# • WARNING •

This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer.

# Installation Manual



#### FCC COMPLIANCE STATEMENT

<u>CAUTION</u>: Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

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

- · Re-orient the receiving antenna
- · Relocate the alarm control with respect to the receiver
- · Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

#### IMPORTANT INFORMATION

FCC Registration Number: F53CAN-22830-KX-N

Ringer Equivalence Number: 0.2B, USOC Jack: RJ-31X

<u>MALFUNCTION OF THE EQUIPMENT</u> In the event that this equipment should fail to operate properly, the customer shall disconnect the equipment from the telephone line to determine if it is the customer's equipment which is not working properly, or if the problem is with the telephone company network. If the problem is with this equipment, the customer shall discontinue use until it is repaired.

<u>TELEPHONE CONNECTION REQUIREMENTS</u> Except for the telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and telephone company provided jacks, or equivalent, in such a manner as to allow for easy, immediate disconnection of the terminal

AVIS: L'étiquette de l'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Industrie Canada n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur. Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, les lignes téléphoniques et les canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

**AVERTISSEMENT:** L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

L'indice de charge (IC) assigné a chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.

L'Indice de charge de ce produit est 2.

equipment. Standard jacks shall be so arranged that, if the plug connected there is withdrawn, no interference to the operation of the equipment at the customer's premises which remains connected to the telephone network shall occur by reason of such withdrawal.

INCIDENCE OF HARM Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practicable, notify the customer that temporary disconnection of service may be required; however, where prior notice is not practicable, the telephone company may temporary discontinue service if such action is deemed reasonable in the circumstances. In the case of such temporary discontinuance, the telephone company shall promptly notify the customer and will be given the opportunity to correct the situation. The customer also has the right to bring a complaint to the FCC if he feels the disconnection is not warranted.

CHANGE INTELEPHONE COMPANY EQUIPMENT OR FACILITIES The

Telephone Company may make changes in its communications facilities, equipment, operations or procedures, where such actions is reasonably required and proper in its business. Should any such changes render the customer's terminal equipment incompatible with the telephone company facilities the customer shall be given adequate notice to the effect of the modifications to maintain uninterrupted service.

**GENERAL** This equipment should not be used on coin telephone lines. Connection to party line service is subject to state tariffs.

**RINGER EQUIVALENCE NUMBER (REN)** The REN is useful to determine the quantity of devices that you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5). To be certain of the number of devices that you may connect to your line, you may want to contact your local telephone company.

**EQUIPMENT MAINTENANCE FACILITY** If you experience trouble with this telephone equipment, please contact the facility indicated below for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

Digital Security Controls Ltd. 160 Washburn St.Lockport, NY 14094

**NOTICE:** The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. Industry Canada does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

User should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**CAUTION**: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

The Load Number of this unit is 2.

T hank you for purchasing the DSC Escort5580 module. When connected to the main control panel, the module turns any touchtone telephone – local or remote – into a fully functional keypad. Once activated, the Escort5580 will act as a guide for the user. The Escort5580 will prompt the user through clear, easy to understand sentences, telling them what the next key entry should be to perform the various functions available.

In addition to an expanded library of over 250 system words, a powerful "say number" command has been added to the Escort5580. This new feature allows any number between zero and 999 to be said in three different ways. Up to six words can be used for Zone Labels, Automation Items, Automation Modes and System Labels, thereby enhancing the Escort5580's versatility.

A new feature on the Escort5580 is zone follower. This feature allows the Escort to turn items (such as lights) to turn on when a zone is opened.

T he module also has a built-in line carrier interface. This feature allows the module to control up to 32 line carrier automation type items for lighting control, other home automation features. Automation items can be can be turned on by the user, or by the Escort with schedules, panel events and/or modes. A full range of dimming levels are also available for lighting control.

 $W_{\rm e}$  are confident that you and your customer will discover that the Escort5580 module is the most useful alarm control panel enhancement product available on the market today.

 $W_{
m e}$  welcome your input. Please send your comments to:

Digital Security Controls c/o Escort5580 Product Manager 1645 Flint Road, Downsview, Ontario Canada M3J 2J6

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# System Introduction

SECTION

## 1.1 Specifications

### Escort5580 Module

- Current draw: 150 mA operating, 65 mA standby
- Voltage 12Vpc

#### **Voice Prompting**

- All prompts are in complete sentences using a pleasant, easy to understand female voice
- Panel status is constantly announced, when applicable, including bypass, trouble, alarm memory and zone status.

### Library

- 250+ system words
- 240+ words for programming labels
- Powerful 'say number' command can announce any number from 0 through 999 in three different ways

#### **Programmable Labels**

- System Zone Labels
- Automation Item Labels
- Mode Labels
- Miscellaneous System Labels
- System Partition Labels

#### **Automation Control**

- Requires the connection of the PL-513 or PSC04 X-10 controller module
- Control up to 32 line carrier X-10 Automation Items
- A full range of dimming levels for lighting control
- Global ON/OFF command

#### **Additional Features**

- Manual control of Automation Items
- 16 schedules with ON Time, OFF Time and Day of Week Mask
- 8 user-controlled modes
- Event-activated control of Automation Items for any PGM Output option supported by the main control panel

### **Downloading**

 All Escort5580 programming can be done via DLS-1 v6.5 or higher software

### 1.2 About this Manual

In this manual, Escort voice messages are printed in bold and are enclosed in quotes, as shown here:

## "Enter your access code"

You can program labels for the Escort to announce when it refers to things such as zones and partitions (e.g. "East wing" instead of "Partition 2"). Some sections give examples of programmed labels. These examples are enclosed in brace brackets, as shown here:

"Program the Escort5580 to announce an appropriate label, such as {Holiday Mode} for mode 01. "

When instructed to press a key or keys, symbols for the keys will be enclosed in square brackets, as shown here:

Enter [★]

S E C T I O N 2

Follow these steps to install the Escort 5580. Review the installation and programming sections of this manual before you begin.

## 2.1 Installation Steps

### Step 1: Mount the Escort5580 Module

Mount the Escort5580 module in the same cabinet as the main control panel using the nylon standoffs provided. You can mount the module in a separate cabinet, but it must be located close to the control panel in order to hook up the telephone line.

### Step 2: Connect the Keybus (Section 2.2)

Connect the 4 wire Keybus according to the diagram in *Section 2.2 "Keybus Wiring"*.

# Step 3: Telephone Line Connection (Section 2.3)

Connect the incoming telephone line according to the diagram in Section 2.3 "Telephone Line Wiring".

# Step 4: Enroll the Escort5580 Module (Section 2.4)

Enroll the Escort5580 module according to the guideline provided in *Section 2.4 "Enrolling the Escort5580 Module"*.

# Step 5: Connect the PL-513 or PSC04 Controller (Section 2.5)

If you will be adding automation items to the system, connect the PL-513 or PSC04 Controller according to the diagram in *Section 2.5 "Connecting the PL-513 or PSC04 Controller"*.

## Step 6: Program the Escort5580

You can program the Escort5580 via any local touchtone telephone. Follow the guidelines in *Section 4 "How to Program"*. You can also program the Escort5580 using DLS-1 v6.5 or higher downloading software. Refer to the DLS-1 manual for more information.

## Step 7: Test the System

Test the Escort5580 using both local and remote telephones. Check all programmed labels and the operation of all functions including automation items, if connected.

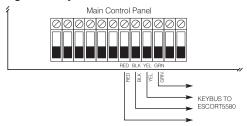


Remote Access will be disabled on all UL listed systems.

## 2.2 Keybus Wiring

The Escort5580 module has 4 terminals marked Keybus (red, black, yellow and green). Connect these terminals to the 4 terminals on the main control panel marked Keybus (red, black, yellow and green).

Figure 1: Keybus Connection



## 2.3 Telephone Line Wiring

The Escort5580 module has 4 terminals for the telephone line connection (TIP, RING, T1 and R1). The wiring must be as follows:

- Main Control Panel TIP and RING incoming line
- Main Control Panel T1 and R1 Escort5580 TIP and RING
- Escort5580 T1 and R1 house phones

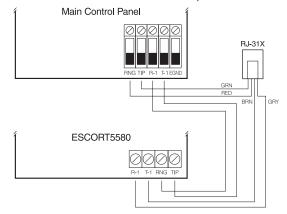


Figure 2: Telephone Connection

# 2.4 Enrolling the Escort5580 Module

The Escort5580 will function properly as soon as all wiring is complete and power is applied. However, to fully supervise the Escort5580 from PC5010 v1.x control panels, you need to follow these steps:

### Procedure on the PC50XX v1.x

- 1. Wire the Escort5580 module to the Keybus and telephone line.
- At a keypad, enter [★][8][Installer's Code] to enter Installer Programming.
- Enter section [902], then press [#] to exit Installer Programming. The panel will automatically search for all modules on the system. The search takes approximately 1 minute. From this point on, if any modules are removed from the system, a Supervisory Trouble will be generated.
- To confirm supervision, re-enter Installer Programming and then enter section [903]. On LED keypads, light 24 ON represents successful Escort5580 supervision. On LCD keypads, the description "Escort5580" will be displayed if successful.
- If this is not successful, check all wiring to the Escort5580.

# 2.5 Connecting the PL-513 or PSC04 Controller

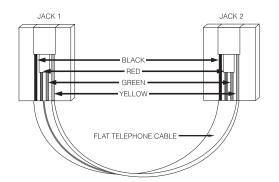
The RJ-11X telephone jack on the Escort5580 is for connecting the PL-513 or PSC04 Controller. Use an RJ-11X connector cable to connect the Escort5580 to the PL-513 or PSC04. Plug the PL-513 or PSC04 Controller module into any unswitched AC outlet. Connect automation items for lighting, outlet and temperature control. These items plug into AC outlets located throughout the installation.

The PL-513 or PSC04 Controller receives commands from the Escort5580 module and sends out signals to control the various automation items connected.

The following diagram shows the cable currently required for connecting the Escort5580 to the PL-513 or PSC04. With the jacks side by side (tabs facing up), the colours of the wire in each jack will appear in the same order from left to right. This cable is called a "Straight Through Cable" as per telephone industry standards.



Please do not use a "Swapped",
"Flipped" or "Crossover" cable as it
will not work with the Escort5580. To
verify whether you have the correct
type of cable, plug in the PSC04
(PL513). The red LED should turn ON.
Connect the telephone cable to both
the PSC04 (PL513) and the Escort5580
If the LED on the PSC04 (PL513) turns
OFF and remains unlit, you are using
the wrong type of cable.



# How to Program

### S E C T I O N 3

The following sections describe how to program the Escort5580. All Escort5580 programming can be done via any local touchtone telephone or via the DLS software.



It is extremely important that you read this section of the manual completely before attempting to program the Escort5580 module.

# 3.1 Entering Installer Programming With the system disarmed:

Pick up a local telephone handset. You will hear:

#### Dial Tone.

 Enter the Telephone Access code. The default Telephone Access code is [\*\*\*]. (You can reprogram this code in section [020].) The system prompts:

#### "Hello"

Enter programming mode by pressing [★][8].
 The system prompts:

### "Enter the Service Code"

4. Enter the 4-digit Service code. The default service code is [5580]. (You can change the service code in programming section [001].) After the service code is entered, the system prompts:

# "Enter a Section Number. To exit, press [#]"

5. To enter a programming section, enter the 3-digit number of the section. If you make an error entering the section number, the system prompts:

## "Invalid entry. Enter a Section Number. To exit, press [#]"

When you enter a section number, the system announces the section you have entered with the prompt:

### "Section (number)"

# 3.2 Programming Data Entry Sections

To program a data entry section from the Escort 5580 programming mode:

- 1. Enter the 3-digit section number.
- 2. The system announces the section you have entered with the prompt:

### "Section (number)"

The system announces the data presently programmed in the programming section as:

### "Data is (data)"

The system then prompts:

### "Enter new data"

 Enter the new data in the section, or return to the "Enter a Section Number" prompt, by pressing [#].

When you have finished entering the new data, the system announces the new data with the prompt:

### "Data is (data)"

If you make an invalid data entry, the system announces:

## "Invalid Entry. Data is (data). Enter new data. To exit, press pound."

4. Record the new data in the appropriate section of the Programming Worksheets.

# 3.3 Programming Toggle Option Sections

To program a section with toggle options from the Escort5580 programming mode:

- 1. Enter the 3-digit section number.
- 2. The system announces the section you have entered with the prompt:

## "Section (number)"

The system announces which options are presently turned ON with one of the following prompts:

"All options are off"
"All options are on"
"Option (number) is on"

"Options (numbers) are on"

The system then prompts:

# "Enter two digit option. To Exit, press pound"

3. To exit the section without making any changes, press [#].

To turn an option ON or OFF, enter the 2-digit option number.

If you enter an invalid option number, the system prompts:

## "Invalid entry"

After you enter a valid option number, the system again announces which options are ON.

- 4. When you have finished programming the options in the section, press [#]. The system returns to the "Enter a Section Number" prompt.
- Record your new programming choices in the appropriate section of the Programming Worksheets.

# 3.4 Programming Label Entry Sections

To program or change a label:

 Enter the section number of the label. The system announces the section number and then recites the words presently programmed in the label. Each label may have up to six words. The system then prompts:

# "Enter three digit word. To exit, press pound".

Enter the first word of the label using the 3-digit codes from the Label Library in Appendix B of the Programming Worksheets.

The system beeps at the end of each correctly entered code and the system prompts:

# "Enter three digit word. To exit press pound"

If you make an invalid entry, the system prompts:

# "Invalid entry. Enter three digit word. To exit press pound"

- 3. If you have more words to program, enter the 3-digit code of each word until you are finished.
- 4. When you have entered six words, the system will recite the label. If your label is less than six words, press [#].
- To have the system read the new label to you, enter the programming section for the label again.
- 6. If the label is correct, press [#]. To change the label again, repeat steps 1-5, above.

7. Record the new label in the appropriate section of the Programming Worksheets.

#### **Adding Numbers to Labels**

Three special Number Commands are available to allow the system to include a number in the voice label. The number commands allow the system to announce the number in three different modes:

**Label 000: Number Command 1, Combined Form.** The number will be announced in its full form. For example, the number 401 would be announced as "four hundred and one".

**Label 001: Number Command 2, Ordered Form.** The number will be announced in a descriptive form. For example, the number 401 would be announced as *"four hundred and first"*.

**Label 002: Number Command 3, Individual Numbers.** Each digit in the number will be announced individually. For example, the number 401 would be announced as "four zero one".

The number commands take up two of the six available word spaces in a label. In the first space select the type of announcement for the number (Number Command 000, 001 or 002). In the second space program the 3-digit number to be read (from 000 to 999).



Because number commands take up 2 label spaces, you cannot program them in the sixth entry spot for a label.

	ion Item Labels		
Mode La	abels	Sections	[521] - [528]
Commar	nd Output Labels	Sections	[545] - [548]
Partition	Labels	Sections	[561] - [562]
Zone La	bels	Sections	[601] - [633]

# 3.5 Reviewing Programming

To review the current programming for a section enter the 3-digit section number. The Escort5580 will announce the data programmed. If the programming is correct press [#] to exit the section, otherwise enter the correct data.

# 3.6 Exiting Programming

When the Escort5580 announces *"Enter Section Number"*, press the [#] key.

# Escort5580 Access Programming

S E C T I O N 4

# 4.1 Accessing the Escort5580 Locally

To access the Escort5580 locally, pick up any local touchtone telephone and enter the three digit Telephone Access Code (default [\*\*\*]). The Escort5580 will seize the line and announce

#### "Hello."

If the Access Code Required for Local Access option is enabled (section [021], option [02]) the Escort5580 will announce

## "Enter your Access Code."

Invalid access codes count towards the Main Panel Keypad Lockout, if enabled (see your system's Installation Manual).

The Escort5580 will function even if the telephone line is disconnected. The panel monitors the telephone line and if it senses an interruption to the external telephone line connection it will tell the Escort5580 to provide the current required so that the Escort5580 will continue to function locally. For this to operate properly, enable Telephone Line Supervision on the control panel (see your system's Installation Manual).



For UL Listed installations, Local Access Only (section [021]) must be enabled.

4.2 Accessing the Escort5580 Remotely



Remote Access will be disabled on all UL listed systems.



Downloading Answer Enabled must be ON in Section [401] of the PC50XX OR section [71] of the PC1575/PC1580 for Remote Access.

If the **Remote Access** option (section [021], option [01]) is enabled the Escort5580 users can access the system from any touchtone telephone in the world.

- Call the telephone number the Escort5580 is connected to.
- 2. Let the telephone ring one or two times.
- Hang up and wait 10 seconds before calling again. The Escort5580 will answer after the first or second ring and announce

### "Hello."

4. Enter the 3-digit Telephone Access Code. If this is not entered within 10 seconds the Escort5580 will announce

## "Goodbye,"

and hang up. Once the correct code has been entered, the system will prompt,

## "Enter your Access Code."

 Enter a 4- or 6-digit access code. The Escort5580 will begin to announce the status of the system. If you do not enter an access code within 20 seconds, or if you enter it incorrectly 3 times, the Escort5580 will announce

## "Goodbye,"

and hang up. Invalid access codes count towards the Main Panel Keypad Lockout, if enabled (see your system's Installation Manual).

# 4.3 Global or Partition Operation

If you are connecting the Escort5580 to a system with 2 partitions, you can program the Escort to allow access to both partitions (global operation), or to only one partition.

## **Global Operation**

If the security system has been set up with 2 partitions, enable the **Access Code Required for Local Access** option (section [021], option [01]). Enabling this option ensures that users can only access partitions they have permission for.

When a user accesses the Escort5580, it will automatically determine which partition(s) to select from the access code entered. (E.g. if the access code entered only works on partition 1, the Escort will allow access to partition 1 and begin to announce its status.)

If the access code entered has permission for both partitions, the Escort5580 will prompt:

# "To select (System), press [1]." "To select (Partition 2), press [2]."

Once the user presses [1] or [2], the Escort5580 will grant access to the selected partition and begin to announce its status.

If the partition is in Ready mode, the Escort5580 will prompt either:

"To select (System), press [#], then [1]."

# "To select {Partition 2}, press [#], then [2]."

This allows the user to select the other partition if their access code has permission for both partitions.

### **Partition Operation**

If you need to prevent all users from having local access to either of the partitions through the Escort5580, disable Escort access to that partition in section [002], options [01-02].



# Do not disable access to both partitions.

## 4.4 Receiving Incoming Calls

If a user is accessing the Escort5580 locally, and an incoming call is detected, the Escort5580 will announce:

# "Attention: you have an incoming call. To receive the call, press [#] now."

If the user presses [#], the Escort5580 will connect them to the incoming call. If the user does not press [#], they will continue to have access to the Escort5580.

# 4.5 Programming Audio (User) Help

If the security system has an audio matrix module (PC59XX and intercom stations) connected to it, the Escort5580 can provide step-by-step audio instructions to users through the intercom stations.

### **General Voice Prompted Help**

You can program one of the keypad function keys to initiate voice prompted user help over *all* intercom stations. Refer to your system's Installation Manual for more information. When you program a function key for General Voice Prompted Help, it will work in the following way:

- 1. Press the Help function key on the keypad
- 2. The Escort5580 will page all intercom stations.
- Press the Page/Answer button on one of the stations (this button must be pressed within 5 seconds for the feature to work). This links the stations to the Escort5580. The Escort5580 announces audio help prompts over the intercom stations.

## **Identified Voice Prompted Help**

You can program one of the keypad function keys to initiate voice prompted user help over intercom station beside the keypad. Refer to your system's Installation Manual for more information. Use Identified Voice Prompted Help for function keys on LCD keypads. When you program a function key for Identified Voice Prompted Help, it will work in the following way:

- 1. Press the Help function key on the keypad
- 2. The Escort5580 announces audio help prompts over the intercom station beside the keypad.



If a user is accessing the Escort locally over the telephone line, the Help function key will not work.

# General Escort5580 Programming

S E C T I O N 5

This section explains the basic options available on the Escort5580. Automation Item programming is explained in section 6.

# 5.1 Programming Escort5580 Prompts

The Escort5580 is designed to make the security system easier for the user by reminding users of available commands. For example, after a user accesses the system, they can press [\*] and the Escort will announce the [\*] commands that are available.

Turn on only the prompts that apply to the system you are installing. This will help avoid confusion for the users. The options in section [004] only effect the Escort [★] prompts: if a prompt is disabled, users will still be able to enter the command it refers to.

Section [003] determines which Status prompts the user will hear. If an option is "ON", the system will announce the prompt when the appropriate condition is present. If an option is "OFF", the system will not announce the prompt if the condition is present.

Status Prompt Mask.		Section	[003]
[★] Function Prompt N	Mask	Section	[004]

# 5.2 Changing the Telephone Access Code

The default Telephone Access Code is [\*\*\*]. You can change this to any 3 digit code using numbers 0 through 9 as well as the [\*] and [\*] keys.



Avoid programming this code as a valid 3 digit area code or telephone service. Avoid numbers such as [911], [411], [611] or [0XX]. Do not try to exit this section by pressing [#], it will be accepted as a valid digit. To exit, program all 3 digits of the code.

Telephone Access Code ...... Section [020]

# 5.3 Changing Local Programming Lockout

The Escort5580 can be programmed locally through any touchtone telephone. The **Local Programming Lockout Counter** determines the number of incorrect Service codes before local programming lockout occurs. If the number of incorrect Service codes are entered the Escort5580 will lock out programming for the number of minutes programmed in **Local Programming Lockout Duration**. When locked out the Escort5580 will not allow local programming for the duration even if the correct Service code is entered. Programming via the DLS can still be performed if local programming lockout is active.

Section	[005]
Section	[006]
Section	[001]
	Section Section Section

## 5.4 Programming the Clock

To have the Escort announce the time in am/pm format (e.g. 9:00am), turn on section [002], option [06]. To have the Escort announce the time in 24-hr format (e.g. 21:00), turn off section [002], option [06].

Clock is AM/PM ...... Section [002]: [06]

# Automation Item Programming

S E C T I O N 6

Using the Escort5580, users can control up to 32 items such as lights, outlets and window blinds. The Escort5580 controls automation items (lights, outlets, blinds, etc.) through a PL-513 or PSC04 Controller module (see section 2.5 for connection information).

Read sections 6 to 8 carefully before programming automation items.

## 6.1 Enabling Home Automation

For automation items to work, enable the **Home Automation** feature in section [002], option [03]. You will also need to program each automation item individually, as described in section 6.2, "Programming Automation Item Operation".

Users will be able to control automation items through the [\*][5] menu. For additional security, enable the [\*][5] requires an Access Code option. If enabled, the Escort5580 will prompt

#### "Enter Your Access Code"

after the user enters [\*][5]. If **No Access Code Required for [\*][5]** is enabled, the Escort5580 will immediately enter the automation item control menu. To control the automation items, the PL-513 or PSC04 Controller transmits signals over the 50 or 60 Hz AC power of the premises. Choose either **50Hz or 60Hz** in section [002], option [05].

Program the **Number of Automation Item Transmissions** that the Escort will send when an automation item is activated. Since Automation transmissions are not confirmed, having the Escort5580 transmit multiple on/off commands to the control modules can increase reliability.



Each transmission takes approximately one second. The larger the number, the slower the automation system will appear to operate.

The default setting is [001], one transmission. Valid entries are [001] to [255]. A setting of [003] will overcome most signal transmission difficulties.

Home Automation Enable Section [002]: [03	]
[★][5] Req. Access Code Section [002]: [04	]
AC=50 or 60Hz Section [002]: [05	]
Number of Automation Item	
Transmissions section [007	]

# 6.2 Programming Automation Item Operation

To tell the Escort5580 how each automation item should work, program the operation of each item to be installed in programming sections [130] through [289]. For each item, you need to program these sections:

- Program the home automation item House Code and Unit Number (see section 6.4)
- Enable the automation item and program various operating options (see section 6.5)
- Select which schedules (if any) the automation item will follow (see section 6.6)
- Select which **modes** (if any) the automation item will follow (see section 6.7)
- Select which panel events (PGM outputs) (if any) the automation item will follow (see section 6.8).
- Select how the item will be activated and deactivated by programming an output condition for the automation item (see section 6.3)

Programming sections [130] through [134] for automation item 01 are described in detail in sections 6.3 to 6.7. Program automation items 02 through 32 in the same manner.

In addition, you may need to program one or more of the following:

- The On Time, Off Time and Days of the Week of each schedule to be used (see section 7.1).
- Zone Follower options, if any automation items will follow zones (see section 6.9).
- Automation Item Pulse Timers, if any automation items will turn on for a short period of time when activated (see section 6.5, option (06)).

- Automation Item Labels, to program what the Escort5580 will say when referring to an automation item (see section 3.4).
- Mode Labels, to program what the Escort5580 will say when referring to a mode (see section 3.4).

# 6.3 Programming How Automation Items are Activated

Automation items can be activated 6 ways.

- manually ([★][5] menu)
- globally ([★][5] menu)
- event initiated
- scheduled
- · scheduled OR event initiated
- scheduled AND event initiated.

#### Manual User Control

Users can control the item through the [★][5] menu. (E.g. to allow manual control for item 1, turn ON section [131], option [02].) The item can still follow schedules or PGM output assignments, if programmed.

See section 6.5, *Programming Automation Item Options* for more information.

#### Global Item User Control

Users can control items included in the Global command through the [\*][5] menu. (E.g. to include item 1 in the Global command, turn ON section [131], option [03].) The item can still follow schedules or PGM output assignments, if programmed.

See section 6.5, *Programming Automation Item Options* for more information.

# **Event Initiated and Scheduled Automation Item Activation**

In addition to manual and global control, you can program automation items to follow pre-set schedules, and/or the state of programmable outputs on the control panel (PGM outputs). PGM outputs can be programmed to activate when events occur. See your system's *Installation Manual* for more information on PGM outputs.

Enter a 2-digit number in sections [134]-[289] to determine how the automation item will operate.

Automation Item Schedule/
Output Condition ......sections [134] - [289]

## (00) Does not follow schedules or PGM outputs

The item will not follow schedules or PGM output assignments.

**(01) Event Initiated (Follows PGM Output Only):** The item will follow the state of its assigned PGM output. See *Assigning Automation Items to PGM Outputs* in section 6.8.

**Example**: Item 1 controls a light. If item 1 is assigned to a PGM programmed to follow alarm status, the light will be on when the system is in alarm, and off when the system is not in alarm.

**(02) Follows Schedule Only:** The item will follow its assigned schedules. See section 6.6, *Assigning Automation Items to Schedules*.

**Example:** Item 1 controls a light. If item 1 is assigned to schedule 3, which activates at 19:00 and deactivates at 22:00 every day, the light will turn on at 7:00pm and off at 10:00pm every day.

(03) Follows Schedule or Event Initiation (PGM Output): The item activates when its assigned schedules are active. The item will also activate when its assigned PGM output is active. If the schedules and the output are active at the same time, the item will also be active. See Assigning Automation Items to Schedules and Assigning Automation Items to PGM Outputs (sections 6.6 and 6.8).

**Example:** Item 1 controls a light. Item 1 is assigned to schedule 3, which activates at 19:00 and deactivates at 22:00 every day and a PGM output programmed to follow alarm status.

The light will be on between 7:00pm and 10:00pm every day. If the system goes into alarm any time, the light will turn on.

**(04) Follows Schedule and Event Initiation (PGM Output):** The item activates only when its assigned schedules are active at the same time as the assigned PGM output is active. See *Assigning Automation Items to Schedules* and *Assigning Automation Items to PGM Outputs* (sections 6.6 and 6.8).

**Example:** Item 1 controls a light. Item 1 is assigned to schedule 3, which activates at 19:00 and deactivates at 22:00 every day and a PGM programmed to follow arming status.

If the system is armed between 7:00pm and 10:00pm, the light will be on during that time. If the system is *disarmed* between 7:00pm and 10:00pm, the light will *be off*, but may still be controlled manually by a user on or off the premises.

# 6.4 Programming the House Code& Unit Number

Each automation item has a unique address selected by dials on the X-10 module. To select the X-10 address, use one dial to select a letter from A through P, and the other dial to select a number from 1 through 16.

To enable the Escort to control the item, program the X-10 address into the Escort5580 as the **Automation Item House Code and Unit Number.** 

Refer to the *Automation Item House Code & Unit Number Chart* located in Appendix B for the 3-digit number that corresponds to the dial settings. Program this 3-digit number into the Escort for each automation item, in sections [130] to [285].

Automation Item House Code & Unit Number ...... Section [130] to [285]

# 6.5 Programming Automation Item Options

Turn options 01-10 in sections [131] - [286] ON or OFF to define how each automation item will work.

#### Option [01]: Item Enabled

Turn this option ON to enable the automation item.

## Option [02]: User controlled On/Off

**User Controlled ON/OFF.** When ON, the user will be able to use the [★][5] command to turn the automation item on or off.

*Example*: the user could access the system from a remote telephone to open the blinds to let their plants get sunlight.

**Not User Controlled.** When OFF, users will not be able to use the [\*][5] command to turn the

automation item on or off. The item may still be controlled by a Schedule or Alarm System Output.

## Option [03]: Global On/Off

Included in Global ON/OFF Command. When ON, the automation item will turn ON or OFF when a user executes the Global Item Control function from the [★][5] command. For this option to work, option (02) User Controlled ON/OFF must be on as well.

Example: the user may have several lights downstairs. At bedtime, the user could turn off all the lights by issuing a Global Off command through the [★][5] menu. All lights included in the Global Command would be turned off.

**Not included in Global ON/OFF Command.** When OFF, the automation item will not be affected by the Global Item Control function.

### Option [04]: Dimming

**Dimming Enabled.** When ON, the user can select any of 6 dimming states for the automation item: ON, OFF, and levels 1 through 4. Only use this option for lights or other items connected to power line modules capable of dimming.

**Dimming Disabled.** When OFF, the user can only select ON or OFF for the automation item.

#### Option [05]: Mode Option

Follows Schedule / Output Condition Always.

The automation item will always follow the Schedule / Output condition programmed in the Item Schedule / Output Condition programming section.

Follows Schedule / Output Condition only when Mode is ON. The automation item will follow the Schedule / Output Condition only when a mode assigned to the item is ON. Use this function for items you want to selectively follow a schedule or PGM output. A lawn sprinkler system is a typical application of this function.

See section 6.3 for more information on Schedule/ Output Condition options. See section 8 for more information on how to program modes.

### **Option [06]: Duration Options**

**Item ON Steady while Active.** When ON, the automation item will remain activated until it is deactivated by the user, a schedule or a PGM output.

**Programmed Pulse when Active.** Use this option to trigger devices requiring a trigger pulse, or to activate an item for a specific length of time. The automation item will be activated for the length of time programmed in the item's **Automation Item Pulse Timer** section (programming sections [301] to [332]). Valid entries are 001 to 255 seconds.



Do not use the Programmed Pulse When Active feature if Dimming is enabled. All pulses turn the automation item ON.

Automation Item

Pulse Timer ..... sections [301] - [332]

## Option [07]: Prompt Option 1

. . . . . . . . . . . . .

*Item prompt is "ON / OFF".* When users enter [★][5], the Escort5580 will announce "ON" or "OFF" for the automation item's ON and OFF states. This prompt would be used for devices such as lights or appliances.

## Option [08]: Prompt Option 2

Item prompt is "OPEN / CLOSED". When users enter [★][5], the Escort5580 will announce "OPEN" and "CLOSED" for the automation item's ON and OFF states. This prompt would be used for applications such as curtains and door openers.

# Option [09]: Prompt Option 3 Item prompt is "SETBACK ON/SETBACK OFF".

When users enter [\*][5], the Escort5580 will announce "SETBACK ON" and "SETBACK OFF" for the automation item's ON and OFF states.



Only turn on one options 07, 08 and 09. If more than one option is ON, the system will use the first enabled option. If none of the options are ON, the system will use option 07.

#### **Option [10]: Zone Follower Option**

**Zone Follower Enabled.** Turn this option ON if the automation item will be following the status of a zone. See section 6.9 for further instructions on programming automation items to follow zones.

Automation Item Options . sections [131] - [286]

# 6.6 Assigning Automation Items to Schedules

There are 16 automation schedules in the Escort5580 which determine the ON time, OFF time and Day Mask. See section 7, Automation Schedule Programming for information on programming the schedules. To program an automation item to follow a particular schedule, turn ON the option corresponding to the number of the schedule (e.g. turning ON only option 01, programs the automation item to follow only schedule number 1).

Schedule Programming .. sections [030] - [077] Automation Item

Schedule Assignment ..... sections [132] - [289]

# 6.7 Assigning Automation Items to Modes

Mode assignment gives users control over groups of automation items programmed for scheduled or event initiated operation. You can assign any automation item to one or more of 8 modes.

Users can turn modes on or off using the [★] [5] command. If the Follows Schedule/Output only if a Mode is ON option (section [133]:[05]) is enabled, when a user turns on one or more modes to which the item is assigned, the automation item will activate at the scheduled times or when an event occurs. If all of the modes an item is assigned to are OFF, the item will not activate.

To assign an automation item to one or more modes:

- 1. Enter the section number corresponding to the automation item ([133] [288]).
- 2. Turn on one or more options corresponding to the mode(s) you want the item to follow.



If you assign an item to more than one mode, the item follows its assigned schedules when any of its assigned modes are ON. To prevent an item assigned to more than one mode from following any of its assigned schedules, ALL the modes assigned to the item must be turned OFF.

**Example:** If the users will be away for a period of time, they can use [\*][5] to turn on a {Holiday mode}.

- Assign automation items such as lights and drapery to a mode (e.g. mode 01).
- Program the schedules and/or programmable outputs for the items in such a way that the premises will appear occupied.
- Program the Escort5580 to announce an appropriate label, such as {Holiday Mode} for mode 01.

When the users turn on mode 01 (Holiday mode), the lights and drapery will activate according to the programmed schedules and PGM output options.

To provide users with an easier method of turning on any mode, see section 8.3 "Programming Modes to Follow PGM Outputs".

Automation Item
Mode Assignment ...... sections [133] - [288]
Follows Schedule/Output
only if Mode On .... sections [131] to [286]: [05]



Program Automation Items 2 through 32 in sections [135] - [289] in the same manner as Automation Item 1 (refer to sections [130]-[134] and the Programming Worksheets for programming instructions).

# 6.8 Assigning Automation Items to PGM Outputs

You can assign an automation item to follow a panel event (e.g. a fire or burglary alarm, or a [★][7][1-4] command). To do this, assign the item to a PGM output programmed to follow the same event. See your control panel Installation Manual for a list of available panel events (PGM output options).

**Example:** if you assign item 1 to follow a PGM output programmed as Command Output 1, the

item will activate or deactivate whenever the user activates the command output (e.g. using [\*][7][1]).

To assign an item to a PGM output:

- Enter the 3-digit section number corresponding to the automation item you want to program [401] - [432].
- 2. Enter the 2-digit number of the PGM output you want the item to follow (01-14).
- If you have assigned item(s) to a PGM output programmed as a Command Output ([\*][7][1-4]), you can program a label for the Command Output in programming sections [545] [548] (Output Control labels). See section 3.4, "Programming Label Entry Sections".



On PC5010 v1.0 control panels, valid entries are (03-14) only. On PC1575/PC1580 v1.0 and higher control panels, valid entries are (01-02) only.



Up to 4 automation items can be programmed to follow any one PGM output on the system.

Automation Item
Output Follower .....sections [401] - [432]

# 6.9 Programming Automation Items to Follow Zones

You can program automation items to turn on when one or more zones are "tripped" (i.e. a door is opened or closed, or a motion detector is triggered). To do this:

- enable the Zone Follower option for the automation item (see section 6.5)
- assign the automation item to one or more zones in section [291].

Program how long the automation item will remain on after the zone(s) is tripped and restored in section [290] **Zone Follower Timer**. There is only one timer and it applies to all the automation items.

# Automation Schedule Programming

S E C T I O N 7

## 7.1 Programming Schedules

Program schedules for controlling automation items in sections [030] - [077]. There are 3 programming sections for each schedule:

- Schedule On Time
- Schedule Off Time
- Day of Week Mask.

On selected days of the week any automation items assigned to the schedule will be turned on at the Schedule On Time and turned off at the Schedule Off Time, which may be the next day.

#### Example:

You want to program automation item 1 (a premises light) to turn ON Wednesday at 9:00pm and turn OFF Thursday at 3:00am. Assign automation item 1 to schedule 1 and program schedule 1 as follows:

ON Time - 2100 OFF Time - 0300

Day of Week Mask - Wednesday ON (Sunday-Tuesday and Thursday-Saturday OFF). See section 6.6 for information on assigning automation items to schedules. See section 9.6 for information on assigning thermostat occupancy settings to schedules.

If the automation item's **Automation Item Pulse Timer** is programmed, the item will be active for the pulse time programmed, then it will turn off. The schedule Off Time will not need to be programmed as it will not affect the output. You will also need to program the automation item to follow the timer. See section 6.5 for more information.

Schedule On Time Schedule Off Time	. Section	[030]	to [075]
Day of Week Mask			
Automation Item Pulse			
Timer			

# Mode Programming

S E C T I O N 8

Mode assignment gives users control over groups of automation items. You can assign any automation item to one or more of 8 modes. Users can turn modes on or off using the [\*][5] menu, or if programmed, [\*][7][1-4] commands.

### 8.1 Automation Items and Modes

Section 6, "Automation Item Programming" explains in detail the programming you need to do to assign automation items to follow modes.

**Example:** The users have a sprinkler system and would like it to follow a schedule on the days the sprinkler is needed.

To set up the system in this example, you would need to:

- Enable and program automation item 1 (the sprinklers).
- Program a schedule (e.g. schedule 1) to be active for the desired time period, every day of the week.
- Assign automation item 1 to schedule 1.
- Assign automation item 1, to a mode (e.g. mode 1).
- Turn section [131], option [05] OFF.

turn the {Sprinkler} mode off.

• Program a label for mode 1 that says {Sprinkler}. When the users turn the {Sprinkler} mode on, the sprinklers will activate according to schedule 1. When the users don't want the sprinklers on, they can



If you assign an item to more than one mode, the item follows its assigned schedules when any of its assigned modes are ON. To prevent an item assigned to more than one mode from following any of its assigned schedules, ALL the modes assigned to the item must be turned OFF.

You can also program modes to be turned on or off by PGM outputs. See section 8.3 for more information.

# 8.3 Programming Modes to Follow PGM Outputs

You can assign any mode to follow a panel event (e.g. a fire or burglary alarm, or a [\*][7][1-4] command). To do this, assign the mode to a PGM output programmed to follow the same event. There can be up to 14 PGM outputs, depending on the control panel.

See your control panel Installation Manual for a list of available panel events (PGM output options).

### Example 1:

If the users will be away for a period of time, they may want to turn on a {Holiday mode}. You can program a mode to control items such as lights and drapery in such a way that the premises will appear occupied. See the example in section 6.7 for a description of programming for a {Holiday mode}.

If you have programmed mode 01 as a  $\{Holiday Mode\}$ , you can assign it to a PGM output programmed as Command Output 1 ([\*][7][1]). Now, when users want to turn ON the  $\{Holiday Mode\}$ , they only need to enter [\*][7][1] at any keypad.

Modes turned ON this way override other modes or schedules that might be running.

**NOTE**: In order for the Escort to announce (Holiday Mode) for a mode or command output, you must program a label for the mode or command output.

## To assign a mode to a PGM output:

- 1. Enter section [292], PGM Mode Enable.
- 2. Enter the 2-digit number of the PGM output you want the mode(s) to follow
- Enter the 2-digit number(s) of the mode(s) you want the PGM output to activate.
- 4. To exit, press [#].

If you assign a mode to a PGM programmed as Command Output 1-4, you can program the Escort5580 to announce a label (e.g. {Holiday mode}) whenever it refers to the Command Output. See section 3.4 for information on programming labels.

PGM Mode Enable ...... Section [292] Command Output Labels Sections [545] - [548]

# Programming Worksheets

S E C T I O N 1 0

System Programming								
[001]			rvice Code					
	Default 5580			Enter 4 decimal digits				
[002]	First S	ystem C	ntions					
[002]	Default		phono	Option ON	Option Off			
	ON		Option 01	Partition 1 Access Enabled	Partition 1 A	ccess Disabled		
	OFF		Option 02	Partition 2 Access Enabled	Partition 2 A	ccess Disabled		
	OFF		Option 03	Home Automation Enabled	Home Auton	nation Disabled		
	OFF		Option 04	[*][5] Requires an access code	No access of	code req'd for [*][5]		
	OFF		Option 05	AC = 50Hz	AC = 60 Hz			
	ON		Option 06	Clock is AM/PM	Clock is 24-l	hour		
	OFF		Option 07	For Future Use				
	OFF		Option 08	For Future Use				
[003]		Prompt	Mask	Onting ON		Ontine Off		
	Default ON		Option 01	Option ON  Warning, Bypass On Prompt e	nablod	Option Off Prompt disabled		
	ON		Option 02			Prompt disabled		
	ON		•	System Open, Zone Prompt enab		Prompt disabled		
	ON		·			•		
			·	Alarms in Memory Prompt ena		Prompt disabled		
	ON		•	Service Required Prompt enable		Prompt disabled		
	ON			AC Power Trouble Prompt enal		Prompt disabled		
	ON		Option 07	-		Prompt disabled		
	ON		Option 08		npt enabled	Prompt disabled		
	ON		·	Zone Fault Prompt enabled		Prompt disabled		
	ON		•	<b>Zone Tamper</b> Prompt enabled		Prompt disabled		
	ON		Option 11	Zone Low Battery Prompt enab	led	Prompt disabled		

ON \_\_\_\_\_ Option 12 *Time and Date Incorrect* Prompt enabled Prompt disabled

Μ М W 0 R Κ s Н Е Е [004] Star Function Prompt Mask Default Option ON Option Off ON Option 01 For Zone Bypassing Prompt enabled Prompt disabled Option 02 For System Troubles Prompt enabled ON Prompt disabled Option 03 For Alarm Memory Prompt enabled ON Prompt disabled ON Option 04 For Door Chime Control Prompt enabled Prompt disabled Option 05 For Automation Control Prompt enabled ON Prompt disabled Option 06 For Special Functions Prompt enabled Prompt disabled ON Option 07 For "Output Control" Prompt enabled ON Prompt disabled ON Option 08 For Arming Without Entry Prompt enabled Prompt disabled ON Option 09 For Quick Arming Prompt enabled Prompt disabled Option 10 For Quick Exit Prompt enabled OFF Prompt disabled Option 11 To Arm Interior Zones Prompt enabled Prompt disabled ON ON Option 12 For Volume Control Prompt enabled Prompt disabled Option 13 For Speech Rate Control Prompt enabled ON Prompt disabled Option 14 For Future Use OFF OFF Option 15 For Future Use Option 16 For User Programming Prompt enabled ON Prompt disabled [005] Local Programming Lockout Counter Default 000 (Valid entries are 000-255 attempts) [006] Local Programming Lockout Duration 000 (Valid entries are 000-255 minutes) 1 1 1 1 [007] Number of Home Automation Transmissions 001 (Valid entries are 000-255 powerline transmissions) 1 1 1 1 Telephone Access Programming [020] Local/Remote Telephone Access Code Enter 3 digits (0,1,2,3,4,5,6,7,8,9,\*,#)\* \* \* Avoid Codes that interfere with any local telephone equipment (e.g. fax machines, etc.), or that coincide with local telephone company 3-digit telephone numbers and services. Also do not exit this section by pressing [#], it will be accepted as a valid digit.

## [021] Telephone Access Options

Default			Option ON	Option Off
OFF	(	Option 01	Local Access Only	Remote and Local Access enabled
OFF		Option 02	Access code always req'd for local access	No code req'd for local access

Local Access Only must be ON for UL Listed installations.

# Schedule Programming

edule Programming Schedule 1 On-Time		
Default		
9999 Land (Valid entries	are 0000-2359, 999	9 to disable)
Schedule 1 Off-Time		
Default	0000 0050 000	
9999 (Valid entries	are 0000-2359, 999	9 to disable)
Schedule 1 Day Mask		0.1: 0"
Default Option ON Option ON Activates of		Option Off Does Not Activate on Sunday
ON Option 02 Activates of		Does Not Activate on Monday
ON Option 03 Activates of	n Tuesday	Does Not Activate on Tuesday
ON Option 04 Activates of	n Wednesday	Does Not Activate on Wednesday
ON Option 05 Activates of ON Option 06 Activates of On Option 06 Activates of Option 06 Act	n Inursday n Friday	Does Not Activate on Thursday  Does Not Activate on Friday
ON Option 07 Activates of	n Saturday	Does Not Activate on Saturday
On Time	Off Time	Day Mask
		01 02 03 04 05 06 07
Schedule 1 [030]	[031]	[032]
Schedule 2 [033]	[034]	[035]
Schedule 3 [036]	[037]	
Schedule 4 [039]	[040]	
Schedule 5 [042]	[043]	
Schedule 6 [045]	[046]	
Schedule 7 [048]	[049]	
Schedule 8 [051]	[052]	
Schedule 9 [054]	[055]	
Schedule 10 [057]	[058]	
Schedule 11 [060]	[061]	
Schedule 12 [063]	[064]	[065]
Schedule 13 [066]	[067]	[068]
Schedule 14 [069]	[070]	[071]
Schedule 15 [072]	[073]	[074]
Schedule 16 [075]	[076]	[077]

## **Automation Items**

Sections 'e.g. [130]' to 'e.g. [134]' show the programming to be completed for each automation item, using Item 1 as an example. Complete the programming for automation items 02-32 in a similar manner. Record your programming in the sections that follow the example.

Default: 000	Code and Unit Number	EE from chart on Annondiv D
II_		55 from chart on Appendix B)
e.g. [131] Item 1 Option  Default Option	on	OFF
<b>Default Option</b> OFF 1 01	Item enabled	Disabled
ON , , 02	User controlled (On/Off)	Not user controlled
OFF 03	Included in Global On/Off command	Not included
OFF 04	Dimming enabled	Disabled
ON 05	Follows Schedule / Output always	Follows S /O only if a Mode is ON
ON 06	Item is ON steady when active	Item activates for programmed time
ON 07	Item prompting is "On /Off"	Not this prompting
OFF 08	Item prompting is "Open/Close"	Not this prompting
OFF 09	Item prompting is "Setback On/Off"	Not this prompting
OFF 10	Zone Follower enabled	Disabled
e.g. [132] Item 1 Sched Default Option	ule Assignment ON	OFF
	Follows Schedule 1	Does not follow Schedule 1
OFF 01 OFF 02	Follows Schedule 2	Does not follow Schedule 2
OFF 03	Follows Schedule 3	Does not follow Schedule 3
OFF   04	Follows Schedule 4	Does not follow Schedule 4
OFF   05	Follows Schedule 5	Does not follow Schedule 5
OFF 06	Follows Schedule 6	Does not follow Schedule 6
OFF 07	Follows Schedule 7	Does not follow Schedule 7
OFF 08	Follows Schedule 8	Does not follow Schedule 8
OFF 09	Follows Schedule 9	Does not follow Schedule 9
OFF 10	Follows Schedule 10	Does not follow Schedule 10
OFF 11 OFF 12	Follows Schedule 11 Follows Schedule 12	Does not follow Schedule 11
	Follows Schedule 12	Does not follow Schedule 12 Does not follow Schedule 13
OFF 13 OFF 14	Follows Schedule 14	Does not follow Schedule 14
OFF   15	Follows Schedule 15	Does not follow Schedule 15
OFF 16	Follows Schedule 16	Does not follow Schedule 16
e.g. [133] Item 1 Mode	Assignment	
Default Option	ON	OFF
OFF 01	Assigned to Mode 1	Not assigned to Mode 1
OFF 02	Assigned to Mode 2	Not assigned to Mode 2
OFF 03	Assigned to Mode 3	Not assigned to Mode 3
OFF 04	Assigned to Mode 4	Not assigned to Mode 4
OFF 05	Assigned to Mode 5	Not assigned to Mode 5
OFF 06	Assigned to Mode 6	Not assigned to Mode 6
OFF 07 OFF 08	Assigned to Mode 7 Assigned to Mode 8	Not assigned to Mode 7 Not assigned to Mode 8
	0	Not assigned to wode o
Default: 00	ule/Output Condition (Valid Entries are 00-04) (See Sections	s [401]-[432] for PGM Output Assignment)
\\	,	, , ,
[00] No Schedule or PGM		•
[01] PGM Output control of		AND PGM Output
[02] Schedule control only	/	

P R	0 G	R A M M I N	G W O R K S H E E T S
Item 1	[130]	House Code & Unit Number	
	[131]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 J
	[132]	Schedule Assignment	<u>101   102   103   104   105   106   107   108   109   10   11   112   13   14   15   16  </u>
	[133]	Mode Assignment	<sub>1</sub> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub>
	[134]	Schedule/Output Condition	
Item 2	[135]	House Code & Unit Number	
	[136]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[137]	Schedule Assignment	<u>101   102   103   104   105   106   107   108   109   10   111   112   113   114   115   116  </u>
	[138]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[139]	Schedule/Output Condition	
Item 3	[140]	House Code & Unit Number	
	[141]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[142]	Schedule Assignment	01 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[143]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[144]	Schedule/Output Condition	
Item 4	[145]	House Code & Unit Number	
	[146]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[147]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[148]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[149]	Schedule/Output Condition	
Item 5	[150]	House Code & Unit Number	
	[151]	Miscellaneous options	[01]02]03]04]05]06]07]08]09]10]
	[152]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[153]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[154]	Schedule/Output Condition	
Item 6		House Code & Unit Number	
	[156]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[157]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[158]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[159]	Schedule/Output Condition	

P R	0 G	R A M M I N	G W O R K S H E E T S
Item 7	[160]	House Code & Unit Number	
	[161]	Miscellaneous options	[01]02]03]04]05]06]07]08]09]10]
	[162]	Schedule Assignment	<sub>1</sub> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub> 09 <sub>1</sub> 10 <sub>1</sub> 11 <sub>1</sub> 12 <sub>1</sub> 13 <sub>1</sub> 14 <sub>1</sub> 15 <sub>1</sub> 16 <sub>1</sub>
	[163]	Mode Assignment	<sub>1</sub> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub>
	[164]	Schedule/Output Condition	
Item 8	[165]	House Code & Unit Number	
	[166]	Miscellaneous options	<u>1</u> 011021031041051061071081091101
	[167]	Schedule Assignment	<u>101102103104105106107108109110111112113114115116</u>
	[168]	Mode Assignment	<u>1</u> 011021031041051061071081
	[169]	Schedule/Output Condition	
Item 9	[170]	House Code & Unit Number	
	[171]	Miscellaneous options	1011021031041051061071081091101
	[172]	Schedule Assignment	1011021031041051061071081091101111121131141151161
	[173]	Mode Assignment	[01]02]03]04]05]06]07]08]
	[174]	Schedule/Output Condition	
Item 10	[175]	House Code & Unit Number	
	[176]	Miscellaneous options	[01 02 03 04 05 06 07 08 09 10]
	[177]	Schedule Assignment	$ 01_{1}02_{1}03_{1}04_{1}05_{1}06_{1}07_{1}08_{1}09_{1}10_{1}11_{1}12_{1}13_{1}14_{1}15_{1}16_{1} \\$
	[178]	Mode Assignment	[01]02]03]04]05]06]07]08]
	[179]	Schedule/Output Condition	
Item 11	[180]	House Code & Unit Number	
	[181]	Miscellaneous options	[01]02]03]04]05]06]07]08]09]10]
	[182]	Schedule Assignment	$ \underbrace{01_{1}02_{1}03_{1}04_{1}05_{1}06_{1}07_{1}08_{1}09_{1}10_{1}11_{1}12_{1}13_{1}14_{1}15_{1}16_{1} } $
	[183]	Mode Assignment	[01]02]03]04]05]06]07]08]
	[184]	Schedule/Output Condition	
Item 12	[185]	House Code & Unit Number	
	[186]	Miscellaneous options	[01]02]03]04]05]06]07]08]09]10]
	[187]	Schedule Assignment	$ \lfloor 01_1 02_1 03_1 04_1 05_1 06_1 07_1 08_1 09_1 10_1 11_1 12_1 13_1 14_1 15_1 16_1 $
	[188]	Mode Assignment	[01]02]03]04]05]06]07]08]
	[189]	Schedule/Output Condition	

1 1	0 0	N A W W I N	3 W 3 K K 3 H E E I 3
Item 13]	[190]	House Code & Unit Number	
	[191]	Miscellaneous options	<u>1</u> 01 <u>1</u> 02 <u>1</u> 03 <u>1</u> 04 <u>1</u> 05 <u>1</u> 06 <u>1</u> 07 <u>1</u> 08 <u>1</u> 09 <u>1</u> 10 <u>1</u>
	[192]	Schedule Assignment	<u>1</u> 01 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 J
	[193]	Mode Assignment	<sub>1</sub> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub>
	[194]	Schedule/Output Condition	
Item 14	[195]	House Code & Unit Number	
	[196]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[197]	Schedule Assignment	<u>101   102   103   104   105   106   107   108   109   10   111   112   113   14   115   116  </u>
	[198]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[199]	Schedule/Output Condition	
Item 15	[200]	House Code & Unit Number	
	[201]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[202]	Schedule Assignment	<u>101   102   103   104   105   106   107   108   109   10   111   112   113   14   115   116  </u>
	[203]	Mode Assignment	101 102 103 104 105 106 107 108
	[204]	Schedule/Output Condition	
Item 16	[205]	House Code & Unit Number	
	[206]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[207]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[208]	Mode Assignment	101 102 103 104 105 106 107 108
	[209]	Schedule/Output Condition	
Item 17	[210]	House Code & Unit Number	
	[211]	Miscellaneous options	<u>101 102 103 104 105 106 107 108 109 110 1</u>
	[212]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[213]	Mode Assignment	101 102 103 104 105 106 107 108
	[214]	Schedule/Output Condition	
Item 18	[215]	House Code & Unit Number	
	[216]	Miscellaneous options	101 102 103 104 105 106 107 108 109 110 1
	[217]	Schedule Assignment	<u>101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1</u>
	[218]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[219]	Schedule/Output Condition	

[220]	House Code & Unit Number	
[221]	Miscellaneous options	[01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub> 09 <sub>1</sub> 10 <sub>1</sub>
[222]	Schedule Assignment	${\scriptstyle \lfloor 01_{1}02_{1}03_{1}04_{1}05_{1}06_{1}07_{1}08_{1}09_{1}10_{1}11_{1}12_{1}13_{1}14_{1}15_{1}16_{1}}$
[223]	Mode Assignment	[01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub>
[224]	Schedule/Output Condition	
[225]	House Code & Unit Number	
[226]	Miscellaneous options	<u>1</u> 011021031041051061071081091101
[227]	Schedule Assignment	${\scriptstyle \lfloor 01 \rfloor 02 \rfloor 03 \rfloor 04 \rfloor 05 \rfloor 06 \rfloor 07 \rfloor 08 \rfloor 09 \rfloor 10 \rfloor 11 \rfloor 12 \rfloor 13 \rfloor 14 \rfloor 15 \rfloor 16 \rfloor$
[228]	Mode Assignment	<u>1</u> 01102103104105106107108
[229]	Schedule/Output Condition	
[230]	House Code & Unit Number	
[231]	Miscellaneous options	<u>1</u> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub> 09 <sub>1</sub> 10 <sub>3</sub>
[232]	Schedule Assignment	${\scriptstyle \lfloor 01_1 02_1 03_1 04_1 05_1 06_1 07_1 08_1 09_1 10_1 11_1 12_1 13_1 14_1 15_1 16_1}$
[233]	Mode Assignment	<u>1</u> 011021031041051061071081
[234]	Schedule/Output Condition	
[235]	House Code & Unit Number	
[236]	Miscellaneous options	<u>1</u> 011021031041051061071081091101
[237]	Schedule Assignment	${\scriptstyle \lfloor 01_1 02_1 03_1 04_1 05_1 06_1 07_1 08_1 09_1 10_1 11_1 12_1 13_1 14_1 15_1 16_1}$
[238]	Mode Assignment	<u>1</u> 011021031041051061071081
[239]	Schedule/Output Condition	
[240]	House Code & Unit Number	
[241]	Miscellaneous options	1011021031041051061071081091101
[242]	Schedule Assignment	${\scriptstyle \underline{101}102}1031041051061071081091101111121131141151161}$
[243]	Mode Assignment	1011021031041051061071081
[244]	Schedule/Output Condition	
[245]	House Code & Unit Number	
[246]	Miscellaneous options	<u>1</u> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub> 09 <sub>1</sub> 10 <sub>1</sub>
[247]	Schedule Assignment	${\scriptstyle \lfloor 01_1 02_1 03_1 04_1 05_1 06_1 07_1 08_1 09_1 10_1 11_1 12_1 13_1 14_1 15_1 16_1}$
[248]	Mode Assignment	101102103104105106107108
[249]	Schedule/Output Condition	
	[221] [222] [223] [224] [225] [226] [227] [228] [230] [231] [232] [233] [234] [235] [236] [237] [238] [239] [240] [241] [242] [243] [244] [245] [246] [247] [248]	[220] House Code & Unit Number [221] Miscellaneous options [222] Schedule Assignment [223] Mode Assignment [224] Schedule/Output Condition [225] House Code & Unit Number [226] Miscellaneous options [227] Schedule Assignment [228] Mode Assignment [229] Schedule/Output Condition [230] House Code & Unit Number [231] Miscellaneous options [232] Schedule Assignment [233] Mode Assignment [233] Mode Assignment [234] Schedule/Output Condition [235] House Code & Unit Number [236] Miscellaneous options [237] Schedule Assignment [238] Mode Assignment [238] Mode Assignment [239] Schedule/Output Condition [240] House Code & Unit Number [241] Miscellaneous options [242] Schedule Assignment [243] Mode Assignment [244] Schedule/Output Condition [245] House Code & Unit Number [246] Miscellaneous options [247] Schedule Assignment [248] Mode Assignment

P R	O G	R A M M I N	G W O R K S H E E T S
Item 25	[250]	House Code & Unit Number	
	[251]	Miscellaneous options	<sub>1</sub> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub> 09 <sub>1</sub> 10 <sub>1</sub>
	[252]	Schedule Assignment	01 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[253]	Mode Assignment	<u>1</u> 01 <u>1</u> 02 <u>1</u> 03 <u>1</u> 04 <u>1</u> 05 <u>1</u> 06 <u>1</u> 07 <u>1</u> 08 <u>1</u>
	[254]	Schedule/Output Condition	
Item 26	[255]	House Code & Unit Number	
	[256]	Miscellaneous options	01 102 103 104 105 106 107 108 109 110 1
	[257]	Schedule Assignment	01 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[258]	Mode Assignment	101 102 103 104 105 106 107 108 1
	[259]	Schedule/Output Condition	
Item 27	[260]	House Code & Unit Number	
	[261]	Miscellaneous options	[01][02][03][04][05][06][07][08][09][10]
	[262]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[263]	Mode Assignment	[01][02][03][04][05][06][07][08]
	[264]	Schedule/Output Condition	
Item 28	[265]	House Code & Unit Number	
	[266]	Miscellaneous options	[01][02][03][04][05][06][07][08][09][10]
	[267]	Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
	[268]	Mode Assignment	101 102 103 104 105 106 107 108
		Schedule/Output Condition	
Item 29		House Code & Unit Number	
		Miscellaneous options	<u>101 102 103 104 105 106 107 108 109 110 1</u>
		Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
		Mode Assignment	101 102 103 104 105 106 107 108
		Schedule/Output Condition	
Item 30		House Code & Unit Number	
		Miscellaneous options	<u>101 102 103 104 105 106 107 108 109 110 J</u>
		Schedule Assignment	101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 1
		Mode Assignment	101 102 103 104 105 106 107 108
	[279]	Schedule/Output Condition	

1 1		0 W 0 K K 0 H E E I 9
Item 31	[280] House Code & Unit Number	
	[281] Miscellaneous options	[01]02]03]04]05]06]07]08]09]10]
	[282] Schedule Assignment	${\scriptstyle \lfloor 01_{1}02_{1}03_{1}04_{1}05_{1}06_{1}07_{1}08_{1}09_{1}10_{1}11_{1}12_{1}13_{1}14_{1}15_{1}16_{1}}$
	[283] Mode Assignment	<sub>[</sub> 01 <sub>1</sub> 02 <sub>1</sub> 03 <sub>1</sub> 04 <sub>1</sub> 05 <sub>1</sub> 06 <sub>1</sub> 07 <sub>1</sub> 08 <sub>1</sub>
	[284] Schedule/Output Condition	
Item 32	[285] House Code & Unit Number	-
	[286] Miscellaneous options	[01]02]03]04]05]06]07]08]09]10]
	[287] Schedule Assignment	1011021031041051061071081091101111121131141151161
	[288] Mode Assignment	<u>101102103104105106107108</u> 1
	[289] Schedule/Output Condition	

## Automation Item Zone Follower Assignments

## [290] Zone Follower Timer

Default 010

(Valid entries are 001-254 minutes; 255=infinite)

#### [291] Zone Follower Items

# NOTE: Automation Items will not follow momentary or maintained keyswitch zones or forced answer zones

Zones are divided into 2 banks; bank 1 = zones 1-16, bank 2 = zones 17-32. To assign an automation item to follow a zone:

- 1. Enter section [291].
- 2. Enter the 2-digit automation item number (01-32)
- 3. Enter a 1-digit bank number (1-2)
- 4. Enter a 2-digit option number corresponding to the zone you want the automation item to follow (01-16). (Option ON= follows Zone X; Option OFF= does not follow Zone X)
- 5. Record your programming on the next 2 pages.

Bank [2] Option:	•	es 17	-32) 03	04	05	06	07	08	09	10	11	12	13	14	15	16
(Zone):	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Item																
[01]		II	II	II		II		II			II				II	II
[02]	II		II	II		II									II	
[03]	II	II	II	II	II	II	II	II	II		II	II	II	II	II	II
[04]	II	II	II	II		II	II	II	II	II		II		II	II	II
[05]	II	II	II	II		II	II	II	II			lI		II	II	II
[06]	II	II	II	II		II	II	II	II			II		II	II	II
[07]	II	II	II	II		II	II	II	II			II		II	II	II
[80]	II	II	II	II	II	II		II			II		II		II	
[09]	II	II	II	II	II	II	II	II	II		II	II	II	II	II	II
[10]	II	II	II	II		II	II	II	II			II		II	II	II
[11]	II		II	II			II		II						II	
[12]	II	II	II	II	II	II	II	II	II		II	II	II	II	II	II
[13]	II	II	II	II	II	II	II	II	II		II	II	II	II	II	II
[14]	II	II	II	II		II	II	II	II		II	lI		II	II	II
[15]	II	II		II								II		II	II	
[16]				II		II		II								
[17]	II		II	II		II	II	II	II			II		II	II	II
[18]	II	II	II	II		II	II	II	II	II		II		II	II	II
[19]	II	II	II	II		II	II	II	II			lI		II	II	II
[20]	II	II		II								II		II	II	
[21]	II	II	II	II		II	II	II	II			II		II	II	II
[22]	II	II	II	II		II	II	II	II	II		II		II	II	II
[23]	II	II	II	II		II	II	II				II			II	II
[24] [25]	II	II	II	II		II	II	II	LI			ll		II	II	II
	II	II	ll	II		ll	ll	II	ll	II		II		II	II	II
[26]	II	II	II	II		II	II	II						II	II	II
[27]	II	II	II	II		II	II	II	II	II		II		II	II	II
[28]	II	II	II	II	II	II	II	lI	ll		II	ll	II	II	II	ll
[29] [30]				II												II
	II	II		II		II		II	II	II						
[31]	II	II		II			II	II	II	II		II		II	II	II
[32]	II	II	II	II								II		II	II	II

# Assigning Modes to Follow PGM Outputs

### [292] PGM Mode Enable

To assign a mode to follow a PGM output:

- 1. Enter section [292].
- 2. Enter the 2-digit number corresponding to the PGM output (01-14)
- 3. Enter a 2-digit option number corresponding to the mode you want to follow the PGM output (01-08).

(Option ON= mode follows PGM output; Option OFF= mode does not follow PGM output)

Default = OFF

Mode:	01	02	03	04	05	06	07	80
PGM Output								
[01]	II							
[02]	II							
[03]	II	II	II	II	II	lI	II	II
[04]		II		II	II	II	II	
[05]								
[06]								II
[07]		II			II	II	II	II
[80]		II			II	II	II	II
[09]	II	II			II		II	II
[10]								II
[11]	II							II
[12]		II			II	II	II	II
[13]	II	II		II	II		II	
[14]	L	II						

### **Automation Item Pulse Timers**

Default: 005 (Valid entries are 000-255 seconds) [301] Automation Item 1: Pulse Timer [317] Automation Item 17: Pulse Timer [318] Automation Item 18: Pulse Timer [302] Automation Item 2: Pulse Timer 1 1 1 1 [319] Automation Item 19: Pulse Timer [303] Automation Item 3: Pulse Timer [320] Automation Item 20: Pulse Timer [304] Automation Item 4: Pulse Timer 1 1 1 1 [321] Automation Item 21: Pulse Timer [305] Automation Item 5: Pulse Timer 1 1 1 1 [322] Automation Item 22: Pulse Timer [306] Automation Item 6: Pulse Timer [307] Automation Item 7: Pulse Timer [323] Automation Item 23: Pulse Timer 1 1 1 1 [324] Automation Item 24: Pulse Timer [308] Automation Item 8: Pulse Timer 1 1 1 1 [325] Automation Item 25: Pulse Timer [309] Automation Item 9: Pulse Timer 1 1 1 1 [310] Automation Item 10: Pulse Timer \_\_\_\_\_ [326] Automation Item 26: Pulse Timer [311] Automation Item 11: Pulse Timer [327] Automation Item 27: Pulse Timer [312] Automation Item 12: Pulse Timer [328] Automation Item 28: Pulse Timer [313] Automation Item 13: Pulse Timer [329] Automation Item 29: Pulse Timer [314] Automation Item 14: Pulse Timer [330] Automation Item 30: Pulse Timer [331] Automation Item 31: Pulse Timer [315] Automation Item 15: Pulse Timer \_\_\_\_\_ [332] Automation Item 32: Pulse Timer [316] Automation Item 16: Pulse Timer

# Automation Item Output Follower



On PC5010 v1.0 control panels, valid entries are (03-14) only. On PC1575/PC1580 v1.0 and higher control panels, valid entries are (01-02) only.



Up to 4 automation items can be programmed to follow any one PGM output on the system.

To program an automation item to follow a PGM output:

- 1. Enter the section number corresponding to the automation item (e.g. for automation item 1, enter [401].
- 2. Enter a 2-digit PGM number (01-14; 00= no PGM) to specify the PGM Output to be followed. Default=00

[401]	Automation Item 1	[417]	Automation Item 17
[402]	Automation Item 2	[418]	Automation Item 18
[403]	Automation Item 3	[419]	Automation Item 19
[404]	Automation Item 4	[420]	Automation Item 20
[405]	Automation Item 5	[421]	Automation Item 21
[406]	Automation Item 6	[422]	Automation Item 22
[407]	Automation Item 7	[423]	Automation Item 23
[408]	Automation Item 8	[424]	Automation Item 24
[409]	Automation Item 9	[425]	Automation Item 25
[410]	Automation Item 10	[426]	Automation Item 26
[411]	Automation Item 11	[427]	Automation Item 27
[412]	Automation Item 12	[428]	Automation Item 28
[413]	Automation Item 13	[429]	Automation Item 29
[414]	Automation Item 14	[430]	Automation Item 30
[415]	Automation Item 15	[431]	Automation Item 31
[416]	Automation Item 16	[432]	Automation Item 32

### Label Programming (Please see Appendix A for a list of available words.)

0	Do not	progran	n a number command as the 6th word of a label. See section 3.4.	
	nation Ite	em Labe	els	Default
[451]	Item 1	Label		Item 1
[452]	Item 2	Label		Item 2
[453]	Item 3	Label		Item 3
[454]	Item 4	Label		Item 4
[455]	Item 5	Label		Item 5
[456]	Item 6	Label		Item 6
[457]	Item 7	Label		Item 7
[458]	Item 8	Label		Item 8
[459]	Item 9	Label		Item 9
[460]	Item 10	Label		Item 10
[461]	Item 11	Label		Item 11
[462]	Item 12	Label		Item 12
[463]	Item 13	Label		Item 13
[464]	Item 14	Label		Item 14
[465]	Item 15	Label		Item 15
[466]	Item 16	Label		Item 16
[467]	Item 17	Label		Item 17
[468]	Item 18	Label		Item 18
[469]	Item 19	Label		Item 19
[470]	Item 20	Label		Item 20
[471]	Item 11	Label		Item 21
[472]	Item 22	Label		Item 22
[473]	Item 23	Label		Item 23
[474]	Item 24	Label		Item 24
[475]	Item 25	Label		Item 25
[476]	Item 26	Label		Item 26
[477]	Item 27	Label		Item 27
[478]	Item 28	Label		Item 28
[479]	Item 29	Label		Item 29
[480]	Item 30	Label		Item 30
[481]	Item 31	Label		Item 31
[482]	Item 32	Label		Item 32

Μ

М

N G

W

ORKSHE

Р	R O G I	R A	M	M I	N	G	W	0	R	K	S	Н	Е	Ε	T S
															Default
[614]	Zone 14 Label							_1							Zone 14
[615]	Zone 15 Label														Zone 15
[616]	Zone 16 Label														Zone 16
[617]	Zone 17 Label														Zone 17
[618]	Zone 18 Label														Zone 18
[619]	Zone 19 Label														Zone 19
[620]	Zone 20 Label														Zone 20
[621]	Zone 21 Label														Zone 21
[622]	Zone 22 Label														Zone 22
[623]	Zone 23 Label														Zone 23
[624]	Zone 24 Label														Zone 24
[625]	Zone 25 Label														Zone 25
[626]	Zone 26 Label														Zone 26
[627]	Zone 27 Label														Zone 27
[628]	Zone 28 Label														Zone 28
[629]	Zone 29 Label														Zone 29
[630]	Zone 30 Label														Zone 30
[631]	Zone 31 Label														Zone 31
[632]	Zone 32 Label														Zone 32
[633]	Fire Alarm Lab	el												لــــا	Fire Zone

## Special Programming

## [999] [Service Code] [999] Software Default Escort5580 Programming

Re-enter Escort5580 Service Code and Section Number [999].

# Appendix A

В

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[000]	Combined #	[048]	Curtain	[099]	Guest	[149]	Nursery	[199]	Sounder
[000]	Command		Dark	[100]			Office		South
[001]	Ordered #	[050]			Gym		Outer		Sprinkler
[001]	Command		Deck	: :	Hallway		Outlet		Staff
[002]	Individual #		Degrees		Heat		Output *		Stairs
[002]	Command	[053]	J		Heater		Over		Stereo
[003]	Access		Detector	: :	High		Overflow		Stock
					Holiday		Overhead		
	Air-conditioning		Dishwasher		Home		Panel		Storage
	Alcove			: :	Hose		Panic-button		Strike
[006]			Door				Parking		Sump
	Apartment		Down		Hot tub				Supervision
	Appliance		Driveway		House		Partition *		Swimming-pool
	Area		East		Humidity		Patio		System *
	Atrium		Electric		Interior		Perimeter		Tamper
	Attic		Elevator		Intrusion		Photocopier		Television
	Automatic		Employee		Item *		Picture		Temperature
	Away		Energy-save		Jewellery		Place		Time
	Back		Entertainment		Kitchen		Play	[216]	
	Backyard		Entry		Ladies'		Porch	[217]	
	Balcony		Equipment		Lamp		Portable		Track
[017]			Exercise		Laundry		Power		Trap
	Barn		Exhaust		Lawn		Pressure	: :	Under
	Basement	[070]		[121]			Proximity	[221]	
	Bathroom		Exterior		Level		Pull-station	[222]	•
[021]	,		Extinguisher	: :	Library		Pump		Upper
	Beam		Factory		Light		Ramp		Utility
	Bedroom		Family		Lights		Rear		Vault
	Blinds	[075]		: :	Liquor		Receiving		Vent
	Boat		Fence		Living		Recreation		Vibration
	Boiler	[077]			Loading		Refrigerator		Walkway
	Bottom		Fire *		Lobby		Reset		Warehouse
	Boys		Floor	[130]			Restricted		Washroom
	Building		Florida	[131]			Right		Water
	Cabinet		Flow		Lower		Roof	[232]	Weekend
	Cafeteria	[082]			Machine		Room	[233]	Well
	Camera		Fountain		Maids		Safe	[234]	West
	Cash		Foyer	[135]			Sauna	[235]	Window
	Ceiling		Freezer		Main		Schedule		Wine-cellar
	Centre		French		Maintenance		Sensor		] Work
	Changeroom		Front		Master		Service		•
	China		Furnace	[139]			Shed	-	] Yard
	Circuit		Game		Medical		Shipping		] Zone *
	Classroom		Garage		Meeting		Shop	[240]	Thermostat *
	Coffee-maker		Garbage		Men's		Shutter	[241]	Not Used
	Cold		Gas		Middle		Side	[242]	Not Used
	Collection		Gate		Mode *		Silent		Not Used
	Compressor		Girls		Motion		Skylight		Not Used
	Computer		Glassbreak		Night North		Sliding   Smoke		(2 Second
	Contact		Greenhouse		North			[240]	• •
	Control *		Ground	[148]	Number	[148]	Solarium		Pause)
[04/]	Crawl-space	[040]	Guard						

# Appendix B Automation item house codes & unit numbers

Enter [000] [001] [002] [003] [004] [005] [006] [007] [008] [010] [011] [012] [013] [014] [015] [016] [017] [018] [022] [023] [024] [025] [024] [025] [026] [027] [028] [029] [030] [031] [032] [033] [034] [035] [036] [037] [038] [039] [040] [041] [042] [043] [044] [045]	Code         A 1         A 2         A 4         A 5         A 6         A 7         B 7         B 8         B 8         B 9         B 11         B 12         B 14         B 15         B 16         B 17         B 18         B 19         B 11         B 12         B 14         B 15         B 16         B 17         B 18         B 19         B 10         B 12         B 14         B 15         B 16         B 17         B 18         B 19         B 10         B 12         B 12         B 12         B 12         B 12         B 12         B 15         B 12         B 13         B 14         B 15         B 16         B 17         B 18         B 19         B 11         <	Enter [052] [053] [054] [055] [056] [057] [058] [059] [060] [061] [062] [063] [064] [065] [066] [067] [070] [070] [071] [072] [073] [074] [075] [076] [077] [080] [081] [082] [083] [084] [085] [086] [087] [088] [088] [089] [090] [091] [092] [093] [094] [095]	<b>Code</b> D 5 6 7 8 9 D 10 D 1 1 2 3 4 5 6 7 8 9 D 11 2 3 4 5 6 7 8 9 F 11 2 3 4 5 6 7 8 9 F 11 2 3 4 5 6 7 8 9 D 11 2 3 6 7 8 D 11	[103] [104] [105] [106] [107] [108] [109] [110] [111] [112] [113] [114] [115] [120] [121] [122] [123] [124] [125] [126] [137] [138] [147]	Code G 8 G 9 G G 11 G 12 G 13 G G 15 G G G G G G G G G G G G G G G G G G G	[154] [155] [156] [157] [158] [159] [160] [161] [162] [163] [164] [165] [166] [170] [171] [172] [173] [174] [175] [178] [178] [180] [181] [182] [183] [184] [185] [186] [187] [188] [189] [190] [191] [192] [193] [196] [197]	Code J 11 J 12 J 13 J 15 K K K K K K K K K K K K K K K K K K K	[205] [206] [207] [208] [207] [208] [207] [210] [211] [212] [213] [214] [215] [216] [217] [218] [220] [221] [222] [223] [224] [225] [226] [227] [228] [229] [230] [231] [232] [233] [234] [235] [236] [237] [238] [237] [238] [237] [238] [237] [238] [237] [240] [241] [242] [243] [244] [245] [246] [247] [248] [247]	Code M 14 M 15 M 16 N 17 N 17 N 18 N 17 N 18 N 17 N 18
[040] [041] [042] [043]	C 9 C 10 C 11 C 12	[093] [094] [095]	F 14 F 15 F 16	[144] [145] [146]	J 1 J 2 J 3	[195] [196] [197]	M 4 M 5 M 6	[246] [247] [248]	P 6 P 7 P 8 P 9

[\*] [5] MENU COMMANDS

The following are commands available from the [\*] [5] Home Automation menu. For more information on this menu, please see the Escort5580 Instruction Manual.

#### **Entering the Home Automation Menu**

Press [ $\star$ ] [5] [1] to access the Home Automation menu. An access code may be required depending on programming in section [002]. If no access code is required, the Escort5580 will immediately begin to announce the Home Automation menu. If an access code is required, it will prompt:

"Enter your Access Code."

Enter your access code.

#### **Home Automation Menu**

The Escort5580 announces:

"For Automation Control, press [1]."
"For User Programming, press [3]."
"To exit, press [#]."

#### **Automation Control Menu**

From the Home Automation Menu, press [1], the Escort5580 announces:

"For Individual Item Control, press [1]."
"For Mode Control, press [2]"
"For Global Item Control, press [3]"
"To exit, press [#]."

Please see the Escort5580 Instruction Manual for a further description of this menu.

#### **User Programming Menus**

Please see Appendix E for a description of this menu.

# Appendix D

[\*] [6] O P T I O N

The following options are available in the [★][6] [Master User Code] User Functions menu.

#### **Volume Control**

When Volume Control is accessed the Escort5580 will announce the following:

"Volume is {High/Medium/Low}.
To change Volume, press [1].
To exit, press [#]."

#### **Speech Rate**

When the Speech Rate is accessed the Escort5580 will announce the following:

"Speech Rate is {Slow/Fast}.
To change Speech Rate, press [1].
To exit, press [#]."

# Appendix E

ACCESS CODE PROGRAMMING

The Access Code Programming function allows you to program access codes that will function on the security system as well as on the Escort5580. The system can be set to accept 4 or 6 digit user codes. Depending on what model of security system you have, you may have the ability to program either 6 or 37 access codes. To program these user codes, follow these steps:

With the system disarmed, access the security system using the steps described in the Accessing Your Security System and Accessing Partitions section of this manual.

Press [\*]. When the system announces:

"For Automation Control and User Programming, press [5]."

press [5]. The system will then announce:

"For Automation Control, press [1].
For User Programming, press [3].
To exit, press [#]."

Press the [3] key. Enter your master access code. The system will then announce:

"User Code Programming. Enter the one-/two- digit user number.

For User Option Programming, press [9].

User X, Y and Z are programmed. To exit, press [#]."



Your system may or may not prompt you with "User Option Programming". Please consult your security system instruction manual for more information on user options.

Enter the number of the access code that you wish to program at this time. The system will announce:

"Enter the new 4-/6- digit access code.

To exit, press [#]."

Enter the new code at this point. You will again be prompted by the message:

"User Code Programming. Enter the one-/two- digit user number.

For User Option Programming, press [9].

Users X, Y and Z are programmed. To exit, press [#]."

If you wish to program another access code, enter the user number. If not, press [#] to return to the main menu.

# Appendix F

G L O S S A R Y

#### **Access Code**

A 4- or 6-digit code that allows users to access arming, disarming and other system functions. Different access codes may be assigned to different users.

#### **Automation Item**

Automation Items are devices (e.g. lights, appliances, etc.) connected to X-10 modules and controlled within the Home Automation feature of the Escort system. Automation items can be controlled manually, or with schedules and/or PGM outputs.

#### **Command Output / Output Control**

You can program any programmable output (PGM output) on the system to work as a Command Output (1-4). See your control panel Installation Manual for more information. Users can activate Command Outputs by entering [\*][7][1-4] at any keypad, or through the Escort.

When you assign items or modes to PGM outputs programmed as Command Outputs, users can enter [\*][7][1-4] to turn the items or modes on or off. You can program a label for each Command Output (Output Control labels). See section 3.4, "Programming Label Entry Sections".

#### Mode

Modes give users control over groups of automation items programmed for scheduled or event initiated operation. Users can turn a mode on or off to activate/deactivate the items assigned to it. When a mode is turned on, each of these items will operate according to their assigned schedule(s) / PGM outputs.

#### **Partition**

A group of zones on the system which are armed/ disarmed and controlled independently of other zones grouped into a separate partition. Each partition has its own keypad and can be assigned its own access codes.

#### **Telephone Access Code**

A security code that must be entered when using a telephone to access the Escort. Once access is gained to the Escort, a normal user's access code is still usually required to access system functions.

#### Zone

An area (e.g. a room) or barrier (e.g. a door) within the premises that is monitored by a detector (e.g. smoke detector, door/window contact, motion detector, glassbreak detector, etc.).

#### LIMITED WARRANTY

Digital Security Controls Ltd. warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls Ltd. shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original owner must promptly notify Digital Security Controls Ltd. in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period.

#### International Warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls Ltd. shall not be responsible for any customs fees, taxes, or VAT that may be due.

#### Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

#### Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- · damage incurred in shipping or handling:
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls Ltd. such as excessive voltage, mechanical shock or water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls Ltd.);
- defects caused by failure to provide a suitable installation environment for the products:
- damage caused by use of the products for purposes other than those for which it was designed;
- · damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

Digital Security Controls Ltd.'s liability for failure to repair the

product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls Ltd. be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

#### Disclaimer of Warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) And of all other obligations or liabilities on the part of Digital Security Controls Ltd. 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.

This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.

**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.

#### Installer's Lockout

Any products returned to DSC which have the Installer's Lockout option enabled and exhibit no other problems will be subject to a service charge.

#### **Out of Warranty Repairs**

Digital Security Controls Ltd. will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls Ltd. must first obtain an authorization number Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls Ltd. determines to be repairable will be repaired and returned. A set fee which Digital Security Controls Ltd. has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls Ltd. determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

### WARNING Please Read Carefully

#### System Failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

#### **■** Inadequate Installation

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that all access points and areas are covered. Locks and latches on windows and doors must be secure and operate as intended. Windows, doors, walls, ceilings and other building materials must be of sufficient strength and construction to provide the level of protection expected. A reevaluation must be done during and after any construction activity. An evaluation by the fire and/or police department is highly recommended if this service is available.

#### **■** Criminal Knowledge

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that a security system be reviewed periodically to ensure that its features remain effective and that it be updated or replaced if it is found that it does not provide the protection expected.

#### ■ Access by Intruders

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

#### **■** Power Failure

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as a security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

#### **■** Failure of Replaceable Batteries

This system's wireless transmitters have been designed to provide several years of battery life under normal conditions. The expected battery life is a function of the device environment, usage and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

#### ■ Compromise of Radio Frequency (Wireless) Devices

Signals may not reach the receiver under all circumstances which could include metal objects placed on or near the radio path or deliberate jamming or other inadvertent radio signal interference.

#### **■** System Users

A user may not be able to operate a panic or emergency switch possibly due to permanent or temporary physical disability, inability to reach the device in time, or unfamiliarity with the correct operation. It is important that all system users be trained in the correct operation of the alarm system and that they know how to respond when the system indicates an alarm.

#### **■** Smoke Detectors

Smoke detectors that are a part of this system may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the

other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building.

Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fires equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches or arson.

Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

#### **■** Motion Detectors

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

#### **■** Warning Devices

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners or other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

#### **■** Telephone Lines

If telephone lines are used to transmit alarms, they may be out of service or busy for certain periods of time. Also an intruder may cut the telephone line or defeat its operation by more sophisticated means which may be difficult to detect

#### ■ Insufficient Time

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time to protect the occupants or their belongings.

#### ■ Component Failure

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component

#### **■** Inadequate Testing

Most problems that would prevent an alarm system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an earthquake, an accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices and any other operational devices that are part of the system.

#### ■ Security and Insurance

Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.

