to exit this section.

Erasing a Code

To erase a code, enter [✱✱✱] in place of a new 4-digit code.

NOTE: The Master Code cannot be erased. If the Master Code is forgotten and the panel is left disarmed, program a new Master Code using the [✱][8][Installer's Code][33] command or use the Second Master Code to reprogram the Master Code.

EEPROM Reset

If the Master Code is forgotten and the panel is armed, see Programming Section [99] for instructions on resetting the panel to the factory default condition. Reset is not necessary if the Second Master Code is programmed.

Programming a new Access Code:

[✱][5][Master Code][1 to 8][4 digit code]

or [✱][5][Master Code][9][1 to 8][4 digit code]

Eliminating an existing Access Code:

[✱][5][Master Code][2 to 8][✱✱✱]

or [✱][5][Master Code][9][1 to 8][✱✱✱].

NOTE: The Access Code numbers must be entered as one digit, that is, as [1], [2], [3], [4], and so on.

User Functions Command: [✳]+[6]+[Master Code]

This command is used to set the system clock, various system times, and to turn ON and OFF a number of system functions. Enter [✳][6][Master Code] and then a number from the following list to select a user function:

- **[0]** Installer's test
- **[1]** System 24-hour clock (enter HH:MM and DD/MM/YY)
- **[2]** Auto-Arming Time (enter HH:MM)
- **[3]** Auto Disarm Time (HH:MM)
- **[4]** Quick-Arm enable / disable
- **[5]** Auto-Arm enable / disable
- **[6]** Door Chime enable / disable
- **[7]** Auto Disarm enable / disable
- **[8]** System Test
- **[9]** User Initiated Call-Up

NOTE: The system clock uses the 24-hour clock (military time) format, and times must be entered as 4-digit numbers.

Hours: Valid entries are from 00 to 23

Minutes: Valid entries are from 00 to 59

Days: Valid entries are from 01 to 31

Months: Valid entries are from 01 to 12

Year: Valid entries are from 00 to 99

Enter the time and date as: HH : MM : DAY : MONTH : YEAR.

Items [1], [2] and [3] are time setting functions. Enter 4 digits representing the time in hours and minutes (HH:MM) based on the 24-hour or military clock. Always enter a leading zero where only one digit is required. For example, 8:05 am would be entered as 0805; 1:30 pm would be entered as 1330. Items [0], [4], [5], [6] and [7] turn ON and OFF various features. If the feature is being turned ON, the keypad will quickly beep 3 times when the number key is pressed. If the feature is being turned OFF, the keypad will sound a single long beep when the number key is pressed.

Pressing [8] starts a 2-second bell and keypad light test; if a Test Transmission Reporting Code is programmed in Section [17], it will be transmitted during the System Test.

Pressing [9] has the system call the Downloading computer if the User Initiated Call-Up feature is enabled in Section [44].

Installer's Test: [✳]+[6]+[Master Code]+[0]

This feature is designed to assist the installer in testing the system. During the Installer's Test, the bell or siren will operate for 2 seconds each time a device indicates an alarm condition. If the device indicates a tamper condition, the keypad sounder will be activated for 2 seconds. In both cases, the event will be recorded in the first level of alarm memory. The Installer's Test is automatically disabled when the system is armed and disarmed, or if the [✳][6][Master Code][0] command is re-entered.

Each time a zone is tripped or restored during the Installer's Test, a signal, if programmed, will be transmitted to the monitoring station. If this is not desired, it is possible to disable the communicator during the test (refer to Section [20] "First System Option Code"). A printer, if attached, will not function if the communicator is disabled.

NOTE: *Do not use the PC16OUT module during the installer's test.*
Do not use the installer's test when the system is partially armed.

Setting the Clock: [✳]+[6]+[Master Code]+[1]

This function is used to program the time of day and date. If both battery and AC power are removed from the system, it cannot continue to keep time. If the time needs to be reset, a Trouble condition will be indicated with Zone Light 8 (refer to [✳][2] Displaying Trouble Conditions). When setting the clock, program the day, month and year (that is, Hours : Minutes : Day : Month : Year).

Auto-Arm Time of Day: [✳]+[6]+[Master Code]+[2]

The PC2580 can be programmed to arm at the same time each day. Programming Item [2] sets the Auto-Arm time, and Item [5] enables the Auto-Arm feature (see Auto-Arm Enable below).

The keypad will sound for one minute before the system auto-arms. At the end of the one-minute warning period, the system will be armed; note that there will be no Exit Delay. Auto-Arming may be cancelled using the following methods:

• Auto-Arm Cancel: Any one key can be pressed to cancel the Auto-Arm sequence and silence the keypad during the one minute pre-alert (this is the system's default operation). If Section [23] Zone Light 3 is ON, then an Access Code is required to cancel the Auto-Arm sequence. Auto-Arming will be attempted at the programmed time the following day.

• Auto-Arm Cancel with Transmission: Any time Auto-Arming is cancelled using one of the above methods, the Auto-Arm Cancellation reporting code programmed in Section [12] will be transmitted to the central station.

When the system arms by Auto-Arming, any open zones will be "Force-armed". If Zone Light 2 in Section [23] is ON, the system will transmit a partial closing code to advise the central station that zones were bypassed. If Section [23] Zone Light 1 is ON, the bypassed zones will be identified by transmitting their alarm code along with the partial closing code.

Auto Disarm Time of Day: [✳]+[6]+[Master Code]+[3]

The PC2580 can be programmed to disarm at the same time each day. In order for the system to automatically disarm at the time entered, item [7] must be enabled.

Quick-Arm: [✳]+[6]+[Master Code]+[4]

Enable the "Quick-Arm" feature by selecting Item [4] (if the feature is being enabled, the keypad will sound 3 quick tones; if the feature is being disabled the keypad will sound a single long tone). When enabled, the system can be armed by entering [✳][0]. The closing code transmitted for "Quick-Arm" is the same as the code which is programmed for the Master Code.

Auto-Arm Enable: [✳]+[6]+[Master Code]+[5]

Entering [✳][6][Master Code][5] will enable or disable the Auto-Arming feature. When the feature is being enabled, the keypad will sound 3 beeps, and when being disabled the keypad will sound one long tone.

Door Chime: [✳]+[6]+[Master Code]+[6]

When the Door Chime feature is enabled, keypad will sound 5 quick beeps each time any zone programmed as a Door Chime type in Section [18] opens or closes. The Door Chime feature does not operate on other zone definitions. Door Chime zones may be bypassed to temporarily eliminate the Door Chime on doors where it is not wanted. This feature operates only while the system is disarmed.

Auto Disarm Enable: [✳]+[6]+[Master Code]+[7]

When enabled, the system will disarm automatically at the time programmed in Item [3].

System Test: [✳]+[6]+[Master Code]+[8]

The System Test sounds the bell or siren, lights the keypad indicators and beeps the keypad buzzer for 2 seconds. If a Test Transmission Reporting Code is programmed in Section [17], it will be transmitted during the System Test.

User Call-Up: [✳]+[6]+[Master Code]+[9]

This function is enabled in Section [44]. When activated, the system will call the downloading computer. The downloading computer must be waiting for the system to call before downloading can be performed.

[✳][6][Service Code]

This command can also be used to perform any user function, but it will also clear any tampers that may have occurred. If engineer reset or tamper reset is enabled, this function will allow the user to arm after an alarm or tamper.

Utility Output Command: [✳]+[7]+[1 or 2]+[Access Code]

Two utility outputs (PO1 and PO2) may be controlled from the keypad. These outputs can be used for operating devices such as garage door openers, special lighting, door strikes and so on.

The programmable outputs must be selected for keypad control in Programming Section [31]. Program the output options as [1] if the output is to be controlled by the keypad.

To activate PO1 enter: [✳][7][1][Access Code]

To activate PO2 enter: [✳][7][2][Access Code]

When the command is entered, the keypad sounder and the programmable output are activated for 5 seconds.

Installer's Programming Command: [✱]+[8]+[Installer's Code]

The PC2580 is completely programmable from the keypad using the [✱][8][Installer's Code] command. Programming commands are described in the Programming Section of this manual.

At-Home Arming: [✱]+[9]+[Access Code]

Entering [✱][9][Access Code] arms the system without the Entry Delay on the Delay Zones and automatically bypasses zones that are defined as "Home Away". This command is used for arming the system while remaining on the premises. When the system is armed using the [✱][9][Access Code] command, the "Armed" light will FLASH and the "Bypass" light will be ON to indicate that the "Home Away" zones are bypassed. Once the system is Armed in this mode, entering [✱][1] will remove the bypasses from those zones defined as "Home Away" **only** if they have not been manually bypassed. The [✱][1] command as used here only removes bypasses from zones that have been **automatically** bypassed with the [✱][9] command.

Quick-Arm Command: [✱]+[0]

Entering [✱][0] is accepted as an arming command when the Quick-Arm feature is activated. This command is often used when individuals are only required to arm the system and are not to be able to disarm the system. This could be used with home visitors in the case of a residential system, or junior employees and maintenance staff in the case of a commercial system. Refer to [✱][6] User Function Commands for instructions on activating the Quick-Arm feature. This feature should not be enabled if the One Time Use Code is enabled. The One Time Use Code must be used to arm the system before it is erased.

Quick-Exit Command: [✱]+[0] When Armed

When Quick-Exit is enabled, entering [✱][0] when the system is fully armed will allow the user 2 minutes to exit the premises through any delay zone without altering the status of the system. The Quick-Exit feature can be enabled by turning ON Zone Light 7 in Section [23]. After [✱][0] is entered while the system is armed, *a single Delay Zone may be tripped. Any additional activity on any other active zone will cause that zone to begin its alarm sequence.*

Entering [✱][0] for Quick-Exit on a partially armed system is not supported.

Quick-Exit must not be used when Auxiliary Delay Zones are force armed. Turn Zone Light 3 in Section [24] OFF to ensure proper operation.

Keypad Zones

There are three zones which can be activated from the keypad. The alarm and restoral codes for keypad zones are programmed using the [✱][8] command.

Pressing the [F] key (or the [1] and [3] keys together) for 2 seconds activates a fire alarm. The fire alarm sounds the siren or bell in a pulsed mode and is annunciated as a memory condition. The Fire key can be turned OFF in Section [24].

Pressing the [A] key (or the [4] and [6] keys together) for 2 seconds activates an auxiliary keypad zone. If a reporting attempt to the monitoring station is successful, the PC2580 will acknowledge the transmission with a short series of beeps from the keypad.

Pressing the [P] key (or the [✱] and [#] keys together) for 2 seconds activates the Police (or Panic) alarm. The panic alarm can be programmed for audible or silent operation (see Programming Section [24]).

No keypad lights will come on for the [A] or [P] key alarms. However, the keypad buzzer beeps 3 times to confirm activation of any of the keypad zones.

Refer to Programming Section [15] for alarm and restoral codes for all three keypad zones.

NOTE: Pressing two keys simultaneously to activate a keypad zone will only function with the PC2550RK keypad. This function will not work on other keypad models.

PRINTER SETUP

The PC2580 software is capable of sending data to a local printer. The printer must be capable of serial (RS-232) communication. While the PC2580 should work with most serial printers, the printers on the following list are strongly recommended:

Compatible Printers

1   Brother M-1109
2   Brother M-1809
3   Star DP 40
4   Epson EP 40
5   C - Itoh model 8510 B
6   Citizen 120-D with serial card
7   Citizen 180-D with serial card
8   Roland DG PR 1112 with serial card
9   Panasonic KX P1091 I with serial card
10 Mannesman Tally MT81 with serial card
11 Raven 9101 with serial card

The chosen printer should comply with the requirements for general approval for indirect connection to the telephone network. Such printers are identified by a statement in their instruction manual and the number NS/G/23/J/1000003. Only such printers should be used.

DSC Security Products cannot guarantee the continued approval status or compatibility of these printers.

Configuring the Printer

1   Serial interface
2   Baud rate = 1200 (other baud rates may be used but Section [49] must be changed accordingly)
3   Parity = None
4   Character length = 8 bits
5   Auto line feed = Off
6   American/Canadian character set
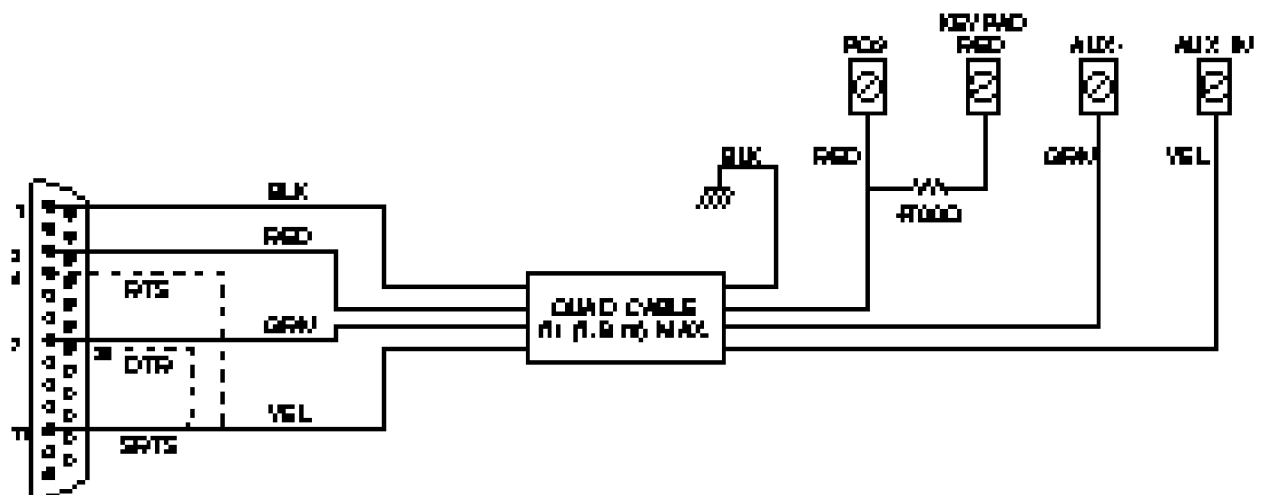
To connect the printer, first remove all power from both the system and the printer. Using a DB-25 connector, connect the printer to the control panel as shown. The maximum cable length should be 6 feet.

NOTE: If SRTS is not available, turn ON Zone Light 6 in Section [49] and attach yellow to 4 (RTS) or 20 (DTR).

Programming the System for Use with a Printer

Sections [31] and [49] must be programmed to enable the printer function. Power up the system and program it as described below.

Enter the Installer's Programming Section and edit the following sections.

Section	Printer Only	Monitored and Printer
[01]	Do not program	Program normally
[02]	Program normally	Program normally
[03]	Do not program	Program normally
[04]	Program normally	Program normally
[05]	Do not program	Program (see Section [49] Zone Light 5)
[06]	Do not program	Program normally
[07] to [17]	Program everything you wish printed	Program everything you wish printed
[18] to [29]	Program normally	Program normally
[30]	Program all locations as "1"	Program normally
[31]	Program with "nn00"	Program with "nn00" (where nn is any number)
[32] to [48]	Program normally	Program normally
[49]	Printer setup	Printer setup
[90] and [91]	Program normally	Program normally

NOTE: The time of day, date, month and year must be programmed using the [✶][6][Master Code][1] command.

Plug in the printer, insert paper and put the printer on-line. The printer is now ready to use.

The following is a sample of a printout:

```
07:33  04\01\91  STATION 2  ACC. # 5678
CLOSING ACCESS 1
12:57  04\01\91  STATION 1  ACC. # 1234
ALARM ZONE 2
ALARM ZONE 12
13:01  04\01\91  STATION 1  ACC. # 1234
RESTORE ZONE 2
RESTORE ZONE 12
18:01  04\01\91  STATION 2  ACC. # 5678
OPENING AFTER ALARM
OPENING ACCESS 1
```

NOTE:

Station 0   **is for a local-only printer.**

Station 1   **is Communications Buffer 1.**

Station 2   **is Communications Buffer 2.**

DOWNLOADING

The PC2580 supports the DSC DLS-1 Downloading Software Package. Refer to the downloading software manual for information on specific capabilities. Several Programming Sections are related to downloading and should be programmed before downloading is attempted:

Section [16]: Lead-In Code

When the system calls the downloading computer during User Initiated Call-Up or Call-Back functions, the Lead-In Code will be transmitted to the monitoring station before the downloading computer is called. If the computer calls the system, the Lead-In Code will be transmitted when downloading communications are terminated.

Section [16]: Lead-Out Code

When the system hangs up the line to the downloading computer, the Lead-Out Code will be transmitted to the monitoring station.

Section [21]: User DLS Window

Zone Light 8 in Section [21] enables or disables the User DLS Window. When the User DLS Window is enabled, pressing and holding the [9] key for about 3 seconds will make the system wait for 60 minutes for the downloading computer to call. If the DLS Window is not activated, the system will not answer the line when called.

Section [44]: Number of Rings Before Answer and Downloading Configuration

Zone Lights 1 to 4 determine the number of rings before that system will answer a call from the downloading computer.

Zone Light 5 enables or disables downloading. If downloading is disabled, all other Programming Sections relating to downloading need not be programmed.

Zone Light 6 enables or disables the User Initiated Call-Up feature.

Zone Light 7 enables or disables the answering machine override (double call) function.

Zone Light 8 enables or disables the Call-Back option.

Section [46]: Panel Identification Code

A four digit code must be programmed in this section to allow the downloading computer to identify the control panel. Every system should have a unique Panel Identification Code.

Section [47]: Downloading Access Code

A four digit code must be programmed into this section to allow downloading access to the control panel .

Section [48]: Downloading Computer Telephone Number

If Call-Back or User-Initiated Call-Up is enabled in Section [44], this section must be programmed with the telephone number of the downloading computer.

Downloading and the Answering Machine Override Function

The answering machine override function allows an answering machine to be connected to the same telephone line as the alarm system. The override function allows the system to determine when a call is being placed to the system.

In Section [44], if Zone Light 7 is OFF, the system will operate as if there is no answering machine connected to the telephone line. The system will answer an incoming call after the programmed number of rings.

If Zone Light 7 is OFF and an answering machine set to answer incoming calls before the system, the system will be unable to receive calls from the downloading computer. If the system is set to answer before the answering machine, the answering machine will be unable to receive incoming messages.

To use the override feature, turn Zone Light 7 ON. Have the downloading computer call the system and then hang up after one or two rings. If the system is called again within 1 to 255 seconds (programmed in Section [45]), the system will answer the second call on the first ring.

Once the system is connected to a downloading computer, no [✻] functions can be performed. If the [✻] key is pressed while the system is connected to a downloading computer, the keypad buzzer will sound a single long tone to indicate an error.

Zone Light 8 enables or disables the Call-Back function. If Call-Back is disabled, the downloading computer will have immediate access to the system. The disabled mode is useful if there are multiple downloading computers at different telephone numbers. If Call-Back is enabled, the downloading computer will call, request access, then hang up and wait for the system to call back. After the system has called back and the downloading computer and the system accept each other as valid, downloading operations are enabled.

Section [45]: Answering Machine Double Call Timer

This timer sets the amount of time between calls when using the answering machine override feature (see Section [44] Zone Light 7). Valid entries are from 001 to 255 seconds, with the default being 060.

PROGRAMMING GUIDE

Introduction

The PC2580 is fully keypad-programmable, and also supports downloading programming functions. The system's EEPROM memory can be reprogrammed thousands of times and will not lose program data even after total loss of power. This section of the manual describes how to program the PC2580 using the system's keypad.

Programming

With the system disarmed, enter [✶][8][Installer's Code]; note that the system can only be programmed while it is disarmed. All zones are bypassed while in Installer's Programming. The default Installer's Code is [2580]; the Installer's Code should always be changed once programming is complete. Be sure to record the new Installer's Code for future reference! If the Installer's Code is forgotten, the system's factory programming may be restored; refer to Programming Section [99] Factory Default.

When the Installer's Programming Command is entered, the "Armed" light will come ON and the "Program" light will FLASH to indicate that the system is ready for programming. Note that each time the [✶][8] Installer's Programming Command is entered, the event is logged on the Event Buffer.

With the "Armed" light ON, enter 2 digits for the Section to be programmed. Note that Section [00] is reserved for binary programming and is normally only entered on instruction from factory technical personnel. When the section to be programmed is entered, the "Armed" light will go OFF, the "Ready" light will come ON, and the keypad will beep 3 times. The system is now ready to accept program data.

For sections containing 2- and 3-digit numbers, Zone Lights 1 through 4 will indicate, in binary format, the value of the first digit in the section. Refer to "Binary Data Display" for instructions on reading the binary display.

To change the first digit, enter the new digit from the keypad. To leave the first digit unchanged, enter the same number or skip the digit by pressing the [F] key. Once the first digit has been entered or skipped, Zone Lights 1 through 4 will display the value of the second digit. When all digits in a number have been programmed, the keypad will beep twice and display the value of the first digit in the next number.

When all required data for a section is entered, the keypad will beep several times and the "Armed" light will come ON. Enter the number of the next Section to be programmed.

It is not necessary to program all 2-digit numbers in any given section. A section can be entered and programmed by going only to the digit or digits to be changed and then pressing [#] to return to the Programming Mode. For 2-digit and 3-digit numbers, all digits must be programmed before pressing the [#] key. Only the data entered before pressing the [#] key will be changed in the system's memory.

Reviewing Programmed Data

- Enter the section to be programmed by entering the 2-digit section number.
- Zone Lights 1 through 4 will represent the value, in binary format, of the first digit in the section.
- Press the [F] key to advance the display to the next digit.
- At the end of the section, the keypad will beep several times and then return to the Program Mode so that another section can be selected for review or programming.

Sections [20] through [26], [44] and [49]

These sections allow system options to be selected. Refer to the Programming Worksheets for information on which options are represented by the Zone Lights in each section.

These sections are programmed by turning the Zone Lights ON and OFF. To turn a light ON or OFF, press a number from 1 to 8. All lights in a section may be turned OFF at once by pressing [0]. When all programming selections have been made, press [#] to save the changes and return to the program mode.

Binary Data Display

Zone Lights 1 through 4 are used to display the value, in binary format, of the data at each digit as shown in the table shown here.

HEX data entry
Refer to HEX Data Programming

Value	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Zone 1	☐	■	☐	■	☐	■	☐	■	☐	■	☐	■	☐	■	☐	■
Zone 2	☐	☐	■	■	☐	☐	■	■	☐	☐	■	■	☐	☐	■	■
Zone 3	☐	☐	☐	☐	■	■	■	■	☐	☐	☐	☐	■	■	■	■
Zone 4	☐	☐	☐	☐	☐	☐	☐	☐	■	■	■	■	■	■	■	■

■ Zone Light ON
☐ Zone Light OFF

HEX Data Programming

Certain Programming Sections may require the entry of data in HEX (hexadecimal, or base 16) format. HEX numbering uses the numbers 0 through 9 and the letters A through F.

The letters A through F are represented by the number keys 1 through 6. To enter data in HEX format, first press the [✶] key; the "Ready" light will FLASH. Enter the HEX value, then press the [✶] key again to return to the normal entry mode; the "Ready" light will stop flashing.

To enter HEX numbers: A   Enter [✶][1][✶]   D   Enter [✶][4][✶]
                        B   Enter [✶][2][✶]   E   Enter [✶][5][✶]
                        C   Enter [✶][3][✶]   F   Enter [✶][6][✶]

Enter [✶] before and after each digit. Note that the last digit in each section does not require the final asterisk ([✶]) to be entered.

[00] Binary Programming

This section is only used upon instruction from factory technical personnel for specialised programming not covered by the standard programming instructions.

[01] First Telephone Number

This is the first telephone to which the communicator will dial. **The First Telephone Number is assigned to Communications Buffer 1;** refer to Section [29] Communication Formats for information on transmission formats, and Section [30] Communicator Call Direction Options for information on directing transmissions. Enter the telephone number the way it would be dialed on a telephone. Press [#] after the last digit to complete the telephone number programming.

> Enter [✳2✳] to dial a '✳' (Hex B)
>
> Enter [✳3✳] for a 4 second pause (Hex C)
>
> Enter [✳4✳] for additional dial tone search (Hex D)
>
> Enter [✳5✳] to dial a '#' (Hex E)

The total number of digits including dial tone searches and pauses must not exceed 17. Remember to press [#] after entering the last digit of the telephone number. Press [02] to program the next section, enter another section number or press [#] a second time to return to the "Ready" mode.

[02] First Account Code

The first account code is always transmitted to the first telephone number to identify the customer. Enter a 4-digit number in this section. If HEX digits A to F are required, enter [✳][1] to [6] and [✳] again to return to normal decimal entry.

Where a zero in the account code is required, enter HEX A ([✳][1][✳]) to transmit 10 pulses; the receiver at the monitoring station interprets 10 pulses as a zero. If a 3-digit code is required, as in 3/1 formats, enter [0] as the last digit; [0] represents a null digit where no pulses are transmitted.

[03] Second Telephone Number

Refer to Section [01] First Telephone Number for programming instructions. **The Second Telephone Number is assigned to Communication Buffer 1;** refer to Section [30] for information. **The Second Telephone Number is for use with alternate dialing only.** When alternate dialing is enabled, the system will alternately call the First and Second Telephone Numbers until communications are completed.

[04] Second Account Code

The second account code is always transmitted to the second telephone number. Refer to Section [02] First Account Code for programming instructions.

[05] Third Telephone Number

Refer to Section [01] First Telephone Number for programming instructions. **The Third Telephone Number is assigned to Communication Buffer 2;** refer to Section [30] for information.

[06] Third Account Code

Refer to Section [02] First Account Code for programming instructions. Note that the Third Account Code is always transmitted to the Third Telephone Number.

[07] to [17] Reporting Code Explanation

Sections [07] to [17] are used to program the communicator reporting codes. A reporting code is transmitted along with the account code with each transmission. If the reporting codes are not programmed, no transmission will be sent when an event (for example, an alarm, tamper, restoral, opening or closing, trouble, and so on) occurs. To prevent a transmission from being sent for any event, leave the reporting code unprogrammed or enter [00] as the reporting code.

Between 8 to 9 reporting codes are programmed in each section. Once the section number is entered, the system expects 8 to 9 two-digit numbers to be entered for the reporting codes in that section. The keypad will beep twice and the "Armed" light will FLASH after each 2-digit number is entered. After the last code is entered and programming of the section is complete, the keypad will beep 5 times, the "Ready" light will be shut OFF and the "Armed" light will come ON. The keypad is then ready to accept the next section number for programming.

When changing the reporting codes in a section, only the codes up to last one to be changed need to be entered. For example, if you only want to changes codes 1 through 3, enter only codes for 1 through 3; the remaining codes will not be changed. Press [#] to exit from the programming sequence; only the codes up to the last one entered will be changed.

[07] *Alarm Reporting Codes, Zones 1 - 8*

Enter eight 2-digit reporting codes in this section. These codes are used by the communicator to report alarms Zones 1 through 8. Described below are several examples of programming and transmissions using different formats. Obtaining different formats requires entering data correctly in the Account Code sections, the Reporting Codes sections, and the Communication Format Options section.

3/1 Format: Single Line or Non-extended Reporting

Required:

• 3 digit account code in Sections [02], [04] or [06]. For example, enter [1230] for account code 123

• Format code [00], [01], [02], [03], [04] depending on receiver type selected in Section [29]

• Single digit alarm reporting code in Section [07]. For example, enter [30] for single digit code 3 (0 is null digit i.e. no pulses transmitted)

Transmission sent: 123 3

4/2 Format: Single Line Reporting

Required:

• 4 digit account code in Sections [02], [04] or [06]. For example, enter [1234] for account code 1234

• Format code [00], [01], [02], [03], [04] depending on receiver type selected in Section [29]

• Two digit alarm reporting code in Section [07]. For example, enter [31] for two digit code 31

Transmission sent: 1234 31

3/1 Format: Extended Reporting

Required:

• 3 digit account code in Sections [02], [04] or [06]. For example, enter [1230] for account code 123

• Format code [06], [07], [08], [09], [10] depending on receiver type selected in Section [29]

• Two digit alarm reporting code in Section [07]. For example, enter [31]

Transmission sent: First round: 123 3
                       Second round: 333 1

If a transmission is not wanted for a particular reporting code, enter [00] to disable that reporting code.

Slot Format

The slot format is a DTMF transmission consisting of a 4-digit Account Code, eight 1-digit reporting channels, and one 1-digit status channel.

Slot Format Channels:

```
                    1  2  3  4  5  6  7  8
       a  a  a  a   x  x  x  x  x  x  x  x   i
```

Account Code	Event Code	Status Code

Slot Format Programming Codes

Zone 1	**x**	**y**
Zone 2	**x**	**y**
Zone 3	**x**	**y**
Zone 4	**x**	**y**
Zone 5	**x**	**y**
Zone 6	**x**	**y**
Zone 7	**x**	**y**
Zone 8	**x**	**y**

x represents Transmissions Channels 1 through 8. This number determines to which channel the zone will report

y represents the Event Identifier (1 to 9 and A to F). This number describes the type of event

i represents the zone's status: 6 indicates Troubles and Restorals
7 indicates Alarms, Tampers, Restorals, Openings & Closings
8 indicates a Low Battery and Restoral
9 indicates a Test Transmission.

For example, if Zone 3 is programmed as 31, an alarm on Zone 3 would be reported as:

```
       a  a  a  a  5  5  1  5  5  5  5  5  7
```

If a transmission is not wanted for a particular reporting code, then enter [00] or [FF] to disable that reporting code.

[08] Restoral Reporting Codes, Zones 1 - 8

These reporting codes are used by the communicator to report restorals for Zones 1 through 8. Refer to Section [07] Alarm Reporting Codes for programming instructions.

[09] Tamper Alarm Reporting Codes, Zones 1 - 8

Program eight 2-digit Tamper Alarm Reporting Codes in this section.

While the system is armed, the BELL output will be activated and the Tamper Alarm Reporting Code for a zone will be transmitted when a tamper alarm occurs.

While the system is disarmed, the Tamper Alarm Reporting Code for a zone will be transmitted when a tamper alarm occurs. The system may be programmed to activate either the BELL output or the keypad sounder when a tamper alarm occurs while the system is disarmed; refer to Programming Section [25], Light 5.

NOTE: When Zone 7 is programmed as a Fire Zone (Section [26] Zone Light 1 ON), the Tamper Reporting Code for Zone 7 is transmitted to report a Fire Alarm.

[10] Tamper Restoral Reporting Codes, Zones 1 - 8

Program eight 2-digit Tamper Restoral Reporting Codes in this section. These reporting codes are only transmitted when tamper conditions on Zones 1 through 8 are restored.

NOTE: When Zone 7 is programmed as a Fire Zone (Section [26] Zone Light 1 ON), the Tamper Restoral Code for Zone 7 is transmitted to report a Fire Alarm Restoral.

[11] Closing Reporting Codes, Access Codes 1 - 8

The reporting codes in Sections [11] through [14] are used to identify Openings and Closings (disarming and arming of the system) by Access Code.

Program nine 2-digit Closing Reporting Codes in this section. The nine reporting codes correspond to the first eight Access Codes and the Partial Closing Code. When the system is armed using one of the Access Codes, the corresponding reporting code will be transmitted.

When transmitting in any of the extended formats, (see examples in Section [07]), closing codes would be programmed as follows: [C1], [C2], [C3], [C4], [C5], [C6], [C7], [C8]. Refer to Section [29] Communications Formats for more information.

The first digit, HEX C, is used to represent a closing signal (this could be another number depending on what is used at the monitoring station), while the second digit represents the Access Code used to arm the system.

The closing code transmission takes place after the Exit Delay. Therefore, if the system is armed and disarmed before the expiry of the Exit Delay, no transmission will take place.

Remember that the first Access Code is the Master Code and that the last code may be the One-Time Use Code. The last Access Code can be converted to a normal code by turning Zone Light 6 OFF in Section [23].

When the system has been armed using the Quick-Arm or Auto-Arm functions, the first reporting code (for the Master Code) will be transmitted. The Master Code is required to enable or disable these functions.

When the system is armed with one or more zones bypassed, the Partial Closing Code will be transmitted. Note that the Partial Closing Code is sent with the regular closing code to identify it as a partial closing condition. If Section [23] Zone Light 1 is ON, then the bypassed zones will be identified between the Partial Closing Code and the Closing Code.

[12] Closing Reporting Codes, Access Codes 9 - 16

Program nine 2-digit Closing Reporting Codes in this section. The Auto-Arm Cancellation Code is transmitted when the Auto-Arm function is cancelled; refer to the Keypad Functions section of this manual for information on the Auto-Arm function.

[13] Opening Reporting Codes, Access Codes 1 - 8

Program eight 2-digit Opening Reporting Codes in this section. When the system is disarmed using one of the Access Codes, the corresponding reporting code in this section is transmitted.

[14] Opening Reporting Codes, Access Codes 9 - 16

If the After Alarm Code is programmed, the code will be transmitted to the monitoring station on opening if an alarm occurred during the previous armed period. This feature is useful for installations where openings and closings are not normally reported, but it is desired to report on opening that an alarm did occur during the previous armed period. This feature also allows the monitoring station to know when the user is on the premises.

[15] Priority Alarm and Restoral Reporting Codes

These reporting codes are used to report the alarm and restoral conditions listed below. Refer to Section [07] Alarm Reporting Codes for programming instructions.

Refer to the Terminal Connections section of this manual for information on Auxiliary Input Zone operation. Programming Sections [25] and [31] contains options for the Auxiliary Input Zone.

Section [15] contains Reporting Codes for the following events:

• Auxiliary Input Zone Alarm / Closing

• [P] Key Alarm

• [F] Key Alarm

• [A] Key Alarm

• Auxiliary Input Restore / Opening

• [P] Key Restoral

• [F] Key Restoral

• [A] Key Restoral

[16] Maintenance Alarm Reporting Codes

Program eight 2-digit reporting codes for the following events:

• Low Battery Alarm: transmitted when the battery voltage drops below 11.3 volts. This reporting code will also be transmitted to report a battery fuse failure. The battery is tested under load every 10 seconds or 4 minutes, depending on the option selected in Section [26].

• Mains (AC) Failure Alarm: transmitted to report an AC power failure after the delay time programmed in Section [19]. The delay time prevents transmissions during temporary power failures.

• Bell Fuse Trouble Alarm: transmitted when the bell circuit is open or if the bell fuse has failed.

• Fire Trouble Alarm: transmitted if the fire zone goes open (end-of-line resistor is disconnected).

• AUX Supply Trouble Alarm: transmitted when the auxiliary power supply fuse fails.

• Downloading Lead-in

• Downloading Lead-out: Refer to the Downloading section of this manual for information on the Downloading Lead-in and Lead-out codes.

• Keypad Tamper Trouble: Keypad Tamper Troubles apply to systems using the DSC LED625T or LCD600T keypads. These keypads feature tamper switches which are activated when the keypad is removed from its backplate. Keypad Tamper Trouble is enabled in Section [26]; refer to "Displaying Trouble Conditions: [✱]+[2]" in the Keypad Functions section of this manual for information on how keypad tamper troubles are indicated and reported.

Refer to [✱][2] Trouble Command for additional information on trouble codes and transmissions.

[17] Maintenance Alarm Restoral Codes

Program nine 2-digit reporting codes for the restorals for the events described in Programming Section [16]. The Telephone Line Monitoring Restoral, Test Transmission and Keypad Lockout Reporting Codes are programmed in this section.

The Telephone Line Monitoring Restoral Code is transmitted after the telephone line has been restored for at least 20 seconds. Refer to TLM Options in Section [21], Zone Lights 1 and 2.

The Test Transmission Code can be sent immediately by entering [✱][6][Master Code][8]; refer to System Test in the User Function Command section of this manual. If Section [22] Zone Light 3 is OFF, the test transmission will be performed at the day interval programmed in Section [19] and at the time programmed in Section [32]. If hourly test transmission is enabled (with Section [22] Zone Light 3 ON), test transmissions will be performed every hour on the hour. If Test Transmission Every 15 Minutes is selected (with Section [22] Zone Light 4 ON), test transmissions will be performed every 15 minutes. *NOTE: This test transmission is only sent when the system is armed.*

The "Test Transmission Every 15 Minutes" takes precedence over the "Hourly Test Transmission" if both are enabled at the same time.

The Keypad Lockout Code is transmitted when the maximum number of attempts to enter a valid Access Code is reached. Refer to Section [39] Keypad Lockout Options for more information on the Keypad Lockout function.

The Service Code is transmitted if there is a tamper condition present when you press [✱][6][Service Code]. Engineer Reset and/or Tamper Reset must be enabled.

[18] Zone Definitions

Program eight 2-digit zone definitions in this section. Each 2-digit number describes how a zone will operate.

First Digit	Second Digit
0 = Audible	0 = Standard Delay
1 = Silent	1 = Instant
2 = Chime Audible	2 = Interior
3 = Chime Silent	3 = Home Away
	4 = 24-hour Bell
	5 = 24-hour Bell/Buzzer
	6 = 24-hour Buzzer
	7 = Auxiliary Delay
	8 = Interior Delay

The First Digit determines whether the zone will cause a silent alarm or an audible alarm. Any zone can be assigned the Door Chime feature by programming the first digit as [2] or [3]. For the Door Chime to be active, the Door Chime feature must be enabled using the [✱][6][Master Code][6] command.

Zone response time is programmed in Section [19] and can be set from 400ms to 2.55s; the default time is 500ms.

The Second Digit determines the zone type, [0] through [8], as described below.

NOTE: To define Zone 7 as a Fire Zone, turn ON Zone Light 1 in Section [26]. When Section [26] Zone Light 1 is ON, the zone definition programmed in Section [18] for Zone 7 will be ignored.

[0] Standard Delay Zone has an Entry and Exit Delay and is normally used for Entry-Exit Doors. The Exit Delay starts as soon as the system is armed. The zone may be opened and closed during the Exit Delay without causing an alarm. After the Exit Delay has expired, opening the zone will start the Entry Delay. During the Entry Delay, the keypad will sound steadily to advise the user that the system should be disarmed. If the system is disarmed before the Entry Delay expires, no alarm will be generated.

The default times for this zone type are 30 seconds for the Entry Delay and 45 seconds for the Exit Delay. The Entry and Exit Delays may be independently programmed in Section [19] for periods from 1 to 255 seconds. All zones programmed as type [0] will have the Entry and Exit Delays as programmed in Section [19], or the default times if Section [19] is not programmed.

[1] Instant Zone is normally used for door and window contacts and features the standard Exit Delay but is "instant" when opened after the Exit Delay expires. The Exit Delay for this zone type is programmed in Section [19].

[2] Interior Zone is normally used with interior motion detectors and features the standard Exit Delay. The zone also features the standard Entry Delay provided that a Delay Zone has been activated first. If the premises are entered without coming through a Delay Zone and an Interior Zone is activated, an immediate alarm will be generated.

[3] Home Away Zone operates the same as the type [2] zone with the following exception: if the system is armed and a Delay Zone is ***not*** activated during the Exit Delay, the type [3] zones will be automatically bypassed.

When Section [24] Zone Light 5 is ON, Home Away zones can be assigned both the standard Entry and Exit Delays. The Entry Delay will be assigned to all Home Away zones when the system is armed and the Home Away zones are not manually or automatically bypassed. When the Home Away zones are automatically bypassed (for example, by arming and not leaving the premises or by arming with the [✱][9] command), enter [✱][1] to apply the Exit Delay to all Home Away Zones before activating.

[4] 24-hour Bell Zone is active at all times and will generate an alarm with the system armed or disarmed. This zone will always activate the bell/siren output.

[5] 24-hour Bell/Buzzer operates as the type [4] except the bell/siren output is activated only when the system is armed. While the system is disarmed, only the keypad sounder will be activated on alarm.

[6] 24-hour Buzzer operates as the type [4] except only the keypad sounder will be activated while the system is armed or disarmed.

[7] Auxiliary Delay Zone operates the same as the type [0] zone except the Entry and Exit Delays can be independently set in Section [19]. This zone type is useful when a zone with a special Entry and/or Exit Delay is required. If Section [24] Zone Light 3 is ON, it will allow the system to be armed even if the auxiliary delay zone is open. Also, the system can be armed with the auxiliary delay zone closed, and then the auxiliary delay zone may be opened before the Auxiliary Exit Delay expires. In both cases the auxiliary delay zone will not become active until both the Auxiliary Exit Delay has expired and the zone is closed. **NOTE:** If Force Arming of type [7] zones is used, Quick-Exit must not be used.

[8]   Interior Delay Zone. Interior Delay Zones feature the standard Exit Delay. If the system is armed and the premises are vacated, the zone will behave as an Interior Zone. If the system is armed with the [✱][9] command or if the system is armed and the premises are not vacated, the Interior Delay Zone will be assigned the standard Entry Delay.

[19] System Times

Enter eight 3-digit numbers in this section. Except where noted, valid entries are in the range of 001 to 255. System Times are entered in the following order:

• Entry Delay (seconds)

• Exit Delay (seconds)

• Auxiliary Entry Delay (seconds)

• Auxiliary Exit Delay (seconds)

• Bell Time-out (minutes)

• AC failure reporting delay (minutes)

• Zone response time × 10ms (The default zone response is 500 ms; **valid entries are from 040 to 255**)

• Test Transmission Interval (days)

Reporting of an AC failure trouble may be delayed for up to 255 minutes. The reporting codes for AC Failure Trouble and Restoral are programmed in Sections [16] and [17].

For the Auxiliary Delay Times to be effective, the zone must be set as type [7] in Section [18] Zone Definitions. The default Entry Delay is 45 seconds; the default Exit Delay is 60 seconds.

The zone response time is the length of time an alarm condition must be present on a zone before it is detected. This time is programmable in increments of 10ms. The normal entry would be 050 for a 500ms zone response time. Program a time from 040 to 255; if a time shorter than 400 ms is entered, the system will set the time at 400 ms.

A test transmission is transmitted to the monitoring station on a regular basis to confirm that the communication link to the system is intact. The test transmission cycle time is how often (in days) the test transmission is sent. This applies only if the Hourly Test or Test Every 15 Minutes test transmissions are not enabled (refer to Section [22]).

The reporting code for the test transmission is programmed in Section [17]. The time of day for the test transmission is programmed in Section [32].

[20] First System Option Code

This section uses the Zone Lights to indicate which options are selected. Press the corresponding number key to turn a Zone Light ON or OFF; press [0] to turn all lights OFF.

Zone Light 1   OFF = Communicator enabled
         • ON = Communicator disabled

Zone Light 2 • OFF = Standard dialing
         ON = Alternate dialing. After each dialing attempt, the communicator switches between First Telephone Number and the Second Telephone Number.

Zone Light 3   OFF = Pulse dialing (LD rotary dialing)
         • ON = Tone dialing (DTMF dialing)

Zone Light 4 • OFF = Pulse dialing Make/Break ratio: 33 / 67 ▼
         ON = Pulse dialing Make/Break ratio: 40 / 60

Zone Light 5 • OFF = 2300Hz Radionics handshake ▼
         ON = 1400Hz Radionics handshake

Zone Light 6   OFF = Guard tone disabled
         • ON = Guard tone enabled ▼
            When this option is enabled, the suggested duration for the initial handshake is 1 second.

Zone Light 7   OFF = Busy tone detection disabled
         • ON = Busy tone detection enabled ▼

Zone Light 8 • OFF = Force dialing disabled
         ON = Force dialing enabled. The system will dial out after 6 seconds of dial tone search if the dial tone was not detected.

       • = Default setting

       ▼ = These items should not be changed on systems intended for use in the U.K.

[21]   Second System Option Code

Refer to Programming Section [20] for programming instructions.

Zone Light 1   • OFF = Telephone Line Monitoring (TLM) enabled
               ON = TLM disabled

Zone Light 2   • OFF = TLM trouble sounds keypad only
               ON = TLM trouble sounds bell while armed

Zone Light 3   • OFF = Restorals follow zones
               ON = Restorals sent on bell time-out: if the zone is restored the restoral will not be sent until the bell times out.

Zone Light 4   • OFF = Swinger shutdown resets on arming
               ON = Swinger shutdown resets at midnight

Zone Light 5   OFF = Bell shutdown disabled
               • ON = Bell shutdown enabled: if a zone is in swinger shutdown, the bell will not be re-initiated with activity on this zone until swinger is reset.

Zone Light 6   • OFF = Bell output follows zone type
               ON = Bell output is always pulsed

Zone Light 7   • OFF = Bell output normal
               ON = Bell output inverted
               When the bell output is inverted: when a trouble condition occurs, the bell will sound but the trouble condition will not be indicated on the keypad or reported to the monitoring station.

Zone Light 8   • OFF = User DLS window disabled
               ON = User DLS window enabled. Downloading must be enabled; pressing and holding the [9] key for about 3 seconds will make the system wait 60 minutes for computer to call. Calls received after the 60 minute time will not be answered.

               • = Default setting

[22] Third System Option Code

Refer to Programming Section [20] for programming instructions.

Zone Light 1   • OFF = PO3 as Strobe Output **Refer to Section [31] for information on Output Options**
               ON = PO3 as FTC Output

Zone Light 2   • OFF = PO4 as System Status Output **Refer to Section [31] for information on Output Options**
               ON = PO4 as TLM and Alarm Output

Zone Light 3   • OFF = Test Transmission according to time in Sections [19] and [32]
               ON = Hourly Test Transmission; every hour on the hour

Zone Light 4   • OFF = Normal Test Transmission
               ON = Test Transmission every 15 minutes: only when armed

Zone Light 5   OFF = Bell sounds when an FTC trouble occurs
               • ON = No bell when FTC trouble occurs

Zone Light 6   • OFF = **Not Used**

Zone Light 7   • OFF = **Not Used**

Zone Light 8   • OFF = **Not Used**

               • = Default setting

[23] Fourth System Option Code

Refer to Programming Section [20] for programming instructions.

Zone Light 1 • OFF = Partial Closings not identified
ON = Send Identified Partial Closings: manually bypassed or force armed zones (auto arming) will be identified with their alarm transmissions between the partial closing code and the closing code.

Zone Light 2 • OFF = Auto-Arm does not send Partial Closing Code
ON = Auto-Arm sends Partial Closing Code: for zones that are manually bypassed or force armed.

Zone Light 3 • OFF = Any keypress cancels Auto-Arming
ON = Access Code needed to cancel Auto-Arming

Zone Light 4   OFF = No Access Code needed to bypass zones
• ON = Access Code needed to bypass zones: use [✱][1][Access Code] for zone bypassing

Zone Light 5 • OFF = Master Code can be programmed by the user
ON = Master Code cannot be programmed by the user

Zone Light 6 • OFF = One Time Use Code disable
ON = 16th code becomes One Time Use Code. The One Time Use Code may be used to arm the system only once. After the code is used to arm the system, it will be automatically erased and must be reprogrammed.

Zone Light 7 • OFF = Quick-Exit disabled
ON = Quick-Exit enabled

Zone Light 8 • OFF = Sensor Reset on Arming disabled
ON = Sensor Reset on Arming enabled.
When Zone Light 8 is ON: the SW AUX output will reset for 5 seconds when the system is armed. This function is used to reset latching sensors (such as latching shock or smoke detectors).

• = Default setting

[24] Fifth System Option Code

Refer to Programming Section [20] for programming instructions.

Zone Light 1 • OFF = Zones 1 to 8: Double End-of-Line Zones
ON = Zones 1 to 8: Normally Closed Zones

Zone Light 2 • OFF = Zones active on power-up
ON = Zones bypassed for 120 s on power-up

Zone Light 3 • OFF = No force arm for Auxiliary Delay Zones
ON = Force arm for Auxiliary Delay Zones

Zone Light 4 • OFF = AC power at 50Hz
ON = AC power at 60Hz

Zone Light 5 • OFF = Home Away zones act as Interior zones when active
ON = Home Away zones act as Delay zones when active (see zone type 3 Section [18])

Zone Light 6 • OFF = Bell is silent when keypad Panic [P] is activated
ON = Bell is audible when keypad Panic [P] is activated

Zone Light 7   OFF = Keypad is silent when keypad Panic [P] is activated
• ON = Keypad emits 3 beeps when keypad Panic [P] is activated

Zone Light 8 • OFF = Keypad Fire [F] key is enabled
ON = Keypad Fire [F] key is disabled

• = Default setting

[25] Sixth System Option Code

Refer to Programming Section [20] for programming instructions.

Zone Light 1 • OFF = AUX IN Terminal: Normally Open
ON = AUX IN Terminal: Normally Closed

Zone Light 2 • OFF = Standard Entry and Exit delay indications
ON = Audible Urgency applied to Entry and Exit delay. See notes below.

Zone Light 3 • OFF = System will arm with either AC or DC present
ON = Power Loss Inhibits Arming: both AC and DC power **must** be present in order to arm system

Zone Light 4 • OFF = PC16OUT Module disabled
ON = PC16OUT Module on PO1 enabled (module provides 16 voltage outputs to indicate system conditions. See your distributor for information)

Zone Light 5 • OFF = 24-hour Bell / Buzzer on Tamper: On a tamper condition the Bell will sound if system is armed and the Buzzer will sound if the system is disarmed.
ON = 24-hour Bell Always on Tamper: On a tamper condition the Bell will always sound.

Zone Light 6 • OFF = Tamper Reset disabled
ON = Tamper Reset enabled: If a tamper condition occurs then Installer's mode must be entered ([✱][8][Installers Code] or [✱][6][Service Code]) for the system to arm again.

Zone Light 7 • OFF = For Future Use

Zone Light 8 • OFF = Engineer Reset disabled
ON = Engineer Reset enabled: If an alarm occurs, the system will not re-arm until Installer's Mode is entered or [✱][6][Service Code]. ***All zones will behave as configured in Section [18] Zone Definitions. Engineer Reset does not apply to the AUX INPUT zone.***

• = Default setting

Entry and Exit Delay Urgency

When the urgency option is selected, the keypad will sound a steady tone during the Entry Delay and a pulsing tone during the Exit Delay. During the last 10 seconds of the Entry Delay, the keypad will sound a pulsing tone to warn that the Entry Delay is about to expire. During the last 10 seconds of the Exit Delay, the pulsing tone will quicken to warn that the Exit Delay is about to expire. **When the urgency option is not selected,** the keypad will be silent for the Exit Delay, and will sound a steady tone for the Entry Delay.

[26] Seventh System Option Code

Refer to Programming Section [20] for programming instructions.

Zone Light 1 • OFF = Zone 7 is a normal zone
ON = Zone 7 is a Fire Zone. **When ON, the Zone Definition programmed in Section [18] for Zone 7 will be ignored. Refer to "Fire Zone Operation" on Page 28.**

Zone Light 2 • OFF = Keypad Time-out as programmed with Section [26] Light 3
ON = Keypad Time-out on arming. ***This feature must be OFF when LCD keypads are used with the PC2580.***

Zone Light 3 • OFF = Keypad Lights always ON
ON = Keypad Lights turn OFF after 2 minutes of last key entry. Any alarm, Entry Delay, or keypresses will reactivate the keypad lights. ***This feature must be OFF when LCD keypads are used with the PC2580.***

Zone Light 4 • OFF = Keypad Tamper Disabled. Keypad tamper conditions will not be reported or indicated. Disable Keypad Tamper if LED625T or LCD600T keypads are not being used.
ON = Keypad Tamper Enabled. The Keypad Trouble function, described in "Display Trouble Conditions [✱]+[2]" in the Keypad Functions section of the manual, will be enabled.

Zone Light 5 • OFF = Battery Test Every 4 Minutes: the system will perform a battery test every 4 minutes.
ON = Battery Test Every 10 Seconds: the system will perform a battery test every 10 seconds.

Zone Light 6 • OFF = AC Trouble Reported. When OFF, AC troubles will be reported.
ON = AC Trouble Not Reported. When ON, AC troubles will not be reported. ***Do not use this feature with the "Power Loss Inhibits Arming" feature (Section [25], Zone Light 3 ON)***

Zone Light 7 • OFF = Keypad Tamper Silent
ON = Keypad Tamper Bell / Buzzer: The panel will sound the bell if a keypad tamper occurs while armed, and the keypad buzzer while disarmed.

Zone Light 8   OFF = No Keypad Ringback on Open/Close
• ON = **Keypad Ringback on Open/Close**

• = Default setting

Fire Zone Operation

If Section [26] Zone Light 1 is ON, Zone 7 will be defined as a Fire Zone.

The Fire Zone is a 24-hour zone (normally open alarm initiating contact) end-of-line resistor circuit designed to accept latching four-wire smoke detectors. On alarm, the bell output will pulse to indicate that the Fire Zone has been activated. Alarm Memory and transmission of the alarm is delayed for 30 seconds. If the alarm is acknowledged by pressing any key before the 30-second delay expires, the bell will be silenced and the transmission will be cancelled.

If the smoke detector is not restored to normal within 90 seconds of the alarm being acknowledged, the bell output will be activated again. The user again has 30 seconds to silence the bell and cancel the transmission before the bell latches and the communication is initiated. ***NOTE: Do not program Zone 7 as "silent" if used as a Fire Zone, and do not use double end-of-line resistors with this zone type.***

For an open on the Fire Zone, the "Trouble" light will come ON and the keypad will beep every 10 seconds regardless of whether the system is armed or disarmed. The trouble condition will be reported if a reporting code is programmed in Section [16]. The "Trouble" light will only be shut OFF when all of the Fire Zone troubles are corrected.

[27] For Future Use

[28] Swinger Shutdown and Transmission Delay / Bell Delay

Swinger Shutdown determines how many alarms a zone may initiate and report before additional alarms are no longer reported. ***Note that the Fire Zone cannot be shut down; Fire Zone alarms will always be transmitted.***

Program a 2-digit number from "00" to "99"; the default setting is "03". With the default setting of "03", a zone may generate and report three alarms; any alarms after this will not be reported to the monitoring station until the Swinger Shutdown counter is reset. The Swinger Shutdown counter may be reset at 12:00 am or when the system is armed; refer to Section [21] Second System Option Code Zone Light 4.

Transmission Delay determines the delay, in seconds, before an event is transmitted. Note that if the system is disarmed before the Transmission Delay expires, no transmission will be initiated.

Bell Delay determines the delay, in minutes, before the bell is activated. Note that if the system is disarmed before the Bell Delay expires, no bell output will be initiated. Valid entries for the Bell Delay range from 01 to 99 minutes; the default setting is 00. ***The Transmission and Bell Delays are only applied to burglary zones; 24-hour and Fire Zones will not be delayed.***

[29] Communications Formats

This Section determines the format in which Communication Buffers 1 and 2 will communicate. For each communication buffer, enter two digits from the list below. The selection for each buffer is determined by the type of receiver being called. Enter the format for the first communication buffer first. It is necessary to program both format numbers even if the first communication buffer is the only one being used.

Systems shipped for use in the U.K. are pre-set for industry standard DTMF Slot Format. Changes to this section should only be made under instruction from your DSC Distributor.

	Handshake	Formats
[00] SILENT KNIGHT / ADEMCO SLOW 10 BPS	1400 Hz	3/1, 3/2, 4/1 and 4/2 non-extended
[01] SESCOA, FRANKLIN, DCI, VERTEX 20 BPS	2300 Hz	3/1, 3/2, 4/1 and 4/2 non-extended
[02] SILENT KNIGHT FAST 20 BPS	1400 Hz	3/1, 3/2, 4/1 and 4/2 non extended
[03] RADIONICS	2300/1400 Hz ✳	3/1, 4/2 non extended
[04] RADIONICS	2300/1400 Hz ✳	3/1, 4/2 non-extended with parity
[05] SESCOA Superspeed		
[06] SILENT KNIGHT, ADEMCO SLOW 10 BPS	1400 Hz	3/1 extended
[07] SESCOA, FRANKLIN, DCI, VERTEX 20 BPS	2300 Hz	3/1 extended
[08] SILENT KNIGHT FAST 20 BPS	1400 Hz	3/1 extended
[09] RADIONICS	2300 / 1400 Hz ✳	3/1 extended
[10] RADIONICS	2300 / 1400 Hz ✳	3/1 extended with parity
[11] Sescoa Superspeed (with identified openings/closings)		
[12] DTMF Fast, Scantronics Slot Programming Method		
[13] Sur-Gard 4/3 DTMF with Parity	(2300Hz)	

[13] ***This format responds to 2300Hz handshakes only.***

[14] Semidigit DTMF Pager Format

[15] Ademco Contact ID Format

✳ See Section [20] for Radionics handshake option.

10 BPS and 20 BPS Formats

10 BPS is the standard slow format used on Silent Knight / Ademco receivers.
DATA = 1900 Hz; KISS-OFF = 1400 Hz; SPEED = 10 baud

20 BPS is the standard fast format used on the DCI / Franklin / Sescoa and Vertex receivers.
DATA = 1800 Hz; KISS-OFF = 2300 Hz; SPEED = 20 baud

Radionics Format

For conventional Radionics 3/1 format, the communications mode should be set on either Radionics rounds (format [09]) or Radionics parity (format [10]). The extended version of the Radionics format is normally used. The following guidelines are provided to help in configuring the PC2580 for Radionics format.

1 The customer account code must be only 3 digits with a zero making up the fourth digit (i.e. Enter 1230 to program an account code of 123).

2 The zone alarm reporting codes must all be single digit numerical codes with no extended second round being sent (i.e. Zone 1 = 10, Zone 2 = 20; Zone 6 = 60). The zero in the second digit position indicates that an extended round should not be transmitted.

3 All other non-alarm reporting codes must be set up to send an extended second round. The first digit of the reporting code is used to identify the event while the second or extended digit is used to associate the event with a particular item (i.e. A reporting code of E3 means restore zone 3. E = restore,   3 = zone 3).

4 The following is a list of first digit identifiers that should be used with the Radionics format.
   • Restorals "E". For example: E3 = restore zone 3
   • Openings "B". For example: B2 = opening by user 2
   • Closings "C". For example: C4 = closing by user 4
   • Troubles "F". For example: F5 = trouble from source 5
   • Miscellaneous "D". For example: D1 = partial closing

Sescoa Super Speed Format

The Sescoa Super Speed Format must be programmed exactly as follows in order to function correctly.

1 The account code must be four decimal digits in length and in the range of 0001 to 3374.

2 The reporting codes must be 2 digits in length and programmed as follows:

Alarms Zones 1 - 8 (Section [07] and [09])	A1 to 9A
Restorals Zones 1 - 8 (Section [08] and [10])	A1 to 9A
All Opening Codes (Sections [13] and [14])	BA
All Closing Codes (Sections [11] and [12])	CA
Partial Closing (Section [11])	C1
Low Battery (Section [16])	E1
Battery Restorals (Section [17])	E1
AC Failure (Section [16])	E1
AC Restoral (Section [17])	E1
Bell circuit Trouble (Section [16])	F1
Bell circuit Restoral (Section [17])	F1
Troubles (Sections [16] and [17])	AA
Priority Alarms (Section [15])	91 to 99
Test Code (Section [17])	1C or DC
Opening After Alarm (Section [14])	B1
Auto-Arm Abort Code (Section [12])	C8

Slot Format

Refer to [07] Alarm Reporting Codes, Zones 1-8 on page 20 for information on using the Slot Format.

4/3 DTMF Format

The 4/3 DTMF format features the advantage of rapid transmission in cases where a large number of reporting codes needs to be transmitted. The 4/3 DTMF Format is compatible with most Sur-Gard digital receivers. **Note that this format will respond to 2300Hz handshake tones only.**

The 4/3 DTMF Format transmits 8 DTMF digits for each event. Each round is transmitted as follows:

AAAA XCC P

Where:	**AAAA**	is the Account Code
	X	is a pre-programmed Event Identifier
	CC	is the 2-digit Reporting Code
	P	is the checksum parity.

The following Event Identifiers are pre-programmed and will be transmitted before each Reporting Code:

Identifier	Event	Identifier	Event
0	Test Transmission	6	Troubles / Tamper Alarms
1	Fire Alarm	7	Medical Alarm
2	Panic Alarm	9	Burglary / Tamper / Trouble / Priority Restorals
3	Burglary Alarm	D	Partial Closing
4	Closing	F	Auto-Arm Cancel / Keypad Lockout / DLS Lead-in and Lead-out Codes / Opening After Alarm / Keypad Tamper
5	Opening		

Semidigit DTMF Pager Format

The Semidigit DTMF Pager Format transmits 7 DTMF digits for each event. Each round is transmitted as follows:

AAAA XX C

Where:	**AAAA**	is the Account Code
	XX	is the 2-digit Reporting Code
	C	is the DTMF character "#"

This format requires an initial handshake of 440Hz, and a kissoff handshake of 1400Hz.

Ademco Contact ID

This format requires a dual tone (2300 / 1400 Hz) initial handshake, and a kissoff tone of 1400 Hz. When using the Ademco Contact ID format:

- **Do not program the Opening After Alarm Reporting Code**

- Zone Alarms and Restorals may be programmed to display different messages at the receiver. For example, if the Reporting Code for Zone 2 is programmed as "34", the message "*BURG* - ENTRY/EXIT -2" will be displayed, where "2" represents the zone in alarm.

- Refer to the chart below to program Zone, Fire and AUX Input Alarm and Restoral reporting codes.

Fire Alarms	Receiver Message	Burglary Alarms	
1A	✳FIRE✳ - FIRE ALARM -#	3A	✳BURG✳ - BURGLARY - #
11	✳FIRE✳ - SMOKE DETECTOR - #	31	✳BURG✳ - PERIMETER - #
12	✳FIRE✳ - COMBUSTION - #	32	✳BURG✳ - INTERIOR - #
13	✳FIRE✳ - WATER FLOW - #	33	✳BURG✳ - 24 HOUR - #
14	✳FIRE✳ - HEAT SENSOR - #	34	✳BURG✳ - ENTRY/EXIT - #
15	✳FIRE✳ - PULL STATION - #	35	✳BURG✳ - DAY/NIGHT - #
16	✳FIRE✳ - DUCT STATION - #	36	✳BURG✳ - OUTDOOR - #
17	✳FIRE✳ - FLAME SENSOR - #	37	✳BURG✳ - TAMPER - #
Panic Alarms		**General Alarms**	
2A	✳PANIC✳ - PANIC - #	4A	✳ALARM✳ - GENERAL ALARM - #
21	✳PANIC✳ - DURESS - #	44	✳ALARM✳ - SENSOR TAMPER - #
22	✳PANIC✳ - SILENT PANIC - #		
23	✳PANIC✳ - AUDIBLE PANIC - #		

24-hour Non-Burglary

5A	✳ALARM✳ - 24 HR. NON-BURG - #
51	✳ALARM✳ - GAS DETECTED - #
52	✳ALARM✳ - REFRIGERATION - #
53	✳ALARM✳ - HEATING SYSTEM - #
54	✳ALARM✳ - WATER LEAKAGE - #
55	✳ALARM✳ - FOIL BREAK - #
56	✳ALARM✳ - DAY ZONE - #
57	✳ALARM✳ - LOW GAS LEVEL - #
58	✳ALARM✳ - HIGH TEMPERATURE - #
59	✳ALARM✳ - LOW TEMPERATURE - #
61	✳ALARM✳ - AIR FLOW - #

Other reporting codes must be programmed as shown below or left as "FF" to be disabled.

Zone Tamper Alarm	44	Low Battery Alarm	A2
Zone Tamper Restoral	44	AC Failure Alarm	A1
Fire Zone 7 Alarm	See Fire descriptions	Bell Fuse Trouble Alarm	21
Closing (Arming) Codes 1-16	A2	Fire Trouble Alarm	73
Opening (Disarming) Codes 1-16	A2	AUX Supply Trouble Alarm	AA
Partial Closing Code	74	Downloading Lead-in	11
Auto-Arm Cancellation Code	A5	Downloading Lead-Out	12
After Alarm Code	FF	Keypad Tamper Trouble	3A
AUX Input Closing (Keyswitch Arming)	A9	Low Battery Restore	A2
[P] Key Alarm	2A	AC Failure Restore	A1
[F] Key Alarm	15	Bell Fuse Trouble Restore	21
[A] Key Alarm	AA	Fire Trouble Restore	73
AUX Input Opening (Keyswitch Disarming)	A9	AUX Supply Restore	AA
[P] Key Restoral	2A	TLM Trouble Restoral	51
[F] Key Restoral	15	Keypad Lockout Code	21
[A] Key Restoral	AA	Test Transmission Code	A2

[30]   *Communicator Call Direction Options*

This section determines which communications buffer is used when sending transmissions. **Communications Buffer 1 consists of the First and Second Telephone Numbers.** The Second Telephone Number is only used when alternate dialing is enabled. The dialer will alternate between the First and Second Telephone Numbers only. **Communication Buffer 2 consists of the Third Telephone Number only.**

There are four dialer call direction options:

[0] No transmissions for this group
[1] Use Communications Buffer 1 only
[2] Use Communications Buffer 2 only
[3] Use both Communications Buffers

After entering the section number, enter [0], [1], [2] or [3] for each of the following reporting code groups in the order given (total of six digits).

- Zone Group A Alarms, Tampers and Restorals
- Zone Group B Alarms, Tampers and Restorals
- Access Codes Group A Openings and Closings
- Access Codes Group B Openings and Closings
- Priority Alarms and Restorals
- Maintenance Alarms and Restorals

All six digits must be entered for the system to record the new call directions. If the [#] key is pressed before all six digits are entered, any new entries will be ignored.

NOTE: When enabled, alternate dialing will only occur for groups using Communication Buffer 1. For example, if Group A is programmed to use both buffers, the dialer will alternate between the First and Second Telephone Numbers (Communication Buffer 1) before calling the Third Telephone Number (Communication Buffer 2).

Where all reporting codes are to be sent using one communication buffer, enter [1] for all of the above groups.

[31] PO1, PO2 and AUX-IN Input Options

The Auxiliary Input Zone, PO1, and PO2 output options are programmed in this section. Program four digits in this section. The first digit configures PO1, the second digit configures PO2, and the last 2 digits configure the Auxiliary Input Zone.

• PO1 can control the PC16OUT Module or any Programmable output option described below.

• PO2 can control a Printer or any Programmable output option described below.

Programmable Options for PO1 and PO2

[0] **Ground Start Pulse:** Provides a 2-second switch to ground before dialling begins to obtain the dial tone on Ground Start telephone equipment.

[1] **Utility Output, any Access Code:** This output can be activated from the keypad by the user. When activated, the keypad will beep and the PO output will switch to ground for 5 seconds.
To activate PO1, enter [✱][7][1][any Access Code]
To activate PO2, enter [✱][7][2][any Access Code]

[2] **Strobe Output (latched alarm output):** The PO terminal switches to ground after an alarm and remains switched ON until the system is disarmed.

[3] **20-minute Latched Alarm Output:** The PO terminal latches ON for 20 minutes after a zone alarm. Entering any Access Code will reset the output.

[4] **System Status (Arm/Disarm) Output:** The PO terminal switches to ground when the system is armed. The PO terminal will be opened when the system is disarmed.

[5] **Keypad Buzzer Follow Mode:** The PO terminal switches to ground when the keypad sounder is ON. The PO terminal will remain switched for as long as the keypad sounder is ON.

[6] **Courtesy Pulse:** The PO terminal switches to ground during the Entry and Exit Delays. This function could be used to operate a light or other device near the Entry-Exit Door for the duration of the Entry and Exit Delays.

[7] **Entry Delay Follower:** The PO terminal switches to ground for the duration of the Entry Delay.

[8] **Exit Delay Follower:** The PO terminal switches to ground for the duration of the Exit Delay.

[9] **PO Flashes during Exit Delay / PO ON if in Alarm:** This option causes the PO terminal to pulse for the duration of the Exit delay; when the system is fully armed the, PO will deactivate. If an alarm occurs, the PO will be ON steady and will not pulse. The output is deactivated on disarming. Note that only Burglary, Fire and [F] Key zones will activate the PO.

[A] **PO Flashes during armed period:** While the system is armed, the PO will flash. Upon disarming the PO will deactivate.

[B] **Kiss-off Output:** The PO terminal switches to ground after the kiss-off has been received to complete a successful communication to the central station. The PO will switch to ground for 2 seconds.

[C]   **Failure to Communicate Output:** The PO terminal switches to ground if the system fails to communicate with the monitoring station after the maximum number of communication attempts. The output remains switched to ground until a successful communication takes place or until the failure to communicate trouble indication is cleared from the keypad. This option may be used to tie two systems together; one system can then be made to report a communication failure for the other.

[D] **Telephone Line Monitor (TLM) and Alarm:** The PO terminal switches to ground if the system has a TLM fault and any alarm condition while fully armed. The output will be switched for the duration of the Bell Time-out time.

[E] **Line Seizure Output:** The PO terminal switches to ground when the system seizes the telephone line during communication. The output remains switched for the duration of the communications.

[F] **Remote Operation:** the PO terminal can be switched remotely through the DLS-1 Downloading Software (version 6.2E or later). If communications with the downloading computer are interrupted, the PO terminal will remain activated until the downloading computer deactivates the output at a later time.

Auxiliary Input Options (Last 2 digits)

[00] **Printer Connected to PO2 Enabled**

[01] **Silent 24-hour Zone**

[02] **Audible 24-hour Zone**

[03] **Momentary Keyswitch Arming**

[04] **Contacted Lock**

[05] **Push to Set**

[06] **Global Tamper**

[07] **Forced Answer**

See Auxiliary Input Terminal in the Terminal Connections section of this manual for information on the Auxiliary Input. The AUX IN Terminal can be programmed for normally open or normally closed operation; refer to Section [25] Zone Light 1. If a printer is attached to the control panel, [00] must be selected. When option [03] is selected, a momentary key closure between the Auxiliary Input and the Positive Auxiliary Power Supply will alternately arm and disarm the system. The reporting codes for the Auxiliary Input (Section [15]) can be used as opening and closing codes for key arming.

Contacted Lock (option 04) is a special door lock used with maintained keyswitch operation. Do not use this option in split system applications. When this option is selected, PO4 will switch to ground whenever the system is ready to be armed, regardless what is selected for the PO option. When the system is armed, PO4 will be deactivated.

Push to Set is used to cancel the Exit Delay after entering an Access Code to arm the system. If the Push to Set input is activated during the Exit Delay, the standard Exit Delay will be cancelled and the system will be fully armed. ***This feature will be automatically disabled if Split Arming is enabled, or if Home-Away Zones are programmed.***

Global Tamper is a dedicated tamper zone that will inhibit arming when input is activated. Tampers can be reset by entering Installers Mode or pressing [✱][6][Service Code].

[32] System Clock Times

Program three 4-digit times in this section.

• Automatic arming time of day (HH:MM)

• Auto Disarm Time (HH:MM)

• Test transmission time of day (HH:MM)

Times are entered in the 24-hour clock (military time) format. Valid entries are 00 to 23 for HH (hours), and 00 to 59 for MM (minutes). ***If invalid times are entered, the functions will not work.***

[33] Master Code

Program a 4-digit code in this Section. Only use digits 0 through 9 as numbers in the code; do not press the [✱] or [#] keys. If an error is made entering the code, complete entry of the 4 digits, then re-enter the Section [33] to enter the correct code. Do not press [✱] or [#] while entering the code.

[34] Service Code

Program a 4-digit code in this Section. Refer to Section [33] Master Code for programming instructions.

[35] Installer's Code

Program a 4-digit code in this Section. Refer to Section [33] Master Code for programming instructions.

[36] Bypass Mask, Zones 1 - 8

In this section, if a Zone Light is ON, that zone may be bypassed using the [✱][1] command. In the default setting, Zone Lights 1 through 8 are ON.

[37] Access Code Bypass Mask, Access Codes 1 - 8

This section is used to determine whether or not Access Codes 1 to 8 are able to bypass zones. When a Zone Light is ON, the code indicated is able to bypass zones. In the default setting, all Zone Lights are ON.

If an Access Code is not required to bypass zones, programming in this section will not affect system operation. The Access Code Required for Bypass option is programmed in Section [23] Zone Light 4.

[38] *Access Code Bypass Mask, Access Codes 9 -16*

This section is used to determine whether or not Access Codes 9 to 16 are able to bypass zones. When a Zone Light is ON, the code indicated is able to bypass zones. In the default setting, Zone Lights 1 to 8 are ON.

[39] *Keypad Lockout Options*

Keypad Lockout is a useful feature to stop users from trying to guess system Access Codes. The number of attempts to enter a valid code before the keypad locks out is programmable as well as the duration of keypad lockout. Entering "00" for the first two digits will disable this feature.

When the keypad locks out, the bell will sound for approximately 10 seconds. The keypad will beep 3 times every 10 seconds for the duration of the lockout time. Pressing the [#] key will not suppress the beeps. If a reporting code is programmed, the system will transmit a reporting code to indicate that the keypad has been locked out.

[40] - [43] *Split Arming*

The Split Arming feature allows a single control panel to act as two independent alarm systems, each with their own opening and closing schedules, zone assignments and Access Codes.

Zone and Access Code assignments are programmed in Section [40] through [43]. Typically, zones and Access Codes are assigned to either Group A or Group B; however, the system may be programmed so that some zones and Access Codes are common to both Groups.

Sections [40] through [43] are programmed in the same manner as Programming Section [20]; refer to Section [20] for programming instructions.

[40] *Group A Zone Assignment*

This section is used to assign zones to Group or Side A in a split-armed application. In the default setting, all Zone Lights are ON.

[41] *Group B Zone Assignment*

This section is used to assign zones to Group or Side B in a split-armed application. In the default setting, all Zone Lights are ON.

[42] *Group A Access Code Assignment*

If a Zone Light is ON, that Access Code is assigned to Group A. Note that Access Codes 9 through 16 are permanently assigned to Group A. If a Zone Light is ON in both Section [42] and [43], the code is common to both sides and will arm or disarm the entire system. In the default setting, all Zone Lights are ON. *The Master Code (Access Code 1) must be assigned to both Group A and Group B in order for split arming to function properly.*

[43] *Group B Access Code Assignment*

If a Zone Light is ON, that Access Code is assigned to Group B. If a Zone Light is ON in both Section [42] and [43], the code is common to both sides and will arm or disarm the entire system. In the default setting, all Zone Lights are ON. Note that codes 9 to 16 cannot be assigned to Group B. *The Master Code (Access Code 1) must be assigned to both Group A and Group B in order for split arming to function properly.*

Notes On Split Arming:

Common Zones: If a zone is assigned to both Group A and Group B, then both Group A and Group B must be armed for that zone to be armed.

Common Access Code: If an Access Code (1 through 8 only) is assigned to Group A and Group B, then that Access Code will arm and disarm the entire system.

Armed Status Indications: When only one group of a split armed system (either Group A or Group B) is armed, the "Armed" indicator will FLASH and the zone indicators for the armed group will FLASH.

If both Group A and Group B are armed, the "Armed" indicator will be ON steadily and the Zone Lights will not flash.

Zone Bypassing: When the system is set up for split arming, the [✳][1] bypass command should be set so that bypassing requires the use of an Access Code (see Section [23], Zone Light 4).

Communicator: When set up for split arming and both Group A and Group B are reporting to the same telephone number with different account codes, Group A burglar alarms and restorals are programmed as [1] in Section [30] to use the first Communications Buffer only. Group B burglar alarms and restorals are programmed with a [2] in Section [30] to use the second Communications Buffer only. It is necessary to program both the First and Third Telephone Numbers with the same telephone number.

Split Arming Restrictions: The following restrictions apply to split arming applications:

• The Master Code must be assigned to both Group A and Group B
• All codes and zones must be assigned even if not used.
• Transmission delay must not be used.
• Home-Away zones must not be used.
• Bell Delay must not be used
• Contacted Lock (see Section [31]) must not be used.
• PO Option 9, D, and "Quick-Exit" will only work in a fully armed system.
• The Engineer Reset feature must not be used.
• "Zone 8 as Tamper Zone" must not be used.

[44] Number of Rings Before Answer and Downloading Configuration

Your attention is drawn to the statutory notice on the inside cover of this manual which gives specific details as to the use of the auto-answer facility on this equipment.

This section is used to enable the Downloading function. If Downloading is enabled, a Downloading Access Code must be programmed in Section [47], and a Panel Identification Code must be programmed in Section [46]. If Call-Back is enabled, the downloading computer's telephone number must be programmed in Section [48].

This section is also used to program the number of rings before which the system will answer a call from the downloading computer. The number of rings is the sum of the binary digits as represented by Zone Lights 1 through 4.

Zone Light 1	OFF = 0					
•	ON = 1	Example:	Light 1	= OFF	=	0
Zone Light 2	OFF = 0		Light 2	= ON	=	2
•	ON = 2		Light 3	= OFF	=	0
Zone Light 3	OFF = 0		Light 4	= ON	=	8
•	ON = 4	Number of Rings: 10				
Zone Light 4	OFF = 0					
•	ON = 8					

Zone Light 5   • OFF = Downloading disabled
         ON = Downloading enabled (See Downloading section of this manual)

Zone Light 6   • OFF = No user initiated call up
         ON = User initiated call up enabled (See [✱][6][Master Code][9])

Zone Light 7   • OFF = No answering machine connected
         ON = Answering machine connected

Zone Light 8   • OFF = Call-Back disabled
         ON = Call-Back enabled

         • = Default setting

[45] Double Call Timer

This section determines the length of time that can be taken between calls when using the Answering Machine Override function. Valid entries are from 001 to 255 seconds; the default setting is 060.

[46] Panel Identification Code

This 4-digit code allows the downloading computer to confirm the identity of the control panel. The factory default code is [2581]. ***Ensure that the codes programmed in Section [46] and [47] are different!*** Every system should have a unique Panel Identification Code.

[47] Downloading Access Code

This 4-digit code allows the system to confirm that it is communicating with a valid downloading computer. The factory default code is [2525]. ***Ensure that the codes programmed in Section [46] and [47] are different!***

[48] Downloading Telephone Number

This is the telephone number used to call the downloading computer if the Call-Back feature (refer to Section [44]) is enabled or if a User-Initiated Call-up is performed with the [✱][6][Master Code][9] command.

[49]   Printer Configuration

Zone Light 1   • OFF = Not 110 baud
                   ON = 110 baud

Zone Light 2   • OFF = Not 300 baud
                   ON = 300 baud

Zone Light 3   OFF = Not 1200 baud
                 • ON = 1200 baud

Zone Light 4   • OFF = Printer and normal communication
                   ON = Printer only

Zone Light 5   • OFF = Printer and normal communication
                   ON = See notes below

Zone Light 6   • OFF = SRTS on pin 11
                   ON = RTS on pin 4 or DTR on pin 20

Zone Light 7   • OFF = For Future Use
                   ON = For Future Use

Zone Light 8   • OFF = For Future Use
                   ON = For Future Use

                 • = Default setting

PRINTER CONFIGURATION NOTES:

If Zone Light 5 is ON and Zone Light 4 is OFF: All items whose reporting codes are programmed for Communications Buffer 1 will be communicated to the monitoring station AND printed on the printer. All items whose reporting codes are programmed for Communications Buffer 2 will NOT be communicated to the monitoring station but will be printed on the printer.

If Zone Lights 4 and 5 are OFF: All items whose reporting codes are programmed for Communications Buffer 1 or 2 will be printed on the printer and communicated to the monitoring station.

If Zone Light 4 is ON: All items whose reporting codes are programmed for Communications Buffer 1 or 2 will be printed on the printer but will not be communicated to the monitoring station. In this case it is assumed that telephone lines are not connected. DO NOT disable the communicator. The First System Option Code, Zone Light 1 must be OFF. To avoid TLM trouble, program Second System Option Code Zone Light 1 to be ON.

[89] Print Event Buffer

If a serial printer is connected to the system, entering [✱][8][Installer's Code][89] will print the 128 events in the event buffer. Events, along with the time and date of each event, are printed with the oldest event printed first, and the most recent event printed last. The keypad will sound a tone to indicate when the system has finished printing all of the events in the event buffer, or if the printer is not connected properly.

NOTE: Refer to Printer Setup for instructions on connecting a local printer to the control panel.

[90]   Installer Lockout Enable

When this feature is enabled, performing a hardware or software reset to restore the system's factory programming will not reset the Installer's Code or the Downloading Access Code.

To enable this feature, enter Section [90]. After entering Section [90], enter the [Installer's Code] to confirm activation of this feature. If the Installer's Code is not entered correctly, the keypad will sound a single long tone to indicate the error and the feature will not be enabled.

A system that has this feature enabled will provide an audible indication upon power-up by clicking the telephone line relay 10 times. When applying power to the system when performing a hardware reset (see Section [99]), the telephone line relay will sound the 10-click indication twice.

Ensure that the new Installer's Code has been entered correctly before enabling this feature as there is no way of re-entering the Programming Mode without the new Installer's Code.

[91]   *Installer Lockout Disable*

Entering [91][Installer's Code] while in the Installer's Programming Mode will disable the Installer Lockout feature described in Section [90]. If the Installer's Code is not entered correctly, the keypad will sound a single long tone to indicate the error and the Installer's Lockout will not be disabled.

NOTE: Control panels returned to DSC with the Installer Lockout feature enabled and no other apparent problems will be subject to an additional service charge.

[99] *Factory Default*

This section is used to reset the EEPROM memory to the original factory default values. After entering Section [99], enter the [Installer's Code] to confirm activation of this feature. If the Installer's Code is not entered correctly, the keypad will sound a single long tone to indicate the error and the factory default will not be performed.

Hardware Reset of EEPROM Memory to Factory Defaults

If the Installer's code is lost through inadvertent programming, the only means of reprogramming the system is via a hardware reset. If the installer's lockout is enabled, there is no way to reprogram the system without entering the correct installer's code. Follow the sequence outlined below to reset the system to factory default conditions.

1   Remove both AC and battery power from the system.

2   Using a wire link, short the PO1 and Zone 1 terminals together.

3   Apply power to the PC2580.

4   Wait for 10 seconds then remove the connection between the PO1 and Zone 1 terminals.

5   The system will now be restored to the factory default programming.

FOR THE RECORD

Customer _____

Address _____

_____

Phone _____ Installation Date_____

CONTACTS:

#1 Name _____ Phone _____

#2 Name _____ Phone _____

#3 Name _____ Phone _____

Installer's Code _____

ZONES

Zone	Type	Protected Area
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____

Entry Time _____ Exit Time _____

Bell Cutoff _____

KEYPAD ZONES

[F] Key ☐ ON ☐ OFF   Quick-Arm   ☐ ON ☐ OFF

[A] Key ☐ ON ☐ OFF   Quick-Exit   ☐ ON ☐ OFF

[P] Key ☐ ON ☐ OFF   Installers Lockout ☐ ON ☐ OFF

Installer's Name: _____

NOTES

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

PROGRAMMING WORKSHEETS

NOTE: In Sections [01] through [17], do not enter data in Sections that are not used.

[01] First Telephone Number   Page 19

└──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┘

Enter [0] for the digit "0" (zero) in the telephone number. Enter [#] to end the telephone number entry. When using Pulse Dialing, do not enter [✳] or [#] in the Telephone Numbers.

[02] First Account Code   Page 19

└──┴──┴──┘

For 3-digit Account Codes, enter [0] for the last digit. Where "0" (zero) is required in the Account Code, enter HEX A ([✳][1][✳]).

[03] Second Telephone Number   Page 19

└──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┘

[04] Second Account Code   Page 19

└──┴──┴──┘

[05] Third Telephone Number   Page 19

└──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┴──┘

[06] Third Account Code   Page 19

└──┴──┴──┘

[07] Alarm Reporting Codes, Zones 1 - 8   Page 20

For single-digit reporting codes, enter [0] as the second digit. Enter [✳][1][✳] (hex A) to transmit a "0" (zero).

└──┴──┘ Zone 1 Alarm
└──┴──┘ Zone 2 Alarm
└──┴──┘ Zone 3 Alarm
└──┴──┘ Zone 4 Alarm
└──┴──┘ Zone 5 Alarm
└──┴──┘ Zone 6 Alarm
└──┴──┘ Zone 7 Alarm
└──┴──┘ Zone 8 Alarm

[08] Restoral Reporting Codes, Zones 1 - 8   Page 21

└──┴──┘ Zone 1 Restoral
└──┴──┘ Zone 2 Restoral
└──┴──┘ Zone 3 Restoral
└──┴──┘ Zone 4 Restoral
└──┴──┘ Zone 5 Restoral
└──┴──┘ Zone 6 Restoral
└──┴──┘ Zone 7 Restoral
└──┴──┘ Zone 8 Restoral

[09] Tamper Alarm Reporting Codes, Zones 1 - 8 *Page 21*

|⌴⌴| Tamper Alarm 1

|⌴⌴| Tamper Alarm 2

|⌴⌴| Tamper Alarm 3

|⌴⌴| Tamper Alarm 4

|⌴⌴| Tamper Alarm 5

|⌴⌴| Tamper Alarm 6

|⌴⌴| Tamper Alarm 7 / Fire Alarm

|⌴⌴| Tamper Alarm 8

[10] Tamper Restoral Reporting Codes, Zones 1 - 8 *Page 21*

|⌴⌴| Tamper Restore 1

|⌴⌴| Tamper Restore 2

|⌴⌴| Tamper Restore 3

|⌴⌴| Tamper Restore 4

|⌴⌴| Tamper Restore 5

|⌴⌴| Tamper Restore 6

|⌴⌴| Tamper Restore 7 / Fire Restore

|⌴⌴| Tamper Restore 8

[11] Closing Reporting Codes, Access Codes 1 - 8 *Page 21*

|⌴⌴| Access Code 1 Closing

|⌴⌴| Access Code 2 Closing

|⌴⌴| Access Code 3 Closing

|⌴⌴| Access Code 4 Closing

|⌴⌴| Access Code 5 Closing

|⌴⌴| Access Code 6 Closing

|⌴⌴| Access Code 7 Closing

|⌴⌴| Access Code 8 Closing

|⌴⌴| Partial Closing Code

[12] Closing Reporting Codes, Access Codes 9 -16 *Page 21*

|⌴⌴| Access Code 9 Closing

|⌴⌴| Access Code 10 Closing

|⌴⌴| Access Code 11 Closing

|⌴⌴| Access Code 12 Closing

|⌴⌴| Access Code 13 Closing

|⌴⌴| Access Code 14 Closing

|⌴⌴| Access Code 15 Closing

|⌴⌴| Access Code 16 Closing

|⌴⌴| Auto-Arm Cancellation Code

[13] Opening Reporting Codes, Access Codes 1 - 8 *Page 21*

└──┴──┘ Access Code 1 Opening

└──┴──┘ Access Code 2 Opening

└──┴──┘ Access Code 3 Opening

└──┴──┘ Access Code 4 Opening

└──┴──┘ Access Code 5 Opening

└──┴──┘ Access Code 6 Opening

└──┴──┘ Access Code 7 Opening

└──┴──┘ Access Code 8 Opening

[14] Opening Reporting Codes, Access Codes 9 -16 *Page 21*

└──┴──┘ Access Code 9 Opening

└──┴──┘ Access Code 10 Opening

└──┴──┘ Access Code 11 Opening

└──┴──┘ Access Code 12 Opening

└──┴──┘ Access Code 13 Opening

└──┴──┘ Access Code 14 Opening

└──┴──┘ Access Code 15 Opening

└──┴──┘ Access Code 16 Opening

└──┴──┘ After Alarm Code

[15] Priority Alarm and Restoral Reporting Codes *Page 22*

└──┴──┘ AUX Input Alarm / Closing

└──┴──┘ [P] Key Alarm

└──┴──┘ [F] Key Alarm

└──┴──┘ [A] Key Alarm

└──┴──┘ AUX Input Restore / Opening

└──┴──┘ [P] Key Restore

└──┴──┘ [F] Key Restore

└──┴──┘ [A] Key Restore

[16] Maintenance Alarm Reporting Codes *Page 22*

└──┴──┘ Low Battery Alarm

└──┴──┘ AC Failure Alarm

└──┴──┘ Bell Fuse Trouble Alarm

└──┴──┘ Fire Trouble Alarm

└──┴──┘ AUX Supply Trouble Alarm

└──┴──┘ Downloading Lead-in

└──┴──┘ Downloading Lead-out

└──┴──┘ Keypad Tamper Trouble

[17] Maintenance Alarm Restoral Codes   *Page 22*

└─┴─┘ Low Battery Restore

└─┴─┘ AC Failure Restore

└─┴─┘ Bell Fuse Trouble Restore

└─┴─┘ Fire Trouble Restore

└─┴─┘ AUX Supply Trouble Restore

└─┴─┘ Telephone Line Monitor Trouble Restoral

└─┴─┘ Keypad Lockout Code

└─┴─┘ Test Transmission Code

└─┴─┘ Service Code

[18] Zone Definitions   *Page 23*

NOTE: When defining zones, assign delay zones first to Zones 1, 2, 3 and so on. Then, assign the other zone types to the remaining zones in any order desired.

▼ When Section [26] Zone Light 1 is ON, Zone 7 will be a Fire Zone and the Zone Definition programmed in Section [18] for Zone 7 will be ignored.

Default		*First Digit*	*Second Digit*
|0|,|0| └─┴─┘	Zone 1	0 = Audible	0 = Delay
|0|,|1| └─┴─┘	Zone 2	1 = Silent	1 = Instant
|0|,|1| └─┴─┘	Zone 3	2 = Chime Audible	2 = Interior
|0|,|1| └─┴─┘	Zone 4	3 = Chime Silent	3 = Home Away
|0|,|1| └─┴─┘	Zone 5		4 = 24-hour Bell
|0|,|1| └─┴─┘	Zone 6		5 = 24-hour Bell/Buzzer
|0|,|1| └─┴─┘	Zone 7▼		6 = 24-hour Buzzer
|0|,|1| └─┴─┘	Zone 8		7 = Auxiliary Delay
			8 = Interior Delay

[19] System Times   *Page 24*

Default

|0,3,0| └─┴─┴─┘ Entry Delay (seconds)

|0,4,5| └─┴─┴─┘ Exit Delay (seconds)

|0,4,5| └─┴─┴─┘ Auxiliary Entry Delay (seconds)

|0,6,0| └─┴─┴─┘ Auxiliary Exit Delay (seconds)

|0,0,3| └─┴─┴─┘ Bell Time-out (Valid entries are from 001 to 255 minutes)

|0,3,0| └─┴─┴─┘ AC Failure Reporting Delay (minutes)

|0,5,0| └─┴─┴─┘ Zone Loop Response Time (× 10 ms. Valid entries are from 040 to 255)

|0,3,0| └─┴─┴─┘ Test Transmission Interval (days)

[20] First System Option Code   *Page 24*

Default		**Zone Light ON**	**Zone Light OFF**
ON └─┘	Zone Light 1	Communicator disabled	Communicator enabled
OFF └─┘	Zone Light 2	Alternate dialing	Standard dialing
ON └─┘	Zone Light 3	DTMF dialing	Pulse dialing
OFF └─┘	Zone Light 4	Pulse Dialing Make/Break Ratio: 40/60	Pulse Dialing Make/Break Ratio: 33/67
OFF └─┘	Zone Light 5	1400Hz Radionics handshake	2300Hz Radionics handshake
ON └─┘	Zone Light 6	Guard tone enabled	Guard tone disabled
ON └─┘	Zone Light 7	Busy tone detection enabled	Busy tone detection disabled
OFF └─┘	Zone Light 8	Force Dialing enabled	Force Dialing disabled

[21] Second System Option Code   *Page 25*

Default			Zone Light ON	Zone Light OFF
OFF,	___	Zone Light 1	TLM disabled	TLM enabled
OFF,	___	Zone Light 2	TLM trouble sounds bell when armed	TLM trouble only
OFF,	___	Zone Light 3	Alarms restore on bell time-out	Alarms restoral follows zone restoral
OFF,	___	Zone Light 4	Swinger Shutdown resets at 12:00 am	Swinger Shutdown resets on arming
ON,	___	Zone Light 5	Bell shutdown enabled	Bell shutdown disabled
OFF,	___	Zone Light 6	Bell output always pulsed	Bell output follows zone type
OFF,	___	Zone Light 7	Bell output inverted	Bell output normal
OFF,	___	Zone Light 8	User DLS window enabled	User DLS window disabled

[22] Third System Option Code   *Page 25*

Default			Zone Light ON	Zone Light OFF
OFF,	___	Zone Light 1	PO3: FTC output	PO3: Strobe output
OFF,	___	Zone Light 2	PO4: TLM and Alarm output	PO4: System Status output
OFF,	___	Zone Light 3	Hourly Test Transmission	Test Tx as per times in [19] & [32]
OFF,	___	Zone Light 4	15 minute Test Tx while Armed	Normal Test Transmission
ON,	___	Zone Light 5	Bell silent for FTC	Bell sounds for FTC
OFF,	___	Zone Light 6	**Not Used**	
OFF,	___	Zone Light 7	**Not Used**	
OFF,	___	Zone Light 8	**Not Used**	

[23] Fourth System Option Code   *Page 26*

Default			Zone Light ON	Zone Light OFF
OFF,	___	Zone Light 1	Send Identified Partial Closings	Partial Closings not identified
OFF,	___	Zone Light 2	Auto-Arm sends Partial Closing Code	Auto-Arm does not send Partial Closing Code
OFF,	___	Zone Light 3	Access Code needed to cancel Auto-Arm	Any keypress cancels Auto-Arm
ON,	___	Zone Light 4	Access Code needed to bypass zones	Access Code not required to bypass zones
OFF,	___	Zone Light 5	Master Code not user-programmable	Master Code user-programmable
OFF,	___	Zone Light 6	One-Time Use Code enabled	One-Time Use Code disabled
OFF,	___	Zone Light 7	Quick-Exit enabled	Quick-Exit disabled
OFF,	___	Zone Light 8	SW AUX resets for 5s on Arming	SW AUX does not reset on Arming

[24] Fifth System Option Code   *Page 26*

Default			Zone Light ON	Zone Light OFF
OFF,	___	Zone Light 1	Normally Closed zone loops	Double End-of-Line Resistor zone loops
OFF,	___	Zone Light 2	Zones bypassed for 120s on power-up	Zones active on power-up
OFF,	___	Zone Light 3	Force Arm with AUX zones	No Force Arm with AUX zones
OFF,	___	Zone Light 4	AC in at 60Hz	AC in at 50Hz
OFF,	___	Zone Light 5	Home Away Zones have Entry/Exit Delays	No Delays for Home Away Zones
OFF,	___	Zone Light 6	Bell sounds for [P] Key alarms	Bell Silent for [P] Key alarms
ON,	___	Zone Light 7	Keypad sounds for [P] Key alarms	Keypad silent for [P] Key alarms
OFF,	___	Zone Light 8	[F] Key disabled	[F] Key enabled

[25] Sixth System Option Code   Page 27

Default			Zone Light ON	Zone Light OFF
OFF,	___,	Zone Light 1	AUX IN: Normally Closed	AUX IN: Normally Open
OFF,	___,	Zone Light 2	Entry/Exit urgency enabled	Entry/Exit sounder disabled
OFF,	___,	Zone Light 3	Arming Inhibit enabled	Arming Inhibit disabled
OFF,	___,	Zone Light 4	PC16OUT Module on PO1 enabled	PC16OUT Module disabled
OFF,	___,	Zone Light 5	Bell Always on Tamper	24-Hour Bell/Buzzer on Tamper
OFF,	___,	Zone Light 6	Tamper Reset enabled	Tamper Reset disabled
OFF,	___,	Zone Light 7	Future Use	Future Use
OFF,	___,	Zone Light 8	Engineer Reset enabled	Engineer Reset disabled

[26] Seventh System Option Code   Page 27

Default			Zone Light ON	Zone Light OFF
OFF,	___,	Zone Light 1	Zone 7:Fire Zone▼	Zone 7: Normal Zone
OFF,	___,	Zone Light 2	Keypad Time-out on arming	Keypad Time-out as in [26] Light 3
OFF,	___,	Zone Light 3	2-minute keypad timeout	No keypad timeout
OFF,	___,	Zone Light 4	Keypad Tamper Enabled	Keypad Tamper Disabled
OFF,	___,	Zone Light 5	Battery test every 10s	Battery test every 4 minutes
OFF,	___,	Zone Light 6	AC Trouble Not Reported	AC Trouble Reported
OFF,	___,	Zone Light 7	Keypad Tamper Bell / Buzzer	Keypad Tamper Silent
OFF,	___,	Zone Light 8	Keypad Ringback on Open/Close	No Keypad Ringback on Open/Close

▼ When Zone Light 1 is ON, the Zone Definition programmed in Section [18] for Zone 7 will be ignored.

[27] For Future Use   Page 28

[28] Swinger Shutdown and Transmission Delay/Bell Delay   Page 28

Default			
0 , 3 , ___ ,	Swinger Shutdown
0 , 0 , ___ ,	Transmission Delay (seconds)
0 , 0 , ___ ,	Bell Delay (minutes)

Swinger Shutdown: Enter a number from "01" to "99"; "00" provides unlimited transmissions per zone. Note that the Fire Zone will always transmit.

Transmission Delay / Bell Delay: The Transmission Delay is counted in seconds; the Bell Delay is counted in minutes.

The Transmission and Bell Delays are applied to Burglary Zones only.

[29] Communications Formats   *Page 28*

Systems shipped for use in the U.K. are pre-set for industry standard DTMF Slot Format. Changes to this section should only be made under instruction from your DSC Distributor.

Default

_1_,_2_, _,_,_   Communications Buffer 1

_1_,_2_, _,_,_   Communications Buffer 2

* *See Section [20] Zone Light 5 for handshake options.*

[00] Silent Knight / Ademco Slow, 10 BPS, 1400 Hz handshake

[01] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300 Hz handshake

[02] Silent Knight Fast, 20 BPS, 1400 Hz handshake

[03] Radionics, 40 BPS, 2300/1400 Hz✱ handshake

[04] Radionics, 40 BPS, 2300/1400Hz✱ handshake with parity

[05] Sescoa Super Speed

[06] Silent Knight / Ademco Slow, 10 BPS, 1400 Hz handshake, extended

[07] Sescoa, Franklin, DCI, Vertex, 20 BPS, 2300 Hz handshake, extended

[08] Silent Knight Fast, 20 BPS, 1400 Hz handshake, extended

[09] Radionics, 40 BPS, 2300/1400 Hz✱ handshake, extended

[10] Radionics, 40 BPS, 2300/1400 Hz✱ handshake, with parity, extended

[11] Sescoa Super Speed with identified openings and closings

[12] Scantronics Slot Fast DTMF

[13] Sur-Gard 4/3 DTMF with parity 2300Hz

[14] Semidigit DTMF Pager Format

[15] Ademco Contact ID

[30] Communicator Call Direction Options   *Page 31*

Default

_1_, _,_   Group A Zone Alarms, Tampers and Restorals

_1_, _,_   Group B Zone Alarms, Tampers and Restorals

_1_, _,_   Group A Access Codes: Openings and Closings

_1_, _,_   Group B Access Codes: Openings and Closings

_1_, _,_   Priority Alarms and Restorals

_1_, _,_   Maintenance Alarms and Restorals

Enter:

[0] No transmissions for this group

[1] Use Communications Buffer 1 only

[2] Use Communications Buffer 2 only

[3] Use both Communications Buffers

[31] PO1, PO2 and AUX-IN Input Options *Page 32*

Default

1	⎵	PO1 Output PO1 can control the PC16OUT Module or all PO options described below
9	⎵	PO2 Output PO2 can control a Printer or all PO options described below

PO Options

0 Ground Start Pulse
1 Utility Output: [✱][7][1 or 2] with Access Code
2 Strobe Output (Latched Alarm)
3 20-minute Latched Alarm
4 System Status
5 Keypad Buzzer Follow Mode
6 Courtesy Pulse
7 Entry Delay Follower
8 Exit Delay Follower
9 PO Flashes During Exit Delay / PO ON if in Alarm
A PO Flashes During Armed Period
B Kiss-off Output
C Failure to Communicate
D Telephone Line Monitor with Alarm
E Line Seizure Output
F Remote Operation

AUX-IN Input Options
Default

0 ,2 , ⎵ , ⎵   AUX Input

AUX-IN Options

00 Printer Connected to PO2 Enabled
01 Silent 24-hour Zone
02 Audible 24-hour Zone
03 Momentary Contact Arming
04 Contacted Lock
05 Push to Set
06 Global Tamper
07 Forced Answer (for use with Downloading)

[32] System Clock Times   *Page 33*

Default

,9,9,9,9, ⌐_,_,_,_⌐   Automatic Arming Time of Day

,9,9,9,9, ⌐_,_,_,_⌐   Automatic Disarming Time of Day

,9,9,9,9, ⌐_,_,_,_⌐   Test Transmission Time of Day

Enter 4 digits: 00 to 23 hours, 00 to 59 minutes. If a function is not used, leave at the factory default settings.

[33] Master Code   *Page 33*

Enter a 4-digit code using the numbers 0 through 9. Do not enter [✱] or [#].

Default

,1,2,3,4, ⌐_,_,_,_⌐

[34] Service Code   *Page 33*

Enter a 4-digit code using the numbers 0 through 9. Do not enter [✱] or [#].

Default

,A,A,A,A, ⌐_,_,_,_⌐

[35] Installer's Code   *Page 33*

Enter a 4-digit code using the numbers 0 through 9. Do not enter [✱] or [#].

Default

,2,5,8,0, ⌐_,_,_,_⌐

[36] Bypass Mask, Zones 1 - 8   *Page 33*

If a Zone Light is ON, that zone may be bypassed using the [✱][1] Bypass command.

Default

,ON, ⌐_⌐   Zone 1

,ON, ⌐_⌐   Zone 2

,ON, ⌐_⌐   Zone 3

,ON, ⌐_⌐   Zone 4

,ON, ⌐_⌐   Zone 5

,ON, ⌐_⌐   Zone 6

,ON, ⌐_⌐   Zone 7

,ON, ⌐_⌐   Zone 8

[37] Access Code Bypass Mask, Access Codes 1 - 8   *Page 33*

If a light is ON, then that Access Code may be used to bypass zones. ***If an Access Code is not required to bypass zones (refer to Section [23] Zone Light 4) programming in this sections will not affect system operation.***

Default

,ON, ⌐_⌐   Access Code 1

,ON, ⌐_⌐   Access Code 2

,ON, ⌐_⌐   Access Code 3

,ON, ⌐_⌐   Access Code 4

,ON, ⌐_⌐   Access Code 5

,ON, ⌐_⌐   Access Code 6

,ON, ⌐_⌐   Access Code 7

,ON, ⌐_⌐   Access Code 8

[38] *Access Code Bypass Mask, Access Codes 9 - 16* *Page 34*

If a light is ON, then that Access Code may be used to bypass zones. **If an Access Code is not required to bypass zones (refer to Section [23] Zone Light 4) programming in this sections will not affect system operation.**

Default

,ON,	,___,	Access Code 9
,ON,	,___,	Access Code 10
,ON,	,___,	Access Code 11
,ON,	,___,	Access Code 12
,ON,	,___,	Access Code 13
,ON,	,___,	Access Code 14
,ON,	,___,	Access Code 15
,ON,	,___,	Access Code 16

[39] *Keypad Lockout Options* *Page 34*

Default

,0,0, ,_,_,	Number of attempts to enter a valid code before keypad locks out. Enter "00" to disable this feature.
,1,5, ,_,_,	Keypad Lockout Duration (in minutes)

[40] *Group A Zone Assignment* *Page 34*

If a Zone Light is ON, then that Zone is assigned to Group A

Default

,ON,	,___,	Zone 1
,ON,	,___,	Zone 2
,ON,	,___,	Zone 3
,ON,	,___,	Zone 4
,ON,	,___,	Zone 5
,ON,	,___,	Zone 6
,ON,	,___,	Zone 7
,ON,	,___,	Zone 8

[41] *Group B Zone Assignment* *Page 34*

If a Zone Light is ON, then that Zone is assigned to Group B

Default

,ON,	,___,	Zone 1
,ON,	,___,	Zone 2
,ON,	,___,	Zone 3
,ON,	,___,	Zone 4
,ON,	,___,	Zone 5
,ON,	,___,	Zone 6
,ON,	,___,	Zone 7
,ON,	,___,	Zone 8

[42] Group A Access Code Assignment   *Page 34*

If a Zone Light is ON, then that Access Code is assigned to Group A. **Access Codes 9 through 16 are permanently assigned to Group A. The Master Code (Access Code 1) must be assigned to both Group A and Group B in order for split arming to function properly.**

Default

‚ON‚ ‚___‚   Access Code 1
‚ON‚ ‚___‚   Access Code 2
‚ON‚ ‚___‚   Access Code 3
‚ON‚ ‚___‚   Access Code 4
‚ON‚ ‚___‚   Access Code 5
‚ON‚ ‚___‚   Access Code 6
‚ON‚ ‚___‚   Access Code 7
‚ON‚ ‚___‚   Access Code 8

[43] Group B Access Code Assignment   *Page 34*

If a Zone Light is ON, then that Access Code is assigned to Group B. **Access Codes 9 through 16 cannot be assigned to Group B. The Master Code (Access Code 1) must be assigned to both Group A and Group B in order for split arming to function properly.**

Default

‚ON‚ ‚___‚   Access Code 1
‚ON‚ ‚___‚   Access Code 2
‚ON‚ ‚___‚   Access Code 3
‚ON‚ ‚___‚   Access Code 4
‚ON‚ ‚___‚   Access Code 5
‚ON‚ ‚___‚   Access Code 6
‚ON‚ ‚___‚   Access Code 7
‚ON‚ ‚___‚   Access Code 8

[44] Number of Rings Before Answer and Downloading Configuration *Page 35*

This section configures the system for downloading functions. Program the number of rings to be allowed before the system will answer an incoming call from the downloading computer with Zone Lights 1 through 4. To turn a Zone Light ON or OFF, press its corresponding number key. If the light is OFF when the key is pressed, the light will come ON; if the light is ON when the key is pressed, the light will be shut OFF.

The default setting for the number of rings is **15**. The minimum number of rings is 1; at least one light must be ON. The maximum number of rings is 15 (all lights ON).

Number of Rings

Default

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	**15**
Zone Light 1	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On
Zone Light 2	Off	On	On	Off	Off	On	On	Off	Off	On	On	Off	Off	On	On
Zone Light 3	Off	Off	Off	On	On	On	On	Off	Off	Off	Off	On	On	On	On
Zone Light 4	Off	Off	Off	Off	Off	Off	Off	On	On	On	On	On	On	On	On

Default			*Zone Light ON*	*Zone Light OFF*
ON	___	Zone Light 1	Set light patterns for number of rings as described in table above.	
ON	___	Zone Light 2	Minimum number = 1	
ON	___	Zone Light 3	Maximum number = 15 (all lights on)	
ON	___	Zone Light 4	At least one light must be on.	
OFF	___	Zone Light 5	Downloading enabled	Downloading disabled
OFF	___	Zone Light 6	User initiated call up	No user initiated call up
OFF	___	Zone Light 7	Answering machine connected	No answering machine
OFF	___	Zone Light 8	Call back enabled	Call back disabled

[45] Double Call Timer *Page 35*

Default

0, 6, 0   ___ Enter a 3-digit time, in seconds, from 001 to 255.

[46] Panel Identification Code *Page 35*

Default

2, 5, 8, 1   ___

[47] Downloading Access Code *Page 35*

Default

2, 5, 2, 5   ___

[48] Downloading Telephone Number *Page 35*

___

[49] Printer Configuration *Page 36*

Default			Zone Light ON	Zone Light OFF
OFF	⌐	Zone Light 1	110 baud	Not 110 baud
OFF	⌐	Zone Light 2	300 baud	Not 300 baud
ON	⌐	Zone Light 3	1200 baud	Not 1200 baud
OFF	⌐	Zone Light 4	Printer only	Printer and normal communication
OFF	⌐	Zone Light 5	See note	Printer and normal communication
OFF	⌐	Zone Light 6	RTS: PIN 4 or DTR: PIN 20	SRTS: PIN 11
OFF	⌐	Zone Light 7	*For future use*	*For future use*
OFF	⌐	Zone Light 8	*For future use*	*For future use*

NOTES:

If Zone Light 5 is ON and Zone Light 4 is OFF: All items whose reporting codes are programmed for Communications Buffer 1 will be communicated to the monitoring station AND printed on the printer. All items whose reporting codes are programmed for Communications Buffer 2 will NOT be communicated to the monitoring station but will be printed on the printer.

If Zone Lights 4 and 5 are OFF: All items whose reporting codes are programmed for Communications Buffer 1 or 2 will be printed on the printer and communicated to the monitoring station.

If Zone Light 4 is ON: All items whose reporting codes are programmed for Communications Buffer 1 or 2 will be printed on the printer but will not be communicated to the monitoring station. In this case it is assumed that telephone lines are not connected. DO NOT disable the communicator. The First System Option Code, Zone Light [1] must be OFF. To avoid TLM trouble, program Second System Option Code Zone Light [1] to be ON.

NOTE: In order to properly program the baud rate, only *one* zone light - either 1, 2 or 3 - should be ON.

[89] Print Event Buffer *Page 36*

[90] Installer Lockout Enable *Page 36*

Enter [90][Installer's Code]

[91] Installer Lockout Disable *Page 37*

Enter [91][Installer's Code]

[99] Factory Default *Page 37*

Enter [99][Installer's Code]
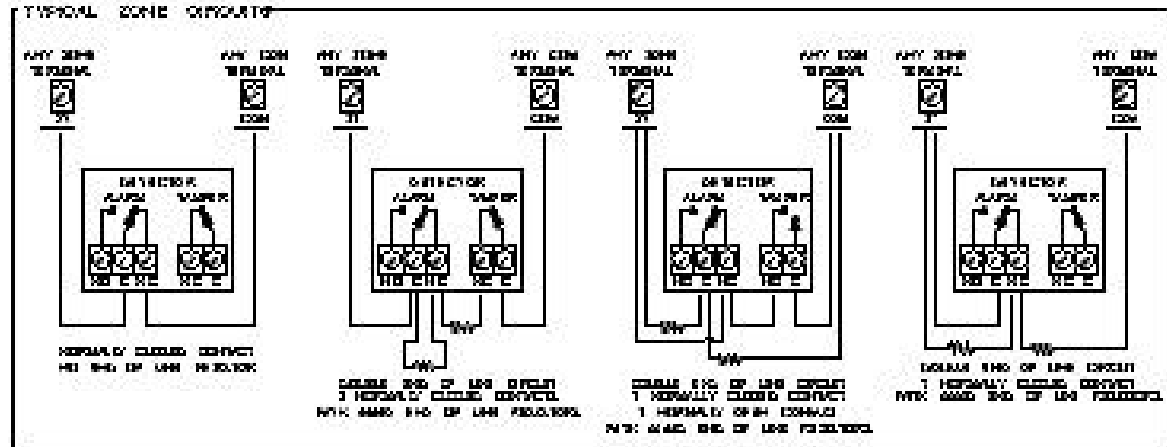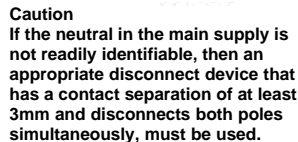
LIMITED WARRANTY

Digital Security Controls Ltd. warrants that for a period of twelve months from the date of purchase, the product shall be free of defect in materials and workmanship under normal use and that in fulfilment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. This warranty contains the entire warranty. Digital Security Controls Ltd. neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

In no event shall Digital Security Controls Ltd. be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.
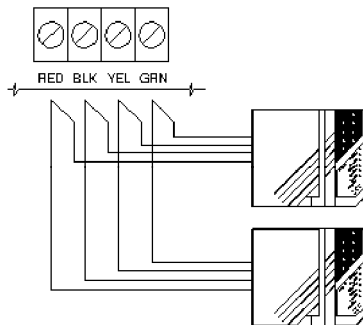
WARNING: Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

HOOK-UP DIAGRAM

Caution
If the neutral in the main supply is not readily identifiable, then an appropriate disconnect device that has a contact separation of at least 3mm and disconnects both poles simultaneously, must be used.

Connect to main terminal ground to comply with IEC950 installation

KEYPAD AND FIRE CIRCUIT WIRING INFORMATION

Keypad Hook-up Diagram and Wiring Chart

1 Each keypad has four coloured leads: red (RED), black (BLK), yellow (YEL) and green (GRN). Connect the leads to the corresponding terminals on the control panel.

2 Up to 5 keypads may be connected in parallel. Do not connect multiple keypads on the same loop.

3 The wiring chart provides the maximum wire run for various wire gauges. Wire run lengths are calculated for the keypad's maximum current draw (when all keypad lights are ON).

4 For stand-by loading purposes, it is recommended that a current draw of 20mA per keypad be used. 20mA represents the control panel in the disarmed state with two zones in alarm. **NOTE: If more that three keypads are connected, subtract 60mA from the maximum AUX supply for each keypad in excess of three.**

NOTE: If two wires of the same gauge are paralleled, the run length may be doubled. For example, if eight 22AWG wires (2 RED, 2 BLK, 2 YEL and 2 GRN) are run to the keypad, the run length may be doubled from 540 feet (164.5 m) to 1080 feet (329 m).

KEYPAD WIRING CHART

Wire Gauge	Maximum Run Length Keypad to Panel (feet/metres)
AWG24	330 / 100
AWG22	540 / 164
AWG20	850 / 259
AWG19	1000 / 305
AWG18	1360 / 414

Fire and Bell Circuit Wiring Charts

BELL LOOP WIRING CHART

Loop Current mA	AWG 14	AWG 16	AWG 18	AWG 19	AWG 22
	Maximum Run to EOL Resistor (ft/m)				
50	2750/838	1740/530	1090/332	869/264	433/131
100	1375/419	870/265	545/166	435/132	217/66
200	690/210	435/132	270/82	217/66	108/33
300	460/140	290/88	180/55	144/33	144/33
400	345/105	215/65	135/41	108/33	54/16
500	275/83	170/52	105/32	86/26	43/13
600	230/70	140/43	90/27	72/22	36/11
700	195/59	125/38	80/24	62/19	30/9

ALARM INITIATING LOOP WIRING CHART

Wire Gauge	Maximum Run to End of Line Resistor (feet/metres)
AWG14	15500 / 4724
AWG16	9740 / 2968
AWG18	6120 / 1865
AWG19	4860 / 1481
AWG20	3840 / 1170
AWG21	3060 / 932
AWG22	2420 / 737

SMOKE DETECTOR POWER LOOP WIRING CHART

Loop Current mA	AWG 14	AWG 16	AWG 18	AWG 19	AWG 22
	Maximum Run to End of Line Relay (feet/metres)				
50	4750/1448	3000/914	1880/573	1500/457	750/229
100	2375/724	1500/457	940/287	750/229	370/113
200	1190/363	750/229	470/143	370/113	185/56
300	790/241	500/152	310/94	250/76	120/37
400	595/181	375/114	235/72	185/56	90/27

APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them.
S/5054/3/R/503183
DSC PC2580 REN = 1.5

29002104 R1

INSTALLATION
MANUAL

DSC™
Security Products

PC258O
Version 1.4

Important Information Relating to the Connection of this Equipment to the Telephone Network

1 This equipment is approved for connection to the Public Switched Telephone Network (PSTN) via direct exchange lines offering LD (pulse) or MF (tone) dialling facilities. The equipment is capable of dialling in both modes.

2 This equipment has a ringer equivalence number (REN) of 1.5.

The REN indicates how many telephone or other types of equipment may be connected to your telephone line simultaneously. This may be calculated by adding up all the REN values of the equipment connected to the line. A standard telephone can operate correctly if the total is 4 or less. If you exceed this number, some or all of the bells or ringers may not operate correctly. In an installation with ringing detectors or bells of mixed types, it is not possible to guarantee correct operation even with a REN total of less than 4.

3 During dialling, this equipment may tinkle the bells in other telephones sharing the same line. This is not a fault and we advise you not to call the Fault Repair Service.

4 It is strongly recommended that this equipment has the exclusive use of a direct exchange line. This equipment is capable of automatically answering an incoming call (see Section [44] of the Programming Guide). If this feature is enabled and the system is connected to a non-exclusive exchange line, the number of rings before answering must be left at the maximum (15). Using setting outside of the above will invalidate the approvals for this equipment.

5 Only the Network Operator, or a person authorised by the network operator is allowed to make the connection from this apparatus to the PSTN.

6 The approval of this equipment for connection to the PSTN is **INVALIDATED** if the apparatus is subject to any modification in any material way not authorised by BABT or is used with or connected to internal software that has not been formally accepted by BABT. Use with external control software or apparatus that causes the operation of the integral modem or call setup equipment to contravene the requirements of the standards for approval as designated.

All apparatus connected to this equipment and thereby connected directly or indirectly to the PSTN must be approved in accordance with Section 16 of the Telecommunications Act 1981.

7 It is important that the installer verifies the correct operation of stored telephone numbers subsequent to their entry.

8 The connection to this equipment consist of:

Mains (AC) power	Excessive voltage circuit
Telephone line	TNV circuit
All other connections	SELV (Safety Extra-Low Voltage) circuits

This equipment is only to be installed and serviced by qualified personnel. The main cabinet contains circuits working at excessive voltages (240VAC mains) and must be kept securely closed to prevent unauthorised access. All connections to mains circuitry must comply with current IEE regulations. This equipment is intended to be supplied from a 220-250V 50Hz AC supply rated at 0.5A or greater.

9 This equipment is not suitable for use as an extension to a payphone.

10 This equipment has been approved for the use of the following features:

Auto Dialling
Auto Answering
Repeat Attempt Dialling
Tone Detection
Series Connection Facility
Modem Facility
Alarm Dialling and Signalling Facility

Any other usage will invalidate the approval of this apparatus if as a result it then ceases to comply with the standards against which approval was granted.

11 Series Connection ("line interrupt"). This equipment has been approved for series connection. The equipment will induce a 12mV drop at 40mA in the loop connection between the main apparatus (e.g. a telephone) and the PSTN.
If the equipment connected in series with this apparatus requires a shunt wire (3 wire connection), it will be necessary for the installer to make this connection within the control panel. Refer to Connection Details for more information.

Only one series apparatus may be connected between the PSTN and the main apparatus (e.g. a telephone).

12 All connections to the PSTN must be via 0.4 - 0.6mm solid copper core conductors suitable for connection to 2.8mm diameter screw terminals. Standard core cable is not acceptable.

13 Due to the lack of echo suppression tone, this apparatus may not be suitable for dialling international calls.

14 The definition of a Relevant Branch System (RBS) can be found in BS6789 Section 6.1:1986 Clause 2.4.

15 When using this system behind a PABX it may be necessary to insert a PSTN access digit (e.g. 9) before the number that you wish to dial.

This manual is for use with PC2580 Software Version 1.4

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