

8-ZONE ALARM CONTROL PANEL

HA-982

OWNER'S MANUAL



SINCE 1979



PREFACE

Thank you for choosing the HA-982 Alarm Control Panel to protect you and your property. Your system is one of the most powerful and advanced alarm systems on the market today, designed to provide you with years of reliable service.

This owner's manual covers the information on installation and operation. In the installation section, all the aspects in programming, connection terminal functions and the system features are described in detail. The operation section tells you how to operate the system precisely.

To get most from the system, we suggest that you take time to read through the manual to get acquainted with its features and all the operating procedures.

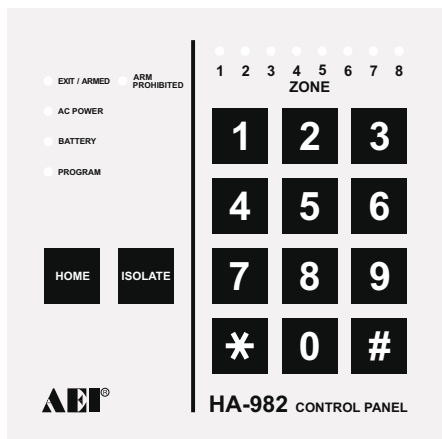
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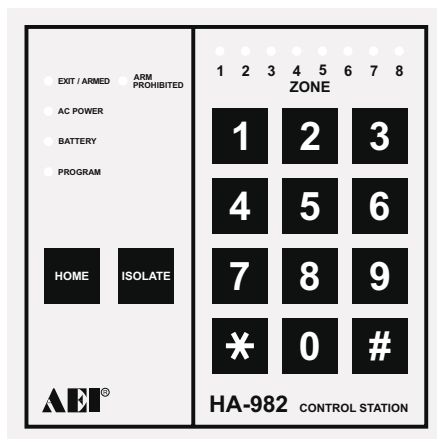
INTRODUCTION

HA-982 is a reliable, state of the art alarm control panel with 8 protection zones, which is designed as a local alarm system for home and office protections. The system comes with the most popular features in default settings for ready use, or, you can program the system with the programming options provided to make it mostly suitable for your application environment. The system is capable of performing self-diagnoses to ensure normal operations. It is also remarkably easy to operate and user friendly.

THE SYSTEM CONTROL CONSOLE AND ITS INDICATORS



HA-982S



HA-982R

THE SOUND INDICATORS

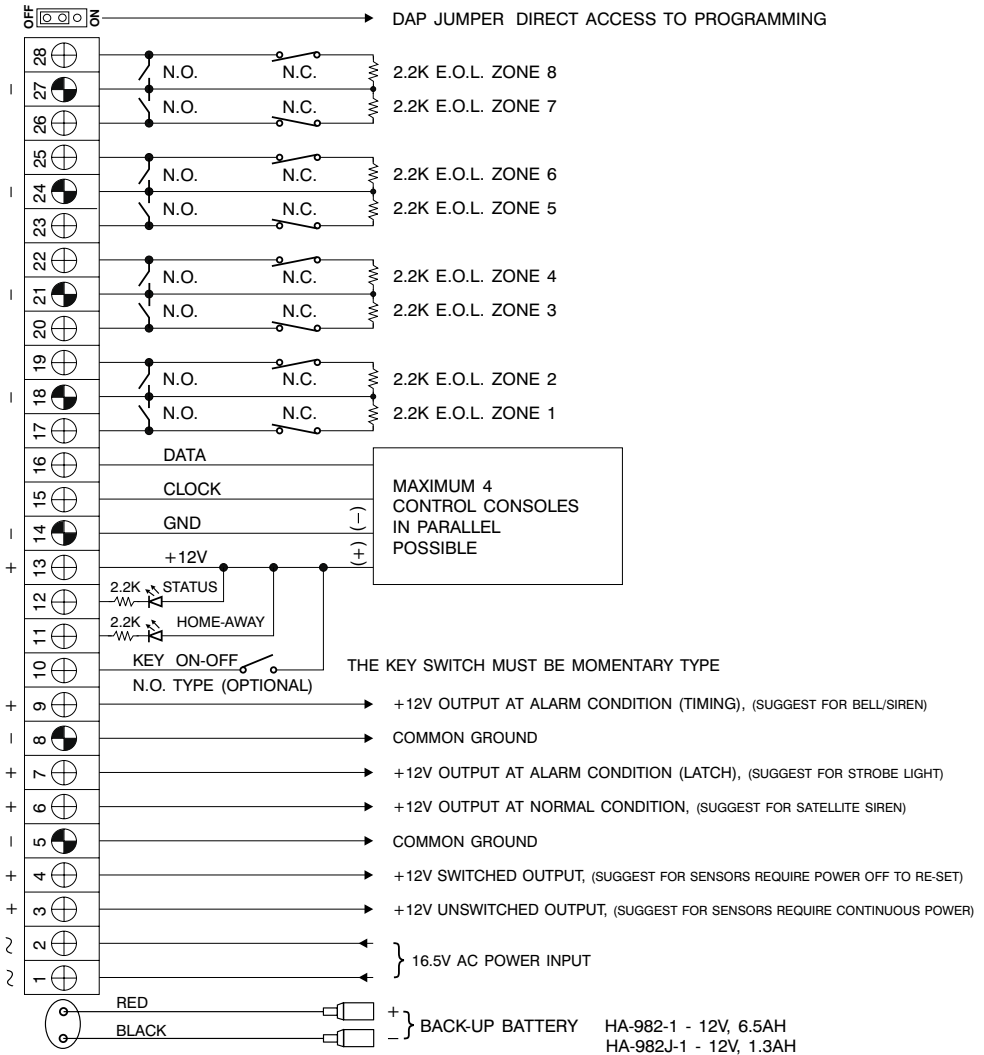
SOUND	MEANING
1 short beep	<ul style="list-style-type: none"> Successful key entry, a pacifier tone
2 short beeps	<ul style="list-style-type: none"> Successful code entry for the specific function
5 short beeps	<ul style="list-style-type: none"> Unsuccessful code entry for the specific function Wrong code number entered Unauthorized command attempted Code entry time expired, 10 seconds maximum per digit is allowed
1 long beep	<ul style="list-style-type: none"> Exit delay expired, system is armed
1 short beep/30 seconds	<ul style="list-style-type: none"> AC power failure Battery low
Continuous beeping at 0.5 second interval	<ul style="list-style-type: none"> Exit delay time Entry delay time The DAP jumper is ON
2 beeps + 5 beeps	<ul style="list-style-type: none"> System can not be armed instantly due to ARM PROHIBITED

THE LED LIGHT INDICATORS

INDICATORS	ON	OFF	FLASHING
ZONES (8 LEDs)	<ul style="list-style-type: none"> Zone unsealed (<i>faulted</i>) Please check the zone connections 	<ul style="list-style-type: none"> Zone sealed (<i>Normal</i>) 	<p>FLASHING FAST</p> <ul style="list-style-type: none"> Zone is or was in alarm <p>FLASHING FAST WITH STOPPING INTERVAL</p> <ul style="list-style-type: none"> Zone is in alarm memory, system is disarmed <p>FLASHING SLOW</p> <ul style="list-style-type: none"> Zone is isolated
EXIT/ARMED	<ul style="list-style-type: none"> Alarm armed 	<ul style="list-style-type: none"> Alarm disarmed 	<ul style="list-style-type: none"> In exit delay period
AC POWER	<ul style="list-style-type: none"> AC Power is being supplied 		<ul style="list-style-type: none"> AC power failure, system is using battery Flashing starts 20-30 seconds after AC power failure <p>FLASHING ALTERNATIVELY WITH THE "BATTERY" INDICATOR</p> <ul style="list-style-type: none"> System is in power-up delay period
BATTERY	<ul style="list-style-type: none"> Battery faulted 	<ul style="list-style-type: none"> Battery normal 	<ul style="list-style-type: none"> The battery is under testing <p>FLASHING ALTERNATIVELY WITH THE "AC POWER" INDICATOR</p> <ul style="list-style-type: none"> System is in power-up delay period
PROGRAM	<ul style="list-style-type: none"> System in program mode 	<ul style="list-style-type: none"> Normal state 	
ARM PROHIBITED	<ul style="list-style-type: none"> System in arm prohibited mode, indicator is ON during exit delay period 	<ul style="list-style-type: none"> System is armed after exit delay expired System in forced to arm mode 	<ul style="list-style-type: none"> The system can not be armed after exit delay expired due to faulty zone(s) existing, see zone indicator for the faulty zone(s)

TERMINAL DEFINITIONS AND DESCRIPTIONS

THE TERMINALS ON MAIN PRINTED CIRCUIT BOARD



- 1, 2: AC Power is supplied from a 16.5V AC, 1.5Amp minimum transformer at 50 or 60Hz. The primary side of the transformer must be connected to an unswitched receptacle.
- 3: This terminal provides an unswitched +12V output power referring to the common ground. It gives output power all the time no matter the system is armed or disarmed. Suitable for those devices require uninterrupted power supply. Such as smoke detectors, control keypads etc. This terminal is equipped with a 750mA resettable fuse.
- 4: This terminal provides a switched +12V output power referring to the common ground when the system is turned ON. The output voltage is OFF when the system is disarmed. It is prepared for devices that require switched power for resetting. Typical devices are glass-break detectors and some of the smoke detectors that require power OFF to reset. This terminal is equipped with a 750mA resettable fuse.

NOTE: Terminals 3 and 4 share the same power bus. Combined power for these outputs should not exceed 750mA.

- 5: Common Ground (-).
- 6: This terminal provides a continuous +12V output power at normal condition of no alarm occurred. Mostly suitable for the connection of Satellite Siren/Strobe Light (*AEI Model #ES-962A/B*). The +12V output is switched OFF at alarm condition. The output is equipped with a 2.5A resettable fuse.

REMARK: A Satellite Siren-Strobe Light unit is a self-contained device with built-in backup battery which is charged by the hold-off voltage from the control panel at normal condition. At which, the siren and strobe light are OFF.

At alarm condition, the hold-off voltage from the control panel is cut. The siren and strobe light at the unit start to work. They are supplied by the backup battery. The siren will stop when the pre-set time is expired, and that the strobe light will work until the hold-off voltage is resumed.

A Satellite Siren-Strobe Light is self-protected and tamper-proof. It gives alarm instantly if the connection wire between the unit and the alarm control panel is cut.

- 7: This terminal provides a continuous +12V output power at and after alarm condition until the system is disarmed or reset by the user code. It is mostly suitable for providing power for the stand alone strobe light or those devices require continuous operation at alarm condition after the siren timer is reset. The output is equipped with a 2.5A resettable fuse.
- 8: Common Ground (-).
- 9: This terminal provides +12V output power at alarm condition with the time period according to the setting of the alarm timer. It is suitable for energizing electronic siren or alarm bell. The output is equipped with a 2.5A resettable fuse.

10,11,12,13: This group of terminals are the connection points for a remote station using conventional key switch for alarm arm-disarm controls, which is prepared for those people do not like to use digital code, or who might forget the code in nervous when alarm occurs. Connection of key switch is optional. Maximum 5 remote stations with momentary type key switch (*AEI Model: RKS-2M*) can be connected in parallel to these terminals.

10: For connecting the momentary key switches.

11: For connecting the HOME-AWAY LED indicators.

12: For connecting the STATUS LED indicators.

13: The +12V power common point for the key switches and the LEDs. 750mA resettable fuse is equipped.

UTILIZE THE REMOTE KEY SWITCH FOR SYSTEM ARM-DISARM CONTROLS

ARM THE SYSTEM		
KEY SWITCH CONTACT	STATUS	RESULTS
1st Touch	<ul style="list-style-type: none"> • Away mode arming 	<ul style="list-style-type: none"> • Exit delay starts • Exit beep sounds if it is enabled • System will be armed after exit delay expired
2nd Touch	<ul style="list-style-type: none"> • Home mode arming 	<ul style="list-style-type: none"> • The 2nd touch must be made within the exit delay period • Exit beep sounds continuously until the end of the exit delay • System will be armed after exit delay expired
DISARM THE SYSTEM		
1st Touch	<ul style="list-style-type: none"> • System disarmed 	<ul style="list-style-type: none"> • The system is disarmed and reset if there was no alarm occurred. It is ready for re-arming • The system is disarmed but with alarm memory if there was alarm occurred, 2nd touch is required
2nd Touch	<ul style="list-style-type: none"> • Alarm memory is cleared • System keeps in disarmed mode 	<ul style="list-style-type: none"> • The alarm memory LEDs are off (<i>both the STATUS LED and the zone LEDs on the control console</i>) • The system is ready for re-arming

THE LED LIGHT INDICATORS FOR REMOTE KEY SWITCH

INDICATOR	ON	OFF	FLASHING
HOME-AWAY	<ul style="list-style-type: none"> • Away mode 	<ul style="list-style-type: none"> • System disarmed 	<ul style="list-style-type: none"> • Home mode
STATUS	<ul style="list-style-type: none"> • Exit delay starts but there is unsealed zone(s), please check the zone connections • System is armed after exit delay expired 	<ul style="list-style-type: none"> • System disarmed 	<p>FLASHING SLOW</p> <ul style="list-style-type: none"> • Exit delay starts and the zones are normal <p>FLASHING FAST</p> <ul style="list-style-type: none"> • Zone is or was in alarm <p>FLASHING FAST WITH STOPPING INTERVAL</p> <ul style="list-style-type: none"> • System is disarmed • Zone with alarm memory

13,14,15,16: This group of terminals are the connection points for the system control console(s). All consoles should be connected in a parallel configuration back to these terminals and maximum 4 consoles can be allowed.

The system control console of the HA-982S is installed on the control panel unit, no connection is required. Just leave these terminals open unless additional remote console is required.

13: +12V power common point, equipped with a 750mA resettable fuse

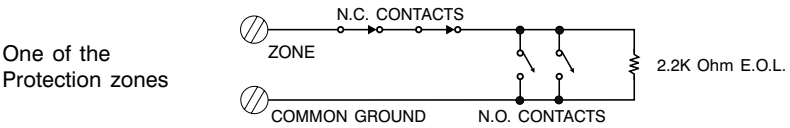
14: Common ground (-)

15: Clock wire

16: Data wire

17,18,19,20, 21,22,23,24, 25,26,27,28: These terminals are protection zones 1 to 8 and their common grounding terminals. The zones are E.O.L. (End of Line) monitored by a 2.2K Ohm resistor.

All normally closed (N.C.) contacts are to be wired in series with the E.O.L. resistor, where all normally open (N.O.) contacts are to be wired in parallel with the E.O.L. resistor. The function of the zones and their response times are programmable via the system programming options.



A protection zone with E.O.L resistor, either an open or a short will be reported as an alarm if the zone is in armed state.

- | | | | |
|--|--------------------|--------------------|--------------------|
| 17: Zone 1, | 19: Zone 2, | 20: Zone 3, | 22: Zone 4, |
| 23: Zone 5, | 25: Zone 6, | 26: Zone 7, | 28: Zone 8, |
| 18, 21, 24, 27: Common ground (-) | | | |







IMPORTANT NOTE: TAMPER SWITCH (N .C.)

The cabinet's tamper switch is pre-wired to zone 8 internally. Suggest always keep zone 8 programmed as a 24-hour protection zone.

BATTERY: The (+) RED wire connects to the positive terminal of the battery and the (-) BLACK wire connects to the negative terminal of the battery. The battery should be a 12V sealed lead acid rechargeable type with a capacity of 1.2AH. The battery is protected by a 2.5A resettable fuse, and it is charged by a current limiting regulated voltage source in the system.

DAP JUMPER: DAP stands for Direct Access to Programming. This jumper is prepared for setting the system into programming mode in case that the personal master code is forgotten.

THE TERMINALS ON THE CONTROL CONSOLE (REMOTE KEYPAD ONLY)

					
+	-	CLOCK	DATA	N.C.	TAMPER
12V					

(+) 12V: +12V power input terminal, connect it to terminal 13.

(-) 12V: The common grounding point, connect it to terminal 14.

CLOCK: The clock line of the system, connect it to terminal 15.

DATA: The data line of the system, connect it to terminal 16.

TAMPER N.C.: These are the connection terminals of the tamper switch in the control console. Connection of it is optional. If connection is required, connect it to a normally closed (N.C.) 24-hour zone and zone 8 is suggested.


NOTE: The maximum wire length for connecting any control console is 500 feet (152m) of 22 AWG (0.643mm) copper wire. The system is capable to handle maximum 4 control consoles.

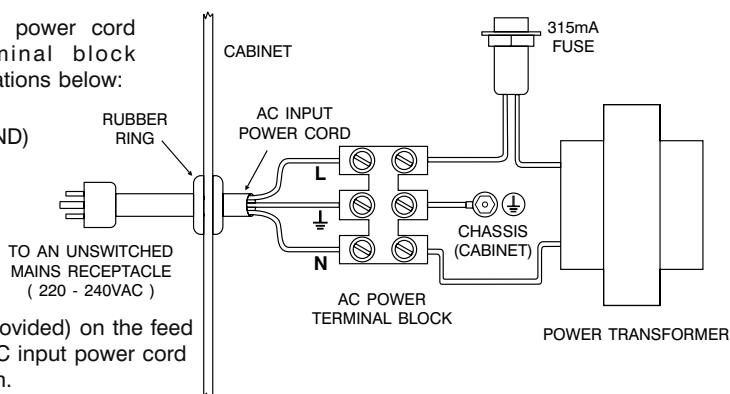
CONNECTING THE INPUT POWER CORD TO THE AC POWER TERMINAL BLOCK

(Optional - For HA-982-1-PT only)

- This alarm control panel comes with a built-in power transformer. Its Secondary side (16.5VAC) is connected to Terminals 1 and 2 of the main circuit board at the factory and that the Primary side is connected to an AC power terminal block which is prepared for the AC input power cord connection.

- Secure the AC input power cord firmly to the terminal block according to the indications below:

L : LIVE
 : EARTH (GROUND)
N : NEUTRAL



- Put the rubber ring (provided) on the feed through hole for the AC input power cord to prevent from scratch.
- The AC input power cord connecting to the Primary side of the power transformer MUST be connected to an unswitched Mains receptacle for continuous AC power.
- The power transformer is protected with a 315mA/250V fast blow glass fuse at the primary side. If fuse opens, remove AC and DC power, remove the short or overload condition, then replace the fuse before restoring power. DO NOT substitute a higher rated fuse.

FACTORY SETTINGS

The system has been programmed with the following default values before exit factory. The default values can be changed with the programming option values if they are not suitable for your application.

Please refer to **Programming the Panel** for details if re-programming is required.

THE PURPOSE OF THE DEFAULT PROGRAMMING SETUP

The default programming setup of the alarm system allows the owner to operate the system as a local alarm panel without programming except the **Master Code** and the **User Code**.

THE DEFAULT DATA CHART

PROGRAMMING LOCATION	PARAMETERS	DEFAULT VALUES	PROGRAM DATA
01	Master code	1234 <i>(This is not a default value under the default programming operation. It is a value that factory put in the system before exit factory)</i>	Code=1234
11-18	User code 1-8	Nil	nil
21	Zone 1	Multiple trigger, Entry delay 1, 500mS response . .	Code1=1,Code2=1,Code3=2
22	Zone 2	Multiple trigger, Entry delay 1, 500mS response . .	Code1=1,Code2=1,Code3=2
23	Zone 3	Multiple trigger, Instant, 500mS response	Code1=1,Code2=0,Code3=2
24	Zone 4	Multiple trigger, Instant, 500mS response	Code1=1,Code2=0,Code3=2
25	Zone 5	Multiple trigger, Instant, 500mS response	Code1=1,Code2=0,Code3=2
26	Zone 6	Multiple trigger, Instant, 500mS response	Code1=1,Code2=0,Code3=2
27	Zone 7	Multiple trigger, 24-Hr Instant, 500mS response . .	Code1=1,Code2=3,Code3=2
28	Zone 8	Multiple trigger, 24-Hr Instant, 500mS response . .	Code1=1,Code2=3,Code3=2
30	Exit delay	Exit beep enabled, 60 seconds	Code=1, duration=60
31	Entry delay 1	Entry beep enabled, 30 seconds	Code=1, duration=30
32	Entry delay 2	Enter beep enabled, 60 seconds	Code=1, duration=60
33	Siren duration	Arm-disarm ring-back disabled,300 seconds	Code=0, duration=300
40	Arming type	Forced to arm	Code=0
41	Alarm handover	Disabled	Code=0
HOME	Isolation zones in memory	Nil	nil
85	Power up delay	Disabled	Code=0
86	Periodic battery test	Disabled	Code=0

PROGRAMMING THE PANEL

You can program the panel from the system control console. Firstly, you are required to make the system enters to programming mode, then key in the two digit *Programming Location or the address*, followed immediately by the desired programming values (*program data*), then press the [#] key to store the data. The console will beep twice to confirm the data is successfully stored, and that 5 beeps will be generated for unsuccessful data entry. If you are not sure that the correct programming values have been entered, program the programming location again. After programming is finished, press the [*] key twice to leave programming mode. The maximum allowable time for each digit entry is 10 seconds.

ATTENTION:

To prevent triggering of the tamper switch, please make sure that the cabinet is firmly closed before applying power to the system. Also, do not install battery before the system is programmed. Otherwise, the tamper switch will be triggered instantly to give alarm before the door is closed, and there will be no user code available for turning off the alarm.

HOW TO ENTER PROGRAMMING MODE

1. USE THE FACTORY SET MASTER CODE

For the owner's convenience in programming at the first time, the factory has put a Master Code 1234 into the system. The owner can use this code for the system to enter to programming mode. To compromise security, in all cases, the owner should program a personal Master Code to invalidate the factory set Master Code.

FACTORY SET
MASTER CODE

1 2 3 4

VALIDATION

* *

- The console will beep twice to confirm that the system is in programming mode.
- The **PROGRAM** LED is ON.

2. USE YOUR OWN MASTER CODE

In the case that the factory set Master Code was replaced by your own Master Code, you have to use your personal Master Code to enter to programming mode.

MASTER CODE

MASTER CODE

VALIDATION

* *

- The console will beep twice to confirm that the system is in programming mode.
- The **PROGRAM** LED is ON.

3. USE THE DAP JUMPER DIRECTLY ACCESS TO PROGRAMMING MODE

If the factory set master code was deleted and the personal master code is forgotten. Use the DAP jumper to override the forgotten code permitting direct entry into programming mode. The DAP jumper can be found on the master circuit board. The owner is required to apply the following procedures precisely when use the DAP jumper:



- i) Disconnect the power supply including both AC power and the back-up battery.
- ii) Displace the DAP jumper from OFF to ON position.
- iii) Reconnect the power supply, the console will beep continuously.
- iv) Put the DAP jumper back to OFF position, the beep stops and the **PROGRAM** LED is ON.
- v) The system is in programming mode now, and it is ready to receive new data.
- vi) The DAP jumper is normally left on OFF position after programming.

START THE PROGRAMMING

After the system is set in programming mode, you can start to program the system with your desired programming values. You can make the programming for all the program options continuously or just select those options that you require. It is not necessary to make the programming in order sequence; you can jump to any **Programming Location** that is available in the system.

RECORDING THE MASTER CODE (Location: 01)

LOCATION	MASTER CODE	VALIDATION
0 1	2 TO 5 DIGITS	#

- The master code can be 2 digits minimum to 5 digits maximum.
- When the new personal master code is entered, the factory set master code or the code that was programmed will be erased.

RECORDING THE USER CODES**(Locations:11-18)**

LOCATIONS

11

USER CODES

2 TO 5 DIGITS

VALIDATION

#

- **LOCATIONS:**

11=User Code 1**12=User Code 2****13=User Code 3****14=User Code 4****15=User Code 5****16=User Code 6****17=User Code 7****18=User Code 8**

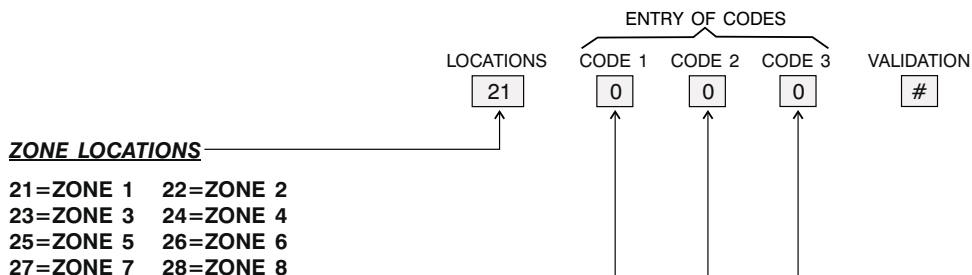
- The user codes can be 2 digits minimum to 5 digits maximum.
- Usually only one user code is required to arm-disarm the system.
- Programming of the user codes 2 to 8 is optional, unless more than one users are required to operate the alarm system.
- When a new code is entered into the location, the old code will be replaced.
- To invalid a code, just key-in the specific location number followed immediately by the [#] key without program data.

REMARK: SOMETHING ABOVE THE DUESS CODE IN THIS SYSTEM

The duress code is generated for activating the built-in communicator and auto-dialer (*if available*). This alarm control panel has been designed for local alarm purpose, which consists no communicator and auto-dialer. The duress code in this system gives no function.

The duress code is determined by the system automatically by increasing the first digit of the user code(s) of TWO units. When program the system with more than one user code, it is important that the user code(s) will not fall into the duress code of other user codes.

For example, if User Code 1 is 1328, it is not allowed to make other user code to be 3328, as 3328 is the duress code of User Code 1.

CONFIGURATION OF THE PROTECTION ZONES**(Location: 21-28)****CODE 1--TRIGGERING MODE**

0---SINGLE TRIGGER: The zone can only give alarm once. It does not accept 2nd triggering to prevent noise pollution. The zone will be refreshed when the system is reset.

1---MULTIPLE TRIGGER: (DEFAULT FOR ALL 8 ZONES)

The zone can be re-triggered after alarm was occurred if the system is still armed.

CODE 2--LOOP RESPONSE MODE

0---INSTANT: The zone gives no entry delay and triggers the alarm instantly.

1---ENTRY DELAY 1: The zone gives entry delay according to the time setting on the entry delay timer 1.

2---ENTRY DELAY 2: The zone gives entry delay according to the time setting on the entry delay timer 2.

REMARK : The purpose of entry delay 1 and entry delay 2 is to provide operation convenience for the owner to reach the panel from different entrances of the house to disarm the system.

For example: entering the house from the garage usually requires more time than from the main door. With the help of 2 entry delays, the owner can set different entry delay times for the two entrances.

3---24-HOUR INSTANT: The zone is always in standby mode, no matter the system is armed or disarmed. It gives instant alarm whenever it is triggered.

CODE 3--LOOP RESPONSE TIME

Loop response time is the time required to trigger a protection Zone.

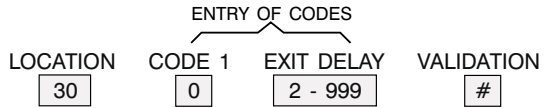
0 -- 25 mS

2 -- 500 mS (DEFAULT FOR ALL 8 ZONES)

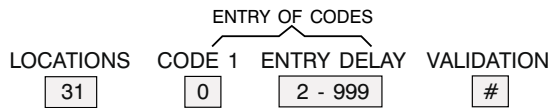
1 -- 250 mS

3 -- 750 mS

DEFAULT VALUES FOR CODE 2		
ZONE	CODE 2	RESPONSES
1	1	ENTRY DELAY 1
2	1	ENTRY DELAY 1
3	0	INSTANT
4	0	INSTANT
5	0	INSTANT
6	0	INSTANT
7	3	24-HR INSTANT
8	3	24-HR INSTANT

SETTING THE EXIT DELAY TIME**(Location: 30)****EXIT BEEP****0---DISABLED****1---ENABLED (DEFAULT):** The system beeps during the exit delay period**EXIT DELAY (DEFAULT: 60 seconds)****2-999 SECONDS**

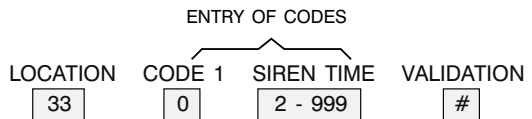
The time duration can be set from 2 to 999 seconds

SETTING THE ENTRY DELAYS**(Location: 31-32)****ENTRY DELAY LOCATIONS****31--ENTRY DELAY 1****32--ENTRY DELAY 2****ENTRY BEEP****0---DISABLED****1---ENABLED (DEFAULT):**

The system beeps during the entry delay period

**ENTRY DELAY (DEFAULT: 30 seconds, ENTRY DELAY 1
60 seconds, ENTRY DELAY 2)****2-999 SECONDS**

The time duration can be set from 2 to 999 seconds

SETTING THE SIREN DURATION**(Location: 33)****RING BACK****0---DISABLED (DEFAULT)****1---ENABLED:** The system will activate its timing alarm output (terminal 9) to generate short beeps when the system is armed or disarmed:**1 BEEP-----DISARMED 2 BEEPS-----ARMED****SIREN DURATION (DEFAULT: 300 seconds)****2-999 SECONDS**

The siren duration can be set from 2 to 999 seconds

SELECTION OF FORCED TO ARM OR ARM PROHIBITED**(Location: 40)**

LOCATION	ENTRY OF CODE	VALIDATION
40	0	#

FORCED TO ARM - ARM PROHIBITED**0----FORCED TO ARM: (DEFAULT)**

Any zone that is violated will be isolated after the exit delay expired when the system is armed. The faulty zone(s) will be shown on the zone LED(s).

WARNING: The isolated zone is not protected.

1----ARM PROHIBITED:

Any zone that is faulty (*open windows, malfunctioning sensor, etc.*), the system will not arm. The owner will not be able to arm the system until the faulty zone is cleared or manually isolated.

5 beeps will be generated after the exit delay expired to indicate that the alarm system is not armed. The zone LED(s) will indicate the faulty zone(s). See **Arm Prohibited LED light** for more indication details.

A faulty zone which is manually isolated after **arm prohibited** is considered as an isolated zone in normal operation. The system will be armed after the exit delay expired.

SETTING THE HANDOVER FUNCTION**(Location: 41)**

LOCATION	ENTRY OF CODE	VALIDATION
41	0	#

HANDOVER

0----DISABLED: (DEFAULT) The system is in normal operation. All the protection zones are having their functions according to the zone configuration settings.

1----ENABLED: In handover condition, any delay zone is triggered first, the instant zones (*Except the 24-hour zones*) will be disabled during the entry delay period. With this feature, the owner can set the motion sensors for interior protection with the instant zones and the main door protection with delay zone. The system will always give instant alarm if the person does not enter the house from the main door entrance.

POWER-UP DELAY**(Location: 85)**

LOCATION	ENTRY OF CODE	VALIDATION
85	0	#

POWER-UP DELAY**0----DISABLED (DEFAULT)****1----ENABLED****NOTE:**

- 1) The purpose of power-up delay is to give a period of time for the system to stabilize and to charge up the backup battery after power-up at the first time, or power-up after a long time of AC power failure and the backup battery is completely exhausted.
- 2) The power-up delay is 5 minutes. The system suppresses all the alarm outputs.
- 3) During the power-up delay period, the **AC POWER** and the **BATTERY** LED lights are flashing alternatively.

PERIODIC BATTERY TEST**(Location: 86)**

LOCATION	ENTRY OF CODE	VALIDATION
86	0	#

PERIODIC BATTERY TEST**0----DISABLED (DEFAULT)****1----DAILY-24 HOURS****2----WEEKLY-7 DAYS****NOTE:**

- 1) When PERIODIC battery testing is selected, the system will dynamically test the backup battery every 24 hours or every 7 days. The time counting starts at the system power-up.
- 2) Every time after the testing, the system shows the battery status on the control console.
- 3) The system will automatically stop the battery testing in AC power failure condition, or, when the system is in alarm.

PUTTING THE HABITUAL ISOLATION ZONES IN MEMORY FOR "HOME" MODE OPERATION

(Location: HOME)

LOCATION	ENTRY OF CODE	VALIDATION
HOME	1 TO 8	#

ZONES PUTTING INTO MEMORY FOR ISOLATION

1-8---(DEFAULT: NIL): Key-in the zone numbers (zone 1 – zone 8) for isolation

NOTE:

- 1) Entering the zone number(s) required to be isolated one by one into the memory. Continuous entry is possible.

Example: The key-in procedures of putting the zones 1,2 and 4 into memory for isolation for home operation are as follows:

PRESS HOME 1 2 4 #

WARNING: Making isolation to the 24 hour zone is not recommended. An isolated zone is not protected.

- 2) Putting the habitual isolation zones in memory is convenient for the owner to set the system for **HOME** mode operation instantly. The owner does not require to set the zones one by one every time to make them isolated. With the habitual isolation zones stored in memory, the owner simply key-in the [User Code], then press the [HOME] and [#] keys to make the system in home operation with the required zones isolated.

SETTING THE SYSTEM WITH DEFAULT VALUES

(Location: 02)

WARNING: When set the system with the default programme, except the Master Code, all the values programmed previously will be cleared and replaced by the default values that shown on the **Default Data Chart** on page 11.

Key-in the programming location followed immediately with the [#] key, the system starts to down load the default values into its memory, which takes around 2 seconds. After that, the default values on the **default Data Chart** are entered.

LOCATION	VALIDATION
02	#

EXIT THE PROGRAMMING MODE

After programming is finished, the system has to be set to exit the programming mode and back to operation mode. Exit the programming mode can be done at anytime by pressing the [*] key twice.

VALIDATION

* *

PROGRAM SUMMARY CHART

LOCATION NO.	DESCRIPTION OF PARAMETERS	ENTRY LIMITS AND CODE OPTIONS	PROGRAMMING FORMAT	FACTORY DEFAULT	YOUR PROGRAM RECORD
01	Master Code	2-5 DIGITS	01 MASTER CODE #	NONE	
02	Factory default values	WARNING: With the entry of this location, all the values previously programmed will be cleared and replaced by factory default values except the voice message and the master code.		SEE THE DEFAULT VALUES IN THIS COLUMN	
11	User code 1	2-5 Digits	11 USER CODE 1 #	NONE	
12	User code 2		12 USER CODE 2 #	NONE	
13	User code 3		13 USER CODE 3 #	NONE	
14	User code 4		14 USER CODE 4 #	NONE	
15	User code 5		15 USER CODE 5 #	NONE	
16	User code 6		16 USER CODE 6 #	NONE	
17	User code 7		17 USER CODE 7 #	NONE	
18	User code 8		18 USER CODE 8 #	NONE	
21	Configuration of zone 1	CODE 1: 0 or 1 0---Single Trigger 1---Multiple Trigger CODE 2: 0,1,2 or 3 0---Instant 1---Entry Delay 1 2---Entry Delay 2 3---24-Hour Instant CODE 3: 0,1,2 or 3 0---25mS 1---250mS 2---500mS 3---750mS	21 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=1 CODE 3=2	
22	Configuration of zone 2		22 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=1 CODE 3=2	
23	Configuration of zone 3		23 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=0 CODE 3=2	
24	Configuration of zone 4		24 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=0 CODE 3=2	
25	Configuration of zone 5		25 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=0 CODE 3=2	
26	Configuration of zone 6		26 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=0 CODE 3=2	
27	Configuration of zone 7		27 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=3 CODE 3=2	
28	Configuration of zone 8		28 CODE 1 CODE 2 CODE 3 #	CODE 1=1 CODE 2=3 CODE 3=2	
30	Exit delay and exit beep	CODE: 0 or 1 0---Exit Beep Disabled 1---Exit Beep Enabled EXIT DELAY: 2-999 Seconds	30 CODE SECONDS #	CODE=1 60 Seconds	

LOCATION NO.	DESCRIPTION OF PARAMETERS	ENTRY LIMITS AND CODE OPTIONS	PROGRAMMING FORMAT	FACTORY DEFAULT	YOUR PROGRAM RECORD
31	Entry delay 1 and entry beep	CODE: 0 or 1 0---Entry Beep Disabled 1---Entry Beep Enabled ENTRY DELAY 1: 2-999 Seconds	<input type="text" value="31"/> <input type="text" value="CODE"/> <input type="text" value="SECONDS"/> <input type="text" value="#"/>	CODE=1 30 Seconds	
32	Entry delay 2 and entry beep	CODE: 0 or 1 0---Entry Beep Disabled 1---Entry Beep Enabled ENTRY DELAY 2: 2-999 Seconds	<input type="text" value="32"/> <input type="text" value="CODE"/> <input type="text" value="SECONDS"/> <input type="text" value="#"/>	CODE=1 60 Seconds	
33	Siren duration and ring back	CODE: 0 or 1 0---Ring Back Disabled 1---Ring Back Enabled SIREN DURATION: 2-999 Seconds	<input type="text" value="33"/> <input type="text" value="CODE"/> <input type="text" value="SECONDS"/> <input type="text" value="#"/>	CODE=0 300 Seconds	
40	Forced to arm or arm prohibited	CODE: 0 or 1 0---Forced to Arm Mode 1---Arm Prohibited Mode	<input type="text" value="40"/> <input type="text" value="CODE"/> <input type="text" value="#"/>	0 (Forced to arm)	
41	Handover or non-handover mode	CODE: 0 or 1 0---Non-handover Mode 1---Handover Mode	<input type="text" value="41"/> <input type="text" value="CODE"/> <input type="text" value="#"/>	0 (Non-handover)	
85	Power-up delay	CODE: 0 or 1 0---Disabled 1---Enabled	<input type="text" value="85"/> <input type="text" value="CODE"/> <input type="text" value="#"/>	0 (Disabled)	
86	Periodic battery testing	CODE: 0, 1 or 2 0---Periodic Testing Disabled 1---Test Every 24 Hours 2---Test Every 7 Days	<input type="text" value="86"/> <input type="text" value="CODE"/> <input type="text" value="#"/>	0 (Disabled)	
HOME	Isolation zones in memory	ZONES: 1,2,3,4,5,6,7 and 8	<input type="text" value="HOME"/> <input type="text" value="ZONES"/> <input type="text" value="#"/>	NONE	

REMARKS:

- Entering to programming mode**

Whenever programming is required, it is necessary to set the system into programming mode first by entering the master code and validate by pushing the [*] key twice:

- Leaving the programming mode**

Whenever the programming is finished, simply push the [*] key twice to leave the programming mode:

THE AC AND BATTERY POWER

AC POWER INDICATION

The AC power LED indicates the current status, which is ON at AC normal, and it is FLASH at AC failure. The control console gives continuous 1 short beep/30 seconds during the AC power failure period.

DYNAMIC BATTERY TESTING

The system performs dynamic battery testing on the standby battery by interrupting AC power for 2 minutes and monitoring the battery under loaded condition.

- 1) Dynamic battery testing can be performed any time by manually keying-in the following command codes.

USER CODE * 4 #

- 2) Dynamic battery testing can be performed daily or weekly automatically with the appropriate command code programmed at Location 86.
- 3) The battery's current status is always shown on the BATTERY LED indicator.
- 4) Except the LED light indication, the control console gives continuous 1 short beep/30 seconds after the system announced for battery low until the system retests the battery and considers that the battery has resumed normal again.
- 5) Dynamic battery testing is not accepted in AC power failure condition, or, when the system is in alarm.

BATTERY LOW INDICATIONS AND AUTO RESET

- 1) The battery low indication begins at 11.0V the battery under loaded condition at dynamic battery testing.
- 2) The battery low indication begins at the battery voltage drops to 11.0V for more than 2 minutes in AC power failure condition.
- 3) The system will be reset to stop working when the battery voltage drops to 10V in AC power failure condition.

POWER-UP DELAY

The system can be programmed with or without power-up delay by keying-in the appropriate command code at location 85.

The **AC POWER** and the **BATTERY** lights are flashing alternatively; and the system gives no any function during the power-up delay period.

THE BACK-UP BATTERY

- 1) The back-up battery for the system should be a 12V, 1.2AH sealed lead-acid battery.
- 2) Replace battery every 3–5 years.
- 3) The standby time is 16 hours at 250mA.
- 4) The maximum battery charge current is 350mA in the system.
- 5) The battery is protected by a built-in 2.5A resettable fuse in the system.

OPENING THE CABINET FOR SERVICE

The Metal Cabinet of the HA-982 is protected by a built-in tamper switch which has been wired to zone 8 at the factory.

Zone 8 is a 24 hour protection zone on default settings. Opening of the Cabinet will trigger the tamper switch to make alarm.

If service is required, such as replacing a back-up battery, checking the connection wires.....etc., it is necessary to isolated the tamper switch before opening of the cabinet, and it can be accomplished by one of the following two ways:

- 1) Isolating of the tamper switch can be accomplished by isolating Zone 8.

Enter your [USER CODE], press the [ISOLATE] button, key in the zone number [8] and validate by [#].

[USER CODE] [ISOLATE] [8] [#]

- The tamper switch is isolated, two beeps are generated after the exit delay expired
- The zone 8 LED light is flashing **slow**

- 2) Disable the protection zones by setting system in PROGRAMMING MODE.

Enter the [MASTER CODE] and validate by pressing the [*] key twice.

[MASTER CODE] [*] [*]

- The system is in programming mode, two beeps are generated, the PROGRAM LED light is on.
- The protection zones including zone 8 are disabled while the system is in programming mode.

Now, you can open the Cabinet without making an alarm, Suggest to use a jumper wire (*metal wire*) shorting the tamper switch terminals in order to disable its function in all conditions for those testings and services required the cabinet opened for a period of time. After that, you are allowed to arm-disarm the system, or, to do anything in service without triggering of the tamper switch.

Don't forget to remove the jumper wire that you have put on the tamper switch after service. Before removing the jumper, please make sure that zone 8 is still in isolation or has been set in isolation again after the operational tests in service. Otherwise, the system will give alarm once the jumper wire is removed.

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ARMING THE SYSTEM

TO ARM THE SYSTEM

- 1) Make sure that the alarm system is in disarmed state.
 - No alarm memory is existing on the zone indicators.

- 2) Enter your [user code] and validate by [#] key

- Your user code can be two to five digits long.
 - Don't pause for more than 10 seconds while entering the digits or the control panel will reject your user code.
 - If you make a mistake while entering the user code, the control console will give five beeps. After the beeps, enter your code again.
 - The control console will give 2 beeps to confirm that the system is ON and exit delay has started, the EXIT/ARMED LED will flash.
- 3) Exit through the exit delay door
 - The exit delay can be programmed from 2 to 999 seconds.
 - Exit beep will be given if this program option is selected. Please put a "✓" in the box showing your selected option:

EXIT BEEP ENABLED ————— ☐ OPTION SELECTED (DEFAULT)

EXIT BEEP DISABLED ————— ☐ OPTION SELECTED

- The system will be armed after the exit delay expired, the EXIT/ARMED LED will be ON.

TO ARM THE SYSTEM INSTANTLY

- 1) Make sure the system is in disarmed state with no alarm memory shown on the zone LEDs.
- 2) Enter your [user code], press the [*] key, enter number [2], and validate by [#] key.

- The control console will give 2 beeps to confirm that the system is armed instantly.
- The EXIT/ARMED LED is ON.
- When the system is instantly armed, you will not be able to walk through any protected area. The control console must be installed outside the protected area.

TO ARM THE SYSTEM IN HOME MODE

Home mode will only arm the perimeter zones. Those interior zones stored in memory (*if any*) for home mode will be isolated when the system is armed.

1) Make sure the system is in disarmed state with no alarm memory shown on the zone LEDs.

2) Enter your [user code], press the [HOME] key, and validate by [#] key.

USER CODE HOME #

- The control console will give 2 beeps to confirm that the system is ON and exit delay has started, the EXIT/ARMED LED will flash.
- The isolated zone LEDs will flash all the time to indicate that the isolated zones are not protected.
- The system will be armed after the exit delay expired, the EXIT/ARMED LED will be ON.
- You are allowed to move about freely inside the premises that the interior protection zones are isolated while the system is armed.

TO ARM THE SYSTEM INSTANTLY IN HOME MODE

Home mode will only arm the perimeter zones. Those interior zones put in memory (*if any*) for home mode will be isolated when the system is armed.

1) Make sure the system is in disarmed state with no alarm memory shown on the zone LEDs.

2) Enter your [user code], press the [HOME] key, enter number [2] and validate by [#] key.

USER CODE HOME 2 #

- The control console will give 2 beeps to confirm that the system is armed instantly, the EXIT/ARMED LED will be ON.
- The isolated zone LEDs will flash all the time to indicate that the isolated zone are not protected.
- You are allowed to move about freely inside the premises that the interior protection zones are isolated while the system is armed.

TO ARM THE SYSTEM WITH MANUALLY ISOLATED ZONE(S)

In some circumstances, making isolation to the protection zone(s) may be required, such as:

- To isolate the faulty zone(s).
- To isolate the zone(s) that is not the habitually isolation zone(s) in memory.
- To isolate the zone (*zone 8*) that the cabinet tamper switch is connected to prevent triggering of the alarm when the cabinet is opened for service purpose.

1) Make sure the system is in disarmed state with no alarm memory shown on the zone LEDs.

2) **Enter your [user code], press the [ISOLATE] key, enter the [ZONE NUMBER(S)] you wish to isolate and validate by [#] key.**

- The isolating zone numbers can be entered continuously.
- The control console will give 2 beeps to confirm that the system is ON and exit delay has started, the EXIT/ARMED LED will flash.
- The isolated zone LEDs will flash all the time to indicate that the isolated zones are not protected.
- The system will be armed after the exit delay expired, the EXIT/ARMED LED will be ON.
- You are allowed to move about freely inside the premises that the interior protection zones are isolated, or to open the cabinet that the tamper switch is isolated while the system is armed.
- Making isolation to a 24-hour zone is dangerous and is not recommended, unless it is strictly necessary.
- The manually isolated zone(s) will be reset when the system is disarmed.

ARMING OPTIONS

Your alarm system has been programmed for one of the following arming types, please put a "✓" in the box showing your selected option:

FORCED TO ARM _____

☐

OPTION
SELECTED (DEFAULT)

Any hardware zone (*zone 1 to zone 8*) that is violated after the EXIT DELAY time expired will be automatically isolated until the system is disarmed.

- The zone LEDs will light up to indicate the faulted (*isolated by the system*) zones.
- **WARNING:** The isolated zones are not protected.

ARM PROHIBITED _____

☐

OPTION
SELECTED

If any hardware zone (*zone 1 to zone 8*) is faulted (*broken wire, open window, malfunctioning sensor, etc.*), you will not be able to arm the system until the faulted zone is cleared or manually isolated.

- Every time, when you switch ON the alarm system, the arm prohibited LED will be ON to remind you that **ARM PROHIBITED** is selected.
- The system will be armed after the EXIT DELAY time expired and the arm prohibited LED will be OFF if there is no faulted zone.
- The system will not be armed after the EXIT DELAY time expired, the arm prohibited LED will flash constantly and 5 beeps will be generated if any zone is faulted.
- You can isolate the faulted zone and arm the system by using the operation procedures **ARM THE SYSTEM WITH MANUALLY ISOLATED ZONES** stated previously.

TRIGGERING OPTIONS

Your system has been programmed for one of the following triggering mode for the people to enter the premises, please put a "✓" in the box showing your selected option:

HANDOVER DISABLED ————— ☐ **OPTION
SELECTED** (DEFAULT)

The system is in normal operation. All the protection zones can be triggered with their functions according to the zone configuration settings.

HANDOVER ENABLED ————— ☐ **OPTION
SELECTED**

In handover enabled condition, any delay zone is triggered first, all the instant zones will be disabled during the ENTRY DELAY time period, except the 24 hour protection zones.

With this feature, you can always set the motion sensors for interior protection with the INSTANT zones and the sensor for main door protection with the DELAY zone.

- The system will always give you ENTRY DELAY when you go in the premises from the main door entrance.
- The system will always give INSTANT ALARM to the people who enter the premises NOT from the main entrance, such as from the window, or any place that is protected by the instant zone. Usually that is a thief!

DISARMING THE SYSTEM AND TO CLEAR THE ALARM MEMORY

TO DISARM THE SYSTEM

In the condition of there is no alarm occurred when you come back from outside.

1) Enter the premises only through a **TIME DELAY door**. (DEFAULT: 30 seconds)

- If the entry beep is enabled, the control console will sound constantly until the ENTRY DELAY time expires, please put a "✓" in the box showing your selected option:

ENTRY BEEP ENABLED ————— ☐ OPTION
SELECTED (DEFAULT)

ENTRY BEEP DISABLED ————— ☐ OPTION
SELECTED

2) Enter your [USER CODE] and validate by [#] key within the ENTRY DELAY time period.

- The EXIT/ARMED LED will go OFF and 2 beeps will be heard. The system is disarmed.
- If wrong code is entered, 5 beeps will be generated. Enter your user code again after the 5 beeps.

TO DISARM THE SYSTEM AFTER AN ALARM OCCURS

Enter your [USER CODE] and validate by [#] key.

- This will silence the siren/bell and disarm the system.
- The ZONE LEDs on the control console will flash to help you to remember where the violations occurred.
- The alarm memory can be kept as long as you like before you arm the system again.

TO CLEAR THE ALARM MEMORY

It is necessary to clear the alarm memory before you can re-arm the system.

Enter your [USER CODE], press the [*] key, enter number [3] and validate by [#] key.

- The zone LEDs with alarm memory will be OFF to show that the alarm memory has been cleared.
- The system keeps in disarmed mode.
- The system is ready for rearm anytime.

TO CLEAR THE ALARM MEMORY AND RE-ARM THE SYSTEM IN ONE TIME

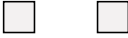
The following command can help you to clear the alarm memory and at the same time to re-arm the system.

Enter your [USER CODE], press the [*]key, enter number [6] and validate by [#] key.

- The zone LEDs with alarm memory will be OFF to show that the alarm memory has been cleared.
- The control console will give 2 beeps to confirm that the system is ON and EXIT DELAY is started, the EXIT/ARMED LED will flash.
- The system will be armed after the EXIT DELAY expired, the EXIT/ARMED LED will be ON.

MAKING A PANIC ALARM

At anytime, hold down any TWO key buttons on the control console simultaneously for three seconds will trigger an alarm. The console will give 2 beeps to confirm the alarm condition.



ANY TWO KEY BUTTONS ON THE CONTROL CONSOLE

- Local alarms will be given.
- There will be no indication of an alarm condition on the control console.

TESTING YOUR SYSTEM

Please make sure that the system is in **DISARMED** mode when you perform the tests.

STANDBY BATTERY TESTING ROUTINES

The system can be programmed to perform dynamically and automatically test of its standby battery with the options of periodic test and manual test.

- The test takes 2 minutes. The **BATTERY** LED will flash during the test.
- AC power is turned OFF in order to monitor the battery under load during the test.
- Two beeps will be generated and the **BATTERY** LED will be OFF if the battery is normal.
- If the battery is low or dead, five beeps will be generated, the **BATTERY** LED will be ON. The control console will continuously generate the warning signal of one short beep per 30 seconds until the next test.

NOTE:

- 1) The system will refuse to initiate the standby battery dynamic test in alarm condition, or, in the condition of AC power failure.
- 2) The standby battery should be replaced every three to five years with a rechargeable 12V, 1.2AH, sealed lead-acid battery.

STANDBY BATTERY TEST -- PERIODIC

The system can be programmed with the following options for periodic standby battery test, please put a "✓" in the box showing your selected option:

DAILY (EVERY 24 HOURS) BATTERY TEST ENABLED — ☐ OPTION
SELECTED

WEEKLY (EVERY 7 DAYS) BATTERY TEST ENABLED — ☐ OPTION
SELECTED

PERIODIC BATTERY TEST DISABLED — ☐ OPTION
SELECTED (DEFAULT)

- The counting of the periodic test starts at the time when the system is power-up (*when AC or DC power is firstly connected*).
- The time counting of the periodic test is not affected by the manual battery test.

STANDBY BATTERY TEST -- MANUAL

It is highly recommended to manually test the standby battery from time to time if periodic battery test is not enabled.

In some cases, manual test of the standby battery is necessary even periodic test is enabled. Such as:

- To re-test the battery after charging for a period of time. The battery low indicating LED and the beep sound will be reset after test if the battery which resumes normal was **LOW**.
- To test a newly replaced battery and to reset the battery low indications - both the beep sounds and the LED light.
- Manual test can be performed at anytime you like.

Enter your [USER CODE], press the [*] key, enter number [4] and validate by [#] key.

USER CODE [*] 4 #

- Dynamic battery test starts.
- Manual test and periodic test take the same testing routines.

TESTING THE LOCAL ALARM OUTPUTS

It is highly recommended to test the alarm outputs of your system from time to time to make sure that the siren/bell and the strobe light are working properly.

Enter your [USER CODE], press the [*] key, enter number [5] and validate by [#] key.

USER CODE [*] 5 #

- The alarm output relays connected to the bell/siren, satellite siren and the strobe light will activate for 3 seconds.

CHANGING AND DELETING

CHANGING A MASTER CODE

The master code is the authorization code for setting the system into programming mode. Please always keep this code for your own use only.

1) Enter your current [MASTER CODE] and validate by [*] [*]

MASTER CODE * *
CURRENT

- The **PROGRAM** light comes ON and system is in programming mode.

2) Enter the master code location [01], key in your new [MASTER CODE] and validate by [#]

01 MASTER CODE #
NEW

- The master code is accepted, it can be 2 to 5 digits.
- If the programming is rejected, 5 beeps will be generated. Try again.

3) Exit the programming mode by pushing [*] [*]

* *

- System is back to operation mode.

CHANGING A USER CODE

The system can store up to 8 user codes at Locations 11-18. All user codes are user programmable.

IMPORTANT NOTE:

It is important that the new user codes will not fall into the duress code of other user codes. Please see **INSTALLATION SECTION** Location 11-18 for more information.

1) Enter your [MASTER CODE] and validate by [*] [*]

MASTER CODE * *

- The **PROGRAM** light comes ON.

2) Enter the user code location [11-18] you wish to change its user code, key in the new [USER CODE] and validate by [#].

USER CODE LOCATION USER CODE #
NEW

- The new user code is accepted, it can be 2 to 5 digits.
- If the programming is rejected, 5 beeps will be generated. Try again.

3) Exit the programming mode by pushing [*] [*]

* *

- System is back to operation mode.

DELETING A USER CODE

8 user code locations are available in the system but putting user codes into all of them is optional. A user code in a location can be changed or deleted at anytime you like.

1) Enter your [MASTER CODE] and validate by [*] [*]

- The **PROGRAM** light comes ON.

2) Enter the user code location [11-18] you wish to deleted its user code and validate by [#]

- The user code in that location is deleted.
- If the request is rejected, 5 beeps will be generated. Try again.

3) Exit the programming mode by pushing [*] [*]

- System is back to operation mode.

ARMING-DISARMING CONTROLS BY KEY SWITCH--OPTIONAL

The HA-982 has been prepared with the facility of connecting optional key switches for arm-disarm controls. If your system is equipped with the optional key switch, you can make arm-disarm controls from the key switch as like from the control console.

Please see INSTALLATION SECTION page 8 for the details:

- UTILIZE THE REMOTE KEY SWITCH FOR SYSTEM ARM-DISARM CONTROLS
- THE LED LIGHT INDICATORS FOR REMOTE KEY SWITCH