SIA Standards Committee
Security Control Panels Subcommittee
ISC East – New York, NY
Committee Meeting
Thursday, August 25, 2005
1:00 – 3:00 PM
Jacob Javitts Convention Center – Room 1E17

DRAFT AGENDA

1. Call to Order……... .... T. Nesse

2. Roll Call .... M. Vago

3. SIA Antitrust Policy .... M. Vago

4. Approval of Draft Agenda…... T. Nesse

5. Approval of the Draft Minutes of the 2005/04/06 Meeting .... T. Nesse

6. Chairman's Remarks .... T. Nesse

7. Request(s) for Interpretation for ANSI/SIA CP-01-2000 .... T. Nesse
   a. UL Request on System Test (Section 4.6.3)
   b. UL Request on Test Mode Documentation (Section 4.6.1)

8. Contributions for the Revision of ANSI/SIA CP-01-2000
   a. DMP Contribution on Exit Error, 4.2.2.4 .... T. Shelton
   b. DMP Contribution on Disarm, 4.2.5.1.1 .... T. Shelton
   c. SafetyCare Contribution on 4.2.5.4.1 .... P. Giacalone
   d. ARM Contribution on Nomenclature .... L. Dischert

9. Update on Review of Requests for Interpretation on ANSI SIA CP-01-2000 To Date .... M. Vago

10. Update on Revisions to Next Draft Standard .... M. Vago
    a. Revisions Summary
    b. 2005/08/18 Draft of ANSI/SIA CP-01-200x

11. Update on CP-01 Study .... M. Visbal

12. Open Discussion .... All

13. Next Meeting and Adjournment .... T. Nesse

Agenda Item 7.a.

Formal Interpretation Request Form

Formal requests for interpretation should be submitted to SIA Standards via email standards@siaonline.org or fax. These requests will be considered by the appropriate committee responsible for maintaining the standard. Below are the elements of the request that are needed in order to provide information to the committee participants.

Security Industry Association ▪ 635 Slaters Lane ▪ Suite 110 ▪ Alexandria VA 22314-1177 ▪ 703-683-2075 (P) ▪ 703-683-2469 (F)

Name: Ted Nesse

Company: North Latitude Technology, LLC

Address: 14858 97th St. North

Phone / Fax: 651-351-1460

Email: ted@northlatitudetech.com

Date Submitted: 07/29/05

SIA Document #: CP-01 **Edition:** **Paragraph Reference:** p 4.6.3

Please state your interest in the matter and identify other parties involved:

I received an inquiry from Jim Lesniak at UL: "**Does this procedure need to be an automatic test by entering a code or depressing a test button. Appendix F allows the System Test to be a procedure outlined in the manuals.** "

I offered the following personal opinion: "**The note in informative Appendix F appears to conflict with the requirements of section 4.6.3 of the actual standard. The standard seems to require a special operating mode of the panel, and goes on to specify panel behavior that this operating mode controls. It does not seem that this could be accomplished with a procedure outlined in the manuals. I'll seek additional clarification from a prior Panels Committee chairman to see if there is any more background on this, but I tentatively would recommend deleting the note in Appendix F regarding section 4.6.3 (System Test).** "

Question (should be worded so that it can be answered with either yes or no):

Can the requirements of section 4.6.3 be met with a procedure outlined in the product manual if the product does not have a test mode implemented?

Formal requests for interpretation should be submitted to SIA Standards via email standards@siaonline.org or fax. These requests will be considered by the appropriate committee responsible for maintaining the standard. Below are the elements of the request that are needed in order to provide information to the committee participants.

Security Industry Association ▪ 635 Slaters Lane ▪ Suite 110 ▪ Alexandria VA 22314-1177 ▪ 703-683-2075 (P) ▪ 703-683-2469 (F)

Name: Ted Nesse

Company: North Latitude Technology, LLC

Address: 14858 97th St. North

Phone / Fax: 651-351-1460

Email: ted@northlatitudetech.com

Date Submitted: 07/29/05

SIA Document #:	CP-01	**Edition:**	**Paragraph Reference:**	p 4.6.1

Please state your interest in the matter and identify other parties involved:

I received an inquiry from Jim Lesniak at UL: "**Does this test procedure need to be in either the installers manual or the users manual or both? Section 4.6.1 provides for a statement concerning the communicator delays that is required to be in the users manual. Also, an argument can be made that the test procedure be in the users manual so the user would have instructions to test the system without sending real alarms to the central station. The users manual should also include all the SIA operation procedures and annunciation.** "

I offered the following personal opinion: "**Test modes like the one described here are always accessible to a user (though not necessarily all users, when there are multiple user levels). Given this, it is reasonable to require a description of the use of this mode in the user manual. I would not recommend requiring such documentation in the installation manual, however, as the user manual is available for the installer's reference. Since we don't want the standard to head toward detailed user documentation requirements, I recommend that clarification of this issue (user manual to describe test mode) be handled in Appendix F.** "

Question (should be worded so that it can be answered with either yes or no):

Do the test procedures referred to in paragraph 4.6.1 need to be described in the user manual for the product?

Agenda Item 8.a.

April 15, 2005

Monica Vago
Associate Director, Technical Standards Program
Security Industry Association
635 Slaters Lane, Suite 110
Alexandria, VA 22314-1177

Subject: CP-01 Sec. 4.2.2.4 Language Change Request

Dear Monica:

As DMP has implemented the requirements for CP-01 compliance, a potential false alarm possibility may have been discovered. I have provided a summary of the item and a request to change the language.

The third bullet of section 4.2.2.4 Exit Error (CP-01 Standard) indicates that a second entry delay **shall** be initiated if an exit zone is open at the end of the first entry delay. The section goes on to indicate that if not disarmed, an alarm is created.

DMP control panels provide an additional degree of false alarm reduction. Instead of starting a false alarm prone second entry delay, a DMP panel force arms the open zone and then sends a Zone Force Armed message and an Exit Error message to the Central Station. Also, at this time the panel bell rings for two seconds to inform the user just leaving that the door is still open. In conclusion, a false alarm is not generated since the system was just armed and the likely cause is a user exit error.

DMP asks that section 4.2.2.4 Exit Error be revised to the following (*addition language*, ~~strike language~~).

> **4.2.2.4 Exit Error.** An Exit Error sequence shall be initiated if an entry/exit zone is violated at the expiration of the Exit Time.
>
> An Exit Error shall be processed as follows:
> - The local alarm shall immediately sound *and be on for a minimum of two (2) seconds.*
> - The annunciator shall sound an Entry Delay or an alarm condition *or a fault condition.*
> - An Entry Delay ~~shall~~ *may* be initiated.
> - If the alarm system is not Disarmed ~~at the end of the Entry Delay~~, ~~the Alarm~~ *a* Transmission Sequence shall be initiated.
> - The ~~Alarm~~ Transmission shall include ~~the~~ *an* alarm *or fault* and an Exit Error.

Best regards,

Terry Shelton
Product Quality Assurance Manager

Cc: Marc Mills

Lb

Agenda Item 8.b.

April 15, 2005

Monica Vago
Associate Director, Technical Standards Program
Security Industry Association
635 Slaters Lane, Suite 110
Alexandria, VA 22314-1177

Subject: CP-01 Sec. 4.2.5.1.1 Language Change Request

Dear Monica:

As DMP has implemented the requirements for CP-01 compliance, a potential false alarm possibility may have been discovered. I have provided a summary of the item and a request to change the language.

Section 4.2.5.1.1 Disarm (CP-01) describes the need to silence alarm annunciation (panel bell) upon the entry of the first digit of the user code. In years past, this was a feature of the DMP keypad and proved to create false alarms. DMP installing dealers asked that this feature be removed. It was found that an end user would ONLY enter the first digit of their code and not finish entering a code because the silencing of the alarm annunciation caused them to assume that the alarm was permanently silenced and then they would walk away from the keypad.

Currently DMP panels do not provide the operation described in Section 4.2.5.1.1. DMP would recommend that this requirement be dropped or at least made optional in the SIA standard for both the local bell and the keypad annunciation.

Instead allow the bell and keypad to sound until the user code is properly entered and the system is disarmed or the bell silenced by the user. This provides the user with a proper confirmation that their action has been received by the alarm system.

DMP asks that section 4.2.5.1.1 Disarm be revised to the following (*addition language*, ~~strike language~~).

> **4.2.5.1.1 Disarm.** When the system is in an alarm condition, the system shall Disarm by entering a user code only. Alternative coexisting methods of Disarming are permitted.
>
> Alarm annunciation *(control or annunciator)* ~~shall~~ *may* be silenced upon entry of the first digit of the user code. Alarm annunciation shall be resumed upon entry of an invalid user code or after a manufacturer specified time during the Abort Window.

Best regards,

Terry Shelton
Product Quality Assurance Manager

Cc: Marc Mills

Lb

Formal Interpretation Request Form

Formal requests for interpretation should be submitted to SIA Standards via email standards@siaonline.org or fax. These requests will be considered by the appropriate committee responsible for maintaining the standard. Below are the elements of the request that are needed in order to provide information to the committee participants.

Security Industry Association ▪ 635 Slaters Lane ▪ Suite 110 ▪ Alexandria VA 22314-1177 ▪ 703-683-2075 (P) ▪ 703-683-2469 (F)

Name: Peter P. Giacalone

Company: SafetyCare, Inc.

Address: 15 Emerald Street, Hackensack, NJ 07601
Phone / 201-883-0100
Fax: 201-343-5775

Email: pgiacalone@safetycare.us
Date Submitted: 07/22/2005

SIA Document #: _CP-01_ **Edition:** **Paragraph Reference:** _4.2.5.4.1_

Please state your interest in the matter and identify other parties involved:

A problem exists with Control Panels which also support two-way voice verification. Because a two-way session is automatically engaged upon kiss off of alarm communications to the central station, any subsequent signals or transmissions can Disconnect / Terminate an ongoing or existing voice conversation between the end user and Central station, causing a possible life safety issue if a true alarm exists, a false alarm or at minimum, serious customer dissatisfaction. This situation is most prevalent when the customer attempts to CANCEL an active alarm condition, which often occurs while the central station is already in a two-wav voice session with the site. As most systems that are activated in error by the end user are usually disarmed rather quickly, most end user caused alarms will therefore result in a terminated voice verification sessions.

The best method to avoid this and allow a comprehensive verbal verification between Central station and end customer of the alarm, is to postpone delivery of the "Cancel" Signal despite the fact that the user has physically canceled the alarm, until AFTER the two-way voice session completes . This would allow for proper and complete voice verification and the Cancel Signal can then be transmitted as a matter of clear record, once the two-way session has run its course

Most importantly, please bear in mind that the purpose of the CANCEL signal in the first place is to provide the Central Station with more clear information which allows the operator to distinguish whether or not to CANCEL a previous active alarm event or to call the authorities.

There is NO BETTER information available for the Central Station operator to determine whether or not to CANCEL an alarm, then to talk directly to the end customer in real time, so terminating this voice session with the end customer in this instance is inappropriate

Question (should be worded so that it can be answered with either yes or no):

Can the following language be included as an option to Section 4.2.5.4.1 of CP-01?

An option shall be provided that "Cancel" Signal transmissions will be postponed until after termination of "active" two-way voice sessions, in the instance that the end user initiates a cancel sequence while a two-way voice session is already in progress.

Possible Nomenclature*	Functional Description	DMP	Honeywell	NAPCO	GE	DSC	Suggestion
4.8.1. Disarm	That portion of the system that is designed to detect unauthorized entry into the protected premises is not in use. (Other forms of protection may or may not be in use).	Disarm	Disarm	Disarm	Disarm	Open	Disarm
4.8.2. Arm	That portion of the system that is designed to detect unauthorized entry into the protected premises is in use. (Other forms of protection may or may not be in use).	Arm	Arm	Arm	Armed Away	Close	Arm
4.8.3. Premises Arm	That portion of the system that is designed to detect unauthorized entry into the protected premises, when there are inhabitants within, and with the exception of the entry portal, is in use. (Other forms of protection may or may not be in use).	Home/ Perimeter	Perimeter arm	Armed Stay	Armed Stay	Stay Arm	Armed Stay
4.8.4. No Entry Arm	That portion of the system that is designed to detect unauthorized entry into the protected premises, when there are inhabitants within, is in use. (Other forms of protection may or may not be in use).	Instant	Perimeter arm	Armed Instant	Armed, Stay, Instant	No Entry Arm	Armed Instant
4.8.5. Bypass	A point of protection (window, door, etc.) is temporarily disabled from performing its intended function.	Bypass	Bypass	Bypass	Bypass	Bypass	Bypass
4.8.6. Quick Bypass	Upon exiting, and wishing to Arm the system, and a Point(s) is not in its intended position for Arming, the panel will allow Arming with the Point(s) disabled from performing its intended function.	Force Arm	Quick Bypass or Force arm			Forced Arm	Force Arm
4.8.7. Duress	When about to Disarm the system, the user is approached by a would-be perpetrator, and the user uses a unique function, which Disarms the system and transmits a "Duress" alarm to the monitoring center.	Ambush	Duress	Ambush Alarm	Duress	Duress	Duress
4.8.8. Police Emergency	A user of the alarm system has observed a situation that requires police response, and activates a unique function, which transmits a Police Emergency alarm to the monitoring center	Police Emergency	Police	Police Emergency	Police Emergency	Panic Alarm	Police Emergency
4.8.9. Fire Emergency	A user of the alarm system has observed a situation that requires fire department response, and activates a unique function, which transmits a Fire alarm to the monitoring center	Fire Emergency	Fire	Fire Emergency	Fire Emergency	Fire Alarm	Fire Emergency
4.8.10. Medical Emergency	A user of the alarm system has observed a situation that requires emergency medial assistance, and activates a unique function, which transmits a Medical Emergency alarm to the monitoring center	Medical Emergency	Medical	Medical Emergency	Medial Emergency	Medical	Medical Emergency
4.8.11. Quick Arming	An abbreviated or shorten function that Arms the system. (See Arm)	Quick Arming	Quick Arm	Quick Arm	Quick Arming	Quick Arming	Quick Arming
4.8.12. Monitor Mode	The system in not Armed, and any time a perimeter point of protection is activated, the alarm panel emits a sound.	Monitor	Chime	Chime Mode	Chime	Chime	Chime

* Consensus Result of 2003 SIA Study

Meeting Date for Issue	Section of the Standard	Issue / [Requestor]	Committee Disposition	Formal Ratification
2003/05/21	4.2.2.1	Silent Exit Approval	Committee agreed to the following text: "Section 4.2.1.1 refers to a Silent Exit feature that is invoked by the system user at the time of arming. CP-01 does not require this feature. CP-01 does require, however, that when this feature is invoked, the exit delay for that arming cycle must be doubled. When invoked, the Silent Exit feature will halt the exit progress annunciation for the ENTIRE system or PARTITION for only ONE arming cycle."	Approved at Committee Meeting 2003/05/21 Will add section 4.2.1.1 in Annex F in the revision effort; added to the Revision list.
2003/05/21	4.2.2.2	Silent Exit Approval	Committee agreed to the following text: "Section 4.2.2.2 allows the exit progress annunciation to be COMPLETELY programmed out of INDIVIDUAL keypads (for bedrooms, etc). Section 4.2.2.2 does NOT allow for a control panel to disable exit progress annunciation for an entire system."	Approved at Committee Meeting 2003/05/21. Will add section 4.2.2.2 in Annex F in the revision effort; added to the Revision list.
2003/10/03	4.7	Default Settings - "a means by which end user can easily identify and confirm that the panel is in the default setting mode." [UL] Question Asked – Can a switch be added that allows the system to be programmed outside of CP-01 and still have the mark?	Committee agreed that if a panel has a switch that enables CP-01 or non-CP-01 compliance, it will not get a label (deemed non-compliant). In addition, the participants agreed that the previous interpretation provided in Appendix F, section 4.7 be removed. The text was "Default settings may be activated, or re-activated, through SIA Defaults software "switch"."	Approved at Committee Meeting 2004/03/31 – Will remove section 4.7 in Annex F in the revision effort; added to the Revision list.
2003/10/03	Add 4.6.1.A	System Configuration Marking – Component Labeling Clarification [UL]	Committee agreed to the following text: **System Configuration Identification** For system configurations comprised of interchangeable components (e.g. control equipment, arming station, annunciator, local alarm, communicator, sub assembly, etc.) a list of components that comprise of the CP-01 compliant system shall be provided. The list shall be prominently available as part of the equipment's installation manual and shall include applicable information such as model numbers of the system components, so that the complaint minimum system configuration is identified.	Approved at Committee Meeting 2004/11/03. Will add wording to 4.6.1.A in the revision effort; added to the Revision list.
2004/11/03	3.2.29	Fire Alarm Verification [Honeywell]	Request to expand Fire Verification requirements as they apply to wireless devices. Committee reviewed "Fire Alarm Verification" definition and agreed that any device using any	No changes made.

Meeting Date for Issue	Section of the Standard	Issue / [Requestor]	Committee Disposition	Formal Ratification
			media would fall under that definition as it currently exists.	
2004/11/03	3.2.29	Fire Alarm Verification [UL] 1) How does the example given in the "fire alarm verification" definition apply to wireless smoke detectors? Based on technology available today, it is very difficult to power down a wireless smoke detector and then restore power in order to verify an alarm condition persist by resetting a tripped sensor. 2) Is fire alarm verification meant to be a function of the control panel or sensor / detector? Based on the definition of "fire alarm verification" it is unclear. 3) Appendix D, VP -25 insinuates that the verification process is conducted on the control panel (UUT). The definition of fire alarm verification implies that the sensor is to be reset in order to confirm fire alarm verification. Please clarify where the verification process is to take place (ie. sensor or control panel.) 4) If "fire alarm verification" is a function of the control panel, does delaying transmission of the fire alarm signal (after the initial sensor trip) until a second sensor trip occurs, within the confirmation period, meet the SIA CP-01 requirements?	1) Committee agreed that for wireless; there is no need to power down; there could be any means of restoring. Sensors may not be powered from the control panel. The power example was based on technology at the time. The participants agreed that another example more suitable for wireless technology would be clearer and that it should be incorporated into the example accompanying the definition. 2) Committee agreed that "Fire alarm verification is meant to be a function of either the control panel or the sensor/detector." 3) Committee agreed that no longer a relevant question based on 1) and 2) above. 4) Committee agreed "When "fire alarm verification" is a function of the control panel, delaying transmission of the fire alarm signal (after the initial sensor trip) until a second sensor trip occurs, within the confirmation period, meets the SIA CP-01 requirements." Subsequent to meeting the following modification to the example in 3.2.29 was submitted: "(e.g. if the smoke detector is self-resetting or auto-restoring, checking that the sensor trips more than once or remains tripped within a set period of time.)"	Approved at Committee Meeting 2004/11/03 Modify definition of 3.2.29 to have an example. Added to the Revision list. Committee Responses to 2) and 4) will be added to Annex F of the in the revision effort; added to the Revision list.
2004/11/03	4.2.3.3	Disarm – Request regarding progress annunciation silencing [UL] Question: Progress annunciation shall be silenced by the entry of the first digit of the users code. If multiple keypads	Committee agreed to the following text: "One or all keypads may be momentarily silenced."	Approved at Committee Meeting 2004/11/03 Will add section 4.2.3.3 in Annex F in the revision effort; added to the Revision list.

Meeting Date for Issue	Section of the Standard	Issue / [Requestor]	Committee Disposition	Formal Ratification
		are annunciating the entry delay, do all keypads need to be momentarily silenced or just the specific keypad where the code is being entered?		
2005/04/06		Two-way Audio Verification [SafetyCare] Questions: 1) Can we suppress Central Station Cancel Signals while a Control is in two-way mode and transmit once the panel is back in a normal state while staying CP-01 compliant? 2) Can we suppress subsequent Central Station Burglary and low level Signals while a Control is in two-way mode and transmit once the panel is back in a normal state while satisfying UL?	The first question was discussed and the final ruling was that suppression of the Cancel Signal would not be supported. The second question was discussed and it was agreed that this was not permitted. There seemed to be agreement that based on the discussions surrounding the questions at this meeting it would be appropriate if another request for interpretation was submitted with specific timing limits and also consider precedence of signals as well. No changes will be made to the document.	Approved at Committee Meeting 2005/04/06
2005/04/06		Cancel Function [GE] Question: Can the entire 'Cancel' function be an option provided that the default configuration enables it?"	Committee agreed that the cancel function is required; it cannot be an option. No changes will be made to the document.	Approved at Committee Meeting 2005/04/06
2005/04/06	4.2.5.1.1	RFID Tokens [Bosch] Question: Is it permissible to use a token at an RFID interface to perform this function? Although our control panel does support a passcode backup, RFID tokens are the primary method for controlling the system.	Committee agreed that the RFID interface is an equivalent means and that the passcode backup must comply with the CP-01 requirements.	Approved at Committee Meeting 2005/04/06 Will add section 4.2.5.1.1 in Annex F in the revision effort; added to the Revision list.
2005/08/25	4.6.3	System Test [UL] Proposed removal of Section 4.6.3 from Annex F Question: Can the requirements of Section 4.6.3 be met with a procedure		Under Review at 2005/08/25 Meeting

Meeting Date for Issue	Section of the Standard	Issue / [Requestor]	Committee Disposition	Formal Ratification
		outlined in the product manual if the product does not have a test mode implemented?		
2005/08/25	4.6.1	Test Procedures [UL] Proposal for clarification in Annex F Question: Do the test procedures referred to in paragraph 4.6.1 need to be described in the user manual for the product?		Under Review at 2005/08/25 Meeting

2005/08/18
Summary of Revisions to ANSI/SIA CP-01-2000

Meeting Date	Section of the Standard	Issue (Requestor)	Committee Disposition	Status
2003/05/21	4.2.2.1	Silent Exit Approval	Committee agreed to the following text: "Section 4.2.1.1 refers to a Silent Exit feature that is invoked by the system user at the time of arming. CP-01 does not require this feature. CP-01 does require, however, that when this feature is invoked, the exit delay for that arming cycle must be doubled. When invoked, the Silent Exit feature will halt the exit progress annunciation for the ENTIRE system or PARTITION for only ONE arming cycle."	Approved at Committee Meeting 2003/05/21

Will add section 4.2.1.1 in Annex F in the revision effort; added to the Revision list. |
| 2003/05/21 | 4.2.2.2 | Silent Exit Approval | Committee agreed to the following text: "Section 4.2.2.2 allows the exit progress annunciation to be COMPLETELY programmed out of INDIVIDUAL keypads (for bedrooms, etc). Section 4.2.2.2 does NOT allow for a control panel to disable exit progress annunciation for an entire system." | Approved at Committee Meeting 2003/05/21.

Will add section 4.2.2.2 in Annex F in the revision effort; added to the Revision list. |
| 2003/10/03 | | Remote Arming and Disarming operations (Larry Dischert, ADT) | Suggested Changes documented in Attachment C of the 2003/10/03 Minutes | Incorporated into the latest draft ANSI/SIA CP-01-200x |
| 2003/10/03 | 4.7 | Default Settings - "a means by which end user can easily identify and confirm that the panel is in the default setting mode." [UL]

Question Asked –
Can a switch be added that allows the system to be programmed outside of CP-01 and still have the mark? | Committee agreed that if a panel has a switch that enables CP-01 or non-CP-01 compliance, it will not get a label (deemed non-compliant). In addition, the participants agreed that the previous interpretation provided in Appendix F, section 4.7 be removed. The text was "Default settings may be activated, or re-activated, through SIA Defaults software "switch"." | Approved at Committee Meeting 2004/03/31 –

Will remove section 4.7in Annex F in the revision effort; added to the Revision list. |
| 2003/10/03 | Add 4.6.1.A | System Configuration Marking – Component Labeling Clarification [UL] | Committee agreed to the following text: **System Configuration Identification**
For system configurations comprised of interchangeable components (e.g. control equipment, arming station, annunciator, local alarm, communicator, sub assembly, etc.) a list of components that comprise of the CP-01 compliant system shall be provided. The list shall be prominently available as part of the equipment's installation manual and shall include applicable information such as model numbers of the system components, so that the complaint minimum system configuration is identified. | Approved at Committee Meeting 2004/11/03.

Will add wording to 4.6.1.A in the revision effort; added to the Revision list. |

Meeting Date	Section of the Standard	Issue (Requestor)	Committee Disposition	Status
2004/03/31	Informative Annex	New Central Station Signals (DC-03 and DC-05)	Add an additional annex for information purposes. Final text presented as part of agenda for 2004/11/03 meeting.	Incorporated into the latest draft ANSI/SIA CP-01-200x
2005/04/06	Informative Annex	Nomenclature (ARM Committee)	Suggested Changes documented in Attachment C of the 2004/04/06 Minutes Additional information provided for review at 2005/08/25 meeting for inclusion as an informative annex.	Under Review at 2005/08/25 Meeting
004/11/03	3.2.29	Fire Alarm Verification [UL] 1) How does the example given in the "fire alarm verification" definition apply to wireless smoke detectors? Based on technology available today, it is very difficult to power down a wireless smoke detector and then restore power in order to verify an alarm condition persist by resetting a tripped sensor. 2) Is fire alarm verification meant to be a function of the control panel or sensor / detector? Based on the definition of "fire alarm verification" it is unclear. 3) Appendix D, VP -25 insinuates that the verification process is conducted on the control panel (UUT). The definition of fire alarm verification implies that the sensor is to be reset in order to confirm fire alarm verification. Please clarify where the verification process is to take place (ie. sensor or control panel.) 4) If "fire alarm verification" is a function of the control panel, does delaying transmission of the fire alarm signal (after the initial sensor trip) until a second sensor trip occurs, within the confirmation period, meet the SIA CP-01 requirements?	1) Committee agreed that for wireless; there is no need to power down; there could be any means of restoring. Sensors may not be powered from the control panel. The power example was based on technology at the time. The participants agreed that another example more suitable for wireless technology would be clearer and that it should be incorporated into the example accompanying the definition. 2) Committee agreed that "Fire alarm verification is meant to be a function of either the control panel or the sensor/detector." 3) Committee agreed that no longer a relevant question based on 1) and 2) above. 4) Committee agreed "When "fire alarm verification" is a function of the control panel, delaying transmission of the fire alarm signal (after the initial sensor trip) until a second sensor trip occurs, within the confirmation period, meets the SIA CP-01 requirements." Subsequent to meeting the following modification to the example in 3.2.29 was submitted: "(e.g. if the smoke detector is self-resetting or auto-restoring, checking that the sensor trips more than once or remains tripped within a set period of time.)"	Approved at Committee Meeting 2004/11/03 Modify definition of 3.2.29 to have an example. Added to the Revision list. Committee Responses to 2) and 4) will be added to Annex F of the in the revision effort; added to the Revision list. Incorporated into the latest draft ANSI/SIA CP-01-200x

Meeting Date	Section of the Standard	Issue (Requestor)	Committee Disposition	Status
2004/11/03	4.2.3.3	Disarm – Request regarding progress annunciation silencing [UL] Question: Progress annunciation shall be silenced by the entry of the first digit of the users code. If multiple keypads are annunciating the entry delay, do all keypads need to be momentarily silenced or just the specific keypad where the code is being entered?	Committee agreed to the following text: "One or all keypads may be momentarily silenced."	Approved at Committee Meeting 2004/11/03 Will add section 4.2.3.3 in Annex F in the revision effort; added to the Revision list. Incorporated into the latest draft ANSI/SIA CP-01-200x
2005/04/06	4.2.5.1.1	RFID Tokens [Bosch] Question: Is it permissible to use a token at an RFID interface to perform this function? Although our control panel does support a passcode backup, RFID tokens are the primary method for controlling the system.	Committee agreed that the RFID interface is an equivalent means and that the passcode backup must comply with the CP-01 requirements.	Approved at Committee Meeting 2005/04/06 Will add section 4.2.5.1.1 in Annex F in the revision effort; added to the Revision list. Incorporated into the latest draft ANSI/SIA CP-01-200x
2005/08/25	4.2.5.4.1	Two-way Audio Verification (SafetyCare)	Proposal to add the following text: "An option shall be provided that "Cancel" Signal transmissions will be postponed until after termination of "active" two-way voice sessions, in the instance that the end user initiates a cancel sequence while a two-way voice session is already in progress."	Under Review at 2005/08/25 Meeting
2005/08/25	4.2.2.4	Exit Error (DMP)	Proposal to make the following changes: **4.2.2.4 Exit Error.** An Exit Error sequence shall be initiated if an entry/exit zone is violated at the expiration of the Exit Time. An Exit Error shall be processed as follows: • The local alarm shall immediately sound *and be on for a minimum of two (2) seconds*. • The annunciator shall sound an Entry Delay or an alarm condition *or a fault condition*. • An Entry Delay ~~shall~~ *may* be initiated. • If the alarm system is not Disarmed ~~at the end of the Entry Delay~~, ~~the Alarm~~ *a* Transmission Sequence shall be initiated.	Under Review at 2005/08/25 Meeting

Meeting Date	Section of the Standard	Issue (Requestor)	Committee Disposition	Status
			The ~~Alarm~~ Transmission shall include ~~the~~ *an* alarm *or fault* and an Exit Error.	
2005/08/25	4.2.5.1.1	Disarm (DMP)	**4.2.5.1.1 Disarm.** When the system is in an alarm condition, the system shall Disarm by entering a user code only. Alternative coexisting methods of Disarming are permitted. Alarm annunciation *(control or annunciator)* ~~shall~~ *may* be silenced upon entry of the first digit of the user code. Alarm annunciation shall be resumed upon entry of an invalid user code or after a manufacturer specified time during the Abort Window.	Under Review at 2005/08/25 Meeting
2005/08/25	Annex D / Section 4.7	Missing Procedure (UL)	Add the following at the end: **VP 38 Default Settings (Reference 4.7)** • using the manufacturer's supplied installation manual, confirm that each relevant programmable feature has the default value as shown in Annex A • (alternative procedure) • Obtain a UUT configured for shipment • Using the UUT's built-in programming mode, confirm that each relevant programmable feature has the default value as showin in Annex A **EOT**	Under Review at 2005/08/25 Meeting
2005/08/25	Annex F	4.6.1 Need for clarification on what should be included in the manual (UL)	Add the following to Appendix F: "The operation of CP-01 features that interact directly with the user shall be documented in the user manual. This includes: • 4.2.2.1 Exit Time • 4.2.2.2 Progress Annunciation • 4.2.2.3 Exit Time Restart • 4.2.2.5 Unvacated Premises • 4.2.3.1 Entry Delay • 4.2.3.2 Progress Annunciation • 4.2.3.3 Disarm • 4.2.4.1 Control Buttons • 4.2.4.2 Manual Alarms • 4.2.4.3 System Acknowledgment • 4.2.4.4 Remote Arming • 4.2.4.5 Remote Disarming • 4.2.5.1.1 Disarm • 4.2.5.1.2 Abort	Under Review at 2005/08/25 Meeting

Meeting Date	Section of the Standard	Issue (Requestor)	Committee Disposition	Status
			• 4.2.5.3 Disarm • 4.2.5.4 Cancel Window • 4.2.6.2 Duress Code • 4.2.7 Initiation of Manual Alarms • 4.6.3 System Test • 4.6.6 Test in Progress • 4.6.7.1 Automatic Termination	
2005/08/25	2.1	Unable to get product tested to CP-01 b/c UL 1076 was not on the List [Pacom Systems]	Replace: "This standard is intended to allow compliance with the following standards." With: "This standard is intended to not conflict with the following standards." Add: "UL 1076 Proprietary Burglar Alarm Units and Systems" to the list	Under Review at 2005/08/25 Meeting
2005/08/25	VP 7	Inconsistencies in the Procedure [Honeywell]	Replace: "Wait 107 seconds after the expiration of the Exit Time, then trip any non-fire zone." With: "Wait 107 seconds after the expiration of the Exit Time, then trip any non-fire, non-delayed zone." Replace "Wait 133 seconds after the expiration of the Exit Time, then trip any non-fire zone." With: "Wait 133 seconds after the expiration of the Exit Time, then trip any non-fire, non-delayed zone."	Under Review at 2005/08/25 Meeting

Control Panel Standard - Features for False Alarm Reduction

ANSI/SIA CP-01-200x (Revision of ANSI SIA CP-01-2000)

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This notice will change when the document is finally published to:

Contents

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ACKNOWLEDGEMENTS

This standard was developed by the SIA Control / Communicator Standards Subcommittee. The voting members of the Subcommittee are listed below.

SIA gratefully acknowledges the efforts of the many volunteers from the security industry that helped the Subcommittee to develop this standard.

SIA Control / Communicator Standards Subcommittee, February 1994 (Baseline of the Standard)

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SIA also gratefully recognizes the efforts of the SIA Control Panels Working Group who developed the *Recommended Self-Validation Test Procedures* for the 1997 revision of this standard.

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ADI.. Stan Martin
ADT .... Charles Erichson
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Securnet Protective Services..Lamar D. Fuller
Sentrol - SLC Technologies, Inc...Barry M. Clarke
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Underwriters Laboratories ....Isaac I. Papier
Westec Home Security...Robert L. Ohm

SIA Security Control Panel Standards Subcommittee, 200x

Revision History

The following are changes made to this document, listed by revision.

FEBRUARY 1994 BASELINE

Original Publication

AUGUST 1997 REVISION

Added Appendix: Recommended Self-Validation Test Procedures

APRIL 1999 REVISION

Numerous and extensive changes, including:

- Conventions used in the document

- Ranges and default settings of time sensitive features

- Terms used to describe certain timing features

- Specific treatment of features that are allowed though not required

- Additional requirements for arming stations, especially for remote arming and manual alarms

- Additional requirements for power caused false alarms

- Minor clarifying language throughout

- Reference to programming at installation

- Reference to UL product listing to this standard

JANUARY 2000 REVISION

Substantive Change

- 4.2.5.1 Abort Window - Change the line in the programming range chart from *"Maximum 30-255 sec"* to *"Maximum 45 sec".*

Non-Substantive Change

- 3.2 Definition of Duress - Add the following phrase after "a facility": or commit some other act or action "against the individual's will."

- 3.2 Definition of Zone Type - Change to: zone type - a zone or group of zones identified by common function or operating mode.

- 4.2.4.1 Description of Control Buttons - add after "Remote control device buttons, including Duress, Holdup and Panic, shall be mechanically designed … be minimized.

- 4.2.5.1.2 Abort Window - Add a note that an abort signal may be sent.

- 4.6.1. Add a note to Quick Reference that user manuals should contain the following statement, or one similar: "There is a communicator delay of 30 seconds in this control panel. It can be removed, or it can be increased up to 45 seconds, at the option of the end user by consulting with the installer."

- Appendix A – 4.2.5.1- Changed range from *"15 sec - 30 sec (255 sec max)"* to *"15 sec - 45 sec"*

- Appendix B – 4.2.5.1 – Changed from *"15 to between 30 and 255 seconds"* to *"15 to 45 seconds."*

- Appendix D – Test Procedures 4.2.5.1 –

- Changed maximum Abort Window delay from *'255 sec'* to *'45 sec'*

- Changed verification parameters from *"time between the trip and the local alarm"* to *"time between the local alarm and the alarm signal".* (correction)

- Added Abort Window verification test for 46 seconds

XXXXXXX 200x REVISION

Introduction

This Standard is

Control Panel Standard - Features for False Alarm Reduction

1   Scope

This standard details recommended design features for security system control panels and their associated arming and disarming devices to reduce the incidence of false alarms. These features are applicable to both residential and commercial properties protected by an electronic security system.

This standard is intended for use by manufacturers in the design of control panels and alarm signal receivers. It is also intended for reference by all affected parties, including security system installers, specifiers, and users; central station owners and operators; manufacturers of central station products, such as receivers and automation software; and local authorities.

This standard assumes that communications to the central station will be conducted by a robust contemporary communication protocol such as the SIA *Digital Communication Standard - "SIA Format" Protocol for Alarm System Communications.*

This standard is voluntary.

2   Normative references

2.1   Related Areas (Bibliography?)

Are these normative references or part of the bibliography?

Additional guidance on areas relating to this standard, as noted and otherwise, can be obtained from the sources below.

Features within this standard are, in part, based on data and recommendations from the following publications:

- Standards Committee Report (1994-1995), Central Station Alarm Association

- 1994 Study of False Alarms, Security Industry Association

- Model Cities Executive Summaries, Alarm Industry Research and Education Foundation (AIREF)

This standard is intended to allow compliance with the following standards:

National Fire Protection Association

- NFPA 72, National Fire Alarm Code

Underwriters Laboratories, Inc.

- UL 609, Local Burglar-Alarm Units and Systems

- UL 611, Central-Station Burglar-Alarm Systems

- UL 681, Installation and Classification of Mercantile and Bank Burglar-Alarm Systems

- UL 864, Control Units for Fire-Protective Signaling Systems

- UL 985, Household Fire Warning System Units

- UL 1023, Household Burglar-Alarm System Units

- UL 1610, Central Station Burglar-Alarm Units

- UL 1635, Digital Burglar Alarm Communicator System Units

- UL 1641, Installation and Classification of Residential Burglar Alarm Systems

2.2   Supporting Documents

The digital communications features detailed in this standard are supported by the Security Industry Association *Digital Communication Standard - "SIA Format" Protocol for Alarm System Communications.*

2.3   Precedence

In the event of conflict between this standard and other reference documents mentioned herein, the order of precedence shall be:

1)   National Fire Protection Association

2)   Underwriters Laboratories, Inc.

3)   this standard

4)   other reference documents

3   Conventions and Definitions

3.1   Conventions

3.1.1   Units of Measurement

In accordance with SIA Policy, the units of measurements used throughout this publication are the units of the System International d' Unites (SI), commonly known as metric units. Equivalent English Units, enclosed in parenthesis, are also used in this publication. These equivalent English Units are approximate conversions and are provided for easy reference.

3.1.2   Tolerances

Unless otherwise specified, the tolerance for measurements specified within this standard shall be 10 percent (±10%).

3.1.3   Special Capitalization

Alarm sequence events, alarm system commands and states, and digital communication codes transmitted by the control panel to the central station are capitalized within the text of this standard.

3.1.4 Nomenclature and Identification of Clauses

Clauses and subclauses within this standard are identified and referenced by the number preceding each clause. Unless otherwise specified, references to a clause refer to only that clause and not to subsequent subclauses within the clause.

3.1.5 Binding Language

This standard uses the term "shall" to convey binding requirements.

The term "may" is used to convey features that are allowed but not required.

Terms such as "is", "are", "will", and others are used to convey statements of fact for advisory purposes only.

The annotation "NOTE:" also precedes advisory information.

Where this standard is silent on a feature, the feature is permitted so long as it is not in conflict with the requirements contained herein.

Normative Annexes contain binding information.

3.2 Terms and definitions

For the purposes of this standard, the following terms and definitions apply:

3.2.1
24-hour alarm
an alarm produced by a trip on a 24-hour zone.

3.2.2
24-hour zone
a zone that is always active, usually used for smoke detectors.

3.2.3
abort
a manual intervention after a system trip that prevents an alarm from being sent.

3.2.4
abort window
a period of time after a sensor initiated alarm condition that allows the user additional time to Disarm the system before an alarm is transmitted.

3.2.5
alarm
a condition indicating a state of alert, duress, perimeter violation, or fire at the premises.

3.2.6
alarm signal
a transmission of an alarm condition or alarm report.

3.2.7

annunciator

a low level audio or visual device, such as a speaker or LED, whose purpose is to inform the system user the condition or status of the security system or designated part of the security system.

3.2.8

Arm

to turn on a security system.

3.2.9

arming station

the part(s) of a security system from which a human operator can Arm and Disarm the system, manipulate the system operation, or otherwise interact with the system.

3.2.10

Away

see *Full Arm*.

3.2.11

Bell

a specific type of sounder which produces a ringing or gong sound through the striking of its hammer to its metal part.

3.2.12

Cancel

a transmission indicating that the previous alarm signal, or alarm in process, is to be disregarded.

3.2.13

Close

the act of Arming a security system.

3.2.14

code

a parcel of electronic data, usually represented by a short series of letters or numbers corresponding to a specific event or status of the security system, which is generated by the control panel and sent as a report or part of a report.

3.2.15

communicator

the part of the security system that sends electronic data outside the premises, typically to a central station.

3.2.16

communicator delay

a period of time which elapses before the control panel sends a transmission to the central station. See *Abort Window*.

3.2.17

control

the part of the security system that determines the operation and interaction of the system based on programmed logic.

3.2.18
control panel
the part of a security system that handles control and communication, whether as combined or separate physical units.

3.2.19
cross zoning
a configuring of logic within the control panel such that two or more zones of the security system are interdependent in causing an alarm condition.

3.2.20
delayed zone
a zone or circuit configured to provide a time delay, when tripped, before an alarm is generated.

3.2.21
Disarm
to turn off a security system.

3.2.22
double action trigger
a manual operation that requires two simultaneous or sequential actions.

3.2.23
Duress
the presence of one or more persons trying to force an individual to enter or re-enter a facility, or commit some other act or action against the individual's will.

3.2.24
Entry Delay
the period of time allowed, after entry to the premises, to Disarm the security system before the panel initiates an Alarm Transmission Sequence.

3.2.25
entry/exit zone
a delayed zone on the perimeter of the protected premises.

3.2.26
Exit Error
a signal produced when an entry/exit zone is still violated at the expiration of the Exit Time.

3.2.27
Exit Time
the period of time allowed, after Arming a security system, to exit the premises without tripping an alarm.

3.2.28
false alarm
an alarm transmission sent by the security system indicating the presence of an alarm condition when none exists.

3.2.29
fire alarm verification
an operation that ensures that an alarm condition persists by resetting a tripped sensor in a fire zone and confirming that the sensor remained tripped or waiting for the sensor to re-trip within a set period of time. (e.g. if the smoke detector is self-resetting or auto-restoring, checking that the sensor trips more than once or

remains tripped within a set period of time.)(e.g. Cycling power to a smoke detector to ensure the condition persists when power is restored.)

3.2.30
fire zone
a zone or circuit installed upon which are sensors designed to detect a fire condition (e.g. smoke, heat, etc.)

3.2.31
follower zone
a non entry/exit zone, typically an interior zone located on an entry/exit path, that is treated as an entry/exit zone during an Entry Delay or Exit Time.

3.2.32
Full Arm
an armed state of a security system where all zones and sensors are activated.

3.2.33
Holdup
the presence of one or more criminals attempting to take goods or funds with implied or actual threat of force.

3.2.34
Home
see *Stay Arm.*

3.2.35
instant zone
a non-24 hour zone that causes an alarm immediately upon being tripped.

3.2.36
key fob
a type of *remote control device.*

3.2.37
keypad
see *arming station.*

3.2.38
local alarm
an alarm indication given at the protected premises by activation of a sounder.

3.2.39
manual reset
the act of clearing an alarm condition in a security system by human intervention, either at an arming station or by remote control.

3.2.40
Open
the act of Disarming a security system.

3.2.41
operating code
a numeric sequence used to control the alarm system, usually entered manually at a keypad.

3.2.42
option
a functional or performance feature that is required by this standard but may be implemented as a selectable part of a product's performance capability.

3.2.43
Panic
a general type of perceived emergency, including the presence of one or more unwanted persons trying to gain entry or observed intruders on the private grounds.

3.2.44
partition
a defined area within the security system that can be Armed and Disarmed independent of the other area(s), but operated under a single system control. (Dedicated or shared user interfaces may be used to operate a partition.)

3.2.45
point
an electronically addressable sensor, sometimes used interchangeably with the term *sensor.* The term is usually used in multiplex alarm systems or for RF (wireless) sensors.

3.2.46
premises
the facility being protected by a security system.

3.2.47
primary power
power provided by a commercial source that is normally available at the premises.

3.2.48
Recent Closing
a transmission indicating that the security system has recently been Armed.

3.2.49
report
an electronic transmission sent by the control panel to the central station containing detailed information about an event detected by or status of the security system.

3.2.50
remote control device
~~a portable wireless device that controls functions of a control panel, such as Arm, Disarm, or other features provided by the manufacturer.~~ any device that can be used at a location remote from the control panel to control the functions of the control panel. This includes portable wireless devices, dead bolt sensors located in the entry door assembly, or any other device intended to arm or disarm the control panel when activated. One of the purposes of a remote control device is to eliminate the need for arming and disarming delays, by giving the user a means of arming or disarming before, or simultaneous with, entry or exit. Some remote control devices (i.e., key fobs) can also give the user a means of remotely initiating manual alarms.

3.2.51
secondary power
power provided from a secondary source, such as a battery or generator, upon the loss of primary power.

3.2.52
silent exit
a user initiated feature that silences the audible progress annunciation of the exit delay.

3.2.53
siren
a type of *sounder*.

3.2.54
sounder
a high level audio device whose purpose is to alert person(s) at the protected premises of an alarm condition.

3.2.55
Stay Arm
an armed state of a security system where some zones or sensors are active while other zones or sensors are made inactive, allowing occupants to be inside the protected premises without causing an alarm.

3.2.56
swinger shutdown
an operating mode in which the control panel, when a sensor or zone is repeatedly tripping, ignores the trips on that zone after a limited number of them.

3.2.57
transmission
an electronic message sent from the control panel to the central station.

3.2.58
trip
an alarm state (of the security system) produced as a result of detection by a sensor.

3.2.59
user code
the numeric sequence of digits that correlates to a valid user number.

3.2.60
user interface
see *arming station*.

3.2.61
user number
an identification number assigned to a person who operates or has access to the security system, or a default identification number assigned to a security system for quick Arming of the system.

3.2.62
violated
a condition at the premises detected by a sensor that causes a trip.

3.2.63
zone
a dedicated input to the control panel containing one or more sensor devices which will trip that input upon activation of any one sensor device.

**3.2.64
Zone in Error**
the zone that has produced an erroneous alarm condition.

**3.2.65
zone type**
a group of zones identified by common function or operating mode.

4   Requirements

4.1   Partitioned Systems

Partitioned systems shall provide the requirements of Clause 4.2 User Caused False Alarms, 4.3 Sensor Caused False Alarms, and 4.6 Installation and Test for each partition.

4.2   User Caused False Alarms

4.2.1   Annunciation

The control panel shall support an output to activate an auxiliary annunciation device for all sounds required by this standard.

The control panel shall support annunciation of exit and entry time in multiple locations within the premises.

4.2.2   Arming and Exit

To reduce the incidence of false alarms during Full Arming or automatic Arming, the following shall be required except as noted in clause 4.2.4.4 Remote Arming.

4.2.2.1   Exit Time

A programmable Exit Time shall be included. The programmable range for all Exit Times shall be from forty-five (45) seconds to at least two (2) minutes, but shall not exceed two hundred and fifty-five (255) seconds. The control panel default setting for all Exit Times shall be sixty (60) seconds.

Silent Exit - If the control panel supports a silent exit feature and it has been invoked, the Exit Time shall be doubled for that exit period only.

4.2.2.2   Progress Annunciation

The control panel shall annunciate a distinct pulsating audible sound throughout the duration of the Exit Time to warn person(s) still within the premises that the exit period is in process.

An audible annunciation, whose pulsating rate is distinctly different, shall sound during the last ten (10) seconds of the Exit Time to warn person(s) that the Exit Time is running out.

Silent Exit - If the control panel supports a silent exit feature and it has been invoked, the audible progress annunciation shall be silenced for that exit period only.

The control panel shall not allow progress annunciation to be disabled for the entire system, but may allow annunciation to be disabled for individual keypads.

4.2.2.3   Exit Time Restart

An option shall be provided where violation, restoral, and then a second violation of an entry/exit zone prior to the end of the Exit Time shall restart the Exit Time. The panel shall not allow the Exit Time to be restarted more than once. The default setting for this option shall be that it is enabled.

Silent Exit - If the control panel supports a silent exit feature and it has been invoked, the audible progress annunciation shall remain silenced during the additional Exit Time, and the duration of the additional Exit Time shall be doubled for that additional exit period only.

4.2.2.4   Exit Error

An Exit Error sequence shall be initiated if an entry/exit zone is violated at the expiration of the Exit Time.

An Exit Error shall be processed as follows:

- The local alarm shall immediately sound.

- The annunciator shall sound an Entry Delay or an alarm condition.

- An Entry Delay shall be initiated.

- If the alarm system is not Disarmed at the end of the Entry Delay, the Alarm Transmission Sequence shall be initiated.

- The Alarm Transmission shall include the alarm and an Exit Error.

4.2.2.5   Unvacated Premises

An option shall be provided which allows the security system to Arm in the Stay Arm mode if the Exit Time expires and no exit has been made. The default setting for this option shall be that it is enabled.

This option is not required when the system is Armed with a remote control device.

4.2.2.6   Recent Closing

A Recent Closing transmission shall be sent if an alarm occurs within two (2) minutes after the expiration of the Exit Time. If the user number is available, it shall be included in the Recent Closing transmission.

Recent Closing transmissions are not required for Fire alarms.

4.2.3   Entry and Disarming

To reduce the incidence of false alarms during Entry and Disarming, the following shall be required for all armed states.

4.2.3.1   Entry Delay

Programmable Entry Delays shall be included. The programmable range for all Entry Delays shall be from thirty (30) seconds to at least four (4) minutes. The control panel default setting for all Entry Delays shall be thirty (30) seconds. If the system is not disarmed during the Entry Delay, the Alarm Transmission Sequence shall begin when the Entry Delay expires.

4.2.3.2   Progress Annunciation

A distinct annunciation shall be produced upon entry to warn person(s) entering the premises that the Entry Delay has begun. This annunciation shall be distinct from the annunciation produced when the system is in alarm.

4.2.3.3   Disarm

When the system is in an Entry Delay, the system shall Disarm by entering a user code only. Alternative co-existing methods of Disarming are permitted.

Progress annunciation shall be silenced upon entry of the first digit of the user code. Progress annunciation shall resume upon entry of an invalid user code or after a manufacturer specified time during the Entry Delay.

4.2.4   Remote Control Devices

Devices that remotely control the functions of the alarm system, if used, shall have the following features.

4.2.4.1   Control Buttons

Remote control device buttons, including Duress, Holdup and Panic, shall be mechanically designed in such a way so that inadvertent activation of remote commands shall be minimized.

4.2.4.2   Manual Alarms

The requirements of clause 4.2.7.1 Initiation of Manual Alarms shall be met when activating manual alarms by remote control devices.

4.2.4.3   System Acknowledgment

The control panel shall provide acknowledgment of Arm and Disarm commands from the remote control device such that the acknowledgment can be discerned from the exterior of the premises.

4.2.4.4   Remote Arming

When the system is Armed using a remote ~~arming~~ control device, the control panel may be programmed to Arm the system without an Exit Time and the associated progress annunciation as described in clause 4.2.2.1 Exit Time ~~and 4.2.2.2 Progress Annunciation~~ through 4.2.2.6 Recent Closing. The default configuration for the control panel shall be to Arm the system using the Exit Time and progress annunciation.

~~If the control panel can be programmed to remotely Arm the system with Exit Time and progress annunciation suppressed, the default configuration for the control panel shall be to Arm the system using the Exit Time and progress annunciation as described in clauses 4.2.2.1 Exit Time and 4.2.2.2 Progress Annunciation.~~

4.2.4.5   Remote Disarming

When the system is Disarmed using a remote control device, such that an Entry Exit Zone is not violated prior to disarming the system, the progress annunciation described in clause 4.2.3.1 through 4.2.3.3 will not start.

4.2.5   Alarm Transmission Sequence

To reduce the incidence of false alarms during alarm transmissions, the following sequence of events shall be required.

4.2.5.1   Abort Window

A programmable Abort Window shall be included for all non-fire zones. During an Abort Window, the local alarm shall sound and the annunciator shall annunciate an alarm.

NFPA requirements shall be met when the Abort Window is applied to any fire zone.

The Abort Window may be disabled by zone or zone type. The default setting for the Abort Window shall be that it is enabled for all non-fire zones and zone types.

The programming for the Abort Window for all non-fire zones shall be as follows:

Table 1 — Programming for the Abort Window for all Non-Fire Zones

Programming Range:	
Minimum	15 sec
Maximum	45 sec
Default Time	30 sec
May Disable	By Zone or Zone Type

NOTE   In accordance with UL standards, this standard intends that the aggregate of the Entry Delay and Abort Window will not be programmed to exceed one minute.

4.2.5.1.1 Disarm

When the system is in an alarm condition, the system shall Disarm by entering a user code only. Alternative co-existing methods of Disarming are permitted.

Alarm annunciation shall be silenced upon entry of the first digit of the user code. Alarm annunciation shall resume upon entry of an invalid user code or after a manufacturer specified time during the Abort Window.

4.2.5.1.2 Abort

If the alarm system is Disarmed within the Abort Window, no alarm transmission shall occur.

An option shall be provided that the alarm system will annunciate that no alarm signal was transmitted. The default setting for this option shall be that it is enabled.

NOTE: A transmission may be sent indicating that an alarm has been aborted.

4.2.5.2   Alarm Transmission

The Alarm Transmission shall occur at the end of the Abort Window.

4.2.5.3   Disarm

Upon disarming the system after any alarm has been reported (except for a Duress alarm), the panel shall indicate that an alarm had occurred and shall, at a minimum, indicate which zone(s) had been violated during the armed period.

4.2.5.4   Cancel Window

A period of time shall be provided, starting at the end of the Abort Window, during which a user can Cancel the alarm. The minimum duration of the window shall be five (5) minutes. The Cancel Window shall apply to all alarms that have been subjected to the Abort Window.

4.2.5.4.1 Cancel

If an alarm has previously been transmitted, a Cancel signal shall be transmitted if either the alarm system is Disarmed, or both a Disarm and function key are depressed during the Cancel Window.

An option shall be provided that the alarm system will annunciate that a Cancel was transmitted. The default setting for this option shall be that it is enabled.

4.2.6   Inadvertent Duress

To reduce the incidence of inadvertent Duress signals, the following shall be required.

4.2.6.1   Use of Duress Feature

If a Duress feature is provided, its default setting shall be that it is disabled.

4.2.6.2   Duress Code

A Duress signal shall be sent by a unique Duress code only. The control panel shall not derive the Duress code from an existing operating code such as a "user code plus Duress digit" sequence. The panel shall not allow duplication of any operation code including Duress codes.

4.2.7   Initiation of Manual Alarms

Alarms that are manually initiated at an arming station shall require a double action trigger.

NOTE: Implementation of this feature may include, but is not limited to, any of the following:

- Simultaneous depression of two buttons, where if either of the buttons have multiple functions, the two buttons are non-adjacent.

- Depression of a single button after lifting the cover that normally protects it, if the cover protects only emergency function buttons.

- Depression of a single button for at least two seconds.

4.3   Sensor Caused False Alarms

To reduce the incidence of false alarms caused by sensors, the following shall be required.

4.3.1 Cross Zoning

A cross zoning option shall be included with the following features:

- The cross zone option shall be programmable by zone.

- The cross zone option shall require a trip on two zones, within a given time period, to start an Alarm Transmission Sequence as described in Clause 4.2.5 Alarm Transmission Sequence and its subclauses.

- The time period shall be initiated by the trip of the first zone.

- The time period shall be programmable or specified by the manufacturer.

The default setting for the cross zone option shall be that it is disabled.

NOTE: When the time period elapses without the trip of the second zone, it is recommended that an error transmission be sent that reports a trip in a cross zone was not verified.

4.3.2 Swinger Shutdown

A programmable swinger shutdown shall be required for each non-fire zone, such that one or two trip shall shut down the zone. The zone shall be restored by a manual reset or may be reset automatically after forty eight (48) hours with no trips on any zones. The default setting for this option shall be one trip for swinger shutdown.

NOTE: A Swinger Trouble code may be transmitted upon the occurrence of additional trips on the zone.

NOTE: Swinger shutdown may be disabled on any non-fire zone that does not require police response.

4.3.3 Fire Alarms

Fire alarm verification shall be an available option on fire zones. When used, the system shall begin an Alarm Transmission Sequence once the conditions for fire alarm verification are met. The default setting for the fire alarm verification option shall be that it is disabled.

4.4 Power caused false alarms

To reduce the incidence of false alarms caused by power problems, the following shall be required.

4.4.1 Power Variations

The control panel shall prevent false alarms due to variations of primary and secondary power sources, or due to complete loss of primary or secondary power or both.

4.4.2 Labelling

In order to allow the installer to match the operating ranges of sensors to the operating range of the control panel, the panel shall specify, on the interconnect label, the voltage under the full rated load at which point the panel ceases to process sensor trips.

4.4.3   Restoration of Power

Upon the restoration of power after a complete loss of primary and secondary power, the control panel shall resume operation in the same Arm state and with the same zones bypassed as when the panel lost primary and secondary power. The panel shall disregard input from all sensors for a minimum of sixty (60) seconds from the time of the primary power restoration.

4.5   Call Waiting

To help prevent a call waiting line from interfering with the alarm verification process (causing the indication of a continuous ring when the phone line is actually in use), a programmable option for call waiting cancel shall be required. The default setting for this option shall be that it is disabled.

Note: The dial sequence for call waiting cancel is typically ∴70pause on a DTMF line, but may vary depending on the region of the country.

Should a connection not be established on the initial attempt, an alternate dialing method shall be provided to assure that the connection failure was not due to the use of the call waiting cancel feature on a non- call waiting line.

A caution shall be included with the panel alerting the installer that a call waiting cancel on a non- call waiting line will prevent successful connection to the central station.

4.6   Installation and Test

To assist in both the installation and testing of panels to this standard, the following shall be required.

4.6.1   Quick Reference

A quick reference chart or card for the installer detailing the programming locations and testing procedures associated with the features of this standard shall be included.

NOTE: User manuals should contain the following statement, or one similar:

> "There is a communicator delay of 30 seconds in this control panel. It can be removed, or it can be increased up to 45 seconds, at the option of the end user by consulting with the installer."

4.6.1.A   System Configuration Identification

For system configurations comprised of interchangeable components (e.g. control equipment, arming station, annunciator, local alarm, communicator, sub assembly, etc.) a list of components that comprise of the CP-01 compliant system shall be provided. The list shall be prominently available as part of the equipment's installation manual and shall include applicable information such as model numbers of the system components, so that the complaint minimum system configuration is identified.

4.6.2   Partitioned Systems

For partitioned systems, the requirements of clause 4.6 Installation and Test and its subclauses shall be capable of being implemented independently for each partition.

4.6.3   System Test

A mode of operation that allows testing of all zones, the control, all sounders, and the communicator shall be included.

4.6.4   Initiation of Test

4.6.4.1   Panel Status

The panel shall ensure that a system test cannot be initiated from an armed state.

4.6.4.2   Initiation Report

At the initiation of a test, the control panel shall send a message to the central station that a test is in progress. The message shall include the user number if it is available.

4.6.5   Communications

Communication with the monitoring station regarding the partition(s), zones, or points and sensors under test shall be inhibited for the duration of the test except for the requirements of clause 4.6.4.2 Initiation Report.

A feature may be provided to transmit test signals. The default setting for this feature, if provided, shall be disabled.

4.6.6   Test in Progress

During a test, the control panel shall give a clear, prominent, and continuous indication that the system is being tested. This indication shall be made at all wired system arming stations.

4.6.7   Termination of Test

4.6.7.1   Automatic Termination

When a panel automatically terminates a test, the panel shall annunciate a warning, different from the annunciation specified in clause 4.6.6 Test in Progress, beginning five (5) minutes prior to the termination of the test.

4.6.7.2   State at Termination

Termination of a test shall leave the security system in a disarmed state. 24 hour alarm zones are exempt from this requirement. Should a point in a 24 hour alarm zone be in violation at the termination of a test, the panel shall suppress the alarm and treat the zone as a trouble condition.

4.6.7.3   Termination Report

When a test is terminated, the control panel shall send a message to the central station that the test is over.

4.7   Default Settings

 All features of this standard implemented as selectable options shall be selected as the factory default except where otherwise indicated. Default settings are listed in Annex A.

Annex A
(informative)
Programmable Features

Table A.1 — Shipping Defaults and Recommended Programming

PARAGRAPH	FEATURE	REQUIREMENT	RANGE	SHIPPING DEFAULT	RECOMMENDED PROGRAMMING *
4.2.2.1	Exit Time	Required (programmable)	For full or auto arming: 45 sec. - 2 min. (255 sec. max.)	60 Seconds	60 Seconds
4.2.2.2	Progress Annunciation / Disable - for Silent Exit	Allowed	Individual keypads may be disabled	All annunciators enabled	All annunciators enabled
4.2.2.3	Exit Time Restart	Required Option	For re-entry during exit time	Enabled	Enabled
4.2.2.5	Auto Stay Arm on Unvacated Premises	Required Option (except for remote arm)	If no exit after full arm	Enabled	Enabled
4.2.4.4	Exit Time and Progress Annunciation / Disable - for Remote Arm	Allowed Option (for remote arm)	May be disabled - for remote arming	Enabled	Enabled
4.2.3.1	Entry Delay(s)	Required (programmable)	30 sec. - 4 min. **	30 Seconds	At least 30 Seconds **
4.2.5.1	Abort Window – for Non-Fire Zones	Required Option	May be disabled - by zone or zone type	Enabled	Enabled (all zones)
4.2.5.1	Abort Window Time – for Non-Fire Zones	Required (programmable)	15 sec. - 45 sec. **	30 Seconds	At least 15 seconds **
4.2.5.1.2	Abort annunciation	Required Option	Annunciate that no alarm was transmitted	Enabled	Enabled
4.2.5.4.1	Cancel Annunciation	Required Option	Annunciate that a Cancel was transmitted	Enabled	Enabled
4.2.6.1 & 4.2.6.2	Duress Feature	Allowed Option	No 1+ derivative of another user code No duplicates with other user codes	Disabled	Disabled

PARAGRAPH	FEATURE	REQUIREMENT	RANGE	SHIPPING DEFAULT	RECOMMENDED PROGRAMMING *
4.3.1	Cross Zoning	Required Option	Programming needed	Disabled	Enabled and two (or more) zones programmed
4.3.1	Programmable Cross Zoning Time	Allowed	May Program	Per manufacturer	Per walk path in protected premises
4.3.2	Swinger Shutdown	Required (programmable)	For all non-fire zones, shut down at 1 or 2 trips	One trip	One trip
4.3.2	Swinger Shutdown Disable	Allowed	For non- police response zones	Enabled	Enabled (all zones)
4.3.3	Fire Alarm Verification	Required Option	Depends on panel and sensors	Disabled	Enabled unless sensors can self verify
4.5	Call Waiting Cancel	Required Option	Depends on user phone line	Disabled	Enabled if user has call waiting

* Programming at installation may be subordinate to other UL requirements for the intended application.

** Combined Entry Delay and Abort Window should not exceed 1 minute.

Annex B
(informative)
Arming, Disarming, and Transmission Sequences

Table B.1 — System Arming and Exit Sequence — Clause 4.2.2

Event	Time	Action	Comments
Exit Time Clause 4.2.2.1	45 to between 120 to 255 seconds. Default = 60 seconds	Initiates Progress Annunciation.	Time doubles if the silent exit feature is invoked.
Progress Annunciation Clause 4.2.2.2	During Exit Time. Last 10 seconds of Exit Time.	Audible Annunciation. Distinct Audible Annunciation.	Disabled if the silent exit feature is invoked. Default: Annunciate ON
2nd Violation of Entry/Exit Zone	During Exit Time. Clause 4.2.2.3	May Restart Exit Time One Time Only	2nd Violation = violation, restore, violation of entry/exit zone
Violated Entry/Exit Zone	End of Exit Time Clause 4.2.2.4	Initiates an Exit Error Sequence.	
Arm	End of Exit Time.	Arms the Alarm System.	Option: Shall Stay Arm if no exit was made during Exit Time. Clause 4.2.2.5
Alarm	Within 2 minutes of the end of the Exit Time. Clause 4.2.2.6	Transmit Recent Closing.	Include user number in transmission if available. Not required for Fire alarms.

Table B.2 — Entry and System Disarming Sequence — Clause 4.2.3

Event	Time	Action	Comments
Entry Delay Clause 4.2.3.1	30 seconds to ≥4 minutes. Default = 30 seconds	Initiates Progress Annunciation.	
Progress Annunciation Clause 4.2.3.2	During Entry Delay.	Audible Annunciation.	
Disarm Clause 4.2.3.3	Prior to Expiration of the Entry Delay.	Disarms the Alarm System.	System shall Disarm by, at a minimum, entry of the user code only.

Table B.3 — Alarm Transmission Sequence — Clause 4.2.5

Event	Time	Action	Comments
Abort Window Clause 4.2.5.1	Non-Fire: 15 to 45 seconds.	Sounds the Local Alarm. Annunciator Sounds Alarm Condition.	May disable by zone / zone type Default time: Non-Fire = 30 sec.
Disarm Clause 4.2.5.1.1 & 4.2.5.1.2	During Abort Window.	Aborts the Alarm Transmission Sequence.	System shall Disarm by entry of the user code only. Option - Annunciate that no Alarm Transmission was made.
Transmit Alarm Clause 4.2.5.2	End of the Abort Window.	Transmits Alarm Signal.	

Event	Time	Action	Comments
Cancel Window Clause 4.2.5.4	Starts at the end of the Abort Window. $\geq$ 5 minutes		Applies to all alarms that have been subject to the Abort Window.
Disarm or Disarm + Function Key Clause 4.2.5.4.1	During the Cancel Window.	Transmit a Cancel Signal.	Cancel Signal is transmitted during the Cancel Window if an alarm was previously transmitted.

Event	Time	Action	Comments
Disarm Clause 4.2.5.3	After an alarm report.	Disarms the Alarm System.	Panel will indicate an alarm occurred and which violated zone(s) caused the alarm.

Annex C
(informative)
Event Timing Diagrams

The following event timing diagrams use the default panel settings as prescribed in the text of the standard.

The diagrams also assume that no commands are made to the panel during the sequence unless otherwise indicated.

Areas shown in grey are not defined by the standard and may be used as the manufacturer requires.

System Arm without violations (Clause 4.2.2.1 and 4.2.2.2)

TIME (MIN/SEC)   :00   :50   1:00

SYSTEM STATE	Unarmed	Exit Time		Armed
ANNUNCIATOR		Exit Annunciation	Unique	
LOCAL ALARM				
COMMUNICATION				

　　　　User Arms the Alarm System ✍

System Arm with multiple trips of the entry/exit zone during Exit Time (Clause 4.2.2.1, 4.2.2.2 and 4.2.2.3)

TIME (MIN/SEC)   :00   < 1:00 ⌈ :00   :50   1:00

SYSTEM STATE	Unarmed	Exit Time	Restart Exit Time		Armed
ANNUNCIATOR		Exit Annunciation	Exit Annunciation	Unique	
LOCAL ALARM					
COMMUNICATION					

　　　　User Arms the Alarm System ✍　　　　　　　　　✍ Exit Delay Restart occurs 1 time only at the trip after the 1st restoral
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　of an entry/exit zone

System Arm with premises unvacated (Clause 4.2.2.1, 4.2.2.2 and 4.2.2.5)
Entry/exit zone untripped during Exit Time

TIME (MIN/SEC)   :00   :50   1:00

SYSTEM STATE	Unarmed	Exit Time		Armed in the Stay Arm mode
ANNUNCIATOR		Exit Annunciation	Unique	
LOCAL ALARM				
COMMUNICATION				

　　　　User Arms the Alarm System ✍

Exit Error - System Arm with entry/exit zone in violation at the end of the Exit Time (Clause 4.2.2.1, 4.2.2.2, 4.2.2.4 and 4.2.5)

TIME (MIN/SEC)	:00	:50	1:00	1:30	2:00

SYSTEM STATE	Unarmed	Exit Time		Entry Delay	Abort Window	Alarm Transmission
ANNUNCIATOR		Exit Annunciation	Unique	Entry or Alarm Annunciation	Alarm Annunciation	
LOCAL ALARM				Sounds	Sounds until alarm time-out	
COMMUNICATION						TX Alarm & Exit Error

User Arms the Alarm System ✍   ✎ Entry/exit zone violated between times :00 and 1:00 and remains violated
at the end of the Exit Time

System Entry and Disarm (Clause 4.2.3)

TIME (MIN/SEC)	:00	< :30

SYSTEM STATE	Armed	Entry Delay	Disarmed
ANNUNCIATOR		Entry Annunciation	
LOCAL ALARM			
COMMUNICATION			

Violation of an entry/exit (delayed) zone ✍   ✎ Entry of Valid Disarm code

Trip of entry/exit zones (Clause 4.2.3 and 4.2.5)

TIME (MIN/SEC)	:00	:30	1:00

SYSTEM STATE	Armed	Entry Delay	Abort Window	Alarm Transmission
ANNUNCIATOR		Entry Annunciation	Alarm Annunciation	
LOCAL ALARM			Sounds until alarm time-out	
COMMUNICATION				Transmit Alarm

Violation of a delayed zone ✍

Trip of non-entry/exit and non-Fire zones (Clause 4.2.5)

TIME (MIN/SEC)	:00	:30

SYSTEM STATE	Armed	Abort Window	Alarm Transmission
ANNUNCIATOR		Alarm Annunciation	
LOCAL ALARM		Sounds until alarm time-out	
COMMUNICATION			Transmit Alarm

Violation of an instant zone ✍

Annex D
(informative)
Recommended Self Validation Procedures

The following procedures are intended to ascertain compliance with the requirements of the Security Industry Association's *Control Panel Standard - Features for False Alarm Reduction*.

Although a control panel can be validated as a stand alone unit, these procedures are written for a system test where various peripherals (sensors, annunciators, etc.) are used with a control panel. They refer to the control panel being tested (including its arming stations) as the Unit Under Test (UUT).

These procedures are organized by the clauses of their associated requirements in the standard to provide convenient reference, but they are not intended to suggest the sequence of testing. While all features should be tested, it is understood that individual product implementations will dictate optimum sequencing of tests.

These procedures assume that, unless otherwise specified:

- all programmable options are initially programmed to the default settings specified in the standard

- the UUT is Disarmed and returned to its default configuration after each test, noted as End of Test (EOT)

These procedures are generic and highlight various implementation details specific to an individual UUT in *italics print*, where the standard allows certain freedom of design.

These procedures are non-binding and are not intended to add to or supplant the requirements of the standard. When the requirements of the standard and these procedures appear to be in conflict, the requirements of the standard have precedence.

VALIDATION PROCEDURE	REFERENCE
Pre-test Verify that all selectable options of the UUT are defaulted as listed by the table in Appendix A of the standard. (Refer to the UUT's quick reference chart or card.)	4.7 & Appendix A (4.6.1)

SECTION 1 USER CAUSED FALSE ALARMS (to be performed on each partition of the UUT)

VALIDATION PROCEDURE	REFERENCE
VP 1 Panel Annunciation • Verify that the UUT has an output for an auxiliary annunciation device that will sound all annunciations required by the standard. • Verify that the UUT has an output for remote annunciation devices that will sound progress annunciation during Entry Delay and Exit Time. **EOT**	4.2.1
EXIT TIME	
VP 2 Exit Time • Verify that the UUT's Exit Time is defaulted *(for all entry/exit zones that have a unique default settings)* to 60 seconds. • Arm the UUT. • Verify that the time between the last arming keystroke and a Full Arm (Exit Time) is 60 seconds. • Disarm the UUT. • Program the Exit Time to 44 seconds, and verify that the Exit Time is 45 seconds or greater. *(Note: If the UUT did not accept programming to 44 seconds , proceed to the next test.)* • Program the Exit Time to 45 seconds, and verify that the Exit Time is 45 seconds. • Program the Exit Time to 120 seconds, and verify that the Exit Time is 120 seconds. • Program the Exit Time to 256 seconds, and verify that the Exit Time is 255 seconds or less. *(Note: If the UUT did not accept programming to 256 seconds, proceed to the next test.)* • Return the UUT to the default Exit Time setting. • Arm the UUT. • Trip an entry/exit zone. • Verify that the time between the last arming keystroke and the local alarm is 60 seconds. • Disarm the UUT. *If the UUT has a silent exit feature*: • Arm the UUT with the silent feature, and verify that the Exit Time is 120 seconds. • Arm the UUT normally, and verify that the Exit Time is 60 seconds. **EOT**	4.2.2.1

VALIDATION PROCEDURE	REFERENCE
VP 3 Progress Annunciation • Arm the UUT. • Verify that Exit Time is annunciated. • Verify that the annunciation changes during the last 10 seconds of the Exit Time (after 50 seconds of Exit Time.) • *If the UUT has a silent exit feature*: • Arm the UUT with the silent feature • Verify that there is no progress annunciation during the Exit Time. • Disarm and rearm the UUT. • Verify that Exit Time is annunciated. **EOT**	4.2.2.2
VP 4 Exit Time Restart • Arm the UUT. • During the Exit Time: - Trip an entry/exit zone, restore it, then trip it again. • Verify that the time between the second trip of the entry/exit zone and the start of the local alarm is 60 seconds. • Disarm the UUT. • Arm the UUT. • During the Exit Time: • Trip an entry/exit zone, restore it, then trip it again. • Then restore the entry/exit zone, and trip it again. • Verify that the time between the second trip of the entry/exit zone and the start of the local alarm is still 60 seconds. • Disarm the UUT. • *If the UUT has a silent exit feature*: • Arm the UUT with the silent feature • During the Exit Time: • Trip an entry/exit zone, restore it, then trip it again. • Verify that the time between the second trip of the entry/exit zone and the start of the local alarm is 120 seconds. **EOT**	4.2.2.3

VALIDATION PROCEDURE	REFERENCE

VP 5 Exit Error
 	
• Arm the UUT.
 	
• Violate an entry/exit zone, and leave it violated through the entire Exit Time.
 	
• Verify that an Exit Error sequence commences at the end of the Exit Time with the following features:
 	
   - The local alarm sounds.
 	
   - The annunciator sounds an entry annunciation or an alarm condition.
 	
   - An Entry Delay begins.
 	
• Disarm the UUT prior to the expiration of the Entry Delay, and verify that no signal is sent.
 	
• Repeat **VP 5** without Disarming the UUT.
 	
• Verify that the alarm is transmitted 60 seconds after the local alarm sounds.
 	
• Verify that the transmission includes the appropriate alarm code and an Exit Error.
 	
EOT
	4.2.2.4

VP 6 Unvacated Premises • Verify that the UUT is defaulted with automatic Stay Arm / unvacated premises enabled. • Arm the UUT. • Do <u>not</u> trip any entry/exit zones during the Exit Time. • Verify that the UUT Arms in the Stay Arm mode. **EOT**	4.2.2.6
VP 7 Recent Closing • Arm the UUT. • Wait 107 seconds after the expiration of the Exit Time, then trip any non-fire zone. • Verify that a Recent Closing is transmitted along with the appropriate alarm code. • *Verify that the transmission includes the appropriate user number when available.* • Disarm the UUT. • Arm the UUT. • Wait 133 seconds after the expiration of the Exit Time, then trip any non-fire zone. • Verify that the UUT does <u>not</u> send a Recent Closing transmission or a user number along with the alarm code. **EOT**	4.2.2.6
ENTRY DELAY	

VALIDATION PROCEDURE	REFERENCE
VP 8 Entry Delay • Verify that the UUT Entry Delay is defaulted *(for all entry/exit zones that have a unique default settings)* to 30 seconds. • Arm the UUT, and wait for the Exit Time to expire. • Trip an entry/exit zone. • Verify that the time between the trip and the local alarm (Entry Delay) is 30 seconds. • Disarm the UUT. • Reprogram the Entry Delay to 29 seconds, and verify that the time between the trip and the local alarm is 30 seconds or greater. *(Note: If the UUT did not accept programming to 29 seconds , proceed to the next test.)* • Reprogram the Entry Delay to 240 seconds, and verify that the time between the trip and the local alarm is 240 seconds. • Disarm the UUT. **EOT**	4.2.3.1
VP 9 Progress Annunciation • Arm the UUT, and wait for the Exit Time to expire. • Trip an entry/exit zone. • Verify that the UUT annunciates during the Entry Delay, and that the annunciation is different than an alarm. **EOT**	4.2.3.2
VP 10 Disarm • Arm the UUT, and wait for the Exit Time to expire. • Trip an entry/exit zone. • During the Entry Delay, enter a user code. • Verify that Progress Annunciation is silenced on the first keystroke of the user code. • Verify that the system Disarms. • Arm the UUT, and wait for the Exit Time to expire. • Trip an entry/exit zone. • During the Entry Delay, enter an invalid user code. • Verify that Progress Annunciation is silenced on the first keystroke of the invalid user code. • Verify that Progress Annunciation resumes after the last digit of the invalid user code *(or after the time specified by the manufacturer).* • Verify that the Entry Delay is still 30 seconds. **EOT**	4.2.3.3

VALIDATION PROCEDURE	REFERENCE
REMOTE CONTROL DEVICES	
VP 11 Control Buttons • Verify that the remote control device buttons are mechanically designed so that inadvertent activation is minimized. *(Reference the manufacturer's product literature if necessary.)* **EOT**	4.2.4.1
VP 12 Manual Alarms • Arm the UUT. • Activate a manual alarm. • Verify that a double action trigger was used to activate the alarm. (Acceptable double action trigger activation is typified by the examples given in clause 4.2.7 of the standard.) *(This test should be repeated for all types of manual alarm activations supported by the remote control device.)* **EOT**	4.2.4.2
VP 13 System Acknowledgment • Arm the UUT from the remote control device. • Verify that the UUT acknowledged the command in a manner that would normally be discernible from the exterior of the premises. • Disarm the UUT from the remote control device • Verify that the UUT acknowledged the command in a manner that would normally be discernible from the exterior of the premises. **EOT**	4.2.4.3
VP 14 Remote Arming • Arm the UUT from the remote control device. • Verify that the Exit Time is 60 seconds and that Progress Annunciation occurs. *If the remote ~~arming~~ control device has a silent exit feature*: • Arm the UUT from the remote control device with the silent feature invoked • Verify that the Exit Time is 120 seconds. • Arm the UUT normally from the remote control device • Verify that the Exit Time is 60 seconds. **EOT**	4.2.4.4 (4.2.2.1 and 4.2.2.2)
ALARM TRANSMISSION	

VALIDATION PROCEDURE	REFERENCE
VP 15 Abort Window	4.2.5.1
• Verify that the UUT's Abort Window is defaulted *(for all non-fire zones that have a unique default settings)* to 30 seconds.	
• Arm the UUT, and wait till the Exit Time expires.	
• Trip a non-fire zone.	
• Verify that the time between the local alarm and the alarm signal (Abort Window) is 30 seconds.	
• Disarm the UUT.	
• Reprogram the Abort Window to 14 seconds *(Note: If the UUT did not accept programming to 14 seconds , proceed to the next test.)*	
• Verify that the time between the local alarm and the alarm signal is 15 seconds or greater.	
• Disarm the UUT.	
• Reprogram the Abort Window to 15 seconds	
• Verify that the time between the local alarm and the alarm signal is 15 seconds.	
• Disarm the UUT.	
• Reprogram the Abort Window to 45 seconds, and verify that the time between the local alarm and the alarm signal is 45 seconds.	
• Disarm the UUT.	
• Reprogram the Abort Window to 46 seconds	
• *(Note: If the UUT did not accept programming to 46 seconds , proceed to the next test.)*	
• Verify that the time between the local alarm and the alarm signal is 45 seconds or less.	
• Disarm the UUT.	
Perform the above sequence for all non-fire zones on the UUT.	
EOT	

VALIDATION PROCEDURE	REFERENCE
VP 16 Disarm • Program the UUT with a User Code. • Arm the UUT and wait for the Exit Time to expire. • Trip a non-entry/exit, non-fire zone. • During the Abort Window, enter a user code. • Verify that Alarm Annunciation is silenced on the first keystroke of the user code. • Verify that the system Disarms. • Arm the UUT, and wait for the Exit Time to expire. • Trip an entry/exit zone. • During the Abort Window, enter an invalid user code. • Verify that Alarm Annunciation is silenced on the first keystroke of the invalid user code. • Verify that Alarm Annunciation resumes after the last digit of the invalid user code *(or after the time specified by the manufacturer).* • Verify that the Abort Window is still 30 seconds. **EOT**	4.2.5.1.1
VP 17 Abort • Verify that the UUT is defaulted to annunciate that no alarm has been transmitted when the alarm is Aborted. • Arm the UUT, and wait for the Exit Time to expire. • Trip a non-fire type zone. • Disarm the UUT. • Verify that the UUT does not transmit an alarm • Verify that the UUT annunciates that no alarm was transmitted. **EOT**	4.2.5.1.2
VP 18 Alarm Transmission • Arm the UUT. • Trip a non-fire type zone. • Verify that the UUT transmits the alarm 30 seconds after the local alarm sounds. **EOT**	4.2.5.2
VP 19 Disarm • Arm the UUT, and wait for the Exit Time to expire. • Trip a zone, and allow the system to report the alarm. • Disarm the UUT. • Verify that the UUT indicates an alarm has occurred and which zone was violated. **EOT**	4.2.5.3

VALIDATION PROCEDURE	REFERENCE
VP 20 Cancel Window	4.2.5.4 & 4.2.5.4.1
• Arm the UUT, and wait for the Exit Time to expire.	
• Trip a zone, and allow the system to report the alarm.	
• Wait 4 minutes and 30 seconds after the transmission of the alarm.	
• *Disarm the UUT, or Disarm and depress the appropriate function key to cancel the alarm.*	
• Verify that the UUT annunciates that a Cancel has been transmitted.	
• Verify that the UUT transmits a Cancel signal and annunciates that a Cancel was transmitted.	
EOT	
OTHER USER CAUSED FALSE ALARMS	
VP 21 Unique Duress Code *(If duress is supported)*	4.2.6.1 & 4.2.6.2
• Verify that the UUT duress feature is disabled as a default.	
• Arm the UUT.	
• Attempt to initiate a Duress alarm.	
• Verify that no Duress alarm was initiated.	
• Disarm the UUT.	
• Reprogram the duress feature to enable it.	
• Arm the UUT.	
• Initiate a Duress alarm.	
• Verify that a duress alarm is transmitted.	
• Disarm the UUT.	
• Attempt to program the duress code as a user code, but with the last digit incremented by 1.	
• Verify that the UUT will not accept it (either in programming or in use).	
• Attempt to program the duress code to match each of the other codes accepted by the UUT.	
• Verify that the UUT will not accept it (either in programming or in use).	
• Program the UUT with a valid duress code.	
• Attempt to program a user code to match the duress code.	
• Verify that the UUT will not accept it (either in programming or in use).	
EOT	

VALIDATION PROCEDURE	REFERENCE
VP 22 Initiation of Manual Alarms • Arm the UUT. • Activate a manual alarm. • Verify that a double action trigger was used to activate the alarm. (Acceptable double action trigger activation is typified by the examples given in Clause 4.2.7 of the standard.) *(This should be done for all types of manual alarm activations supported by the remote control device.)* **EOT**	4.2.7

SECTION 2 SENSOR CAUSED FALSE ALARMS (to be performed on each partition of the UUT)

VALIDATION PROCEDURE	REFERENCE
VP 23 Cross Zoning • Verify that no zones are defaulted in a cross zoned arrangement. • Program two zones in a cross zoned arrangement. • Arm the UUT and wait until the Exit Time is expired. • Trip one of the zones that are programmed as a cross zone. • At the expiration of the cross zone time, verify that there is no local alarm and that no alarm has been transmitted. • *If the feature is available,* verify that an error is transmitted that reports that a trip in a cross zone was not verified. • Disarm and rearm the UUT. • Program two zones in a cross zoned arrangement. • Arm the UUT and wait until the Exit Time is expired. • Trip the other zone in the cross zoned pair. • At the expiration of the cross zone time, verify that there is no local alarm and that no alarm has been transmitted. • *If the feature is available,* verify that an error is transmitted that reports that a trip in a cross zone was not verified. • Disarm and rearm the UUT. • Program two zones in a cross zoned arrangement. • Arm the UUT, and wait until the Exit Time is expired. • Trip one of the zones that are programmed as a cross zone. • After the cross zone time has expired, trip the other zone in the cross zoned pair. • At the end of the second cross zone time, verify that there is no local alarm and that no alarm has been transmitted. • *If the feature is available,* verify that 2 error transmissions were made that report the unverified trips in a cross zone. • Disarm and rearm the UUT. • Program two zones in a cross zoned arrangement. • Arm the UUT and wait until the Exit Time is expired. • Trip one of the zones that are programmed as a cross zone. • During the cross zone time, trip the other zone in the cross zone pair. • Verify that the Alarm Transmission Sequence (local alarm) starts at the second trip. **EOT**	4.3.1

VALIDATION PROCEDURE	REFERENCE
VP 24 Swinger Shutdown (Not required for fire alarms.) • Arm the UUT, and allow the Exit Time to expire. • Trip a zone and allow the accompanying alarm to be reported. • Wait for the local alarm to reset, then trip the same zone again. • Verify that the system does <u>not</u> go into alarm. *If the UUT supports two-trip Swinger Shutdown:* • Arm the UUT, and allow the Exit Time to expire. • Trip a zone and allow the accompanying alarm to be reported. • Wait for the local alarm to reset, then trip the same zone again. • Wait for the local alarm to reset, then trip the same zone a third time. • Verify that the system does <u>not</u> go into alarm. **EOT**	4.3.2
VP 25 Fire Alarms • Arm the UUT and wait until the Exit Time is expired. • Trip a sensor on a fire zone. • Verify that the UUT does not reset the zone. • Program the UUT for fire alarm verification. • Disarm and rearm the UUT, and wait until the Exit Time is expired. • Trip a sensor on a fire zone. • Verify that the UUT resets the zone. • Disarm and rearm the UUT, and wait until the Exit Time is expired. • Trip a fire zone. • When the zone is reset, trip it again *within the time frame designated by the manufacturer*. • Verify that an alarm signal is transmitted after the second trip. **EOT**	4.3.3

SECTION 3 POWER CAUSED FALSE ALARMS

VALIDATION PROCEDURE	REFERENCE
VP 26 Power Variations • Arm the UUT and wait until the Exit Time is expired. • Vary the primary and secondary power supplied to the UUT between the *maximum manufacturers specifications* and 0 (zero). • Verify that no alarms are transmitted. **EOT**	4.4.1
VP 27 Labelling • Verify that labelling is present on the UUT interconnect label that indicates the voltage under the full rated load at which the UUT ceases to process sensor trips. **EOT**	4.4.2
VP 28 Restoration of Power • Arm the UUT, and wait until the Exit Time is expired. • Reduce the primary and secondary power to 0 (zero). • Restore the primary power. • Verify that the UUT resumes the same state of arming and bypassed zones as when power was removed. • Trip any sensor within 60 seconds of restoral of primary power. • Verify that the UUT disregards input from the sensor. **EOT**	4.4.3

SECTION 4 CALL WAITING

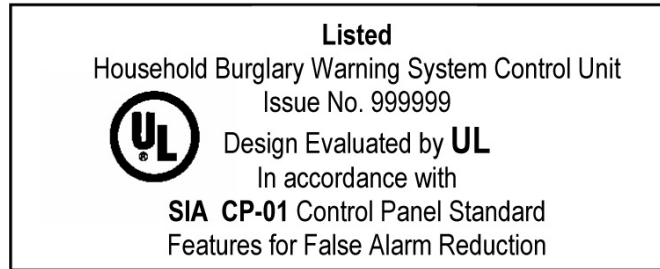| VALIDATION PROCEDURE	REFERENCE
VP 29 Call Waiting • Program a CALL WAITING CANCEL dialing sequence. • Arm the UUT, and wait till the Exit Time has expired. • Trip any zone, and wait till an alarm transmission is started. • Verify, by use of a standard dial verifier, that the call waiting cancel sequence was sent before the dialed phone number. • When the UUT senses that a connection was not made, verify that an alternative dialing method was employed. • Verify that a warning to installers, not to use the call waiting cancel feature inappropriately, is provided with the UUT. **EOT**	4.5

SECTION 5 INSTALLATION AND TEST (to be performed on each partition of the UUT)

VALIDATION PROCEDURE	REFERENCE
VP 30 Quick Reference • Verify that a quick reference chart or card is provided with the UUT, which details all programming locations for the features in the standard and their associated test procedures. **EOT**	4.6.1
VP 31 System Test • Verify that the UUT has a test feature which supports tests VP 32 through VP 37 below. • Verify that the test feature may be independently activated for each partition of the UUT. **EOT**	4.6.2 & 4.6.3
VP 32 Initiation of Test • Arm the UUT and wait until the Exit Time is expired. • Start a test sequence and verify that the UUT does not enter the test mode. • Disarm the UUT. • Start a test sequence, and verify that the UUT sends a transmission that a test is in progress. *(When the user number is available, verify that it is included in the message)* **EOT**	4.6.4.1 & 4.6.4.2
VP 33 Communications • *If the UUT can be programmed to transmit information regarding system tests, verify that the setting for this feature is defaulted to disable test communications.* • Start a test sequence. • Trip a zone, and verify that the UUT does not send any transmission. **EOT**	4.6.5
VP 34 Test in Progress • Start a test sequence. • Verify that indication of a test in progress is present at all wired system arming stations. **EOT**	4.6.6
TERMINATION OF TEST	

VALIDATION PROCEDURE	REFERENCE
VP 35 Automatic Termination *If the UUT supports automatic termination of test:* • Start a test sequence. • Cause the UUT to automatically terminate the test. *(Refer to manufacturer's instructions.)* • Verify that the UUT provides annunciation of an impending test termination at all wired arming stations beginning 5 minutes prior to the termination of the test. • Verify that the annunciation is different than that given during the test in progress. **EOT**	4.6.7.1
VP 36 State at Termination • Start a test sequence. • Terminate the test sequence, and verify that the UUT resumes operation in a Disarmed state. • Start a test sequence. • Trip a 24 hour zone. • Terminate the system test. • Verify that no alarm signal is transmitted, but that a trouble condition is indicated. **EOT**	4.6.7.2
VP 37 Termination Report • Start and terminate a test sequence. • Verify that an end of test message is transmitted. **EOT**	4.6.7.3
END OF SELF VALIDATION PROCEDURE	

Annex E
(informative)
Product Marking

The following mark is available from Underwriters Laboratories, Inc. (UL) and is issued to compliant products tested and listed in accordance with UL procedures.

```
┌─────────────────────────────────────────────────┐
│                     Listed                       │
│   Household Burglary Warning System Control Unit │
│                 Issue No. 999999                 │
│      (UL)    Design Evaluated by UL              │
│               In accordance with                 │
│         SIA  CP-01 Control Panel Standard        │
│          Features for False Alarm Reduction      │
└─────────────────────────────────────────────────┘
```

Annex F
(informative)
Clarifications and Interpretations

General   A *requirement* is a feature that the control panel must perform under all circumstances. A *required option* is a programmable feature that must be in the control panel. An *allowed option* is a programmable feature that is not required or prohibited by the standard. An *allowed feature* is a non-programmable feature that is not required or prohibited by the standard.

UL Listing   Since the standard requires both a local alarm and off premise transmission, UL is requiring that products they test to it be UL listed for both a local and off premises reporting. Any hardware device added to a system to meet the requirements of this standard needs to be UL listed, or UL will test to verify that a failure of this device does not compromise the existing UL requirements of the system.

3.2.29   **Fire Alarm Verification -** Fire alarm verification is meant to be a function of either the control panel or the sensor/detector. When "fire alarm verification" is a function of the control panel, delaying transmission of the fire alarm signal (after the initial sensor trip) until a second sensor trip occurs, within the confirmation period, meets the SIA CP-01 requirements.

4.1   **Partitioned Systems -** Each partition needs to be able to support the requirements in Clause 4. In testing, it will be acceptable to test 2 partitions as indicative of the products ability to meet the requirements in all partitions.

4.1 & 4.2.2.2   **Progress Annunciation** - The standard does not specifically prohibit a silent exit feature in a partitioned system. It does require that it follow the same criteria as a non-partitioned system when it is invoked.

4.2.2   **Arming and Exit -** The standard does not specifically address the features and requirements for automatic arming. It would be considered an allowed option. If employed, however, it would need to follow the requirements of clause 4. The standard addresses Remote Arming and Remote Disarming of alarm systems, using remote control devices, to help reduce false alarms caused by unintentional violation of exit and entry delays.

4.2.2.1   **Exit Time** – The minimum time given is an absolute minimum, and panels are not to allow Exit Time(s) of less than 45 seconds.

     Silent Exit Approval – refers to a Silent Exit feature that is invoked by the system user at the time of arming. CP-01 does not require this feature. CP-01 does require, however, that when this feature is invoked, the exit delay for that arming cycle must be doubled. When invoked, the Silent Exit feature will halt the exit progress annunciation for the entire syste or partition for only one arming cycle.

4.2.2.2   **Progress Annunciation** – A control panel may meet this requirement by having two separate buttons for arming where one is arm normal (with progress annunciation) and one is arm silent (no annunciation).

Silent Exit Approval – allows the exit progress annunciation to be completely programmed out of individual keypads (for bedrooms, etc). Section 4.2.2.2 does not allow for a control panel to disable exit progress annunciation for an entire system.

4.2.2.3   **Exit Time Restart** - Since exit time restart is a required option, panels will have the ability to have this feature disabled at the time of installation.

4.2.2.4   **Exit Error** – The standard does not address panel response if a non-entry/exit zone is violated at the end of the Exit Time.

4.2.2.6   **Recent Closing** – A Recent Closing transmission is allowed, but not required, if an alarm condition occurs between Arming and the end of the Exit Time. The Recent Closing signal is separate from the closing signal.

4.2.3.1   **Entry Delay** – The minimum time given is an absolute minimum, and panels are not to allow Entry Delay(s) of less than 30 seconds.

4.2.3.2   **Progress Annunciation** - The early progress annunciation of an entry delay needs to be audible at a minimum.

4.2.3.3   **Disarm** (during Entry Delay) - The alternative methods mentioned are referring to keystrokes on the keypad, such as a disarm command followed by a code. This section is stating these methods can work in addition to the code only method.

 If multiple keypads are annunciating the entry delay, one or all keypads may be momentarily silenced.

4.2.4.1   **Control Buttons** - The requirements for control buttons are not the same as for manual alarms. Control buttons only need the mechanical design. For testing, the manufacturer may need to provide (in their product literature or otherwise) rationale on their mechanical design and how it minimizes inadvertent activation.

4.2.4.2   **Initiation of Manual Alarms** - The manufacturer's product literature may be needed to ascertain the design features employed to achieve a double action trigger.

4.2.4.3   **System Acknowledge** - The user needs to know the end result of the action taken. This can be by virtue of the knowing which button he or she pushed followed by a common acknowledgment or by separate and distinct acknowledgment for arm and disarm.

4.2.5.1   **Abort Window** – The minimum time given is an absolute minimum, and panels are not to allow an Abort Window of less than 15 seconds. The Abort Window cannot be globally disabled, nor can all zones but fire be disabled, with a single programming option.

4.2.5.1.1   **Disarm** (during Abort Window) - The local alarm sounding device is only delayed during the entry delay. It will be sounding during the abort delay period. 4.2.5.1.1 does require a momentary silencing of the local sounder while a code is being entered. If this is unsuccessful the local alarm will restart. The minimum timings in the SIA standard do allow for harmony with the existing UL standards.

An RFID interface is an equivalent means and that the passcode backup must comply with the CP-01 requirements.

4.2.5.4.1   **Cancel** – Some panels may require a special function key after Disarm to send a Cancel signal.

4.3.1   **Cross Zoning** - UL has certain requirements for employing cross zoning. Because this feature is a programmable one the 2 standards should be able to co-exist.

4.4.2   **Labelling -** The voltage which needs to be specified on the interconnect label is a DC value of the zone circuit in which proper operation of the zone is affected due to excess wire or device (detector) resistance.

4.4.3   **Restoration of Power** - The state should be retained indefinitely. The control panel is required to come up in the disarmed state if that is the state it was in when it powered down.

4.5   **Call Waiting** - All that should be required in testing is to prove that the control can dial all the digits on a standard DTMF phone including * . A DTMF test set can be used for this purpose.

4.6.1   **Quick Reference** - The quick reference section can be contained in the manual so long as it is a separate section.

4.6.3   **System Test** - System Test can be a procedure outlined in the manuals.

4.6.7.1   **Automatic Test Termination** - The test termination annunciation must be given whenever a test is terminated automatically regardless of the length of the test. This would require that an automatic test termination could not take place in less than 5 minutes, though the test can be terminated manually in less than 5 minutes. Since the person testing the system is probably not going to be at the arming station at all times, the annunciation should be audible.

4.6.7.2   **State at Termination** - The standard does not prohibit the annunciation and/or the reporting of fire alarm trouble during a test mode, so is not in conflict with UL standards.

4.7   ~~**Default Settings** – Default settings may be activated, or re-activated, through a SIA Defaults software "switch".~~

Annex G
(informative)
New Central Station Signals

This annex describes the new signals alarm panels will send in compliance with the SIA CP-01 false alarm reduction standard. It is divided into two categories; required and optional signals.

Note: The DC-03 and DC-05 references provided below are for information only. Please refer to the appropriate SIA Standard for the latest information.

I. New Signals Required by CP-01-2000

Exit Error – This signal is sent if an entry/exit zone is violated at the expiration of an exit delay.

In accordance with SIA-DC-03 this signal can be one of 2 signals:
    1. EA + zone ID
    2. EE + User Number

When SIA-DC-05 is used, this signal is sent as:
    1 + 374 + Zone ID
In addition, the following signal may also be sent:
    1 + 457 + User Number

Recent Closing – This signal is sent if an alarm occurs within two minutes of the expiration of an exit delay.

In accordance with SIA-DC-03 this signal is sent as:
    CR + User Number

When SIA-DC-05 is used, this signal is sent as:
    1 + 459 + User Number

Cancel – This signal is sent when an alarm is canceled. Cancel is not a new signal but it is mentioned for inclusion in the Central Station Standards.

In accordance with SIA-DC-03 this signal can be one of 2 signals:
    1. BC + Zone ID
    2. OC + User Number

When SIA-DC-05 is used, this signal is sent as:
    1 + 406 + User Number

Start Test – This signal is sent when the system is put into the test mode.

In accordance with SIA-DC-03 this signal is sent as:

    TS

When SIA-DC-05 is used, this signal is sent as:

    1+ 607 + User Number

End Test – This signal is sent when the system is taken out of the test mode.

In accordance with SIA-DC-03 this signal is sent as:

TE

When SIA-DC-05 is used, this signal is sent as:

3 + 607 + User Number

II. New Signals Allowed or Recommended by CP-01-2000

Cross Zone Error (CP-01, Clause 4.3.1) – This optional signal is sent at the then end of a cross trip verification time if the trip was not verified by a second zone trip. The purpose is to alert the central station that a possible faulty zone exists.

In accordance with SIA-DC-03 this signal(s) may be sent as Unverified Events:

BG
FG
UG

When SIA-DC-05 is used, this signal is sent as:

1+ 378 + Zone ID

Swinger Trouble – A zone that is shut down because of a swinger has just activated again.

In accordance with SIA-DC-03 this signal is sent as:

BD + Zone ID

When SIA-DC-05 is used, this signal is sent as:

1+ 377 + Zone ID

Swinger Trouble Restore – A zone that is shut down because of a swinger has just restored. It is still shutdown but the state of the zone is now restored.

In accordance with SIA-DC-03 this signal is sent as:

BE + Zone ID

When SIA-DC-05 is used, this signal is sent as:

3+ 377 + Zone ID