

APPENDIX

DEFINITIONS



POWER SERIES NEO TECHNICAL TRAINING MANUAL

TERMINOLOGY

ZONE

Refers to a point of protection

PARTITION

Refers to different groups of zones that arm and disarm independently of each other (used in power series and neo control panels)

ARMING

The act of making the system 'active'. This is also referred to as "closing"

STAY ARMING

The act of only arming the perimeter of a system (door and windows) Allows user to move around inside of premises without causing an alarm condition)

AWAY ARMING

The act of only arming the entire system, both perimeter and interior (doors, windows, motion detectors. (Complete System Armed)

DISARMING

The Act of taking the system out of the 'active' state. This is also referred to as "opening".

EXIT DELAY

Time provided when an access code is used to arm the alarm system to when the system is fully armed

ENTRY DELAY

Time provided when entering through a designated entrance point (i.e. front door) where the system must be disarmed before causing an alarm

SECURE

Indicates the state of a zone (i.e. door) when in its 'normal' state (door is closed)

VIOLATION

Indicates the state of a zone (i.e. door) is off its 'normal' state (door is opened)

BYPASSING

The act of temporarily removing a zone or zones from the system before arming.

ALARM MEMORY

A condition indicating that a zone or series of zones had activated (gone into alarm) during the last arming (closing) period.

SYSTEM TROUBLE

A condition indicating the system is currently experiencing a situation in which requires some attention due to an abnormality

ZONE DEFINITIONS:

Zone definitions are used to define the way a zone operates when violated. There are two main types of zones: 24-HR zones can go into alarm whenever they are violated, Non 24-HR zones must be armed in order to go into alarm.

Related Programming Sections:

SECTION [001] → SELECT A 3 DIGIT ZONE NUMBER → SELECT A 3 DIGIT DEFINITION:

DEFINITION – [000], NULL ZONE

TYPE:

Non 24-HR

OPERATION:

When violated, a null zone will not be displayed on the keypad or generate an alarm

APPLICATION:

Commonly used when required to disable a zone

DEFINITION – [001], DELAY 1

TYPE:

Non 24-HR

OPERATION:

If violated when the system is armed, entry delay will begin (Entry Delay 1).

If a valid access code is entered before entry delay expires, no alarm is generated

If a valid access code is not entered before entry delay expires, an alarm is generated

APPLICATION:

Used for zones that are used as an entrance point to a location when the system is armed. For example a front door to a house

DEFINITION – [002], DELAY 2

TYPE:

Non 24-HR

OPERATION:

If violated when the system is armed, entry delay will begin (Entry Delay 2).

If a valid access code is entered before entry delay expires, no alarm is generated

If a valid access code is not entered before entry delay expires, an alarm is generated

APPLICATION:

Used for zones that are an entrance point to a location when the system is armed. For example a front door to a house. The entry delay 2 timer can be programmed with a different value than entry delay 1.

DEFINITION – [003], INSTANT

TYPE:

Non 24-HR

OPERATION:

If violated when the system is armed, an alarm is instantly generated

APPLICATION:

Commonly used for perimeter zones that are required to generate an instant or immediate alarm when violated. For example a window or perimeter zone that is not used as an entrance point.

DEFINITION – [004], INTERIOR

TYPE:

Non 24-HR

OPERATION:

If violated when the system is armed, operation will vary depending on if a delay type was violated before an interior:

Delay type zone violated first: Entry delay will continue allowing the user to disarm the system

Delay type zone not violated first: An alarm is instantly generated

APPLICATION:

Commonly used as a definition for motion detectors that is mounted between the delay zone (entrance door) and keypad for the customer to disarm

Purpose of this zone type is to provide the user with the ability to disarm the system if entering through a designated entrance zone. However if violated first (violated after a break-in through a window), the system considers this invalid therefore creating an immediate alarm

DEFINITION – [005], INTERIOR STAY/AWAY

TYPE:

Non 24-HR

OPERATION:

Operation of this zone definition differs depending on if the system is armed in the Stay or Away mode:

Stay Mode: This zone will be automatically bypassed; therefore all violations will be ignored

Away Mode: This zone will operate as an Interior type zone (same operation as definition [04])

APPLICATION:

Commonly used as a zone definition for motion detectors that are mounted on the interior of a home. When armed in the Stay mode, all Interior Stay/Away zones will be automatically bypassed allowing the user to move freely through the home while perimeter zones are active

When armed in the Away mode, these zones will be active and will operate as an Interior zone providing interior protection

DEFINITION – [006], DELAY STAY/AWAY

TYPE:

Non 24-HR

OPERATION:

Operation of this zone definition differs depending on if the system is armed in the Stay or Away mode:

Stay Mode: This zone will be automatically bypassed; therefore all violations will be ignored

Away Mode: This zone will operate as a Delay 1 type zone (same operation as definition [01])

APPLICATION:

Commonly used as a zone definition for motion detectors that are mounted on the interior of a home. When armed in the Stay mode, all Delay Stay/Away zones will be automatically bypassed allowing the user to move freely through the home while perimeter zones are active

When armed in the Away mode, these zones will be active and will operate as an Interior zone providing delay protection

DEFINITION – [007], DELAYED 24-HR FIRE

TYPE:

24-HR

OPERATION:

When violated, the following will occur:

- Siren output will activate (pulsed)
- 30 second time will be initiated and no key is pressed on a keypad
- If the fire zone is still in alarm at the end of the 30 second timer, the alarm will log to memory and transmit to the central station
- If the zone is restored before the end of the 30 second timer, the siren output will deactivate and the alarm will not be transmitted

If a key is pressed within the 30 second timer

- A 90 second timer will initiate and the siren output will deactivate and the fire zone will be ignored
- At the end of the timer, the zone will check if the detector is still in alarm. If still in alarm, the 30 second timer sequence will reinitiate

The purpose of the initial 30 second timer is to allow the user to clear smoke that may be present due to a false alarm. If a key is pressed during the 30 second timer, the 90 second timer provides the user with an extended amount of time to clear any false smoke detection

APPLICATION:

Commonly used in areas where smoke detection is required however false detections may also be created, for example a kitchen

DEFINITION – [008], STANDARD 24-HR FIRE

TYPE:

24-HR

OPERATION:

When violated, the following will occur:

- Siren output will activate (pulsed)
- Alarm is instantly generated (logged to alarm memory and transmitted to the central station)

APPLICATION:

Commonly used in areas when smoke is detected, an immediate alarm needs to be generated

DEFINITION – [009], INSTANT STAY/AWAY

TYPE:

Non 24-HR

OPERATION:

Operation of this zone definition differs depending on if the system is armed in the Stay or Away mode:

Stay Mode: This zone will be automatically bypassed; therefore all violations will be ignored

Away Mode: This zone will operate as an Instant type zone (same operation as definition [03])

APPLICATION:

Commonly used as a zone definition for motion detectors that are mounted on the interior of a home. When armed in the Stay mode, all Instant Stay/Away zones will be automatically bypassed allowing the user to move freely through the home while perimeter zones are active

When armed in the Away mode, these zones will be active and will operate as an Instant zone providing interior protection

DEFINITION – [010], INTERIOR DELAY

TYPE:

Non 24-HR

OPERATION:

This zone type will operate as an 'Interior' zone when the system is armed in the Away mode and will operate as a 'Delay 1' when armed in the Stay mode

APPLICATION:

Used in applications where the user requires that a zone be armed when armed in the either the Stay or Away mode, however operation in the two different modes depending on the arming state

DEFINITION – [011], DAY ZONE

TYPE:

Non 24-HR

OPERATION:

This zone type will vary in operation depending if the system is armed or disarmed. If violated while the system is armed, an instant alarm will be generated. If violated while is disarmed, the keypad will sound for the bell cut off time (unless a valid code is entered before the cut off time is reached). No alarm is generated when violated while the system is disarmed

APPLICATION:

Used in applications where the user requires that a zone when violated in the disarmed state generates a constant keypad tone without generating an alarm condition however generate an alarm if violated while alarm (instant alarm).

Example:

A swimming pool door or alcohol/ gun cabinet where you want more of an alert if a zone is violated even in the disarmed state.

DEFINITION – [012], NIGHT ZONE

TYPE:

Non 24-HR

OPERATION:

Similar to Stay/Away type zones, this zone type will be automatically bypassed when the system is armed in the Stay mode. However if a '[*][1] Reactivate Stay/Away' is performed, Night Zone will not be included as active zones in the system.

If the system is armed in the Away mode initially (from the disarmed state), these zones will active an operate as an 'Interior' zone

APPLICATION:

Used in applications where the user requires that a zone be automatically bypassed when armed in the Stay mode however remains bypassed when the Stay/Away zones have been activated

Example:

Motion detectors on the second floor of a home. When the user is ready to go to sleep for the night, they will perform a '[*][1] to reactivate the Stay/Away zones (motions on the 1st floor), leaving the Night zones remaining bypassed for them to move freely on the second floor during the night

DEFINITION – [016], FINAL DOOR SET

TYPE:

Non 24-HR

OPERATION:

If this zone type is programmed, infinite exit delay will start when arming is initiated (when arming in the away mode with a keypad or keyfob). When armed and violated, this zone generates entry delay and will create an alarm if the system is not disarmed before the entry delay expires.

In order to finish arming after infinite exit delay has begun, the Final Door Set zone will have to be violated and restored.

All arming methods that start infinite exit delay generate audible exit delay.

APPLICATION:

Used as the main entry/exit point of the building when there is sometimes a need for much longer exit delay times.

DEFINITION – [017], 24-HR BURGLARY

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an alarm (log to event buffer, alarm memory, activate the bell and transmit if programmed)

APPLICATION:

Used in any application where a 24Hr zone is required for burglary purposes

DEFINITION – [018], 24-HR BELL/BUZZER

TYPE:

24-HR

OPERATION:

If violated while the system is armed, this zone will generate an alarm (log to event buffer, alarm memory, activate the bell and transmit if programmed).

If violated while the system is disarmed, this zone will generate an alarm (log to event buffer, alarm memory, activate the bell and transmit if programmed) but only activate the keypad buzzer. No bell activation.

APPLICATION:

Used in any application where a 24Hr zone is required and the keypad is needed to provide notification of the alarm when disarmed

DEFINITION – [023], 24-HR SUPERVISORY

TYPE:

24-HR

OPERATION:

This zone is designed for normally open contacts; it is always set for single EOL resistors.

If violated while the system is armed or disarmed, this zone will generate an alarm (log to event buffer, alarm memory and transmit if programmed). This alarm will be completely silent.

APPLICATION:

Used in any application where a 24Hr zone is required for supervision purposes.

DEFINITION – [024], 24HR SUPERVISORY BUZZER

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an alarm (log to event buffer, alarm memory, transmit if programmed)

When placed in alarm the keypad buzzer will activate and continue to sound until a valid access code is entered

APPLICATION:

Used in any application where a 24Hr zone is required and the keypad is needed to provide notification of the alarm

DEFINITION – [025], AUTO VERIFY FIRE

TYPE:

24-HR

OPERATION:

When violated, the following will occur:

- No bell output
- A 30 second delay occurs
- If another violation is detected within the next 60 seconds an alarm is instantly generated (logged to alarm memory and transmitted to the central station)

Note: For wireless zones it is a 40 second delay, and an alarm will occur if the zone is still violated within 30 seconds. If not, an 80 second timer begins. If a fire zone goes into alarm within this 80 seconds, the alarm is triggered instantly.

APPLICATION:

Commonly used in areas where smoke detection is required however false detections may also be created, for example a kitchen.

DEFINITION – [027], FIRE SUPERVISORY

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an alarm (log to event buffer, alarm memory, transmit if programmed).

When placed in alarm the keypad buzzer will activate and continue to sound until a valid access code is entered

APPLICATION:

Used in any application to supervise a separate fire alarm panel or sprinkler system.

DEFINITION – [040], 24-HR GAS

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an alarm (log to event buffer, alarm memory, activate the bell and transmit if programmed)

APPLICATION:

Used in any application where a normally closed or normally open gas detector is required

DEFINITION – [041], 24-HR CO (CARBON MONOXIDE)

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an alarm (log to event buffer, alarm memory, activate the bell and transmit if programmed). The bell circuit follows a specific carbon monoxide alarm bell cadence which includes a 5 second pause between pulses. This pause is extended to 60 seconds after 4 minutes have expired. (The bell timeout should be increased to at least 5 minutes if using a carbon monoxide detector).

APPLICATION:

Used in any application where a normally open carbon monoxide detector is used.

DEFINITION – [042] 24-HR HOLDUP

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate a silent alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

Used in any application where a wireless or hardwired silent panic button is required.

DEFINITION – [043] 24-HR PANIC

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

Used in any application where an audible wireless or hardwired panic button is required.

DEFINITION – [045] 24-HR HEAT

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

Used in any application where a heat detector is required.

DEFINITION – [046] 24-HR MEDICAL

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

Used in any application where a medical alarm is required. Typically used with hardwired or wireless panic buttons.

DEFINITION – [047] 24-HR EMERGENCY

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

Used as a general emergency alarm. The installer can specify what the reaction should be with the monitoring station.

DEFINITION – [048] 24-HR SPRINKLER

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

This zone can be used for a sprinkler system alarm. Designed for normally closed devices.

DEFINITION – [048] 24-HR FLOOD

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, alarm memory, transmit if programmed)

APPLICATION:

This zone is designed to be used with a normally closed flood detector.

DEFINITION – [051], 24HR LATCHING TAMPER

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, transmit if programmed). Once this zone is violated, the ready LED will turn off and the system cannot be armed unless installer programmed is entered and exited.

APPLICATION:

This is typically used to protect the panel cabinet, if the end user or intruder tries to tamper with the system, and alarm is generated and the system is disabled. The installer is required to reset the system back to working order.

DEFINITION – [052], 24HR NON-ALARM

TYPE:

24-HR

OPERATION:

This zone will not cause an alarm when violated. It can be used for door chime as well as assigned to an indoor/outdoor temperature display sensor.

APPLICATION:

This zone is used to provide annunciation (door chime) but not affect the operation of the system or cause any alarms. When using an indoor/outdoor temperature sensor, it can be used for the zone in order to avoid any temperature alarms but still use a temperature sensor for displaying temperature.

DEFINITION – [056], 24-HR HIGH TEMPERATURE

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, transmit if programmed)

APPLICATION:

Used for temperature sensors (hardwired or wireless). For wireless temperature detectors, the threshold for high temperature is set in [804] > [Select Zone] > [High Temp. Warn.] or [High temp. Alarm]

DEFINITION – [057], 24-HR LOW TEMPERATURE

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate an audible alarm (log to event buffer, transmit if programmed)

APPLICATION:

Used for temperature sensors (hardwired or wireless). For wireless temperature detectors, the threshold for low temperature is set in [804] > [Select Zone] > [Low Temp. Warn.] or [Low temp. Alarm]

DEFINITION – [060], 24HR NON-LATCHING TAMPER

TYPE:

24-HR

OPERATION:

If violated while the system is armed or disarmed, this zone will generate a zone tamper (log to event buffer, transmit if programmed)

APPLICATION:

Used in any application where a 24Hr zone is required to monitor a tamper switch (wired to a zone) installed inside the control panel to detect possible tampering with the control panel.

DEFINITION – [066], MOMENTARY KEYSWITCH ARM

TYPE:

Arm/Disarm Input

OPERATION:

Unlike other zone definitions a Momentary Keyswitch zone is not used for detection. Instead provides the ability arm and disarm the system. Each time this zone is violated then restored, the system will alternate between the armed and disarmed state

APPLICATION:

Used as an alternate method of arming and disarming the system using a contact

DEFINITION – [067], MAINTAINED KEYSWITCH ARM

TYPE:

Arm/Disarm Input

OPERATION:

Unlike other zone definitions a Maintained Keyswitch zone is not used for detection. Instead provides the ability to arm and disarm the system. When the zone is violated, the system will arm. When the zone is secured, the system will be disarmed

APPLICATION:

Used as an alternate method of arming and disarming the system using a contact

DEFINITION – [068], MOMENTARY KEYSWITCH DISARM

TYPE:

Arm/Disarm Input

OPERATION:

The Momentary Keyswitch disarm zone is not used for detection. Instead provides the ability to disarm the system. Each time this zone is violated then restored in the armed state, the system will disarm.

APPLICATION:

Used as an alternate method of disarming the system using a contact or Keyswitch.

DEFINITION – [069], MAINTAINED KEYSWITCH DISARM

TYPE:

Arm/Disarm Input

OPERATION:

The Maintained Keyswitch disarm zone is not used for detection. Instead provides the ability to disarm the system. When the zone is violated in the armed state, the system will disarm.

APPLICATION:

Used as an alternate method of disarming the system using a contact or Keyswitch.

DEFINITION – [071], DOORBELL ZONE

TYPE:

Non-alarm

OPERATION:

This zone type will only activate the door chime. It will not generate any alarms.

APPLICATION:

This zone should be used for a doorbell application, or anything that should activate door chime but not create an alarm.

DEFINITION – [072], PUSH TO SET

TYPE:

Non 24-HR

OPERATION:

This zone is identical to [016] Final Door Set, except that it does not generate an alarm.

If this zone type is programmed, infinite exit delay will start when arming is initiated (when arming in the away mode with a keypad or keyfob). When armed and violated, this zone has no operation and will never create an alarm.

In order to finish arming after infinite exit delay has begun, the Push To Set zone will have to be violated and restored.

All arming methods that start infinite exit delay generate audible exit delay.

APPLICATION:

This could be used as a push button on the outside of the main entry/exit point of the building when there is sometimes a need for much longer exit delay times.

[002] ZONE ATTRIBUTES

Zone attributes are toggle options used to fine tune the operations of individual zones. Once [002] is entered, select the 3 digit zone number to modify.

Example: To enter zone attributes for zone 3:

[*][8][Installer Code][002][003]

The following is a list of the available zone attribute toggle options (note that since only 8 options can be displayed on the screen at once, pressing [9] in a zone attribute section toggles from viewing options 1 – 8 or options 9 – 16.

TOGGLE OPTION#1 – AUDIBLE/SILENT:

ON – BELL AUDIBLE:

- If this toggle option is ON, the bell output will provide a steady output when an alarm is generated

OFF – BELL SILENT:

- If this toggle option is OFF, an alarm generated on the zone will not activate the bell output

TOGGLE OPTION#2

ON – BELL STEADY:

- If this toggle ON, an alarm generated on the zone will activate the bell output
 - Note: The 'Audible' zone attribute must be 'ON' (Attribute#1), 'Pulsed' is used to indicate fire type alarms

OFF - BELL PULSED:

- If this toggle option is OFF, the bell output will provide a pulsed output (1 second ON, 1 second OFF) when an alarm is generated
 - Note: The 'Audible' zone attribute must be 'ON' (Attribute#1) 'Steady' is used to indicate burglary type alarms

TOGGLE OPTION#3

ON – DOOR CHIME ON:

- If this toggle option is ON, when door chime is enabled ([*][4]) this zone will chime when violated/secured

OFF – DOOR CHIME OFF:

- If this toggle option is OFF, when door chime is enabled ([*][4]) this zone will not chime when violated/secured

TOGGLE OPTION#4

ON – BYPASS ENABLED:

- If this toggle option is ON, the zone is capable of being bypassed

OFF – BYPASS DISABLED:

- If this toggle option is OFF, the zone is not capable of being bypassed. If the zone is selected while in the bypass mode ([*][1]), the keypad will indicate an error tone

TOGGLE OPTION#5 – FORCE ON/FORCE OFF:

ON – FORCE ARM ENABLED:

- If this toggle option is ON, a zone violation will not affect the ready state (violation will be indicated however the system can still be armed)

OFF – FORCE ARM DISABLED:

- If this toggle option is OFF, a zone violation will affect the ready state, and the panel can't be armed with this zone violated.

TOGGLE OPTION#6

ON – SWINGER SHUTDOWN ENABLED:

- If this toggle option is ON, the zone will go into swinger shutdown after the set number of alarms are generated and will not report any more alarms until the shutdown is reset (by disarming and arming or waiting until the time reaches midnight).

OFF – SWINGER SHUTDOWN DISABLED:

- If this toggle option is OFF, the zone will not go into swinger shutdown and all alarms are communicated.

TOGGLE OPTION#7

ON – TRANSMISSION DELAY ENABLED:

- If this toggle option is ON, when a zone alarm is generated the zone will not transmit its alarm reporting code until the programming transmission delay expires (Section [377])
- If a valid access code is entered before the transmission delay has expired, no transmission will take place

OFF – TRANSMISSION DELAY DISABLED:

- If this toggle option is OFF, when a zone alarm is generated the zone alarm reporting code will be transmitted instantly

TOGGLE OPTION#8

ON – BURGLARY VERIFICATION ENABLED:

- If this toggle option is ON, this zone will not go into alarm and generate a signal unless another zone with the cross zone attribute enabled goes into alarm within the police code timer interval.

OFF – BURGLARY VERIFICATION DISABLED:

- If this toggle option is OFF, the zone will be independent and go into alarm whenever violated in the armed state

TOGGLE OPTION#9

ON – N/C LOOP:

- If this toggle option is ON, the hardwired zone will not require an EOL resistor.

OFF – N/C LOOP DISABLED:

- If this toggle option is OFF, the hardwired zone will be configured by [013] option 1 and 2.

TOGGLE OPTION#10

ON – SINGLE EOL:

- If this toggle option is ON, the hardwired zone will be configured for single EOL resistor.

OFF – SINGLE EOL DISABLED:

- If this toggle option is OFF, the hardwired zone will be configured by [013] option 1 and 2.

TOGGLE OPTION#11

ON – DOUBLE EOL:

- If this toggle option is ON, the hardwired zone will be configured for double EOL resistor.

OFF – DOUBLE EOL DISABLED:

- If this toggle option is OFF, the hardwired zone will be configured by [013] option 1 and 2.

TOGGLE OPTION#12

ON – FAST LOOP RESPONSE:

- This zone has a loop response of 50 ms.

OFF – NORMAL LOOP RESPONSE

- This zone has a loop response equal to the programmed amount in [005] under zone loop response timer.

TOGGLE OPTION#13

ON – 2-WAY AUDIO ENABLED:

- This zone starts a 2-way audio session with the central station when an alarm is created.

OFF – 2-WAY AUDIO DISABLED:

- This zone does not start 2-way audio sessions.

TOGGLE OPTION#14

ON – HOLD UP VERIFICATION ENABLED:

- If enabled, an alarm from the zone can contribute to a verified hold up alarm. This attribute is meant to be used with panic and hold up zones. A hold up verified message in the alarm memory, hold up verified PGM output as well as hold up verified alarm signal to the monitoring station require multiple hold up alarms to occur. The amount of alarms can be set in [042] under “hold up verified”

OFF – HOLD UP VERIFICATION DISABLED:

- If disabled, an alarm from the zone will not contribute to a verified hold up alarm. The zone will not cause the hold up verification timer to start counting down, or generate a verified hold up if the alarm is detected while the timer is running.

PGM OUTPUTS:

Related Programming Sections:

SECTION [009] :

Section [009] = PGM Outputs 1 - 164

OVERVIEW:

PGM outputs (Programmable Outputs) are control panel voltage outputs which are activated based on a programmed condition

OUTPUT OPTIONS:

PGM OPTION – [100], NULL PGM

OVERVIEW:

This is used to deactivate the PGM

PGM OPTION – [101], BURGLARY AND FIRE BELL FOLLOWER

OVERVIEW:

Commonly used when an output is required that will follow the control panel bell output when an audible alarm is active

OPERATION:

Activation:

This option will activate a PGM output when any audible alarm (burglary or fire) is active

Deactivation:

The PGM output will deactivate when the alarm is acknowledged (code entry) or when the bell cutoff time is reached

PGM OPTION – [102], DELAYED FIRE AND BURGLARY

OVERVIEW:

This PGM type works exactly as type [101], except that it only activates after the transmission delay (for those zones with transmission delay). For alarms that do not have a delay, this PGM activates immediately.

OPERATION:

Activation:

This option will activate a PGM output when any audible alarm (burglary or fire) is active, after transmission delay expires (if applicable).

Deactivation:

The PGM output will deactivate when the alarm is acknowledged (code entry) or when the bell cutoff time is reached

PGM OPTION – [103], SENSOR RESET

OVERVIEW:

Commonly used as a power connection (negative) for devices that requires a manual reset from the user

OPERATION:

Activation:

This output option during normal operation will be shorted to ground (active)

Deactivation:

The PGM output will deactivate for 5 seconds when a sensor reset (or command output [*][7]+[2]) is performed

APPLICATION:

Commonly used to power latching smoke detectors so that they can be reset after an alarm

PGM OPTION – [104], 2-WIRE SMOKE

OVERVIEW:

Used when 2-wire smoke detectors are required. This option may only be used on PGM2

OPERATION:

Provides constant power to 2-wire smoke detectors from Aux + (+) to PGM 2 (-) and also serves as the fire zone input. Latching detectors can be reset (PGM removes power for 5 seconds) with a sensor reset or [*][7][2]

PGM OPTION – [109], COURTESY PULSE

OVERVIEW:

Commonly used when an output is required to activate a device to follow the control panel's entry and exit delays, such as an exit light.

OPERATION:

Activation:

This output option will activate for the entry delay and exit delay plus an additional 2 minutes

Deactivation:

The PGM output will deactivate the above listed is no longer active (entry and exit delay plus 2 minutes have expired)

PGM OPTION – [111], KEYPAD BUZZER FOLLOW

OVERVIEW:

Commonly used when an output is required to activate a device to follow the keypad buzzer for various system operations

OPERATION:

Activation:

This output option will activate when any of the following is active:

- Door Chime
- Entry Delay
- Audible Exit Delay
- Audible Exit Fault
- 24Hr Supervisory Buzzer Zone Alarm

Deactivation:

The PGM output will deactivate when the above listed items are no longer active

PGM OPTION – [114], READY TO ARM

OVERVIEW:

Commonly used when an output is required to activate a device when the system is 'Ready' and all zones are secure

OPERATION:

Activation:

This output option will activate when all zones are secure

Deactivation:

The PGM output will deactivate any zone is violated (system not in the 'Ready' state)

PGM OPTION – [115], SYSTEM ARMED STATUS

OVERVIEW:

Commonly used when an output is required to activate a device when the system is armed

OPERATION:

Activation:

This output option will activate all selected partitions are armed (start of exit delay)

Deactivation:

The PGM output will deactivate when all selected partitions are disarmed

PGM OPTION – [116], AWAY ARMED STATUS

OPERATION:

Activation:

This output option will activate when the system is armed the Away mode

Deactivation:

The PGM output will deactivate when either the system is disarmed or armed in the Stay mode

PGM OPTION – [117], STAY ARMED STATUS

OPERATION:

Activation:

This output option will activate when the system is armed the Stay mode

Deactivation:

The PGM output will deactivate when either the system is disarmed or armed in the Away mode

PGM OPTION – [120], AWAY ARMED WITH NO ZONE BYPASS STATUS

OPERATION:

This output option will activate when the system is armed in the Away mode and no zones have been manually bypassed. If assigned to multiple partitions, all selected partitions must be armed in this way for the PGM to activate.

PGM OPTION – [09], SYSTEM TROUBLE OUTPUT

OVERVIEW:

Commonly used when an output is required to activate a device when a system trouble is present

OPERATION:

Activation:

This output option will activate when any system trouble is present

Deactivation:

The PGM output will deactivate when all system troubles are restored

PGM OPTION – [10], SYSTEM EVENT OUTPUT (WITH EVENT OPTIONS)

OVERVIEW:

Commonly used when an output is required to activate a device for any alarm and remain active until the alarm is acknowledged

OPERATION:

Activation:

This output option will activate when any alarm is active (audible or silent)

Deactivation:

The PGM output will deactivate when a valid code is entered. This output option will not follow bell cutoff

PGM OPTION – [11], SYSTEM TAMPER

OVERVIEW:

Commonly used when an output is required to activate a device when any system tamper is present

OPERATION:

Activation:

This output option will activate when any of the following is active:

- Zone Tamper
- Keypad/Siren Tamper
- TLM Trouble
- RF Jam Trouble

Deactivation:

The PGM output will deactivate when a valid code is entered. This output option will not follow bell cutoff

PGM OPTION – [12], TLM AND ALARM

OPERATION:

Activation:

This output option will activate when an alarm occurs while a TLM trouble is present

Deactivation:

This output option will deactivate when a valid access code is entered or the bell cutoff timer has expired

PGM OPTION – [121], COMMAND OUTPUT#1

OPERATION:

This output option will activate when the command [*][7]+[1] is performed

By default:

- This output type also requires an access code therefore the default command is [*][7]+[1] + [Access Code]
- The default activation time is 5 seconds
- Command outputs can be programmed to follow a schedule in [009], the schedule can be programmed in [601] – [604]

PGM OPTION – [20], COMMAND OUTPUT#2

OPERATION:

This output option will activate when the command [*][7]+[2] is performed. The default activation time is 5 seconds

- Command outputs can be programmed to follow a schedule in [009], the schedule can be programmed in [601] – [604]

PGM OPTION – [21], COMMAND OUTPUT#3

OPERATION:

This output option will activate when the command [*][7]+[3] is performed. The default activation time is 5 seconds

- Command outputs can be programmed to follow a schedule in [009], the schedule can be programmed in [601] – [604]

PGM OPTION – [22], COMMAND OUTPUT#4

OPERATION:

This output option will activate when the command [*][7]+[4] is performed. The default activation time is 5 seconds

- Command outputs can be programmed to follow a schedule in [009], the schedule can be programmed in [601] – [604]

PGM OPTION – [129], PARTITION STATUS ALARM MEMORY

OPERATION:

This is designed for a keyswitch plate to give the user notification if the system is armed or in alarm, if there is no keypad nearby.

Activation:

This output option will generate steady output while armed, and a pulsed output (1 second ON, 1 second OFF) when any alarm is present (latched output).

Deactivation:

This output option will deactivate when a valid access code is entered to acknowledge the partition alarm

PGM OPTION – [132], HOLDUP OUTPUT

OPERATION:

This is a latching PGM for zone type (042) 24-HR Holdup.

Activation:

This output option will activate when a holdup zone alarm is generated (24Hr Holdup Zone)

Deactivation:

The PGM output will deactivate when the holdup alarm is acknowledged (code entry, Keyswitch etc.)

PGM OPTION – [134], 24 HOUR SILENT INPUT (PGM 2)

OPERATION:

This option provides the ability to use PGM2 as a silent 24Hr input

REQUIRED WIRING:

- 2.2K Ω resistor – connect between PGM2 and AUX (+)
- Normally opened contact – connect between PGM2 and AUX (+)

PGM OPTION – [135], 24 HOUR AUDIBLE INPUT (PGM 2)

OPERATION:

This option provides the ability to use PGM2 as an audible 24Hr input

REQUIRED WIRING:

- 2.2K Ω resistor – connect between PGM2 and AUX (+)
- Normally opened contact – connect between PGM2 and AUX (+)

PGM OPTION – [146], TLM AND ALARM

OPERATION:

Activation:

This output option will activate when an alarm occurs while a TLM trouble is present

Deactivation:

This output option will deactivate when a valid access code is entered or the bell cutoff timer has expired

PGM OPTION – [147], KISSOFF OUTPUT

OPERATION:

This output option will activate for 2 seconds after the control panel successfully receives a kiss-off from the central station receiver

PGM OPTION – [148], GROUND START

OPERATION:

This output option will activate for 2 seconds before calling the central station. Commonly used when the control panel is dialing on a 'ground start' telephone line

PGM OPTION – [149], ALTERNATE COMMUNICATOR

OPERATION:

Activation:

This PGM activates when a selected system event occurs. If active in armed state, it remains active until system is disarmed. If activated in disarmed state, it stays active until a valid access code is entered within the bell cutoff time or when the system is armed after the bell cut off time has expired. Selectable events are: Fire, panic, burglary, opening/closing, medical, duress etc.

PGM OPTION – [155], SYSTEM TROUBLE

OVERVIEW:

Commonly used when an output is required to activate a device when selected system troubles are present. Selectable troubles include: Service required, loss of clock, AC trouble, device fault, low battery etc.

OPERATION:

Activation:

This output option will activate when any system trouble is present

Deactivation:

The PGM output will deactivate when all system troubles are restored

PGM OPTION – [156], LATCHED SYSTEM EVENT (STROBE)

OVERVIEW:

Commonly used when an output is required to activate a device for any selected type of alarm and remain active until the alarm is acknowledged. The available types of alarms are: Burglary, fire, panic, medical, supervisory, priority (gas, heat, and sprinkler) and holdup.

OPERATION:

Activation:

This output option will activate when any alarm is active (audible or silent)

Deactivation:

The PGM output will deactivate when a valid code is entered. This output option will not follow bell cutoff

PGM OPTION – [157], SYSTEM TAMPER

OVERVIEW:

Commonly used when an output is required to activate a device when any system tampers are present

OPERATION:**Activation:**

This output option will activate when any of the following is present:

- Zone Tamper
- Module Tamper
- 24Hr Latching Tamper Zone
- Bell CCT Trouble
- TLM Trouble
- RF Jam Trouble

Deactivation:

The PGM output will deactivate when all of the above conditions are cleared.

PGM OPTION – [161], DC TROUBLE

OPERATION:

This output option will activate when any of the following conditions occur:

- Panel low or absent battery
- Module low or absent battery
- Wireless zone low battery
- Wireless keypad low battery
- Wireless siren low battery
- Wireless key low battery

Deactivation:

The PGM output will deactivate when the above conditions clear, or it can deactivate after a set amount of time.

PGM OPTION – [165], PROXIMITY TAG USED

OPERATION:

This output option will activate when the selected proximity tag is presented. Select a user from 001 to 095 to specify the tag used.

Deactivation:

After the PGM timer expires.

PGM OPTION – [175], BELL STATUS AND PROGRAMMING ACCESS OUTPUT

OPERATION:

This output option will activate when the bell, installer programming or DLS/SA session is active.

Deactivation:

After bell timeout, when programming is exited or when the DLS/SA session is disconnected.

PGM OPTION – [176], REMOTE OPERATION

OPERATION:

This output option provides the ability to activate and deactivate a PGM output using the DLS software

PGM OPTION – [184], OPEN AFTER ALARM

OPERATION:

This output activates after the system has been disarmed with an alarm in memory.

Deactivation:

It deactivates when the PGM timer expires.

PGM OPTION – [200], ZONE FOLLOWER PGM BY ZONE

OPERATION:

Activation:

This output option will activate when the selected zone (in [011] PGM configuration) activates

Deactivation:

This output deactivates when the zone is secured.

PGM OPTION – [201] – [216], ZONE FOLLOWER (ZONES 1-128)

OPERATION:

Activation:

This output option will activate when any of the selected zones where [201] is to select zones 1-8, [202] is to select zones 9-16, etc. (in [011] PGM configuration) activates

Deactivation:

This output deactivates when the zone is secured.

APPROVALS

NORTH AMERICA

UL (USA)

- **UL1023** Standard for Household Burglar Alarm System Units (4h Battery Standby required)
- **UL985** Standard for Household Fire Warning System Units (24h Battery Standby required)
- **UL1635** Standard for Digital Alarm Communicator System Units
- **UL1610** Standard for Central Station Burglar Alarm
- **UL365** Standard for Police Station Connected Burglar Alarm Units and Systems

SIA (USA)

- **ANSI/SIA CP-01-2010** Control Panel Standard – Features for False Alarm Reduction

FCC (USA)

- **TIA-968-B** Technical Requirements for Connection of Terminal Equipment to the Telephone Network (USA)
- **CISPR22 Class B** Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

ULC (CANADA)

- **ULC-S545-2002** Standard for Residential Fire Warning System Control Units
- **ORD-C1023-1974** Standard for Household Burglar Alarm System Units
- **CAN/ULC-S304-2006** Standard for Central & Monitoring Station Burglar Alarm Systems
- **CAN/ULC-S559-2004** Standard for Equipment for Fire Signal Receiving Centres and Systems

Note: *ULC-S559-2011 Edition is in progress at this time. It will require that FTC events be transmitted automatically upon restoral of the communication channel between protected premises and central monitoring station. Old events will have to be identified and differentiated from new events transmitted upon restoration of the communication channel. This requirement will apply to dialers, IP or GSM type communicators.*

IC (CANADA)

- **ICES-003 (CISPR22 Class B)** Standard for Interference Causing Equipment, Digital Apparatus
- **IC-CS03 Issue 9**, Industry Canada Terminal Equipment Technical Specifications

EUROPE

CE (EUROPE)

- **TS 203 021 Parts 1, 2, 3** European Telecommunication Specifications
- **CISPR22 Class B** Information Technology Equipment – Radio Disturbance Characteristics – Limits and
- **EN50130-4:2011** Immunity Requirements for Components of Fire, Intruder, and Social Alarm Systems
- **EN60950-1:2006** ITE. Safety. General Requirements

PERFORMANCE BASED CERTIFICATION FOLLOWING EN STANDARDS (EUROPE)

Note: *ISO/IEC17025 accredited test reports and EN45011 certification is mandated in Spain showing conformity with EN50131 series of standards.*

The following countries are using these standards in their certifications schemes: UK, Spain, Sweden, Norway, Finland, Denmark, France, Italy

- **EN50131-1:2006+A1:2009** Intrusion Systems General Requirements, Grade 2, Class II
- **EN50131-3:2009** Control and Indicating Equipment , Grade 2, Class II
- **EN50131-6:2008** Power Supplies, Grade 2, Type A
- **EN50130-5:2011** Environmental Test Methods for Alarm Systems, Class II
- **EN50136-2-1:2011** Alarm Systems – Alarm Transmission Systems and Equipment Part 2-1: General Requirements for alarm transmission equipment

UK (SELF DECLARATION BASED ON INTERNAL VERIFICATION OF COMPLIANCE WITH THE STANDARDS)

- **PD6662:2010** Scheme for the application of European Standards for intruder and hold-up alarm systems
- **BS 8243:2010** Installation and configuration of intruder alarm systems designed to generate confirmed alarm conditions.

INCERT CERTIFICATION (BELGIUM)

- **T-014:2012** General Requirements for Testing the Alarm Systems (24h standby time mandated)

NCP CERTIFICATION (HOLLAND)

- No testing required, certification is obtained based on the **INCERT** certificate

IMQ CERTIFICATION (ITALY)

- Use the same **EN50131** series of standards
- **EN60950-1:2006** Standard for Safety for ITE

NFA2P CERTIFICATION (FRANCE)

- Use the **EN50131-1/-3/-6** Standards along with national deviation standards mentioned below
Note: NFA2P has also approved the EN standards for use in France. The following are the French documents that have listed the differences required for France when the EN norms are being used:
- **RT50131-3: 2009** Control Units French Deviations from EN50131-3
- **RT50131-6: 2009** Power Supply French Deviations from EN50131-6

SBSC CERTIFICATION (SWEDEN)

- Use the **EN50131-1/-3/-6** Standards along with national deviation standards mentioned below
- **SSF 1014-3** Intrusion Alarm Systems Requirements
- **SSF 114** Transmission Systems

SOUTH AMERICA

ANATEL (BRAZIL)

- **NET 001/92, Resolution 392, 442, 529** and **Resolution 237** Brazilian Telecom Standards
- **EN60950-1:2006** ITE. Safety. General Requirements
- **CISPR22 Class B** Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

AUSTRALIA/NEW ZEALAND

A-TICK (AUSTRALIA)

- **CISPR22 Class B** Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement
- **AS/ACIF S002:2005** Australian Telecom Standard – Analogue interworking and non-interference requirements for Customer Equipment for connection to the PSTN
- **AS/NZ 60950.1:2003/Amdt 1:2006** – Information Technology Equipment – Safety – General Requirements

TELEPERMIT (NEW ZEALAND)

- **PTC200** Requirements for Analog Telecommunications Equipment
- **AS/NZ 60950.1:2003/Amdt 1:2006** – Information Technology Equipment – Safety – General Requirements

C-TICK COMPLIANCE (NEW ZEALAND)

- **CISPR22 Class B** Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

ASIA

CCC CERTIFICATION (CHINA)

- **GB 12663-2001** General Requirements for Burglar Alarm Systems

MII TELECOM AND SRRC RF LICENSING (CHINA)

- **YD/T868 – 1996** China Telecom Requirements For Alarm Panels & MII Certification
- **YD/T993 – 1998**
- **YD/T965 – 1998**
- **YD/T968 – 2002**
- **YD/T1277.1-2003**
- **GB/T 15279 – 2002** (Environmental Requirements, DTMF levels, etc.)

IDA REGISTRATION (SINGAPORE)

- **IDA TS** PSTN Requirements for Terminal Equipment connected to PSTN

INDIA TELECOM REGISTRATION (TAC)

- **TEC/EMI/TEL-001/01/FEB-09** Class B Digital Emissions Test
- **IR/PST/01-01 SEP 2005** Terminal for connecting to PSTN

AFRICA

ICASA (SOUTH AFRICA)

- **TE 001 Issue 5 2006** South African Telecom Standard

CERTIFICATION

- Underwriter's Laboratories Inc. (UL) And Underwriters Laboratories of Canada (ULC) for the following categories.
 - NBSX/NBSXC – Household Burglar Alarm System Units
 - UTOU/UTOUC – Control Units and Accessories, Household System Type (Household Fire)
 - AMCX/AMCXC – Central Station Burglar Alarm System Units
 - UOJZ/DAYRC – Commercial Fire (In Canada only for Fire Monitoring)
 - SIA CP-01-2010 Compliant
- EN50131 Grade 2 Certification (from EN45011 accredited agency in Europe)
- Belgium INCERT (based on test report from ANPI Lab)
- Holland NCP (based on any other European certificate)
- Italy IMQ Livello 2
- France NFA2P Type 2
- CE Declaration of Conformity
- China CCC and MII (done by Siemic)
- Sweden SBSC Larmklass 2
- Norway FG Grade 2
- UK Self Declaration Grade 2/Options A/B/C/D (CE DoC)
- Brazil ANATEL (done by NCC or Siemic)
- Argentina CNC (done by NCC or Siemic)
- Singapore IDA (registration done by local distributor)
- India TEC Interface Approval Certificate for Telecom (done by Siemic Lab)
- ICASA South Africa
- Telepermit grant issued by Telecom New Zealand
- The final product shall be verified by an accredited NRTL Testing Laboratory for compliance with CISPR22 Class B requirements.
- The control panel shall be certified under CFR 47 Part 68 (Self Declaration of Conformity or certification by a Telecommunication Certification Body-TCB). An application shall be submitted to ACTA for inclusion of the certified equipment in the centralized database of approved Part 68 Telephone Terminal Equipment ("TTE"). Only after the ACTA database has been updated the product can be released to US market.
- The control panel shall be registered in the Industry Canada Terminal Equipment list based on the Manufacturer Declaration of Conformity and the test report received from a laboratory accredited by the IC Department or the Standards Council of Canada.

ROHS

- The product shall be RoHS compliant
- The packaging shall include a sticker indicating the product is RoHS compliant

EUP DIRECTIVE

- The product shall be EuP compliant
- Directive 2005/32/EC [EuP Directive] with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment