



# USER'S MANUAL

## for KPX+ & Saturn+ LCD Keypads

D8XCEL / D16XCEL  
Hardware & Firmware V10  
Document 890-473

# Rev 1.0



CORPORATION

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D8XCEL, D16XCEL  
USER'S MANUAL FOR LCD KEYPADS

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For use with Ness D8XCEL, D16XCEL control panels with 3G dialler V10 and later.

Related manuals:

890-472 D8/D16 XCEL Navigator Keypad User Manual  
890-474 D8/D16 XCEL Installer's Manual

#### WARNINGS & NOTICES

Ness Corporation manufacturing processes are accredited to ISO9001 quality standards and all possible care and diligence has been applied during manufacture to ensure the reliable operation of this product. However there are various external factors that may impede or restrict the operation of this product in accordance with the product's specification.

These factors include, but are not limited to:

1. Erratic or reduced radio range (if radio accessories are installed). Ness radio products are sophisticated low power devices, however the presence of in-band radio signals, high power transmissions or interference caused by electrical appliances such as Mains Inverters, Wireless Routers, Cordless Phones, Computers, TVs and other electronic devices may reduce radio range performance. While such occurrences are unusual, they are possible. In this case it may be necessary to either increase the physical separation between the Ness receiver and other devices or if possible change the radio frequency or channel of the other devices.
2. Unauthorised tampering, physical damage, electrical interruptions such as mains failure, electrical spikes or lightning.
3. Solar power inverters are a known source of electrical interference. Please ensure that this product and all associated cabling is installed at least 3 metres away from a solar power inverter and its cabling.
4. While SMS reporting is a powerful and useful feature it is dependent on the integrity and availability of the cellular network. As with any SMS message it is possible that SMS monitoring reports may be delayed or fail to be delivered. Such failures are a function of the cellular network/s and beyond the control of Ness Corporation. Ness recommends central station monitoring as your primary monitoring path.

**WARNING:** Installation and maintenance to be performed only by qualified service personnel.

**CAUTION:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries in accordance with local regulations.

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## WHAT'S NEW IN D8XCEL / D16XCEL



- 3G Cellular dialler onboard
- Remote operation and programming via the free NessXCEL app
- Operation via SMS messaging
- Programming via SMS
- Alarm reports via SMS or back-to-base

## ALL D8XCEL / D16XCEL FEATURES

- 8 or 16 alarm zones.
- Supports up to 3 keypads (Navigator, Saturn or LCD)
- 56 user codes can be programmed to operate by keypad PIN, radio key or access card.
- Optional Ness Radio Interface for fully integrated wireless security.
- Programmable Two Area partitioning can split the panel into two independent areas plus a common area.
- Real Time Clock with AutoTime features - auto arm/disarm, auto aux outputs, time based user control.
- 3 Door Access Controller onboard with support for Weigand prox or fingerprint readers.
- Control via internet using Ness iComms/aComms iOS and Android apps and optional ethernet adapter.
- Voice alarm reports & Voice prompts for remote telephone operation.
- Home Mode allows partial arming, (eg, perimeter security overnight).
- Day Mode feature allows daytime monitoring of fire doors, coolrooms etc.
- Temporary Day Zone feature allows easy enabling/disabling of Day Mode.
- Keypad Panic and Duress feature.
- Two button arming feature.
- Fire Alarm feature with different siren tones.
- Highly flexible zone to output mapping.
- Onboard Vibration Sensor Analyser with programmable sensitivity. Use with Nessensor™ vibration sensors.
- Multiple programmable EOL resistor values from 0k to 22k (2k2 resistors supplied).
- Siren chirp and strobe flash on arming with radio key.
- Quiet chirps option on arm/disarm by radio key.
- True Dynamic Battery Test tests the battery under load every hour and when a keypad code is entered.
- 8 programmable auxiliary outputs.
- Enhanced serial data input/output via RS232.
- Automatic reset fuses.
- Programmable Reset Output lockout.
- 30 event memory from KPX+ and Saturn keypads. 80 event memory via Navigator keypad or NessComms™\*
- Standard defaults to suit most applications.
- Easy programming by keypad or NessComms™ software.
- All programming data is permanently stored in a non-volatile memory.
- All inputs and outputs are heavily protected against lightning and high voltage supply transients.
- High efficiency DC power supply.
- Optional output expander.

### 3G DIALLER

- 3G dialler onboard
- Direct-connect upload/download using NessComms™ software.\*
- View system status and arm/disarm using NessComms™.
- Remote control of outputs via telephone with voice prompts.
- Operation via SMS messaging
- Programming via SMS
- Alarm reports via SMS or back-to-base
- Remote operation and programming via the free NessXCEL app

\* NessComms software requires optional 101-244 Ethernet adapter, 450-246 RS232 cable. Order code K-6002D

The Ness D8x and D16x microcomputer based 8 or 16 zone **control panel** is the heart of your security system to which all your detection devices connect.

Each **Zone** of the panel can be connected to one or more detection devices to protect separate rooms of your premises.

Detection devices may be wired to the panel or you can use optional wireless detectors.

**Passive Infra-Red** motion detectors (**PIRs**) are used to detect motion of people or animals. **Pet Aware** motion detectors can ignore pets and still detect people. **Reed Switches** are fitted to windows and doors to detect opening. **Vibration sensors** such as the **Nessensor™** can be used to detect glass breakage or forcing of windows or doors.

Normally a zone is considered **Sealed**. Activation of a detection device will cause the zone to be **Unsealed** and may cause an alarm.

Detectors such as fire detectors and panic buttons must be able to generate an alarm at all times regardless of the panel setting. A zone with this assignment is called a **24 hour zone**.

Some detection devices may be required to generate an alarm or warning only when the panel is Disarmed. A zone with this assignment is called a **Day zone**.

Before leaving the premises you must "**Arm**" (turn on) the panel. After arming, the panel will ignore detectors during the **Exit Delay Time** to allow you to exit without triggering an alarm.

The system can be armed and disarmed using the keypad supplied or by optional Radio Keys or Access Cards or Fobs.

When you enter the premises the panel will ignore selected zones for the **Entry Delay Time** and will not alarm unless you disarm the panel during this allowed time.

When an alarm occurs, it can be reset with a **User Code**<sup>1</sup> or by optional Radio Key or Access Card/Fob<sup>2</sup>, otherwise it will reset at the end of Alarm Reset Time. Resetting an alarm stops the sirens and strobe light. If an alarm is not reset the sirens will stop after the programmed time (default is 5 minutes) and the strobe light will stop after 72 hours.

**Home Mode (also called Monitor mode)** allows you to Arm selected zones while others are ignored. Typically, perimeter zones (doors and windows) can be monitored while you are at home.

If you wish to split your alarm system into two areas with access limited to each area by code numbers then **Area operation** is used. Radio Keys can also Arm and Disarm Areas.

The control panel housing and the covers over external sirens are protected by **tamper switches** to detect someone attempting to disable the security system. Activation of these switches will cause an instant tamper alarm.

If there is a problem with a detector, you can **Exclude** the associated zone so that it is totally ignored and cannot generate an alarm. Including the zone will enable it to generate an alarm again.

The control panel is fitted with a **rechargeable backup battery** to ensure your security system continues to operate if the mains power is interrupted. This control panel automatically tests the battery every hour and whenever you Arm/Disarm the panel. (**Dynamic Battery Test**).

All alarms are stored in memory and can be viewed at any time in **Memory Mode**.

<sup>1</sup> Keypad codes programmed as ARM ONLY will not reset the panel.

<sup>2</sup> Access Cards/Fobs can reset the panel if the DISARM BY ACCESS CARD option has been enabled by your installer.

# KEYPAD

The instructions in this manual relate to Ness KPX+ and Saturn keypads.

The KPX keypad is used in examples throughout this manual. Saturn keypad operation is identical.

Refer to the Ness Navigator user's manual for operating instructions specific to the Navigator Touch Screen keypad.



Note that some Saturn keypad models do not have CELLULAR signal and real time clock display. Operational functions are unaffected, however it's recommended that at least one KPX+ keypad be installed to provide cellular signal indication.

## KEYPAD BEEPS

BEEPS	MEANING
♪ 1 BEEP	Any key press.
♪♪♪ 3 BEEPS	Valid Command.
♪—♪ 1 LONG BEEP	Error.
♪..10..♪ 10 BEEPS	Mains Power is off or Panel Battery is low or A Radio Device has sent a low battery signal
♪...♪...♪...♪ Constant SLOW beeps	An AutoTime action is due to begin.
♪♪♪♪ Constant FAST beeps	An AutoTime action will begin in <i>one minute</i> .














## DISPLAY TEST

To display all the keypad icons press and hold the (E) button for at least 2 seconds. All the icons will be on while the (E) button is held down.

Display Test can be activated at any time either in operating mode or any program mode.

KEYPAD DISPLAY INDICATORS IN OPERATING MODE

DISPLAY	OFF	ON	FLASHING
<b>ZONES</b> 1-8 (or 1-16)	Zone is sealed.	Zone is unsealed.	Zone is in alarm.
<b>OK</b> TO ARM	Zone/s are unsealed OR Power fault OR Panel is armed	Ready to Arm	
 <b>ARMED</b>	Panel is disarmed, or Area 1 is disarmed, if using Areas.	Panel is armed, or Area 1 is armed, if using Areas.	
 <b>ARMED</b>	Area 2 is disarmed.	Area 2 is armed if using Areas.	
 <b>HOME</b>	Home Mode is disarmed.	Panel is armed in Home Mode.	Day Mode enabled, (see page 17).
<b>MEM</b>	Normal.	Memory mode selected.	New alarm/s in memory.
	Normal.	Receiving a radio signal. (If radio fitted.)	A Radio Key or other radio device has low battery.
 TAMPER	Normal.		Internal Tamper: Double Flash with long pause. External Tamper: Steady flash.
 EXCLUDE	Normal.		Zone/s are Excluded.
 LOW	Normal.		The backup battery is low.
 OFF	Normal.		Mains power is off.
<b>CELL</b> and signal strength digits	<p>Cellular signal strength status - alternates with real time clock display. Signal strength range is 00 (no signal) to 30 (Best signal). Signal strength below 5 means the antenna should be checked or moved to a better reception area.</p> <p>The <b>CELL</b> icon can also indicate various cellular faults.</p> <ol style="list-style-type: none"> <li><b>CELL</b> with flashing signal strength  indicates the dialler is in use.</li> <li> with flashing <b>CELL</b> indicates a cellular dialler fault.</li> <li><b>CELL</b> with flashing  indicates 'no SIM' Card is fitted.</li> </ol>		
<b>TIME</b> <sup>1</sup>	Real time clock display - alternates with cellular signal strength status.		
<b>PROG</b>	Normal.	User Program Mode.	Installer Program Mode.

<sup>1</sup> The onboard clock is automatically updated from your cellular network.  
You should only need to adjust clock settings if the panel is being used 'offline' without a SIM card.  
See page 16 for keypad indicators in Memory Mode.

# OPERATION

**This section describes the operation of a typical control panel installation. Keep in mind that your installation may vary depending on the selected options and equipment. The operating instructions which follow will cover the most common options.**

**Consult your installation company if you require further information.**

All control panel operations are controlled by the keypad. You may also have optional Radio Keys or Access Control equipment installed.

## OPERATING RULES

Generally, the panel will be Disarmed. Armed and Home modes provide different levels of security for your premises when you are home or away. Three other temporary modes: Program, Memory and Exclude, allow you to perform various operations. The panel will automatically exit from these temporary modes if you do not press any buttons on the keypad in a 4 minute period.

If you make a mistake while entering any codes, press the Enter or E button and start again.

When you are required to enter your access code, you are given five opportunities to enter it correctly. After the fifth invalid attempt the alarm is activated (requiring the correct code + E to silence the alarm). This prevents anyone trying to guess your code by entering random numbers.

## AREA PARTITIONING

Area Partitioning allows the zones to be split into two partitions; Area1 and Area2.

The panel then effectively operates as two separate systems sharing only the siren outputs and dialler.

## USER CODE ASSIGNMENT

A User Code assigned to an Area can Arm and Disarm only that Area. User Codes assigned to both Areas will operate both Areas simultaneously.

## COMMON AREA ZONES

Zones assigned to both Areas are Armed only when Area1 and Area2 are both Armed. This allows the Common Area zone/s to be shared by both Areas.

For example, Office A and Office B operate as separate areas but the entrance foyer used by both offices is assigned to both areas meaning it will automatically Arm when both Areas have Armed. The Common Area then automatically disarms when either Area1 or Area2 Disarms.

## AREA OPERATION

Arming and Disarming is carried out as normal from a single keypad or separate keypads installed in both areas or by Radio Key.

Area operation only applies to zones when they are in the Armed state. This means that Day, 24hr and Home zones are independent of the area operations.

Note: Area partitioning is in addition to Home Mode. Any zone may be allocated to any area.



## KEYPAD OPTIONS

### NESS KPX LCD KEYPAD

The Ness KPX+ keypad uses a large illuminated LCD display to show system and zone status. The large easy to read buttons are backlit for and a hinged flap covers the keys.

The LCD icon display provides information on zone condition, armed state, mains and battery condition and other information.



### NESS SATURN KEYPAD

Proving that alarm keypads can be beautiful as well as functional - Saturn's elegant design adds a distinctive look and feel of luxury to your alarm system.

Available in White, Black and Ocean Mist, Saturn keypads are compatible with Ness D8/D16 control panels version 6 and later.



### NESS RADIO KEYS

The optional Ness Radio Keys give you the convenience of remote control operation. Multi-button operation allows you to Arm, Disarm and activate PANIC and AUX outputs (RK4 radio key).



### NESS ACCESS CONTROL

D8 and D16 panels also have an access control option for arming/disarming and controlling electric door locks.

The panels have built-in software and hardware support for up to 3 Ness Weigand proximity card readers and up to 55 proximity cards or fobs.



### NESS XCEL APP

NessXCEL app for iPhone or Android devices provides easy operation and control of your D8/D16XCEL panel by SMS. Arm, Disarm, View zone status, Emergency alarms, Control panel outputs, User & Installer Programming. Compatible with D8XCEL and D16XCEL panels fitted with an active SIM card.

**NESS iCOMMS and aCOMMS** app for mobile control of your D8/D16XCEL control panel from home, office, anywhere in the world using your iPhone/iPad or Android device and an internet connection.

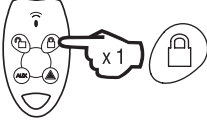


**Note:** Radio Keys, Access cards and Readers are optional and are not supplied with any Ness control panel as standard. Ness radio products require the optional Ness Radio Interface (100-200) to be fitted to the control panel.

Requirements: Optional 101-244 Ethernet adapter, 450-246 RS232 cable. Order code K-6002D.

iPhone/iPad/Smartphone not included.

iComms is a third party product which is endorsed by Ness without tech support. Emergency alarms must be enabled in the control panel to be available in iComms.

# OPERATION

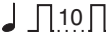
TO ARM the panel		
by KEYPAD	by RADIO KEY	by ACCESS CARD or FOB
<p><b>ALL KEYPADS</b></p> <p>Press <b>ARM + E</b>                      If the Arming Shortcut is enabled, P62E 5E</p> <p>or Press <b>ARM + [UserCode] + E</b></p> <p>or <b>[UserCode] + E</b></p> <p>If Code Only Arming has been enabled for that user code. Extra Option 4E</p> <p><b>SMS</b> A[UserCode]E</p>	 <p>Press the ON button once.                      The strobe light will flash briefly.</p> <p>If programmed, the external siren will <i>chirp</i> once.</p> <p>(If Home Arming by Radio Key is enabled, the chirp will be delayed by 5 seconds).</p>	 <p>Present a Card or Fob twice.</p>  <p>Or, present a Card or Fob once + press button.</p> <p>Depending on which option has been enabled by your installer.</p>
<p>The ARMED icon will turn on.                      Leave the premises within the <i>Exit Delay Time</i>. 3 beeps will sound at the end of <i>Exit Delay Time</i>.</p>		


The control panel must be armed in order to detect intruders.

Before arming, all zones should be **Sealed** by making sure there is no movement in rooms protected by motion detectors. Doors or windows protected by reed switches should be closed.

The panel cannot be armed if in Program, Home, Memory or Exclude modes or if it is in alarm. (User codes that are programmed to be ARM ONLY codes can arm the panel either the disarmed state or from Home Mode.

A keypad is supplied with the panel. Operation by Radio keys and access cards is optional.

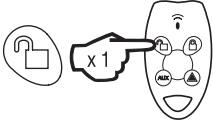

 10 beeps when you arm means Mains Power is turned off or the backup battery is low.

 One long beep when you arm could mean the panel is already armed or the keypad code is wrong, (if not using Shortcut Arming).

## SIREN WARNING:

At the end of the exit time, all zones should be **Sealed**. If any are **Unsealed**, the siren will sound for 2 seconds to indicate that those zones have been automatically excluded. You should disarm the panel, check the premises and then arm again. Continual warnings could mean there is a problem with a detection device - that zone may have to be manually excluded.

If a zone is Unsealed at the end of exit time and the auto-exclude option is disabled, the siren will sound for the duration of siren time, (default is 5 minutes).

to <b>DISARM</b> the panel		
<p>by <b>KEYPAD</b></p> <p>Enter the premises through a Delay Zone.</p> <p><b>ALL KEYPADS</b></p> <p>Press [UserCode] + E</p> <p>The <b>ARMED</b> icon will turn off.</p> <p><b>SMS</b> [UserCode]E</p>	<p>by <b>RADIO KEY</b></p>  <p>Press the OFF button once.</p> <p>The strobe light will flash briefly.</p> <p>If required, your installer can program the external siren to <i>chirp</i> 3 times when disarming.</p>	<p>by <b>ACCESS CARD</b> or <b>FOB</b></p>  <p>Present a Card or Fob once. (if the installer has enabled disarming by access card).</p>

When you enter the protected premises through a delay zone, the keypad responds with regular beeps<sup>1</sup> as a reminder to Disarm. You then have your programmed entry delay time to disarm the panel.

If the panel is not disarmed by the end of the entry delay time, an alarm will occur.

Using the optional radio keys you may disarm your system from within your premises or from outside your entrance door.

If you make a mistake when entering your keypad code, press E (or Enter) and start again. Five incorrect entries will cause an alarm.

Disarming resets the panel and silences the sirens (if running).

If you arrive at your premises and find the strobe light flashing<sup>2</sup> (if installed), reset the panel as above. To check the cause of the alarm, you can view the alarms in memory by entering Memory Mode.

### ARM ONLY CODES

User codes can optionally be programmed to be *Arm Only* codes. An *Arm Only* code can Arm the system but it cannot Disarm. (See page 28 for

User Codes programming). However if an *Arm Only* code is assigned to a radio key, the radio key OFF button will arm and disarm.

### AUTO RE-ARM

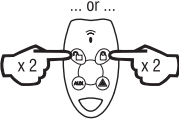
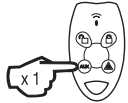
Your panel may optionally be programmed for Auto Re-Arm to help prevent accidental disarming.

Auto Re-Arm checks that you have entered the premises after disarming. If all zones remain sealed for a period as set by the entry delay time then the panel will re-arm. This is most useful when used with radio keys where the OFF button might be accidentally pressed after you have armed and are leaving the premises.

<sup>1</sup> If Entry Beeps are enabled.

<sup>2</sup> In the event of an alarm, the strobe light will flash for 72 hours or until the panel is reset.

# OPERATION

to arm <b>HOME</b> Mode	
by <b>KEYPAD</b>	by <b>RADIO KEY</b>
<p><b>ALL KEYPADS</b></p> <p>Press <b>HOME + E</b> (If the Home Shortcut is enabled, P62E 3E) or Press <b>HOME + [UserCode] + E</b></p> <p><b>SMS</b> H[UserCode]E</p>	<p>Home Monitor arming by radio key must be enabled by your installer.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>... Of ...</p>  <p>Press either the <b>OFF</b> button or the <b>ON</b> button twice within 4 seconds.</p> </div> <div style="text-align: center;">  <p>Or press the <b>AUX</b> button once. (If enabled, RK4 radio key only).</p> </div> </div> <p>The strobe light will flash briefly.</p> <p>If required, your installer can program the external siren to <i>chirp</i> twice when arming Home mode.</p>

Home mode allows you to Arm selected zones while others are ignored. Typically, perimeter zones (doors and windows) can be monitored while you are at home.

Your installer must program which zones will be active in Home mode.

If an alarm occurs while in Home mode, entering [UserCode] + E will silence the alarm. This will also Disarm the panel, so remember to re-arm Home mode again if needed.

Using the optional Radio Keys you can enter Home Mode by pressing either the OFF button or the ON button twice within 4 seconds or by pressing the AUX button, (RK4 radio key only). These options must be enabled by your installer.

### Note: Home Mode and Area arming

Home Mode can be used if the panel is fully disarmed or if only Area2 is armed. Home Mode is not available when Area 1 is armed.

The panel can be armed in Home mode if Area2 is already armed on these conditions:

- Area 1 must be OFF.
- Area 2 must be armed first, and then Home Mode armed – not the reverse.
- Zones assigned to both Home mode and to Area 2 will act as Home Mode zones when both Area 2 and Home Mode are armed.


Note: Home Mode arming when Area2 is armed cannot be done by Radio Key or by keyswitch.

## PANIC alarm

### by KEYPAD

#### ALL KEYPADS

Press    together

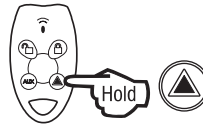
or  + [UserCode] + E

or  + E

(If Keypad Panic Shortcut is enabled, P62E 4E)

**SMS** S[UserCode]E

### by RADIO KEY



Press and hold the PANIC button for at least 4 sec.

**NOTE.** Your panel may be programmed for DOUBLE PRESS RADIO PANIC.

To operate, press and hold the Panic button until the transmit LED turns on. Release the Panic button and immediately press and hold again until the transmit LED turns on a second time.

This requirement meets regulations in some states of Australia.

The keypad PANIC function may have been programmed to be either **AUDIBLE** to activate the sirens, or **SILENT** to send a PANIC report by dialler if your system is monitored by a Central Station.

PANIC cannot be used while the panel is in Program, Memory or Exclude mode.

Note: Your installer may have installed a separate PANIC button. To activate the panic alarm simply press that button.

## Keypad DURESS alarm

### by KEYPAD

**ALL KEYPADS** Press [5, 6, 8 or 9] + [UserCode] + E

Add one these digits in front of a user code when disarming.

This sequence will disarm the panel and send a Duress report by dialler if the system is monitored by a central station. This is a silent alarm with no indication at the keypad/s.

The DURESS alarm can be used to send a silent alarm to the central station that you are being forced to disarm the panel against your will. That is; you are disarming under “duress.”

To disarm and send a DURESS alarm, prefix your User Code with one of the digits 5, 6, 8 or 9 when Disarming.

\* THE KEYPAD DURESS IS NORMALLY NOT ENABLED. TO ENABLE THIS FUNCTION, CONSULT YOUR INSTALLER.

\* DURESS ALARMS CAN ONLY USED BY SYSTEMS WHICH ARE MONITORED BY A CENTRAL STATION.

\* THE DURESS ALARM CAN BE PROGRAMMED TO SOUND THE INTERNAL SIREN (RESET OUTPUT). THIS OPTION IS OFF BY DEFAULT.

## OPERATION

### Keypad **MEDICAL** alarm

by **KEYPAD**

#### **ALL KEYPADS**

Press **4 & 6** together

Sends a Medical Alarm report by dialler.

*(If this option has been enabled by your installer and the system is monitored by a central station).*

The Medical Alarm does not sound the sirens.

### Keypad **FIRE** alarm

by **KEYPAD**

#### **ALL KEYPADS**

Press **1 & 3** together

Sounds the siren using the Fire Alarm sound.

*(If Keypad Fire Alarm has been enabled by your installer).*

And sends a Fire Alarm report by dialler.

*(If this option has been enabled by your installer and the system is monitored by a central station).*

## How to **EXCLUDE** zones

by **KEYPAD**

### **ALL KEYPADS**

Press **EXCLUDE + E** (If the Exclude Shortcut is enabled)

then press **[ZoneNumber] + E [ZoneNumber] + E** (Enter the zone number/s to be excluded.)

then press **E** to exit Exclude mode.

**SMS** **X[UserCode]E [ZoneNumber]E [ZoneNumber]E**

The Exclude icon flashes constantly while zones are excluded. Excluded zones are automatically included on disarming.

If there is a problem with a detection device and the zone cannot be sealed when arming the panel, then that zone can be Excluded so that it does not generate alarms.

When zones have been Excluded, the EXCLUDE light flashes continuously while the panel is Disarmed and also when Armed.

Zones can be excluded while the panel is either Disarmed or Armed. See notes below.

Zone Exclude is not permanent. Excluded zones are automatically included next time the panel is Disarmed.

Zones can be manually included by the same method as Excluding. Simply use the **[ZONE No.] + E** sequence to turn OFF the zones to be Included.

### **NOTES**

- **EXCLUDE + E** works only when the panel is Disarmed.
- **EXCLUDE + [UserCode] + E** works in any state.

Note that this method can only exclude the zones in the Area assigned to that code.

# OPERATION

## Viewing the **EVENT MEMORY**

by **KEYPAD**

**ALL KEYPADS** Press **MEMORY + E** (If the **VIEW MEMORY SHORTCUT** is enabled).

or Press **MEMORY + [UserCode] + E** *The Memory icon will turn on.*

Press **MEMORY ...**The most recent event will be displayed.

Press **MEMORY ...**The next most recent event will be displayed.

Press **MEMORY ...**and so on, up to 30 events.

Press **E** to exit Memory Mode.

**SMS** **M[UserCode]E [Number of events]E**

For example to request the history of the last 5 events, send **M[UserCode]E 5E**

The panel stores a comprehensive event memory, including Arming, Disarming, Low Battery, Mains Fail and Alarm events.

The memory is constantly updated and the last 30 events are always available for viewing.

This memory display can only be selected while the panel is in the Disarmed state.

### **TO CLEAR THE MEMORY ICON**

The **MEM** light flashes continuously when an alarm has occurred as a reminder to view the alarm memory.

The **MEM** icon stops flashing after the memory is viewed as shown above and is automatically cleared next time the panel is Armed.

### **KEYPAD DISPLAY INDICATORS IN MEMORY MODE**

<b>KEYPAD ICON</b>	<b>MEMORY EVENT</b>
Zone numbers 1–8 or 1–16	Zone alarm
(no icons displayed)	Panel Disarmed
<b>ARMED</b>	Panel Armed (or Area 1 Armed)
<b>ARM2</b>	Area 2 Armed
<b>MAINS</b>	Mains power failure
<b>BATTERY</b>	Low Battery
<b>TAMPER + 1</b>	Internal Tamper alarm
<b>TAMPER + 2</b>	External Tamper alarm
<b>EXCLUDE + 1</b>	Panic alarm
<b>EXCLUDE + 2</b>	Medical alarm
<b>EXCLUDE + 3</b>	Fire alarm
<b>RADIO, EXCLUDE</b>	Radio Key Panic alarm
<b>RADIO, BATTERY, ZONE</b>	Radio Device battery low, (Device number is indicated by zone lights)
<b>RADIO, BATTERY, ARM</b>	Radio Key battery low, (Radio Key number is NOT indicated)
<b>RADIO, TAMPER, ZONE</b>	Radio Device tamper alarm (Device number is indicated by zone lights)
<b>RADIO, HOME, ZONE</b>	Radio Supervision alarm (Device number is indicated by zone lights)
<b>HOME, ZONE</b>	Wired Zone Supervision alarm (Zone number is indicated by zone lights)

# TEMPORARY DAY ZONES

The Ness D8XCEL and D16XCEL have a Temporary Day Zone feature which allows easy and flexible Day Zone selection and operation.

Temporary Day Zones operate in addition to Permanent Day Zones which are usually setup by the installer.

While remaining in normal operating mode, the user can add and remove 'Temporary Day Zones'.

As an extra feature, the user can easily enable or disable Day Mode, (which includes both Temporary and Permanent Day Zones).

Day Zones can be programmed by your installer to beep the keypad, or briefly sound the siren/s or flash the strobe light, or to sound an optional buzzer. (Although the keypad beeper provides sufficient warning in most situations).

## TYPICAL APPLICATIONS

Day Zones are useful for a variety of applications such as a shop door beeper, triggered by a reed switch on the door.

For example, in a shop you could enable Day Mode to alert you when a customer enters the front door.

You can also enable additional Temporary Day Zones to monitor switches on, for example, the rear door or the fridge doors.

## COMMANDS

Accessed from normal operating mode.  
Examples using the KPX+ keypad.

### Enter Selection Mode.

**(P)** + **(E)**

Press **P** followed by **E** when in operating mode to enter Temporary Day Zone selection mode.

### Zone Selection.

**[Zone No.]** + **(E)**

To select or deselect zones to be Temporary Day Zones. The selected zones are indicated by the corresponding zone number.

Permanent Day Zones, (installer option P53E), are not displayed in selection mode. Permanent Day Zones can be selected as Temporary Day Zones but this has no effect as those zones are already day zones.

### Exit Selection Mode.

**(E)**


Saves changes and returns to normal operating mode.

### Enable Day Mode.

**(O)** + **(E)**

This enables/disables both Temporary and Permanent Day Zones.

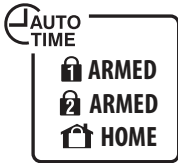
When Day Mode is enabled, any unsealed day zone will sound the programmed output for 2 seconds. When Day Mode is disabled, an unsealed day zone will simply be indicated on the keypad as an unsealed zone.

 The HOME icon flashes continuously when Temporary Day Mode is enabled.

# OPERATION

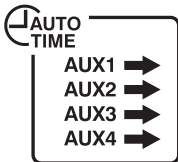
## AUTO-TIME FEATURES

D8XCEL/D16XCEL have sophisticated automation features making full use of the onboard Real Time Clock and a set of powerful yet simple to program options.



ARM or DISARM AUTOMATICALLY at pre-programmed times of day or day of the week.

This feature can save a site manager many headaches and hours of travel time. There is no need to rely on staff remembering to arm or disarm the system.



TURN AUX OUTPUTS ON or OFF at pre-programmed times - every day, once a week, anytime. Automate doors, sprinkler systems, lights and more.



ENABLE/DISABLE USER CODES depending on the time of day or day of the week. Allows managers to grant users access to the system at selected times and deny after hours entry.

(This applies to keypad codes only, not radio keys or prox fobs.)



If you find that the panel sometimes does not respond to user codes, or the panel arms or disarms itself or auxiliary outputs turn on automatically - then your panel may have been programmed for AutoTime events.

Ask your install to check the installer-level programming settings and reprogram the system to suit your needs.

## AUTO-TIME OPERATION

**WARNING PERIOD** (Optional function - must be enabled by your installer.)

When an AutoTime event is about to begin, your keypad (or keypads) will begin a constant slow beep as a warning that the automatic event is about to happen. The warning beeps can be programmed to start up to 99 minutes prior to the AutoTime event.

Press any key on the keypad to stop the beeps during the warning period. The beeps will start again for the final minute at a faster rate.

**FINAL MINUTE BEEPS.** In the last minute prior to the AutoTime event, the keypad will beep at a faster rate to warn that the event is about to start.

**TO DELAY THE AUTOTIME EVENT** (Optional function - must be enabled by your installer.)

To delay the AutoTime event, enter a valid user code on its own. (The user code must be assigned to an Area to work). This will suspend the warning beeps and the AutoTime event for 1 hour - when the warning process will start again.









Example: Your panel is programmed to Auto Arm at 6pm every weekday and the Warning Period is programmed for 5 minutes. You are working back late and at 5:55pm your keypad begins to beep. Since you're not ready to arm the system yet, enter your user code (without pressing E) at the keypad. The warning beeps will stop and arming will be delayed by one hour. At 6:55pm the warning beeps will start again, followed by automatic arming if you don't delay the event again.

Any AutoTime event can be postponed, not just arming. You can also delay the automatic turn (or off) of one of the AUX outputs in the same manner.


# OPERATION

**MANUAL OPERATION OF THE AUX OUTPUTS** (Optional function - must be enabled by your installer.)

As well as automatic operation by Auto Time, the auxiliary outputs can also be operated manually by keypad. Use the keypad commands below to turn outputs on or off or pulse on<sup>1</sup>.

	To turn <b>ON</b> or <b>PULSE</b>	To turn <b>OFF</b>
<b>AUX1</b>		
<b>AUX2</b>		
<b>AUX3</b>		
<b>AUX4</b>		

AUX5, 6, 7 & 8 operate as described above. ie, Press 55\*, 66\* etc

 Manual operation of outputs works in conjunction with AutoTime schedules, if programmed. For example, if AutoTime has turned an output on as scheduled (say, a light) you can manually turn it off (and back on again) any time you wish. At the scheduled turn OFF time, if the output is still on it will be turned off.

<sup>1</sup> Whether an output "Pulses" or "Turns On" depends on the how that output has been programmed by your installer.

## OPERATING THE AUX OUTPUTS BY SMS

(Optional function - must be enabled by your installer.)

The auxiliary outputs can also be operated by SMS Messaging.

**SMS** [UserCode]E[AuxNumber]E

Note, via SMS enter the Aux output numbers as double digits. For example to turn on Aux1 send [UserCode]E11E (therefore Aux2 is 22, Aux3 is 33 etc.)

Examples on page 22



The NESS XCEL free app is available for easy operation for users and fast programming by users and installers.



D8XCEL and D16XCEL control panels can also be operated and programmed by SMS (TXT) messaging from any mobile phone.

This section covers operation by direct SMS messaging from a mobile phone if not using NESS XCEL app.

## SMS COMMANDS

COMMAND	OPERATION
A	ARM
H	HOME
X	EXCLUDE
M	MEMORY
P	PROGRAM <sup>1</sup>
E	ENTER
F	FIRE
D	MEDICAL
S	PANIC
11E ~ 88E	OPERATE AUX OUTPUTS
T	TEXT <sup>2</sup>

<sup>1</sup> See page 26 for detail

<sup>2</sup> See page 23-24 for detail

SMS commands are extremely flexible in their format.

### MULTIPLE COMMANDS

You can send multiple programming commands in one text message - in fact the message can be as long as the SMS limit of 160 characters per single message. See the Installer Manual for detailed instructions.

### USE OF SPACES

The panel automatically ignores spaces in most SMS commands. However, spaces are important in Text Output commands, see page xx.

### UPPER or LOWER CASE is ok

You can use either UPPER CASE or lower case characters in your messages, or even mixed case without a problem.

### But BEWARE OF COMMAS

Commas are used to separate words when reprogramming text output, so use commas only when the command allows it.

### SMS REPLIES

The panel replies to each programming command with a confirmation message.

#### ACK (Acknowledged)

ACK is the panel saying 'I have received the command and applied it'.

#### NAK (Not Acknowledged)

The 'NAK' response indicates that the command was not accepted by the panel. Check the format of your SMS or perhaps the command should have been sent in Installer program mode.

# SMS OPERATION

## SUMMARY OF SMS OPERATING COMMANDS

The following examples use the default Master Code of 123 just as an example. Substitute your own valid user code/s in operation.

OPERATION	SMS TO THE PANEL	SMS REPLY
ARM	A123E	A123E ACK
DISARM	123E	123E ACK
HOME mode	H123E	H123E ACK
EXCLUDE zones (Example zones 4 & 5)	X123E4E5E	X123E ACK 4E ACK 5E ACK E ACK
View MEMORY (Specify the number of events to read, eg, last 3 events, most recent first)	M123E 3E	Event memory report Area 1 Close User 1 Thu 6 Sep 2018 4:01pm Radio Detector Low Battery Zone 5 Thu 6 Sep 2018 4:05pm Area 1 Open User 1 Thu 6 Sep 2018 4:15pm
FIRE alarm <sup>1</sup> (Triggers the Fire Alarm, if enabled)	F123E	F123E ACK
MEDICAL alarm <sup>2</sup> (Triggers Medical Alarm, if enabled)	D123E	D123E ACK
PANIC alarm <sup>3</sup> (Triggers Panic Alarm, if enabled)	S123E	S123E ACK
Turn ON AUX 1	123E11ON	123E ACK 11* ACK
Turn OFF AUX 1	123E11OFF	123E ACK 11# ACK
Turn ON AUX 2	123E22ON	123E ACK 22* ACK
Turn OFF AUX 2	123E22OFF	123E ACK 22# ACK
Same procedure for all eight Aux outputs.		

<sup>1</sup> The FIRE alarm sounds the siren using the FIRE siren sound and sends a fire report if programmed.

<sup>2</sup> The MEDICAL alarm triggers the strobe light if programmed and sends a medical report if programmed.

<sup>3</sup> The PANIC alarm triggers the sirens and strobe if programmed.

CHANGING TEXT OUTPUT

D8XCEL and D16XCEL have an extensive library of text descriptions used in SMS messaging, and also give the user the ability to customise the text output to suit individual needs.

For example, the default text sent for a zone alarm is:

NESS security report  
 from LOCATION  
 ALARM ZONE 3 AREA 1  
 Tue 7 Aug 2018 4:07:22pm 1/1

XCEL allows most words in this message to be modified.

Let's say you want to customise the panel's name and rename zone 3.

The panel name is set by the text output named LOCATION and the zone name by the text ZONE 3. (See the table, page 24).

To rename LOCATION and ZONE 3:

SMS SENT TO THE PANEL	SMS REPLY
T123E, LOCATION, MYHOME, ZONE 3, Z3 RUMPUS	text report changes made LOCATION, MYHOME, ZONE 3, Z3 RUMPUS 1/1

SMS alarm reports will then appear as:

NESS SECURITY REPORT  
 from MYHOME  
 ALARM Z3 RUMPUS AREA 1  
 Tue 7 Aug 2018 4:07:22pm 1/1

Using the same method every word and phrase in the SMS message can be renamed. Refer to the text table on page 24

Refer to the Installation Manual for further detail.

# SMS OPERATION

## TEXT OUTPUT TABLE

Library of available SMS text names. Each can be renamed using the instructions on page 23

Default NAME	Default NAME	Default NAME	Default NAME
1st NAME	DURESS	MANUAL INCLUDE	USER 1
24 HR	EMERGENCY	MEDICAL	USER 2
ACCESS	EMERGENCY REPORT	NAK	USER 3
ACK	END	NESS	USER 4
ALARM	EXIT DELAY	NO AREA	USER 5
ALARM REPORT	EXTERNAL	NORMAL	USER 6
ALARM RESTORE	FAILURE	OUTPUT OFF	USER 7
AREA 1	FIRE	OUTPUT ON	USER 8
AREA 2	FIRE SIREN	PANIC	USER 9
ARMED AWAY	from	PENDANT	USER 10
ARMED DAY	FROM	POWER	USER 11 ... to USER 49
ARMED HOME	from PENDANT	POWER FAILURE	USER 50
ARMING DELAYED	HOME	POWER NORMAL	USER 51
Ask	INSTALLER	RADIO DETECTOR	USER 52
AUTO ARM DELAY	INSTALLER ADDRESS 1	REAL TIME CLOCK	USER 53
AUTO EXCLUDE	INSTALLER ADDRESS 2	REPORT FAILURE	USER 54
AUTO INCLUDE	INSTALLER ADDRESS 3	REPORT NORMAL	USER 55
AUX 1	INSTALLER ADDRESS 4	RESET	USER 56
AUX 2	INSTALLER COMPANY 1	SEALED	WARNING REPORT
AUX 3	INSTALLER COMPANY 2	SECURITY REPORT	ZONE
AUX 4	INSTALLER EMAIL 1	SECURITY SYSTEM	ZONE 1
AUX 5	INSTALLER EMAIL 2	SHORT ARM	ZONE 2
AUX 6	INSTALLER MOBILE 1	SIREN	ZONE 3
AUX 7	INSTALLER MOBILE 2	SOFT MONITOR	ZONE 4
AUX 8	INSTALLER NAME 1	SOFT SIREN	ZONE 5
BATTERY	INSTALLER NAME 2	SONALERT	ZONE 6
BATTERY FAILURE	INSTALLER TEL NO 1	START	ZONE 7
BATTERY NORMAL	INSTALLER TEL NO 2	STROBE	ZONE 8
CLOCK AND DATE	INTERNAL	SUPERVISE	ZONE 9
UPDATE	KEYPAD	SUPERVISION FAILURE	ZONE 10
DAY	KEYPAD DISPLAY	SUPERVISION NORMAL	ZONE 11
DIALLER	ENABLE	TAMPER	ZONE 12
DISARMED	KEYSWITCH	TAMPER NORMAL	ZONE 13
DOOR 1	LOCATION	TAMPER UNSEALED	ZONE 14
DOOR 2	MAIN 12V	TEXT CHANGES	ZONE 15
DOOR 3	MAIN UNIT	UNSEALED	ZONE 16
DOOR OPEN TOO LONG	MANUAL EXCLUDE	USER	

Programming your Ness D8XCEL or D16XCEL is a simple process using the keypad, NESS XCEL app or by direct SMS from your phone.

When programming you need to know your Master Code, which is user code number 1, (see the table on page 27).

Examples use the KPX+ keypad.

**TO ENTER PROGRAM MODE**

press **(P)** + [MASTER CODE] + **(E)**

The factory default  
Master Code is: **123**

**TO EXIT PROGRAM MODE**

press **(P)** + **(E)**

The panel will automatically exit Program Mode if the keypad is inactive for 4 minutes.

## USER CODES

The panel has 56 user codes which can be operated by keypad code (3-6 digit PIN), by optional radio key or by optional access cards.

To add, change or delete a keypad code, follow the steps on page 28.

The factory default Master Code is 123. You

should re-program this code with a new code of your own choice.

## TIMERS

You can also re-program the Entry Delay Time and Exit Delay Time if you need more or less time to exit and enter the premises.

## REAL TIME CLOCK

Some features such as AutoTime rely on the onboard Real Time Clock.

The onboard clock is automatically updated from your cellular network.

You should only need to adjust clock settings if the panel is being used 'offline' without a SIM card

If the clock is manually set you will need to adjust the Hours setting for Daylight Savings.

## TELEPHONE NUMBERS

If you are self-monitoring your system by SMS messaging you can program up to 10 mobile phone numbers to receive events by SMS.

If your system is programmed to report alarms to a central monitoring station the dialler will make alarm calls to the Primary and Secondary telephone numbers programmed by your installer.

For all other programming changes, talk to your installer.

# PROGRAMMING BY SMS



The NESS XCEL free app is available for easy operation for users and fast programming by installers.



This section covers programming by direct SMS messaging from a mobile phone if not using the NESS XCEL app.

## PROGRAMMING BY SMS FROM A SMARTPHONE

SMS programming commands are sent to the XCEL panel in essentially the same format as programming using a KPX+ or Saturn keypad.

Examples using the factory default master code: 123

<b>EXAMPLE 1</b>	
Program the Entry Delay time to be 15 seconds	
<b>SMS SENT TO THE PANEL</b>	<b>SMS REPLY</b>
P123E P26E 15E	M123E ACK M26E ACK 15E ACK ME ACK

This string of commands breaks down into easy to understand parts, where...

**P123E**

Enters user program mode. 123 in this case is the Master code.

**P26E**

The option number for Entry Delay

**15E**

Programs Entry Delay to be 15 seconds

<b>EXAMPLE 2</b>	
Program User Code 2 to be 5678.	
<b>SMS SENT TO THE PANEL</b>	<b>SMS REPLY</b>
P123E P202E 5678E 5678E	M123E ACK M202E ACK 5678E ACK 5678E ACK ME ACK


## PROGRAMMING OPTIONS TABLE

User No.	Option No.	Default	User No.	Option No.	Default	User No.	Option No.	Default
1 Master Code	P201E	123	19	P219E		38	P238E	
2	P202E		20	P220E		39	P239E	
3	P203E		21	P221E		40	P240E	
4	P204E		22	P222E		41	P241E	
5	P205E		23	P223E		42	P242E	
6	P206E		24	P224E		43	P243E	
7	P207E		25	P225E		44	P244E	
8	P208E		26	P226E		45	P245E	
9	P209E		27	P227E		46	P246E	
10	P210E		28	P228E		47	P247E	
11	P211E		29	P229E		48	P248E	
12	P212E		30	P230E		49	P249E	
13	P213E		31	P231E		50	P250E	
14	P214E		32	P232E		51	P251E	
15	P215E		33	P233E		52	P252E	
16	P216E		34	P234E		53	P253E	
17	P217E		35	P235E		54	P254E	
18	P218E		36	P236E		55	P255E	
			37	P237E		56	P256E	

Option no.	Description	Default	Comment
P26E	Entry Delay Time 1	20 (20 sec)	
P27E	Entry Delay Time 2	6 (60 sec)	This option works in multiples of 10. (6 = 60 sec).
P28E	Exit Delay Time	60 (60 sec)	

Phone Number	Option no.	Record your numbers
Phone Number 1 for SMS reports	P180E	
Phone Number 2 for SMS reports	P181E	
Phone Number 3 for SMS reports	P182E	
Phone Number 4 for SMS reports	P183E	
Phone Number 5 for SMS reports	P184E	
Phone Number 6 for SMS reports	P185E	
Phone Number 7 for SMS reports	P186E	
Phone Number 8 for SMS reports	P187E	
Phone Number 9 for SMS reports	P188E	
Phone Number 10 for SMS reports	P189E	

# PROGRAMMING BY KEYPAD

Programming USER CODES			
STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	$\textcircled{P} + [\text{MASTER CODE}] + \textcircled{E}$	Enters User Program Mode.	The Program light will turn on.
2	$\textcircled{P} + [\text{OPTION No.}] + \textcircled{E}$	Enter the 3 digit option number for the user code being programmed.	The existing user code, if any, will be displayed by the keypad one digit at a time.
3	$[\text{NEW CODE}] + \textcircled{E}$ $[\text{NEW CODE}] + \textcircled{E}$	Enter the new user code twice for verification. Keypad codes can be 3-6 digits long.  <div style="border: 1px solid black; padding: 5px; display: inline-block;">  <b>User codes must NOT start with zero!</b> </div>	The new user code will be displayed by the keypad one digit at a time.
4	$\textcircled{P} + \textcircled{E}$	To exit User Program Mode.	The Program light will turn off.

A keypad code can be deleted by pressing  $\textcircled{\text{MEMORY}} + \textcircled{E}$  at STEP 3 above.

**i** A keypad code only needs to be deleted if you're not replacing it with a new code.

## EXAMPLES


The panel must be in program mode.

- To program User Code 1 to be 1234: Press P201E 1234 E 1234 E
- To delete User Code 2 without programming a new code: P202E MEMORY E

## USER CODE PROGRAMMING RULES

- Up to 56 Keypad Codes can be used at up to 3 wired keypads for controlling all panel functions including Arming/Disarming, Home Mode, Panic, memory recall and much more.
- Keypad Codes can be 3 to 6 digits in length and can be individually programmed and deleted.
- User Code 1 is also the Master Code which is used to enter Client Program mode.
- All 56 User Codes are Keypad Codes by default. User Codes can be programmed to be Radio Codes or Access Cards as required. Ask your installer.

## NOTES

1.  **User codes must NOT start with zero.** (The panel will allow codes beginning with zero to be programmed but they will not operate the panel. This is an alternative method for disabling user codes.)
2. All codes must be unique to each other. Codes are rejected if already used. Some codes that are similar to existing codes may also be rejected.
3. When re-programming a Keypad Code, the old code does not need to be deleted first. The new code will overwrite the old code.

Programming TIMERS			
STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	$(P) + [MASTER CODE] + (E)$	Enters User Program Mode.	The Program light will turn on.
2	$(P) + (2)(6) + (E)$  ...or $(P) + (2)(7) + (E)$  ...or $(P) + (2)(8) + (E)$	Enter the option number for Entry Delay Time 1.  Or enter the option number for Entry Delay Time 2.  Or enter the option number for Exit Delay Time.	The existing time, if any, will be displayed by the keypad one digit at a time.
3	$[NEW TIME] + (E)$	Enter the new time in seconds. Example, enter 25 seconds as 25 + E.	The new time will be displayed by the keypad one digit at a time.
4	$(P) + (E)$	To exit User Program Mode.	The Program light will turn off.

Factory default timer settings are listed on page 27.

Programming the SMS TELEPHONE NUMBERS			
STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	$(P) + [MASTER CODE] + (E)$	Enters User Program Mode.	The Program light will turn on.
2	$(P) + (1)(8)(0) + (E)$	Enter the option number for the first telephone number for SMS reporting.	The existing telephone number, if any, will be displayed by the keypad one digit at a time.
3	$[NEW TELEPHONE NUMBER] + (E)$	Enter the new telephone number.	The new telephone number, if any, will be displayed by the keypad one digit at a time.
4	$(P) + (E)$	To exit User Program Mode.	The Program light will turn off.

D8XCEL & D16XCEL have 10 user-programmable phone numbers for reporting of alarm events by SMS messaging. See page 27 for program option numbers.

# PROGRAMMING BY KEYPAD

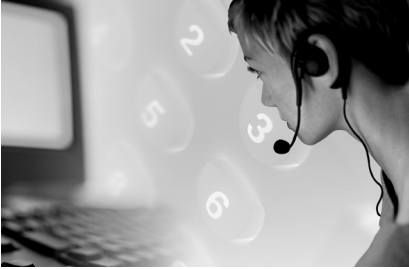
Programming the <b>CLOCK</b>			
STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	$\textcircled{P} + [\text{MASTER CODE}] + \textcircled{E}$	Enters User Program Mode.	The Program light will turn on.
2	$\textcircled{P} + \textcircled{\phantom{0}} \textcircled{\phantom{0}} \textcircled{\phantom{0}} + \textcircled{E}$ <b>P340E</b> MINUTES. Enter a value between 00 and 59.  <b>P341E</b> HOURS. Enter a value between 00 and 23.  <b>P342E</b> DAY OF THE MONTH. Enter a value between 01 and 31. Ensure that the setting does not exceed the days in the current month. The panel does not cross-check this setting.  <b>P343E</b> MONTH. Enter a value between 01 and 12.  <b>P344E</b> YEAR. Enter a value between 00 and 63. (2000–2063).  <b>P345E</b> DAY OF THE WEEK. Enter a value between 1 and 7. (1=Sunday).	Enter the option number for one of the real Time Clock options.	The existing value, if any, will be displayed by the keypad one digit at a time.
3	$[\text{NEW VALUE}] + \textcircled{E}$	Enter the new time in seconds. Example, enter 25 seconds as 25 + E.	The new time will be displayed by the keypad one digit at a time.
4	$\textcircled{P} + \textcircled{E}$	To exit User Program Mode.	The Program light will turn off.

The onboard clock is automatically updated from your cellular network.

You should only need to adjust clock settings if the panel is being used 'offline' without a SIM card

If the clock is manually set you will need to adjust the Hours setting for Daylight Savings.

## CENTRAL STATION MONITORING



The Ness D8XCEL and D16XCEL control panels have an on-board cellular dialler which can send detailed alarm messages to a Central Monitoring Station.

The digital messages can include information about the zone or zones which caused the alarm, tamper alarms, low battery or mains failure reports, and it can also (by user number) identify the users who arm and disarm the system.

Central station monitoring is highly recommended and is the most effective method of monitoring your alarm system.

For further information about 24 hour monitoring, contact your installer or Ness Corporation.

## SMS SELF-MONITORING



An active SIM card is required for SMS operations.

SMS 'Self-monitoring' reports can be programmed to be sent by the panel to up to 10 mobile phones.

Monitoring messages can include Arm/disarm reports by Area and User, Zone alarms and Restorals, System Alarms such as AC Fail and Low Battery, Panic alarms.

### SMS REPORTING MESSAGE FORMAT

Example 1 - Alarm from Zone 3

```
NESS security report
from MYPANEL
ALARM Z3 RUMPUS AREA 1
Tue 7 Aug 2018 4:07:22pm 1/1
```

### SMS MESSAGE EXPLAINER

**NESS security report** Identifies the message as a Ness alarm panel report.

**MYPANEL** identifies the premises. This ID can be programmed by SMS using the LOCATION command. See page 23.

**ALARM** Tells us there has been an alarm

**Z3 RUMPUS** What caused the alarm. In this case Zone 3 which has been renamed RUMPUS. (The zone name can be programmed by SMS, otherwise the panel just reports the zone number). See page 23

**AREA 1** Identifies the zone as belonging to Area 1

**Tue 7 Aug 2018 4:07:22pm** Time and date of the event

1/1. Means message 1 of 1. Long SMS messages are split into multiple messages of 160 characters each

While SMS reporting is a powerful and useful feature it is dependent on the integrity and availability of the cellular network.

As with any SMS message it is possible that SMS monitoring reports may be delayed or fail to be delivered. Such failures are a function of the cellular network/s and beyond the control of Ness Corporation.

Ness recommends central station monitoring as your primary monitoring path.

SYMPTOM	POSSIBLE CAUSE	REMEDY
When arming, a zone icon is on or the keypad gives a long beep.	One or more detection device (a PIR or reed switch) may be <i>unsealed</i> .	Find the cause of movement or close the door or window.
<ul style="list-style-type: none"> <li>• 10 beeps from keypad.</li> <li>• MAINS icon is flashing.</li> <li>• BATTERY icon is flashing.</li> </ul>	The mains power may be off, ...or the panel's backup battery may be low, ...or a Radio Device battery may be low.	Make sure the plug pack is plugged in and the power point is turned on. The backup battery may need replacing, call your installer.
1 long beep from the keypad.	Invalid keypad entry.	Press the E button and try again.
2 second siren at the end of Exit Delay time.	A zone was <i>unsealed</i> at the end of exit delay time.	Disarm the panel and check all zones.
The strobe icon is flashing.	There has been an alarm within the last 72 hours.	Reset the alarm by disarming the panel and check the Alarm Memory
Siren sounds while the panel is disarmed.	A 24 hour zone has been alarmed. (Siren Tamper, Box Tamper, Panic Button).	Reset the alarm by disarming the panel and call your installer.
EXCLUDE icon is flashing.	A zone/s has been Excluded.	This is to indicate that one or more zones have been Excluded.
Cannot arm and the EXCLUDE icon is on steady.	You are in Exclude mode.	Press E to exit Exclude mode.
TAMPER icon flashing	The 24 hour Tamper input has alarmed. (Siren tamper or box tamper).	Call your installer.
ALARM MEMORY icon is flashing.	There are alarms in memory.	To clear the ALARM MEMORY icon, view the Alarm memory otherwise the icon will clear next time you arm the panel.
Cannot enter Program Mode.	The panel is armed.  Or you may be attempting to enter program mode using one of the user codes.	Disarm the panel before attempting to enter Program Mode.  Try again using the Master Code.
When I arm by radio key, the Armed icon on the keypad does not turn on immediately.	The panel is waiting 5 seconds for a second press of the ON button to enter Home mode.	This is normal operation when arming of Home mode by radio key is enabled.
The keypad is making a continuous slow beep.	This is the AutoTime warning beep which can be programmed to start from 1 to 99 minutes before an AutoTime event is due to begin.	The beeps will continue during the AutoTime warning period changing to faster beep in the final minute prior to the AutoTime event.
The panel re-arms itself a short time after disarming.	Auto Re-Arm is enabled.	Enter the premises after disarming. Auto Re-Arm is designed to re-arm the panel if you don't enter the premises after disarming.
The clock display shows the wrong time	The panel does not have a valid SIM card installed ...or... the SIM card has expired ...or... if using the panel without SIM, the clock needs to be manually programmed.	Contact your installer and fit a valid SIM card. Check the status of your SIM card with your telco. Program the clock, see page 30
The CELL display shows low signal or 00 or noCELL	The 3G antenna may not be fitted or a source of interference has been introduced in the premises	Check that the 3G antenna is connected and mounted in the best position for optimal signal.
... or displays noSC	... a valid SIM card is not fitted.	Fit a valid SIM card.



INSTALLATION RECORD



DATE PURCHASED:	DATE INSTALLED:
INSTALLATION COMPANY:	
TELEPHONE:	
MONITORING COMPANY:	
SIM CARD PROVIDER:	SIM CARD PH NUMBER:

**TIMERS**

User programming options

P26E ENTRY DELAY TIME 1	<input type="text"/>	Seconds
P27E ENTRY DELAY TIME 2	<input type="text"/>	Seconds
P28E EXIT DELAY TIME	<input type="text"/>	Seconds
P29E SIREN RESET TIME	<input type="text"/>	Minutes

**ZONE ASSIGNMENT**

Installer programming options

P41E ENTRY DELAY 1	<input type="text"/>																		
P43E ENTRY DELAY 2	<input type="text"/>																		
P42E HANDOVER	<input type="text"/>																		
P40E INSTANT	<input type="text"/>																		
P45E AREA 1	<input type="text"/>																		
P46E AREA 2	<input type="text"/>																		
P51E MONITOR	<input type="text"/>																		
P52E 24 HOUR	<input type="text"/>																		
P54E RESET OUTPUT	<input type="text"/>																		
P55E STROBE OUTPUT	<input type="text"/>																		
P56E SONALERT OUTPUT	<input type="text"/>																		
P57E SIREN OUTPUT	<input type="text"/>																		
P74E Report (dialler)	<input type="text"/>																		






ZONES	DEVICE TYPE	PIR, Reed switch, etc	DESCRIPTION	Entrance, bedroom1, etc	P41E ENTRY DELAY 1	P43E ENTRY DELAY 2	P42E HANDOVER	P40E INSTANT	P45E AREA 1	P46E AREA 2	P51E MONITOR	P52E 24 HOUR	P54E RESET OUTPUT	P55E STROBE OUTPUT	P56E SONALERT OUTPUT	P57E SIREN OUTPUT	P74E Report (dialler)
D8 & D16	1																
	2																
	3																
	4																
	5																
	6																
	7																
	8																
D16	9																
	10																
	11																
	12																
	13																
	14																
	15																
	16																

USER CODE	OPTION No	Extra Options Assigned E.g. Radio Code, Arm Only, etc.
1 <sup>Master Code</sup>	P201E	
22	P202E	
32	P203E	
42	P204E	
52	P205E	
62	P206E	
72	P207E	
82	P208E	
92	P209E	
10	P210E	
11	P211E	
12	P212E	
13	P213E	
14	P214E	
15	P215E	
16	P216E	
17	P217E	
18	P218E	
19	P219E	

USER CODE	OPTION No	Extra Options Assigned E.g. Radio Code, Arm Only, etc.
03	P220E	
14	P221E	
24	P222E	
34	P223E	
44	P224E	
54	P225E	
64	P226E	
74	P227E	
84	P228E	
29	P229E	
30	P230E	
31	P231E	
32	P232E	
33	P233E	
34	P234E	
35	P235E	
36	P236E	
37	P237E	
38	P238E	

USER CODE	OPTION No	Extra Options Assigned E.g. Radio Code, Arm Only, etc.
9	P239E	
0	P240E	
1	P241E	
2	P242E	
3	P243E	
4	P244E	
5	P245E	
6	P246E	
7	P247E	
48	P248E	
49	P249E	
50	P250E	
51	P251E	
52	P252E	
53	P253E	
54	P254E	
55	P255E	
56	P256E	

# OPERATION SUMMARY

OPERATION	by <b>KEYPADS &amp; SMS</b>
<p><b>to ARM</b> The panel must initially be disarmed.</p>	<p><b>ALL KEYPADS</b> ARM + E If the Arming Shortcut is enabled, P62E 5E or ARM + [UserCode] + E or [UserCode] + E If Code Only Arming has been enabled for that user code. Extra Option 4E</p> <p><b>SMS</b> A[UserCode]E</p>
<p><b>to DISARM</b> To disarm and/or reset alarms.</p>	<p><b>ALL KEYPADS</b> [UserCode] + E</p> <p><b>SMS</b> [UserCode]E</p>
<p><b>to arm HOME MODE</b> Area1 must initially be disarmed.</p>	<p><b>ALL KEYPADS</b> HOME + E (If the Home Shortcut is enabled, P62E 3E) or HOME + [UserCode] + E</p> <p><b>SMS</b> H[UserCode]E</p>
<p><b>PANIC alarm</b></p>	<p><b>KPX/SATURN</b> *   together</p> <p>or *  + [UserCode] + E or *  + E (If Keypad Panic Shortcut is enabled, P62E 4E)</p> <p><b>NAVIGATOR</b> press EMERGENCY then press PANIC</p> <p><b>SMS</b> S[UserCode]E</p>
<p><b>EXCLUDE ZONES</b> EXCLUDE + E can only be used when the panel is disarmed. EXCLUDE + CODE + E can be used anytime.</p>	<p><b>ALL KEYPADS</b> EXCLUDE + E (If the Exclude Shortcut is enabled, P62E 2E) then <b>KPX/SATURN</b> [ZoneNumber] + E [ZoneNumber] + E (Enter the zone number/s to be excluded.) <b>NAVIGATOR</b> [SelectZones]</p> <p>then <b>KPX/SATURN</b> press E to exit Exclude mode or <b>NAVIGATOR</b> press  to exit.</p> <p>The Exclude icon flashes constantly while zones are excluded. Excluded zones are automatically included on disarming.</p>