HOME GUARD
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X00370                                                                                                           home.guard.CDR
HOME GUARD
GENERAL FEATURES:

The “HOME GUARD” is a D.I.Y. stand-alone alarm panel, limited to receiving wireless signals. The “HOME GUARD” is capable of monitoring 25 wireless movement detectors divided into 8 different zones.

The “HOME GUARD” supports 8 different remote controls for arming, disarming and panic activation. The “HOME GUARD” is fully programmable with an easy user interface. The external connections are limited to power supply and optional siren outputs. Since the wireless receiver is onboard no other connections are required, making installation an easy task. Adding wireless detectors and remote controls to the system is easy with the self-learning feature. The “HOME GUARD” offers great flexibility and features:

- Supports a maximum of 25 wireless detectors.
- 8 individual wireless zones.
- Supports up to 8 Remote Controls with different codes.
- LCD Display.
- Individual naming of zones (up to 16 characters).
- Arm/disarm via Keypad or Remote Control.
- Buzzer output for auxiliary signals (arm, disarm, battery-low etc....).
- Flash memory for retention of both options and code selections during "power-down".

- Programmable Schedule for arming and disarming time windows (hands free).
- Four preset active zone levels “A, B, C, or D”.
- Easy Arming.
- Easy programming and display of current options and settings.
- Self Learning function for the Remote Control code and Wireless Detectors.
- On Board wireless receiver.
- Monitoring and reporting of Tamper on Wireless Detector.
- Monitoring and reporting of Battery low on wireless detectors.
- Keypad wrong-code alert (allows 3 entries).
- Optional External Antenna.
- Receiver frequency at 433MHz.
- Optional Transmitter at 403MHz.
- Tracer Interface.
- **Supply Power:** The “HOME GUARD” operates from a 12 Volts DC, 1A Power Supply.

- **Zones:** The “HOME GUARD” has allocation for 8 zones. All of these zones are wireless.

- **Zone Names:** The zone names must be set by the user, this is to allow the user to easily identify which zone is in alarm. If the zone name is not set the Zone number will be shown on alarm. Setting the zone names can be seen under the programming section - set Zone names.

- **Wireless Detectors:** The “HOME GUARD” can allow for a maximum of 25 wireless (Indoor and Outdoor) detectors in all Zones. The “HOME GUARD” supports both M.A.M.I. Passives as well as the Silentron detectors. Adding wireless devices is an easy task. The user simply has to follow the instructions under the Add detectors section of Programming mode.

- **Remote’s:** The “HOME GUARD” supports a maximum of 8 Remote’s with MAMI smart code (16 bit).

- **Antenna:** The “HOME GUARD” has an option for an external antenna. The external Antenna will allow for a longer range. Typically the unit should be situated central to all detectors.

- **Schedules:** The “HOME GUARD” has 2 programmable Schedules to automatically arm (Level A) and disarm the unit at a specific time. Schedules can be disabled individually. The user can set the schedules to be bypassed for one day. *Note. It is Recommended that the Schedules be used with a backup power supply.* (see Programming mode Schedules and schedule bypass)

- **Siren Output:** The “HOME GUARD” has a relay output, which activates on alarm. The duration that the Relay is activated is determined by the siren duration option under the Programming mode.

- **Tamper:** If any of the detectors are tampered with, the detectors will send out a Tamper Signal which sounds an alarm notifying the user, the zone in which the detector is will be displayed.

- **Battery Low:** If any of the detectors send a battery low signal the unit will illuminate the Trouble led and buzz continuously. The battery low signal will only be received in the Disarmed state. The zone number or zone name will be displayed.

- **Four Programmable levels:** The Programmable levels is a feature whereby the user can select which zones are to be monitored when the system is armed. If a zone is not in the level the zone will not be monitored for alarms. This unit has four levels which can be modified under the programming mode (set level’s A,B,C,D).

- **Options:** The user can select the Aux options of the unit. The options that the user can select is the buzzer and Siren options. If the user sets the **aux buzzer off**, the buzzer will only sound on an alarm. If the user selects the **Aux Siren Off**, the siren wont alert the user on arm and disarm but will sound on Alarms.

- **Transmitter output:** If the unit has an internal transmitter, it could be used to interface any one of the following devices: the **Ghatto two channel receiver** (16 bit), or **Tracer smart cat receiver** (Mami Smart-S interface 16 bit). To adjust these parameters refer to Programming Options, Options, Alarm Output interface.
Using Wireless Sensors is simple provided you are aware of the following facts:

1. The operating range may vary widely from one installation and location to another. The position of the radio receiver which is in the unit is therefore critical and must be chosen accordingly.

2. Each installation requires to learn two different I.D. Codes:
   - a DETECTOR CODE for sensors and detectors and...
   - a REMOTE CONTROL CODE for the hand held remote controls

Each code has two parts: **IDENTIFICATION** and **FUNCTION**

- **IDENTIFICATION**: This is the part that makes that device recognizable by the system.
- **FUNCTION**: This part is done on the unit. (see Programming mode adding detectors)

A 2 BUTTON REMOTE CONTROL IS USED: FOR PANIC ACTIVATION (BUTTON A), FOR ARM/DISARM (BUTTON B)

**IMPORTANT!!!**:
- A wireless detector transmits an alarm condition only for a short period of time (2 - 4 Seconds)
- To save power the sensors are designed not to transmit if continuous movement is detected.
- A detector will only transmit if either a 30 seconds (test mode) or 3 minutes (normal mode) has elapsed from the last detection.

To program the sensors and detectors see the instructions supplied with each device
The programming mode is where the users set certain OPTIONS, adjusting the operation of the unit to suit their needs. **The unit will enter the programming mode once the user ENTERS the user password followed by a hash “#” Key.** “Programming Mode” will be displayed on the LCD display. Once in programming mode the user can adjust certain features of the unit as required by the user.

**THE HOME GUARD IS ORIGINALLY PROGRAMMED WITH A "FACTORY DEFAULT" SET OF OPTIONS. ALTHOUGH THE "FACTORY" OPTIONS REFLECT THE CHOICE OF THE MAJORITY OF INSTALLERS AND END- USERS, PROPER OPERATION AND COMPLIANCE WITH SPECIFIC REQUIREMENTS CAN BE ACHIEVED THROUGH RE-PROGRAMMING.**

### SYSTEM PROGRAMMING OPTIONS

#### Setting Schedules ARM & DISARM

<table>
<thead>
<tr>
<th>Time Displayed</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHEDULE 1 ARM time</td>
<td>Enter time in 24 hour format</td>
</tr>
<tr>
<td>SCHEDULE 1 DISARM time</td>
<td>Enter time</td>
</tr>
</tbody>
</table>

**“SCHEDULE 1 ARM time”** will be displayed. Indicating that the time for schedule 1 ARM must be entered. The user must enter the time in a 24 hour format with hour first followed by the minute. If the user wishes to disable a schedule, instead of entering the time; the ‘D’ KEY must be pressed.

If the user enters an invalid time, “ERROR” will be displayed and no changes will be made.

Once the user enters the time the user then enters the hash key saving the time corresponding to the time the unit will automatically arm.

**“SCHEDULE 1 DISARM time”** will be displayed. Indicating that the time for schedule 1 DISARM must be entered.

Once the user enters the time the user then enters the hash key saving the time corresponding to the time the unit will automatically Disarm.

The user simply follows this same procedure for schedule 2

#### Schedule Day Bypass

**NOTE: The Schedule bypass option only bypasses the Schedule for 1 day, to disable the schedule follow instructions under setting schedules.**

**“Schedule Bypass”** will be displayed. The user is prompted to enter 1 for schedule bypass to be active or 0 to deactivate schedule bypass.

Once the user enters the code the user then enters the hash key saving the new user code.
**Programming Options**

### Auxiliary options

```
1 0 0 0 # 0 2
```

“Sound Options” will be displayed. If the user wishes, the user could adjust any one of the following by entering the corresponding keys:

#### Adjust Siren Duration

```
1 0 0 0 # 0 2 A
```

“Siren Duration” will be displayed. The user will have to select between three options, either 30 second, 1 minute or 3 minute interval.

Once the user is done the user will press the hash “#” key to save the settings. The number pressed will be displayed.

#### Auxiliary Buzzer

```
1 0 0 0 # 0 2 B
```

“Aux Buzzer” will be displayed. The user may then enter 1 or 0 to toggle the buzzer on or off respectively.

Once the user is done the user will press the hash “#” key to save the settings.

#### Auxiliary Siren Signals

```
1 0 0 0 # 0 2 C
```

“Aux Siren” will be displayed. The user may then enter 1 or 0 to toggle the Aux Siren ON or OFF respectively. **Note this will disable the siren Arm and Disarm signals.**

Once the user is done the user will press the hash “#” key to save the settings.

#### Alarm Output Interface

```
1 0 0 0 # 0 2 D
```

“Output Interface” will be displayed. If the board is fitted with a transmitter select either Siren Transmitter output (When using a Ghatto receiver connected to a siren) or tracer interface when using the home guard as a tracer interface.

Once the user is done the user will press the hash “#” key to save the settings.

#### Setting System Time

```
1 0 0 0 # 0 3
```

“Set Time” will be displayed. Indicating that the current time must be entered. **The user must enter the time in a 24 hour format** with hour first followed by the minute.

If the user enters an invalid time, “ERROR” will be displayed and no changes will be made.

Once the user enters the time the user then enters the hash key saving the time.
**Programming Mode**

### Naming of Zones

“Zone Naming” will be displayed, then the user is prompted to enter a zone to name. The user must enter the zone number, between 1 and 8 in this unit.

If the user enters an invalid Zone, it will be ignored.

The user must now enter the zone name with the keypad operating as a telephone keypad. The user is allowed a maximum of 16 characters per zone. The Key ‘B’ represents a backspace or delete.

Once the user enters the name the user then enters the hash key saving that name. When the alarm goes off, instead of the zone name the zone number will be displayed. Note The Zone number will flash bellow as well.

The user is now prompted to enter a zone or Press hash to exit. if the user wishes to name another zone the user keys in the zone number or hash to exit.

### Transmitter Code

Enter the Transmitter code in decimal format. This code will be transmitted on trigger. To send a test code press the 4 and 6 button.

Once the user enters the code the user then enters the hash key saving the code.

### Setting Level

The user must key in the user code followed by ‘0’ then the level A, B, C or D. the user must select active zones (zones 1 to 8).

If the user enters an invalid Zone, it will be ignored.

The active zones on the level will be displayed, inactive zones will be displayed as a blank.

Once the user enters the active Zones associated with that level the user then enters the hash key saving the Zones to that level.

### Changing User Code

“Change User Code” will be displayed. the user is then prompted to enter new Code. The user must enter the new Code.

If the user enters an invalid code or times out, “ERROR” will be displayed and no changes will be made.

Once the user enters the hash key the user is then prompted to re-enter the new user code.

Once the user enters the code the user then enters the hash key saving the new user code.

NOTE: The default user code is 1000.
Programming Mode

Self-learning Detectors

“ADD Device” will be displayed. The user is asked to trigger the device, the user must force the device to trigger.

If the panel received the code the user will be asked to enter the Zone. The panel will allocate the device to this Zone.

If the code has already been added, or exists in the system the unit will ask the user if it must add the device. The user can press star “*” to continue or hash “#” to exit.

The user is then prompted to add another device in which the user has to follow the same procedure again. The user can press star “*” to continue and hash “#” to save and Exit.

Self-learning Remote Controls

“ADD Remote” will be displayed. The user is prompted to trigger the remote, the user must press any button on the remote.

If the panel received the code the user will be prompted that the remote is added.

The user is then prompted to add another remote in which the user has to follow the same procedure again. The user can press star “*” to continue and hash “#” to save and Exit.

Clearing Devices in a Zone

NOTE: THIS OPERATION WILL ERASE ALL PRESENT DETECTORS ALLOCATED TO THE ZONE CHOSEN.

The user is prompted to enter the Zone to clear devices. Only the Zone entered will be cleared. Note. only one zone at a time may be erased.

If the user wishes to exit, the user simply pushes the hash key instead.

The user is then prompted that the zone has been cleared and the operation is complete.
Programming Options

Clearing Remote Controls

The user is prompted to clear the remote’s. To continue the user pushes any key.

If the user wishes to exit, the user simply pushes the hash “#” key instead.

The user is then prompted that the Remote Controls has been cleared.

Defaulting The Entire System

The user is asked to Reset to factory settings. To continue the user pushes any key other than the Hash “#” key.

If the user wishes to exit, the user simply pushes the hash key instead.

The user is then prompted that the System has been Reset to default settings.

WARNING MODE ON THE HOME-GUARD

The Home Guard 64 can be put into a WARN or Chime mode. In this mode the unit will not trigger an alarm but sound a chime when any detector in the level has been triggered. To set warn Level (A-D) The User simply Holds down desired Key (A-D) and the star key for approx 2 seconds until the Beep.

The Level in warn mode and the Armed Zones will be shown. Zones Not in the arm level will be displayed as an X

Notes:
ARMING THE HOME-GUARD

The Arm mode is when the unit becomes active in monitoring alarms. The unit can be armed in any of the following ways:
- Remote Arm: In this mode the unit Arms to level A only.
- Schedule Arm: When the unit reaches the scheduled time it will arm automatically. Arms to Level A only.
- Keypad Arm: The user can choose to Arm at a particular level by holding down any of keys A - D.

To Arm Level A The User simply Holds down Key A until the Beep. The siren should sound once if the Aux Siren option is selected.

The Level Armed and the Armed Mask will be shown.

To Arm via the Remote the user presses the Arm/Disarm button, button 2 on the Remote.

ALARMS ON THE UNIT

Alarms on the unit will occur when any of the 8 zones are triggered, the panic on the remote was triggered or the panic on the keypad was triggered.

When the unit goes into alarm, the unit will beep continuously and the siren relay will activate. The siren relay stays activated for the duration chosen by the user; under programming options- siren duration. Default is 2 minutes. The buzzer however continues to sound until the user disarms the system. The LCD will display the name of the alarm Zone that went off and the zone in the level displayed will blink Example zone 3 is named lounge. Lounge will be displayed and zone 3 of the level will blink.

If the Zone was not named the zone number will be displayed.

PANIC ACTIVATION

When the unit goes in panic the system goes into alarm and the siren, together with the buzzer is activated. The display will show PANIC!!!.

To deactivate a panic the user must disarm the system.

With the two channel Remote the panic is activated by pressing button 1 as described in the figure.

On the Keypad the user can activate a panic by holding down the hash “#” and star “*” key together.
**DISARMING THE HOME-GUARD**

If the unit is armed, the unit can be disarmed in any of the following ways:
- Remote Disarm.
- Schedule Disarm when the unit reaches the scheduled time it will disarm automatically.
- Keypad Disarm.

To disarm the unit via the keypad the user enters the user code followed by hash and hash, as can be seen below.

If the wrong code is entered, the user is allowed three tries to disarm the unit. Each try will be displayed on the LCD display. After the third wrong entry, the unit will go into alarm.

To Disarm via the Remote the user presses the Arm/Disarm button, button 2 on the remote.

If the unit is successfully Disarmed, the unit will display Disarmed and Beep twice, and the siren should beep twice if the Aux siren option is selected.

**ALERTS ON THE UNIT**

**BATTERY LOW ON SENSORS ALERT.**

In the case that any of the sensors added to the system has a battery low condition the sensor will transmit that condition to the unit. The unit will light up the Trouble LED. The user may push the star key and hold it down until the battery low zone is displayed (either the zone name or the zone number). The user will be notified which sensor it is but will only be notified which zone the sensor is in.

**TAMPER ON SENSORS ALERT.**

In the case that any of the sensors added to the system has a Tamper condition the sensor will transmit that condition to the unit. The unit will light up the Trouble LED, Tamper and the zone will be displayed (either the zone name or the zone number) and the alarm will be sound. The user may push the star key and hold it down the tamper alarm will be cleared. The user will be notified which sensor it is, but will only be notified which zone the sensor is in.

**Clear Alerts:**

The user simply pushes the star key and hold it, then the alerts will be cleared.

**Notes:**
Installing the "HOME-GUARD" is very simple. All you have to do is connect the power to the unit and the siren. The connections are easy to read and to understand all detectors are wireless and easy to add to the unit with no additional effort.

- **ALARM CIRCUIT CONNECTIONS:**
  There are 8 different zones available on the HOME GUARD which are all wireless.

- **SIREN:** 12 Volts DC- 1Amp is available between connectors [LED]( - ) & [LED]( + ) to operate the siren
  NOTE: ONLY THE RELAY OPTION OR THE TRANSMITTER OPTION CAN BE SELECTED.

- **DC - SUPPLY:** A 12 Volts DC, 1A Power Supply.

Each wireless detector must be identified within the system. This is done under the programming options and not on the Detectors in this model.

**Figure 1**
Summary of ALL Key-Pad entries

PROGRAMMING THE OPTION REGISTERS (ONLY THROUGH TO THE USER CODE)

1000 # 0 1 = SET SCHEDULES OF THE SYSTEM
1000 # 0 2 = SET OPTIONS OF THE SYSTEM
1000 # 0 3 = SET THE SYSTEM TIME
1000 # 0 4 = SET NAMES FOR EACH ZONE.
1000 # 0 5 = SET TRANSMITTER CODE.
1000 # 0 A = SET LEVEL A
1000 # 0 B = SET LEVEL B
1000 # 0 C = SET LEVEL C
1000 # 0 D = SET LEVEL D

1000 # 1 1 = CHANGE USER CODE
1000 # 1 A = SELF LEARN DETECTORS
1000 # 1 B = SELF LEARN REMOTE'S
1000 # 2 1 = ERASE DEVICES IN ZONE
1000 # 2 2 = ERASE ALL REMOTE'S FROM THE SYSTEM
1000 # 2 9 = RESET ENTIRE UNIT TO DEFAULT

Arming the Unit
A --> A = SET ARM LEVEL A
B --> B = SET ARM LEVEL B
C --> C = SET ARM LEVEL C
D --> D = SET ARM LEVEL D

Warn the Unit
'A' --> 'A' = SET WARN LEVEL A
'B' --> 'B' = SET WARN LEVEL B
'C' --> 'C' = SET WARN LEVEL C
'D' --> 'D' = SET WARN LEVEL D

PANIC
[* & #] --> [* & #] = SEND PANIC SIGNAL

VIEW OTHER ALERTS
'.' --> '.' = CLEAR TROUBLE ALERTS

TEST SIGNAL

NOTES:
A --> A Means: Press and hold the A key until it beeps
[" & A --> " & A] Means: Press and hold the " and the A keys until it beeps
[" Y ] Means: Any COMBINATIONS OF numbers 1,2,3,4,5,6,7 or 8
[" ] Denotes the value when password has been activated (No default exist!)
[7 & 9] Means: Press BOTH KEYS (7 & 9) at the same time
[ Z ] Means: keys A, B, C, D OR any combination of 1,2,3,4,5,6,7 or 8
Radio Receiver range

In all radio applications the positioning of the antennae on both transmitter and receiver is very important. Incorrect positioning and mounting of the units may reduce the range drastically.

Obstacle such as walls, steel gates, cabboards, floors, metal structure and of course distance are the main factors which may reduce the range.

The receiver unit is manufactured with an internal antenna which caters for most of the applications. Better results are obtained by taking such antenna out of the box as shown in the pictures below.

For applications where longer range is required or where the console is mounted in a confined space surrounded by many any of the above obstacle you can request a special unit which is supplied with an external antenna already connected to the unit.