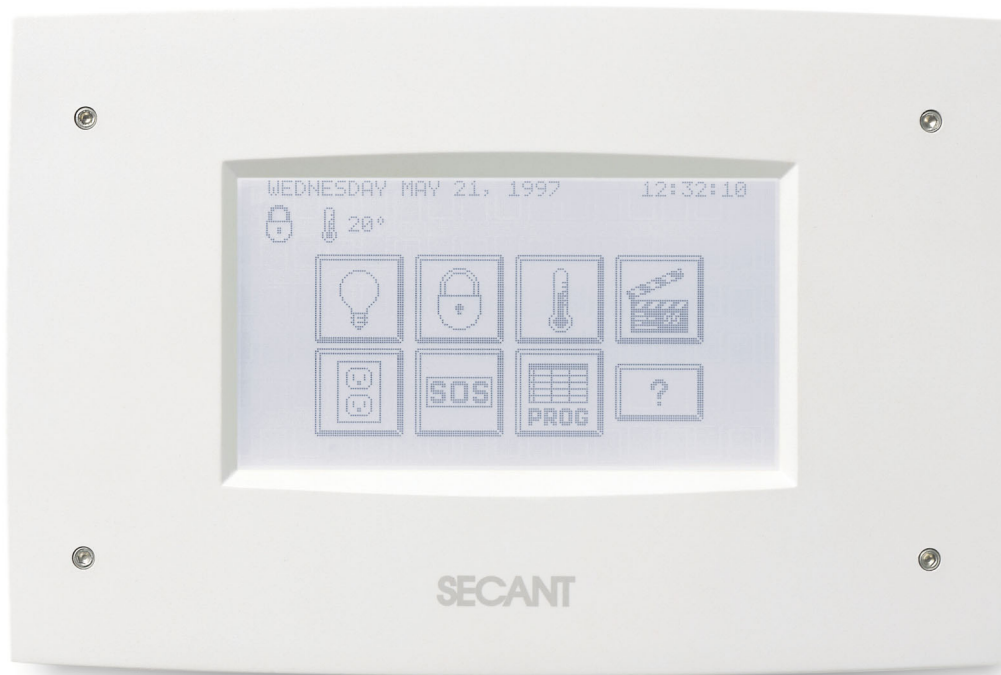


# CARDIO IIé

SYSTEM VERSION 2.5xx



## USER'S GUIDE

**SECANT** Domotique  
inc. Home Automation  
[www.secant.ca](http://www.secant.ca)

<b>LIMITED WARRANTY .....</b>	<b>1</b>
<b>USE OF CARDIO.....</b>	<b>3</b>
INTRODUCTION.....	3
IMPORTANT .....	3
PRESENTATION OF SYSTEM CARDIO .....	4
LIGHTING.....	5
SECURITY .....	6
TEMPERATURE (HEATING/COOLING).....	8
SCENES.....	9
MODIFICATION OF A SCENE.....	10
<i>How to add new data to an already programmed scene.....</i>	<i>11</i>
<i>Automatic activation of a scene .....</i>	<i>12</i>
OUTLETS / APPLIANCES .....	13
S.O.S.....	14
<b>PROGRAMMING .....</b>	<b>15</b>
LOG BOOK .....	16
FUNCTIONS (ON/OFF).....	17
DATE AND TIME .....	18
SCHEDULING .....	19
HOW TO SCHEDULE.....	19
REMINDERS .....	20
DETERRENT SCHEDULING .....	21
LIGHT SCHEDULING .....	23
OUTLETS SCHEDULING .....	25
ALARM SYSTEM SCHEDULING.....	26
TEMPERATURE SCHEDULING.....	27
<b>CONFIGURATION.....</b>	<b>28</b>
PROGRAMMING.....	28
LIGHT .....	30
OUTLET .....	31
CODES .....	33
DIGITAL KEYS.....	34
DELAYS .....	34
TELEPHONE .....	35
ZONE NAMES “BEEP” .....	36
<b>CONTROL BY TELEPHONE.....</b>	<b>37</b>
ACCESS FROM INSIDE THE HOME.....	37
ACCESS FROM OUTSIDE THE HOME .....	37
EMERGENCY CALLS.....	37
<b>RECOMMENDATIONS AND MAINTENANCE.....</b>	<b>39</b>
<b>INDUSTRY CANADA WARNINGS.....</b>	<b>40</b>

## Limited warranty

We appreciate your purchase of a Secant Home Automation Inc. product. We take pride of our products and they are manufactured according to strict quality standard. We feel confident that in normal use they will provide you with satisfactory performance. However, should you experience difficulty, you are protected under the provisions of this warranty.

Secant Home Automation Inc. product provided under this purchase is a control device of the user's home facilities. Its successful use and operation is dependent on the skill of the operator of the device. It is possible to incur faulty performance, such as poor lighting, false alarms or insufficient heating or air conditioning by giving inappropriate commands or instructions to the control device. Accordingly, read carefully all the instructions contained in this guide before operating this Secant Home Automation Inc. product.

### **THIS WARRANTY IS VALID FOR RESIDENTIAL USE ONLY**

SECANT HOME AUTOMATION INC. DOES NOT WARRANT THAT THE FUNCTION CONTAINED IN THE SOFTWARE/HARDWARE WILL MEET YOUR REQUIREMENTS OR THAT THE OPERATION OF THE SOFTWARE/HARDWARE WILL BE UNINTERRUPTED OR ERROR FREE. HOWEVER, SECANT HOME AUTOMATION INC. WARRANTS THE HARDWARE ON WHICH THE SOFTWARE IS FURNISHED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND SERVICE FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF PURCHASE EXCEPT FOR THE LCD/TOUCH SCREEN COMBINATION FOR WHICH THE PERIOD IS ONE (1) YEAR. REPLACEMENT PARTS, FURNISHED IN CONNECTION WITH THIS WARRANTY SHALL BE WARRANTED FOR A PERIOD EQUAL TO THE UNEXPIRED PORTION OF THE ORIGINAL EQUIPMENT WARRANTY. ALL SECANT HOME AUTOMATION INC. PRODUCTS ARE ONLY WARRANTED TO THE ORIGINAL RETAIL PURCHASER. THIS WARRANTY BECOMES VOID IN THE EVENT SERIAL NUMBERS ARE ALTERED, DEFACED OR REMOVED.

THE DEALER'S ORIGINAL DATED INVOICE SHOULD BE RETAINED AS PROOF OF PURCHASE AND MUST BE PRESENTED, TOGETHER WITH THIS WARRANTY, TO THE INSTALLER WHEN THIS PRODUCT IS TO BE SERVICED UNDER THE PROVISIONS OF THIS WARRANTY. SECANT HOME AUTOMATION INC WILL REPAIR OR REPLACE, WITH ITS DISCRETION, THE PRODUCTS WHICH WILL HAVE BEEN FOUND DEFECTIVE AND RETURNED OVER ACCORDING TO TERMS' OF THIS WARRANTY. THIS WARRANTY DOES NOT COVER THE COSTS OF DISPLACEMENT AS WELL AS THE COSTS OF LABOR TO WITHDRAW AND REINSTALL ANY DEFECTIVE COMPONENT, THIS RESPONSIBILITY FALLS TO THE INSTALLER. THE TRANSPORTATION CHARGES OF THE PRODUCT ARE THE RESPONSIBILITY OF THE OWNER.

THE WARRANTY SHALL APPLY TO SECANT HOME AUTOMATION INC. PRODUCTS PURCHASED FROM AN AUTHORIZED DEALER, AGENT AND/OR REPRESENTATIVE. THIS WARRANTY SHALL NOT APPLY TO DAMAGE DUE TO HANDLING, TRANSPORTATION, UNPACKING, INSTALLATION, ANY DEFECTS CAUSED OR REPAIRS REQUIRED AS A RESULT OF NOT FOLLOWING THE INSTRUCTIONS IN THE USER'S MANUAL, REPAIR OR REPLACEMENT OF PARTS SUPPLIED BY OTHER THAN SECANT HOME AUTOMATION INC. AUTHORIZED DEALERS, ANY MALFUNCTION OF FAILURE CAUSED BY OR RESULTING FROM ABNORMAL ENVIRONMENTAL CONDITIONS, IMPROPER UNAUTHORIZED SERVICE, IMPROPER MAINTENANCE, MODIFICATIONS OR REPAIR BY THE CONSUMER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD, OR OTHER ACTS OF GOD, AND INCORRECT LINE VOLTAGE. THIS WARRANTY SHALL NOT APPLY TO OTHER PRODUCTS NOT MANUFACTURED BY SECANT HOME AUTOMATION INC. SUCH AS ALARM DEVICES, HEATING / COOLING SYSTEMS OR LIGHTING CONTROLS, THEIR INSTALLATION AND THEIR FUNCTIONING. FOR ANY AND ALL AND ANY OF THOSE PRODUCTS, THE USER SHALL REFER TO THE WARRANTY OFFERED BY EACH OF THEIR SPECIFIC MANUFACTURER.

THE SOFTWARE, HARDWARE, AND DOCUMENTATION IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SECANT HOME AUTOMATION INC. RESERVES THE RIGHT TO MAKE CHANGES IN DESIGN OR TO MAKE ADDITIONS TO OR IMPROVEMENTS UPON ITS PRODUCTS WITHOUT INCURRING ANY OBLIGATION TO INSTALL THE SAME ON PRODUCTS PREVIOUSLY MANUFACTURED.

NO LIABILITY FOR CONSEQUENTIAL DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL SECANT HOME AUTOMATION INC OR ITS SUPPLIERS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE PRODUCT AND ACCOMPANYING HARDWARE EVEN IF SECANT HOME AUTOMATION INC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES BECAUSE SOME STATES AND JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTY EXPRESSED OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND SECANT HOME AUTOMATION INC. NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH THE SALE OR SERVICE OF ITS PRODUCTS. ACCORDINGLY, ADDITIONAL STATEMENTS IN ADVERTISING, PRESENTATIONS, DEMONSTRATIONS OR ELSEWHERE, WHETHER VERBAL OR WRITTEN, DOES NOT CONSTITUTE WARRANTIES BY SECANT HOME AUTOMATION INC. AND SHALL NOT BE RELIED UPON.

NO OTHER WARRANTIES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, SECANT HOME AUTOMATION INC AND ITS SUPPLIERS DISCLAIM ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE SOFTWARE PRODUCT AND ACCOMPANYING HARDWARE. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS YOU MAY HAVE OTHERS, WHICH VARY FROM STATE/JURISDICTION TO STATE/JURISDICTION. THE PURCHASER MAY HAVE OTHER RIGHTS UNDER EXISTING STATE OR FEDERAL LAWS, AND WHERE ANY TERMS OF THIS WARRANTY ARE PROHIBITED BY SUCH LAWS, THEY ARE DEEMED NULL AND VOID, BUT THE REMAINDER OF THE WARRANTY SHALL REMAIN IN EFFECT.

# Use of CARDIO

## Introduction

The Cardio home automation system enables homeowners to better manage such basic functions as heating/air conditioning, security, lighting and appliance control. Through the automation of some of these functions, Cardio also ensures a higher degree of comfort and peace of mind. Additionally, the efficient management of heating/air conditioning and lighting brings tangible savings.

Cardio has been designed to ensure an extremely user-friendly system. Cardio can be controlled both from inside the home (through its touch screen or from any inside telephone) as well as from any location in the world. Your home, therefore, is always as close as the nearest telephone.

The commands used are easy to understand and are often identical to those used in well-known devices such as thermostats and alarm systems.

Cardio's goal is therefore to help better manage the home environment. It works in the background to enhance the home, to make it more efficient but also more comfortable.

## Important

CARDIO's touch screen offers user-friendly features unmatched by any mass produced electronic system. A **light touch** is all that is necessary to turn on the screen and execute the commands.

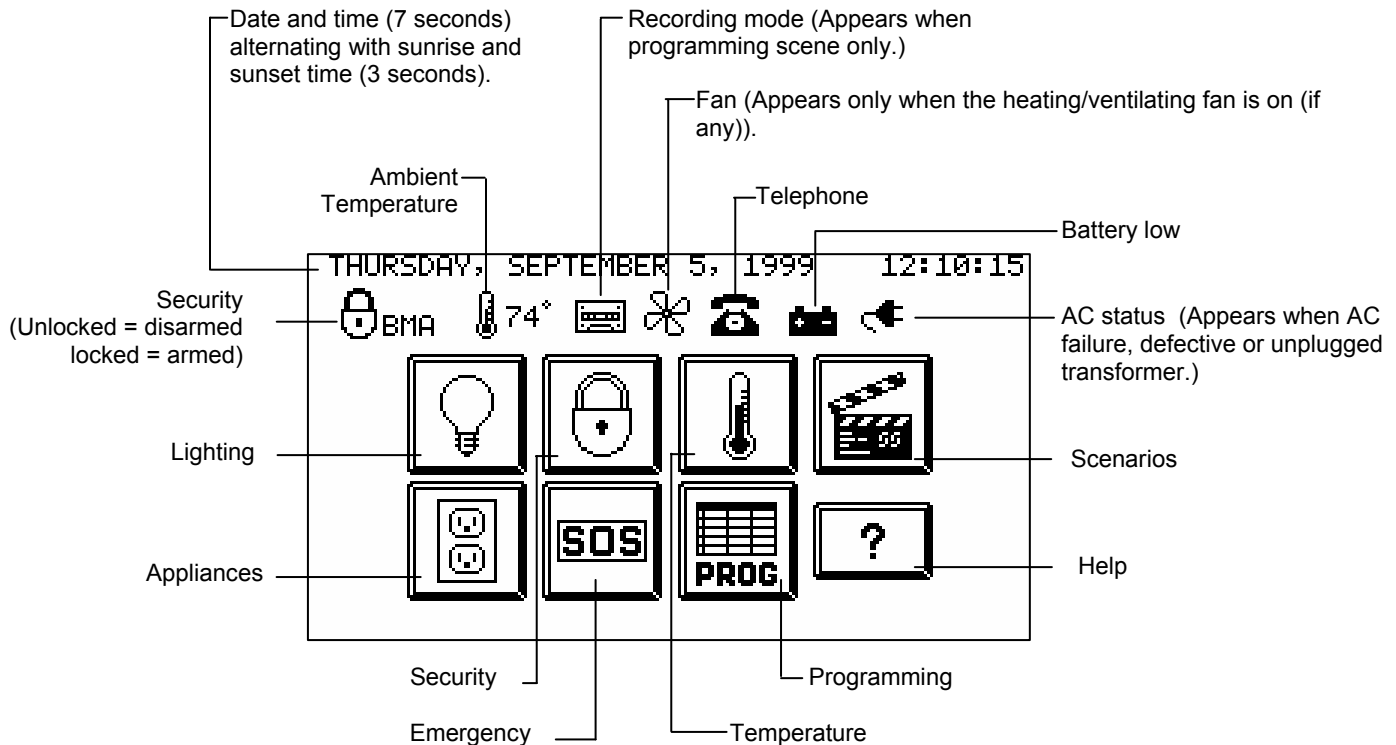
***!WARNING!: Never apply any hard or sharp objects to the screen to avoid possible damage. As noted above, a light touch is sufficient.***

To clean your CARDIO touch panel, we recommend using LCD cleanser that can be purchased at any electronics store and a clean cloth. Get the cloth damp and then apply to the screen. Never splash the screen and try to wipe out the liquid.

***ATTENTION!: Never use windows or house cleanser with ammoniac and/or any others commercial cleansers to clean the CARDIO screen. Also be caution to use a clean cloth as tiny, hard particles trapped in the fibers can scratch the surface of your screen.***

## Presentation of system CARDIO

Cardio's screen shuts down after being idle for one minute. It is easy to reactivate by pressing anywhere on it and the basic screen as shown below will then appear. Besides giving information such as date and time as well as operating status (current temperature, security, etc.), this particular screen enables the user to directly control all of the basic functions that Cardio manages. It also gives access to the programming section.





### General

The method of navigation is virtually identical in all the menus and functions of CARDIO. The buttons particular to each function will be presented to you in their respective section.

### Help

On all major screens functions of the CARDIO system a HELP button gives a brief description of the purpose of the screen and its operation.

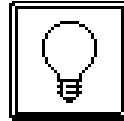
Press  to obtain assistance on the function in progress. Press  to come back.

On the main screen, the help feature is "hidden", just touch on the empty space on the right lower corner of the screen to bring up the main page help menu.

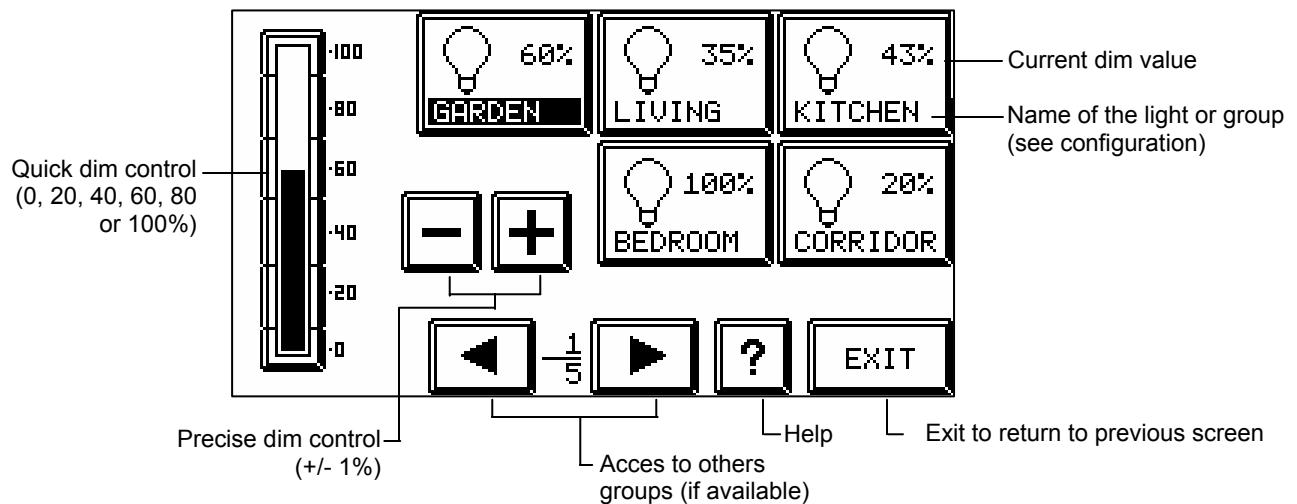
## Lighting

Control groups of lights linked to Cardio (ON/OFF, dim). Each group can be made up of many lights.

From the main menu press



The following screen appears:



### **Modification of the state of a lamp or a group of lamps:**

Select a group of lights, the name turns black. By default, group 1 is picked by the system (GARDEN in the above example).

The current dim level appears both in the box (60%) and on the quick dim column.

Press the quick dim column to adjust the dim to 80%

Press 5 times on + to adjust the dim to 85%

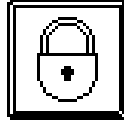
Dim will adjust automatically in the column and in the box

Repeat the above instructions to modify other groups of lights

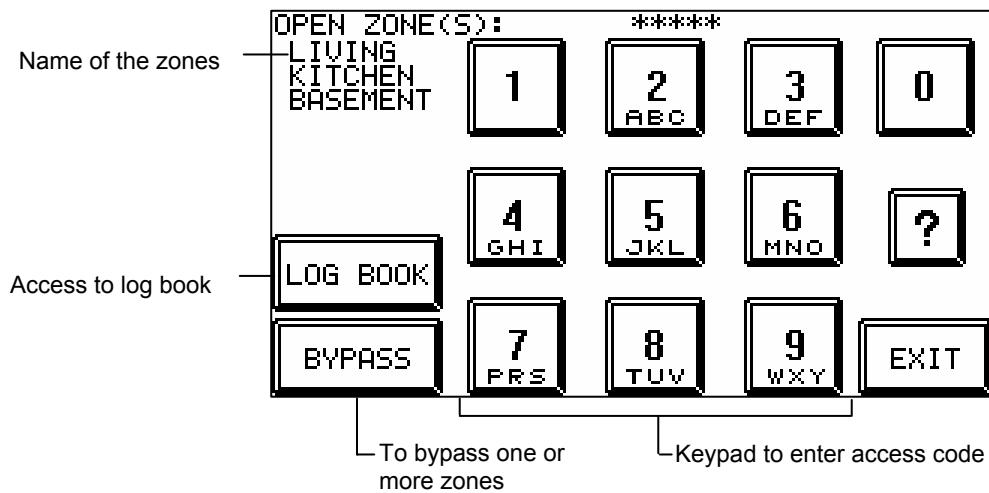
## Security

Controls the arming and disarming of the alarm system.

From the main menu press

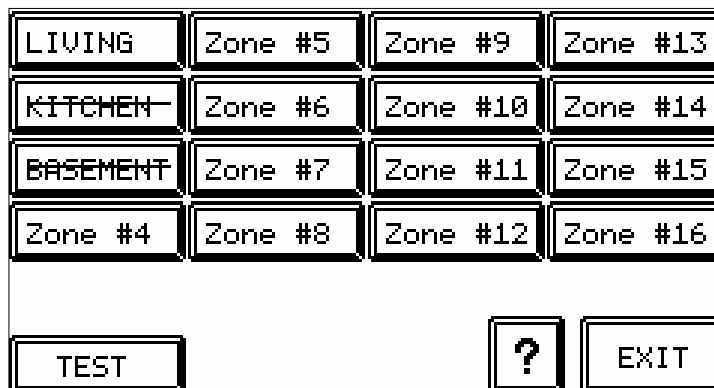


The following screen appears:




Press  to bypass zones if necessary.

The following screen appears





To bypass zones, simply press the zones to be ignored (these zones are now crossed out)

Press  to return to the preceding screen (zones are still crossed out)

To test the siren, press the  button, the siren will start for 3 seconds.

Make sure that all zones are ready to disarm except for bypassed zones. The system cannot be armed as long as zones are still open (open zones appears in left column). Once this column is blank the system is ready to be armed.

Use the keypad to enter the access code; \* asterisks appear in the upper corner of the screen to validate each number entered. If the code utilized is not valid, the message "INVALID CODE OK" appears. Press OK, then re-enter the valid code.

A beep indicates that the alarm system has been armed (except for the bypassed zones). Exit the house within the time delay pre-programmed during installation.

To disarm the alarm system (a beep sounds for the duration of the entrance time delay) enter a valid access code. Another beep will sound and the message "SECURITY DISARMED" shows that the alarm system has been disarmed.

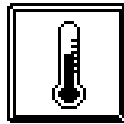
To disarm the alarm system, Cardio automatically brings up the keypad shown on page 6, and waits for the valid access code to be entered. If the code is invalid, the message "CODE INVALID OK" appears. Press anywhere on the screen and re-enter the correct code.

***NOTE:*** *It is strongly recommended to test the correct operation of the security system on a regular basis.*

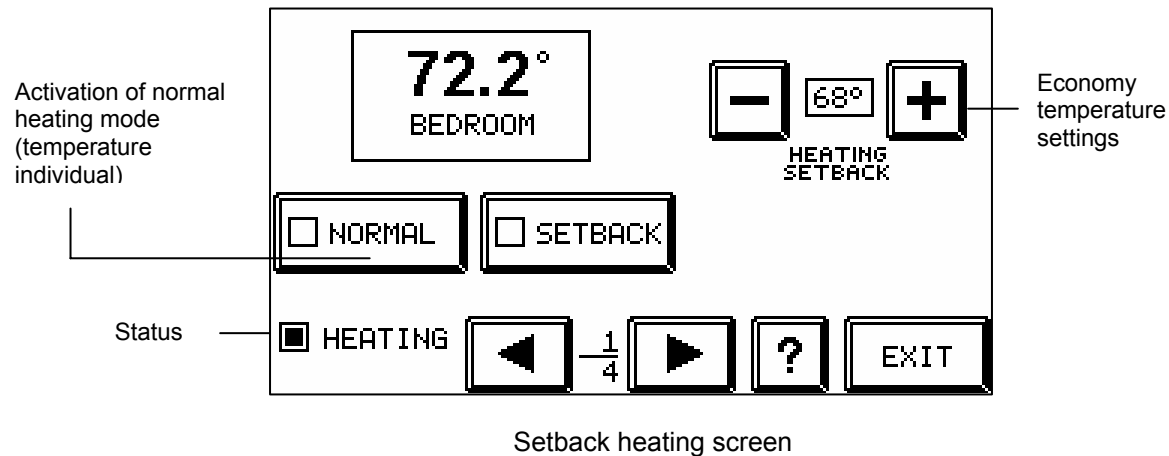
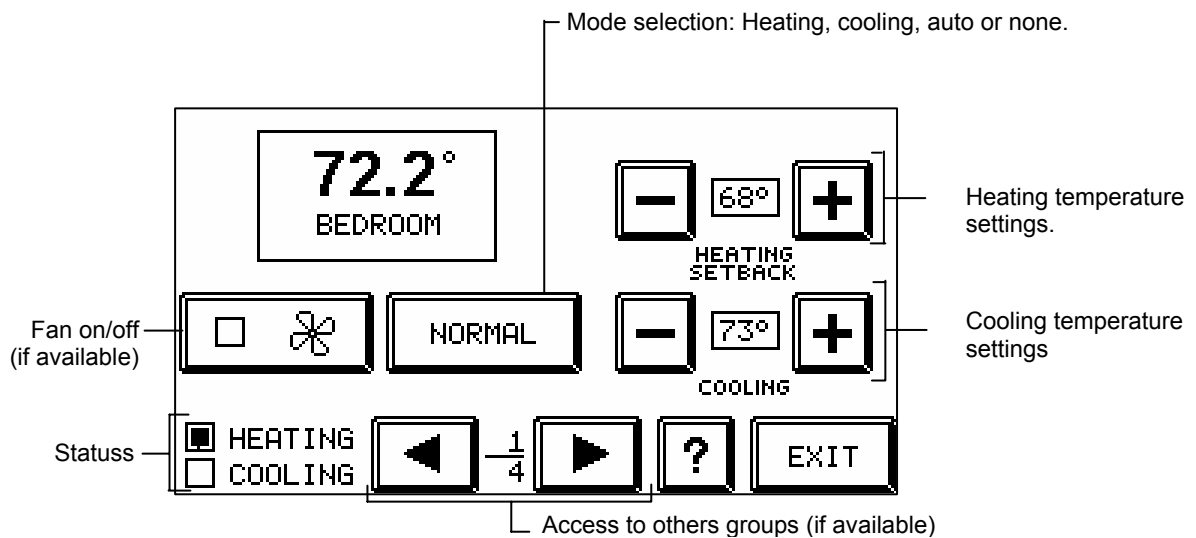
## Temperature (Heating/Cooling)

This feature controls temperatures for heating and, if available, air-conditioning. Temperature readings are available either in celsius or Fahrenheit (to be set in temperature configuration). Cardio can also control various kinds of heating systems: heat pump, HVAC, HVAC setback, heating setback or central heating (to be defined at the time of installation).

From the main menu press



One of the following screens appears (depending of your hardware configuration)



**NOTE:** To obtain “economy” temperatures with a central heating system, use scenes (see next page).

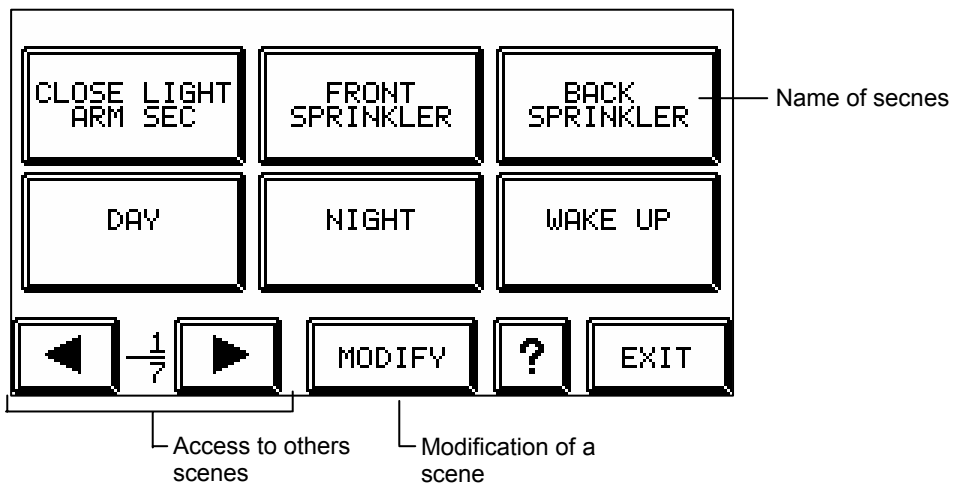
## Scenes

Cardio can control many functions at a time (lighting, alarm system, temperature, outlets, etc.). For instance, when leaving the house in the morning, simply press one button to arm the alarm system, lower the temperature, turn lights off, etc..

From the main menu press



The following screen appears:



Press any of the ten keys to obtain the desired scene.

**NOTE:** The last scene called up will always take priority over any previous scene. For the case where a scene includes alarm system information, refer to priority sequence, see **NOTE** p.11

## Modification of a scene.

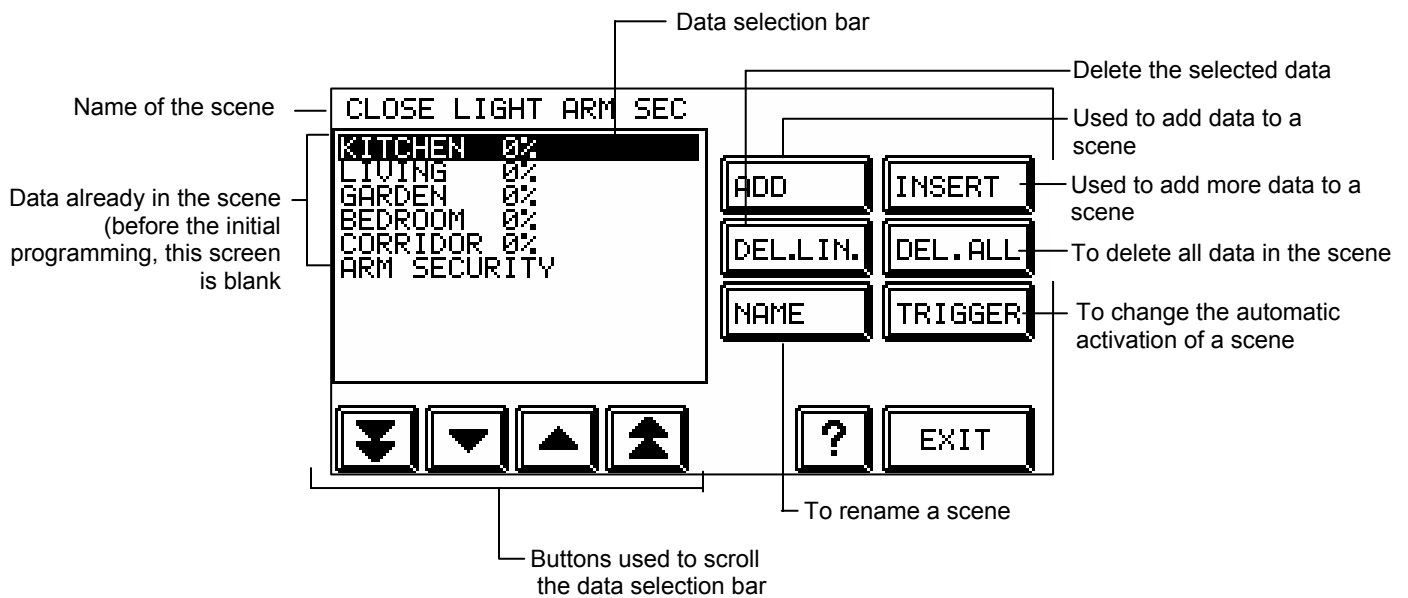
Press



The message “Which scene do you want to modify” appears.

Press the scene to be programmed or modified.


The following screen appears:

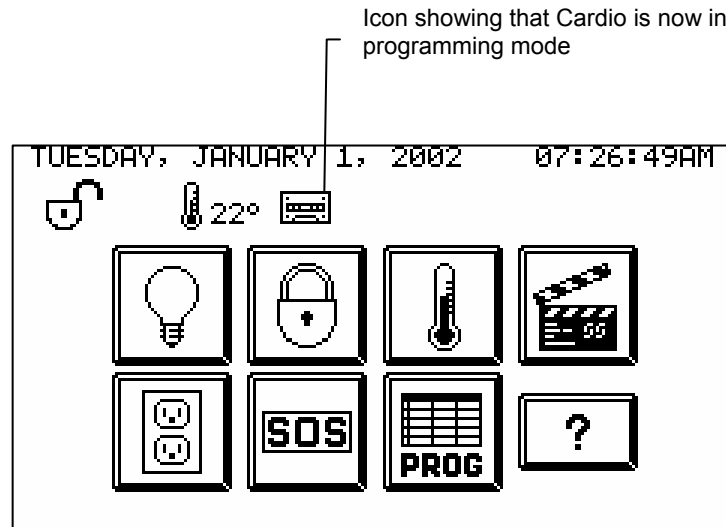


**NOTE:** Please note that the maximum lines of all programmed scenes cannot exceed 800.

## How to add new data to an already programmed scene

Press 

The new screen which appears is identical to the main screen shown on page 4 except for the pictogram now appearing in the upper section of the screen. This sign  indicates that Cardio is now in recording mode and no longer in 'direct control' mode.



From this screen, it is possible to program data relative to lighting, alarm system, heating/cooling, electrical outlets and functions (PROG functions yes-no)

**NOTE:** *If a scene includes alarm system commands, it will ask for an access code to be entered (except when using the quick arm code). At this time, if no code is entered, CARDIO will execute all commands programmed in this particular scene except those related to the alarm system.*

**NOTE:** *When arming the alarm system only, it is possible to skip this step (entering an access code) if the access code entered while programming the scene was the 'quick arm code' (easy exit) see p. 33. In this case only, when calling up this particular scene, commands will be executed instantly without asking for an access code to be entered.*

After a function has been programmed, press EXIT to return to the above screen and then press any other function to be recorded (alarm, etc.)

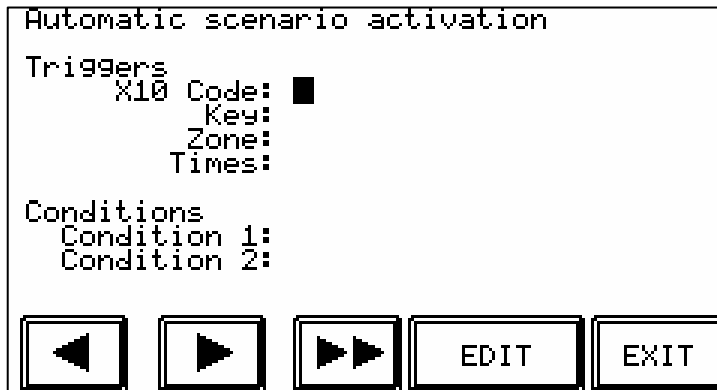
Once all data has been entered, press



## Automatic activation of a scene

Press 

The following screen appears:

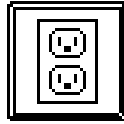


Besides the touch screen, a scene can be called up automatically by external sources such as a telephone or a PC.

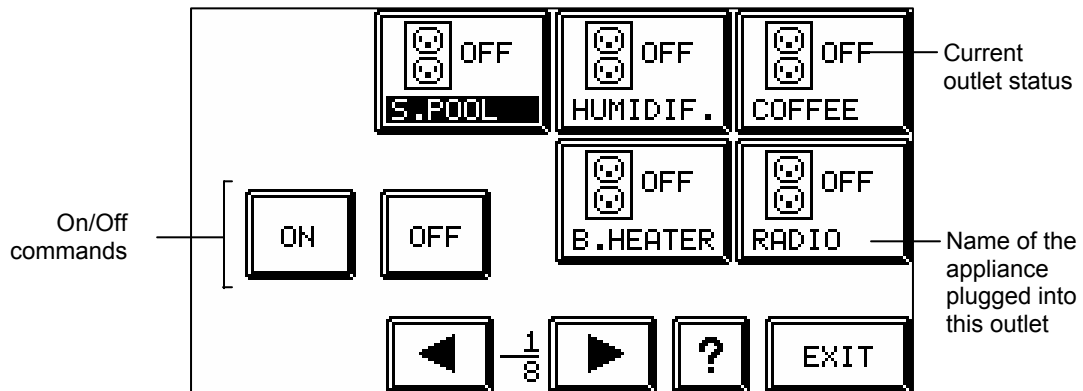
- **X10 code:** activation upon reception of a X10 code.
- **Key:** activation from an electronic key
- **Zone:** activation upon reception of an event related to the alarm system. Also includes the activation of the scene when the telephone rings (TE) or the doorbell rings (DB).
- **Time:** activation of the scene at a preset time or at sunrise and sunset.
- **Conditions:** it is also possible to add conditions in regards to the automatic activation of a scene. The many conditions to choose from are: armed, disarmed, day, night, weekend, week, Sun, Mon, Tues, Wed, Thu, Fri or Sat.

## Outlets / Appliances

From the main menu press



The following screen appears:



CARDIO can control appliances plugged into outlets previously identified in CARDIO (see configuring p.31). Please note that outlet control is limited to ON/OFF commands only.

**NOTE:** The relays of CARDIO RY1, RY2 and RY3 are respectively controlled by the buttons Outlet#1, Outlet#2 and Outlet#3 in the appliances screen.

**ATTENTION!:** Under no circumstances can an outlet be dimmed without seriously damaging the appliance which is plugged into the outlet.

## S.O.S

Cardio can send out emergency calls in case of emergency. See “Control by telephone” for more detail on these calls.

From the main menu press



The following screen appears:



Press any pictogram to send out an emergency message (police, medical or fire).

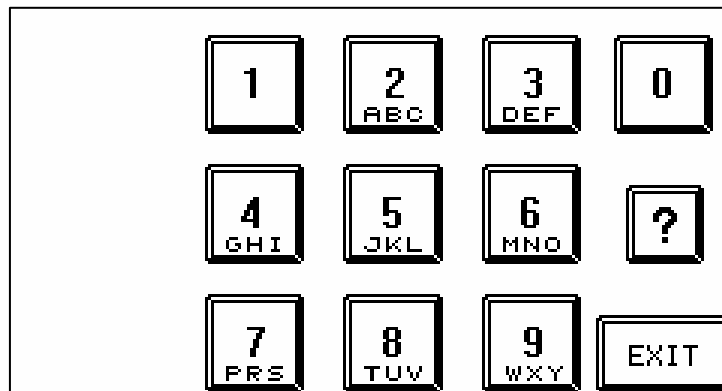


# Programming

In addition to direct control of basic functions, the user is able to program all of these functions to respond automatically on a weekly basis. This section also gives information regarding modifications to the system configuration.

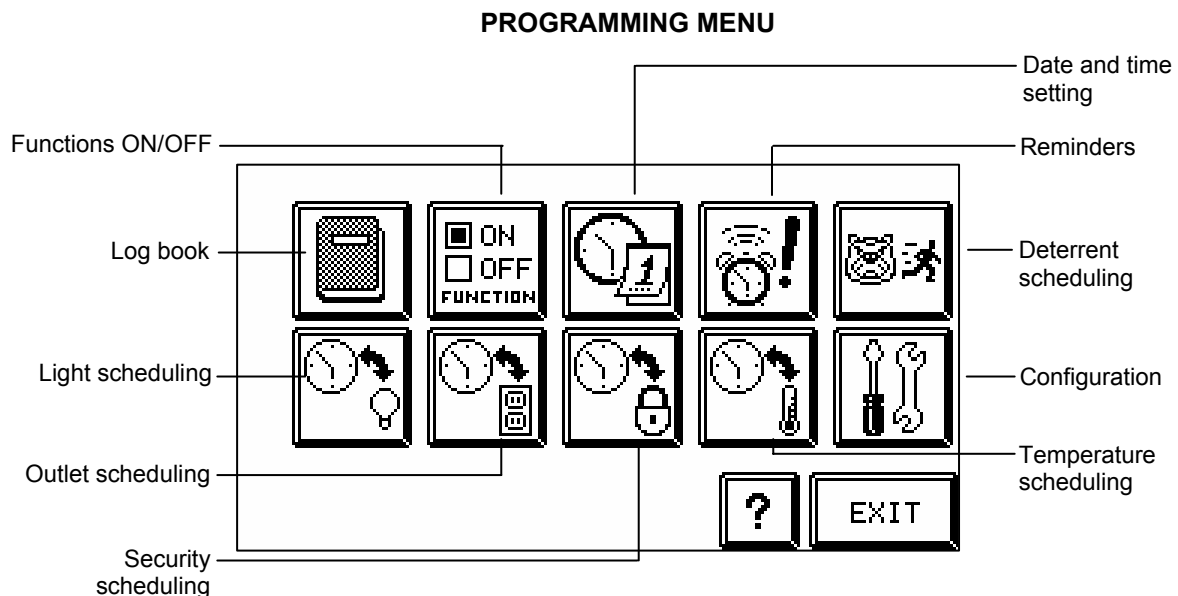


The following screen appears:



Enter the programming code that has been programmed in the section Configuration (p.33). The default code for the programming menu is 1111.

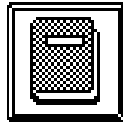
The following screen appears:



## Log book

Indicates the last 100 events related to the alarm system (break-in, fire, medical, overheating, freezing, battery status, AC failure, access code).

From programming menu press



DATE	TIME	EVENT
99/01/01	03:36:16	Keypad fire alert
99/01/01	03:35:44	Disarming
99/01/01	03:35:44	Screen #1
99/01/01	03:35:36	Arming
99/01/01	03:35:36	Screen #1

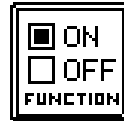
Date and time the event occurred
Description or the event

Scrolling arrows
▲
▼
?
EXIT

## Functions (on/off)

CARDIO allows the user to temporarily deactivate any programmed functions without erasing the programming itself, and to reactivate them just as easily.

From programming menu press



Active function

Inactive function

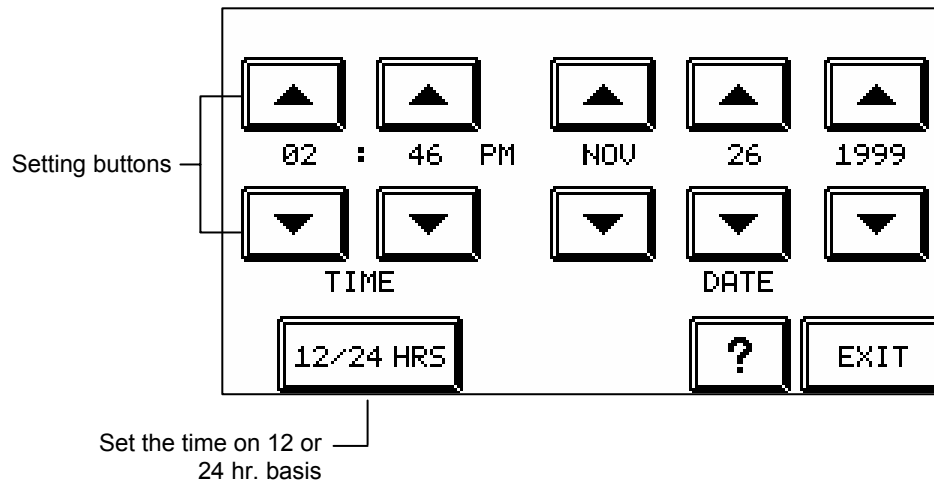
<input type="checkbox"/> REACTION	<input type="checkbox"/> LIGHT SCHEDULE
<input checked="" type="checkbox"/> PHONE BEEP	<input type="checkbox"/> SECURITY SCHED.
<input checked="" type="checkbox"/> DETECTORS BEEP	<input type="checkbox"/> TEMPER. SCHEDULE
<input type="checkbox"/> DOORBELL BEEP	<input type="checkbox"/> REMINDERS
<input checked="" type="checkbox"/> KEYPAD BEEP	<input type="checkbox"/> DETERRENT
<input type="checkbox"/> OUTLETS SCHEDULE	<input type="checkbox"/> ?
	EXIT

- **Reaction:** Temporarily deactivate the reactions (bonds between the detectors and lighting see p.30)
- **Telephone beep:** Determines whether the system beeps when the phone rings
- **Detector beep:** Determines whether the system beeps when a security sensor is triggered.
- **Doorbell:** Determines whether the system beeps when the doorbell rings
- **Keypad beep:** Determines whether a beep sounds during the exit delay.
- **Appliance scheduling:** Determines whether appliance schedules are active or not (see p.25)
- **Light scheduling:** Determines whether light schedules are active or not (see p.23)
- **Security scheduling:** Determines whether security schedules are active or not (see p.26)
- **Temperature scheduling:** Determines whether temperature schedules are active or not (see p.27)
- **Reminder:** Determines whether reminder schedules are active or not (see p.19)
- **Deterrent:** Determines whether dissuasion schedules are active or not (see p.21)

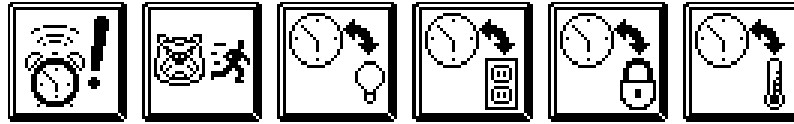
## Date and time

Adjustment of date and time settings. It is very important that both the time and date be set correctly because all schedules depend on these data. It is worth noting that CARDIO uses either a 12 or 24 hr basis.

From programming menu press



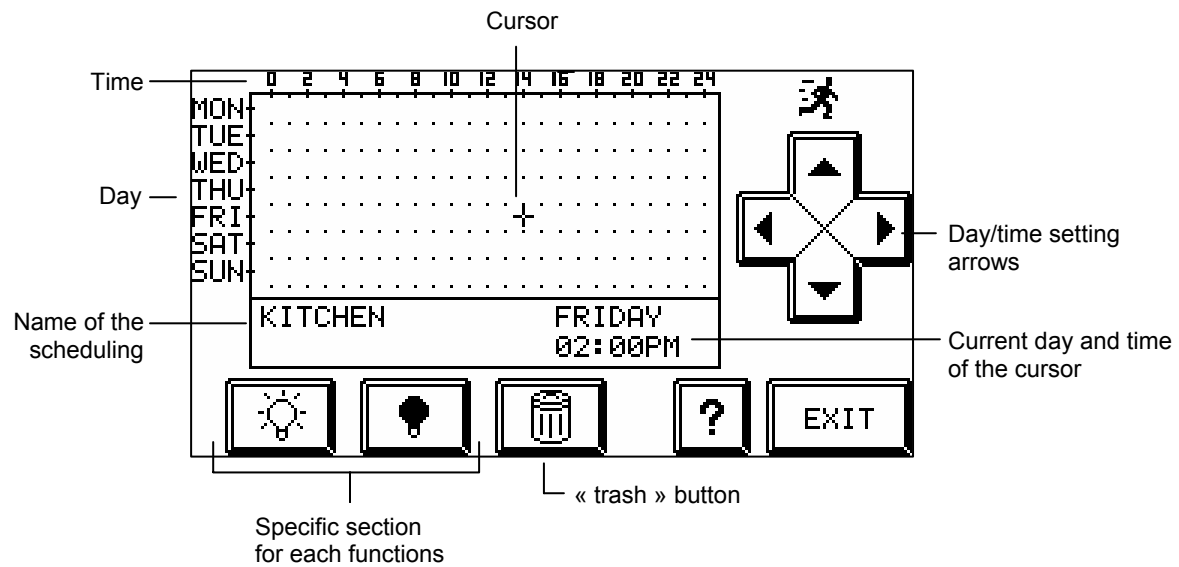
## Scheduling



## How to schedule

CARDIO allows the scheduling of certain functions such as deterrent reminders, in addition to those main functions which can be controlled directly.

The scheduling process is the same for all the CARDIO functions. Only the lower part of scheduling screen will be specific to each function. It is based on the following screen:



At the start the cursor is always positioned at Monday 00:00.

Use day and time arrows to adjust the cursor to the chosen day and time. It is possible to accelerate this process by pressing the screen as close as possible to the desired day/time: the cursor will move to this position. Then, use the arrows to adjust the cursor exactly.

It is easy to delete any programmed schedule. Simply position the cursor on the icon and press the "trash" button.

**NOTE:** The time is adjusted in increments of 10 minutes.

**ATTENTION!:** For all scheduling, it is important to check the programming over the course of the entire week. CARDIO will always give the most recently programmed schedule (unless reactions or direct commands have occurred in the interim). For instance, if a command asks for a temperature of 65°F (18°C) on Monday morning at 8 a.m. (8:00) and another of 70°F (21°C) the same day at 5 p.m. (17:00), the temperature will be 70°F (21°C) from Monday 5 p.m. until the following Monday at 8 a.m. and so on.

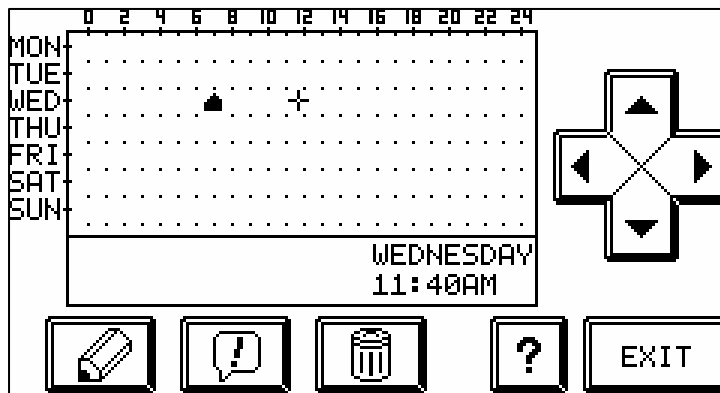
## Reminders

Just as an alarm clock, CARDIO can signal (with beeps) a variety of events at specific times. It also can call up on the screen a short description (up to 10 reminders for the week) which the user will have entered previously.

From programming menu press



The following screen appears:



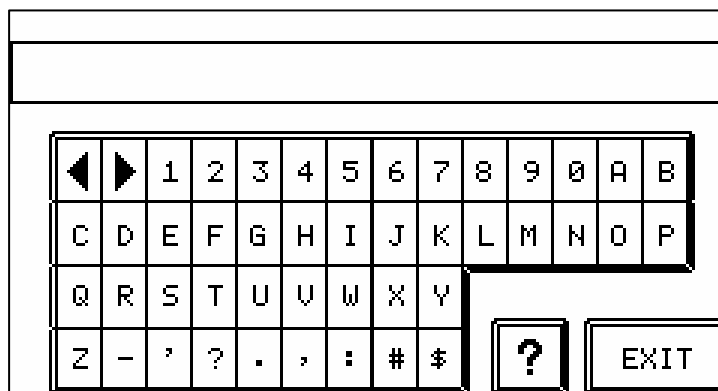
For audible reminders only, simply position the cursor at the right time and press



To get both audible and written reminders, position the cursor at the right time and press



The following screen appears:



Press successively on any key to get the desired letter or number. Then move the cursor to the next blank spot using arrows and repeat the process.

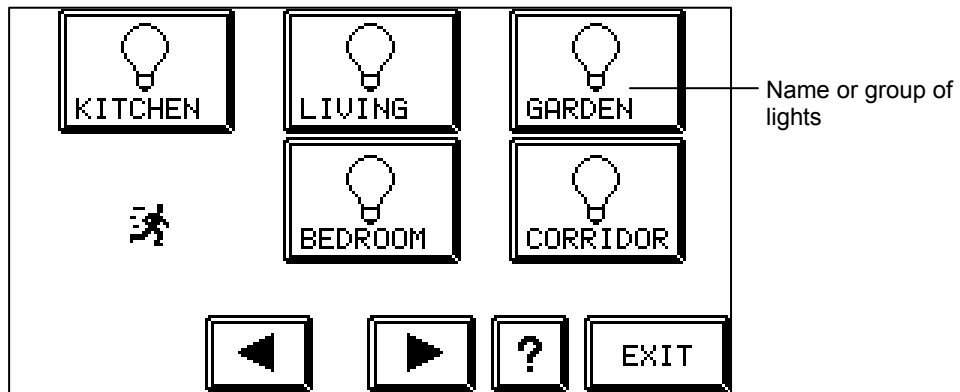
## Deterrent scheduling

CARDIO can simulate a presence in the home when the alarm system is armed. It turns ON and OFF lights at scheduled times so as to make the house seem occupied from the outside.

From programming menu press

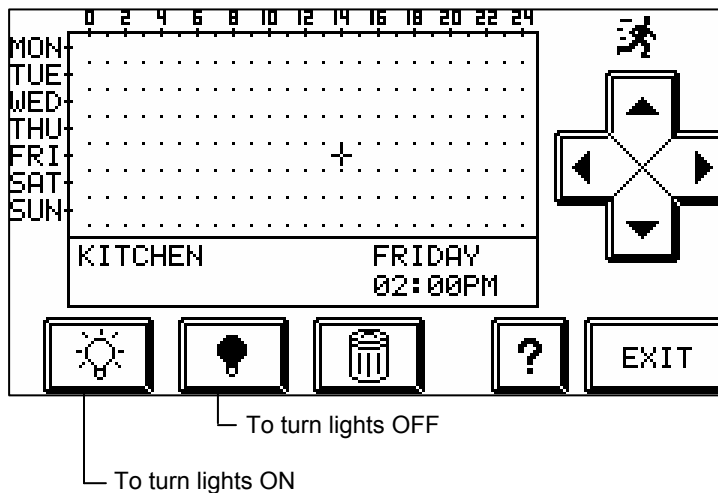


The following screen appears:



Choose a group of lights

The following screen appears:

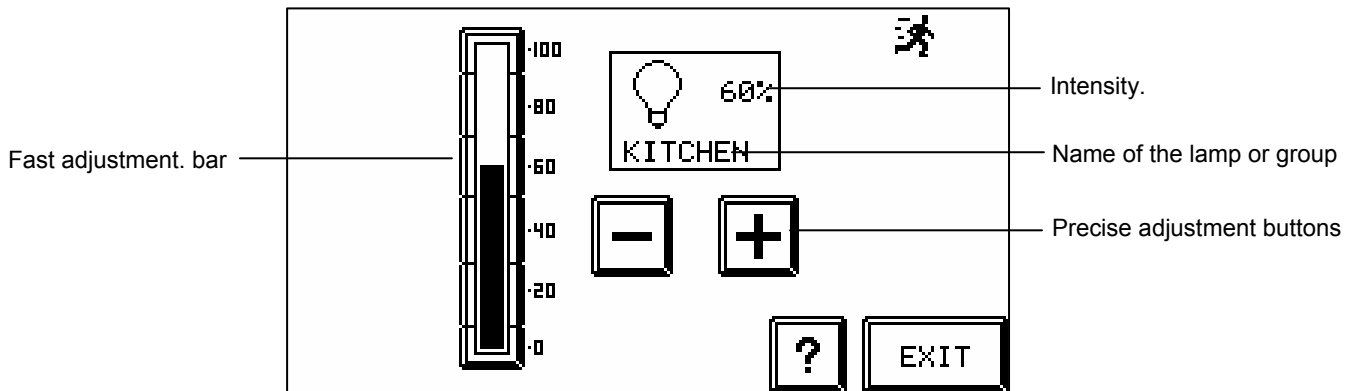



Position the cursor at the right time

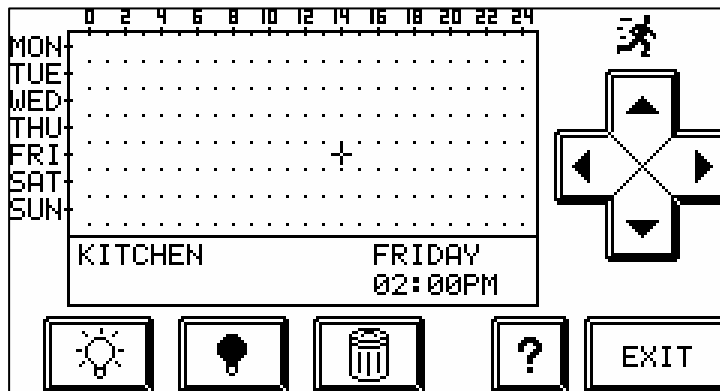
Press




The following screen appears:





Adjust lights to the desired intensity and press 



If desired, adjust the cursor to a new time setting

Press  to modify the intensity and to repeat the process

Press  to turn the group of lights OFF

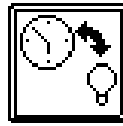
Press  and pick another group of lights and repeat the process.

**NOTE:** For all deterrent schedules, lights are turned ON or OFF within a random delay previously set. Also note that lights can be turned ON and OFF according to sunrise/sunset (see configuration p. 30).

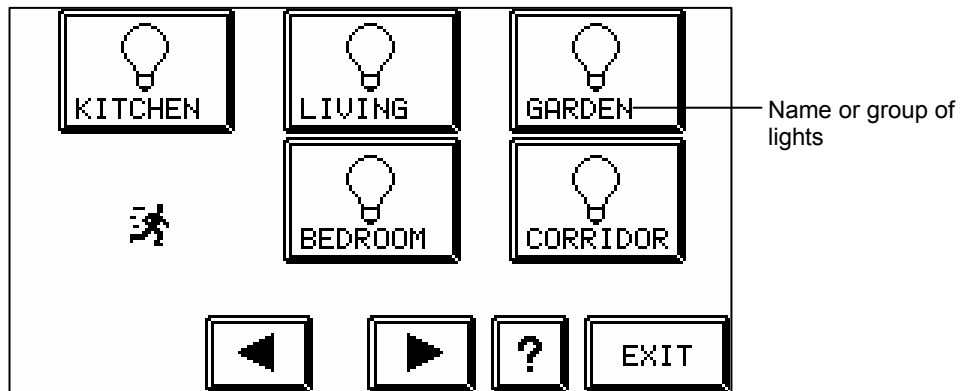


## Light scheduling

From programming menu press

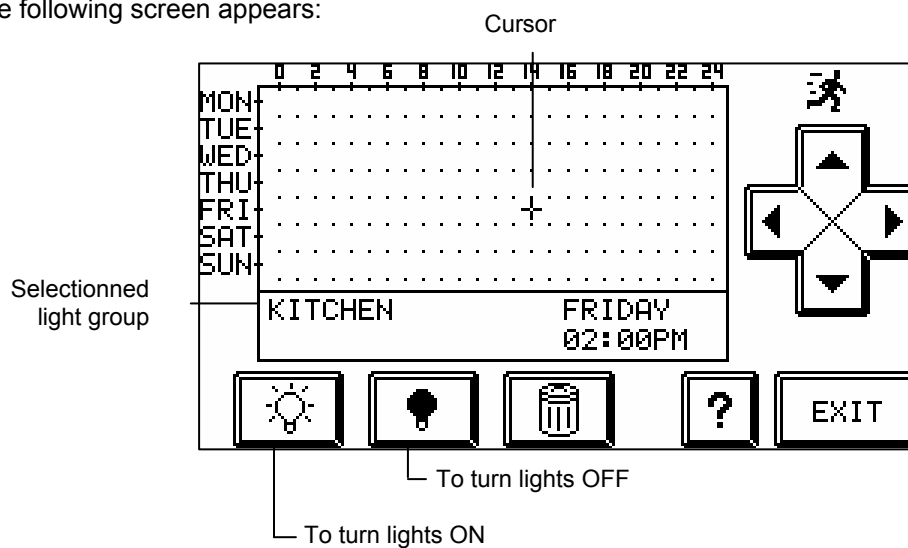


The following screen appears:



Choose a group of lights

The following screen appears:

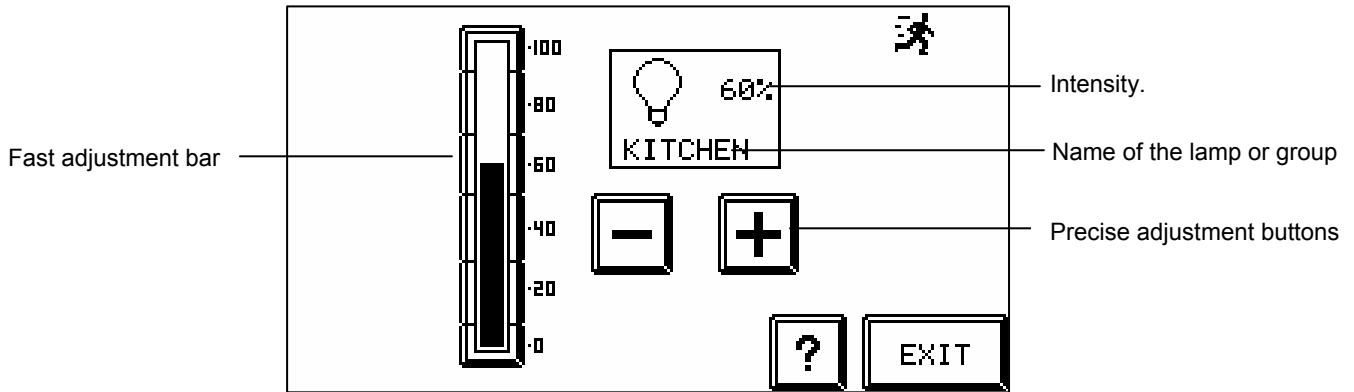



Position the cursor at the desired time and press



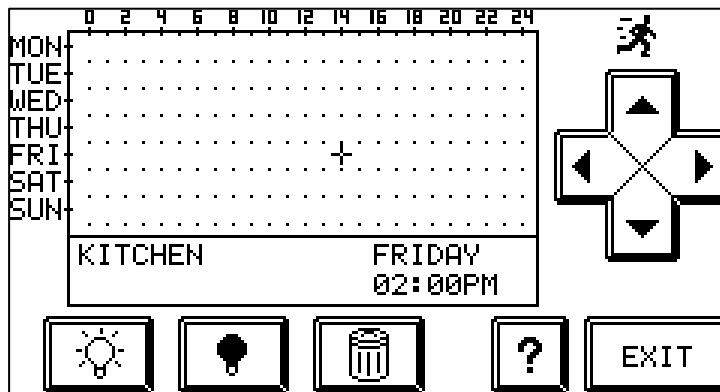
to modify the intensity of the lights.

The following screen appears:





Adjust lights to the desired intensity and press. 

If desired, place the cursor to a new time setting and repeat the process to set another schedule.



You can also press  to turn the group of lights OFF.

To delete any programmed schedule, simply position the cursor on the right time schedule icon and press the  button.

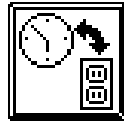
Press  to pick another group of lights and repeat the process if desired.

**NOTE:** Also note that lights can be turned ON and OFF according to sunrise/sunset (see p. 30).

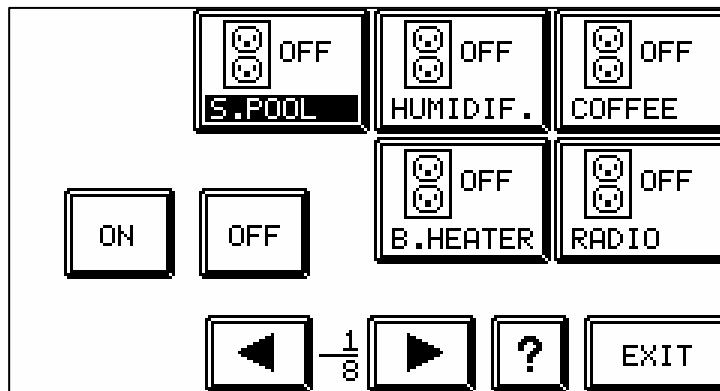
## Outlets scheduling

CARDIO can also schedule outlets to be turned ON and OFF.

From programming menu press



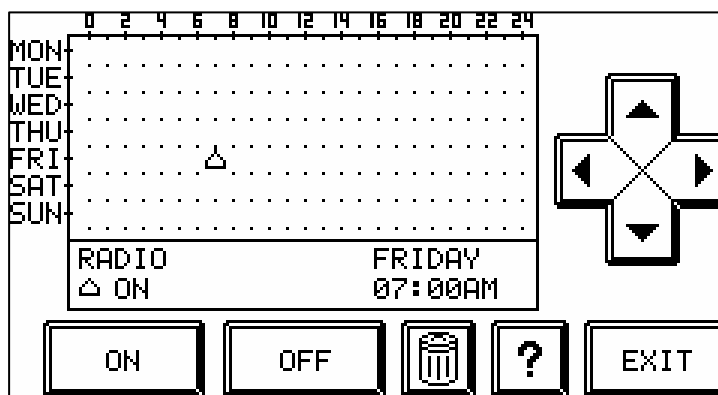
The following screen appears:



Pick the outlet to be scheduled

Position the cursor at the right time (see "How to Schedule" p.19)

Press On or OFF to activate or deactivate the outlet.



└ Appliances scheduling OFF

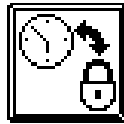
└ Appliances scheduling On

If desired, repeat the process to program other schedules. Note that the scheduling of an outlet can also be activated according to sunrise/sunset (see p.31)

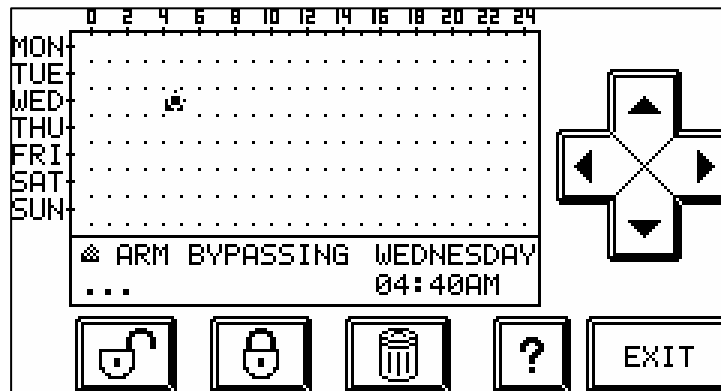
## Alarm system scheduling

CARDIO can arm and disarm the alarm system according to previously set days and time. Refer to the section "Security" (p.6) to adjust the alarm system (bypass, etc.).

From programming menu press



The following screen appears:



To disarm the alarm system

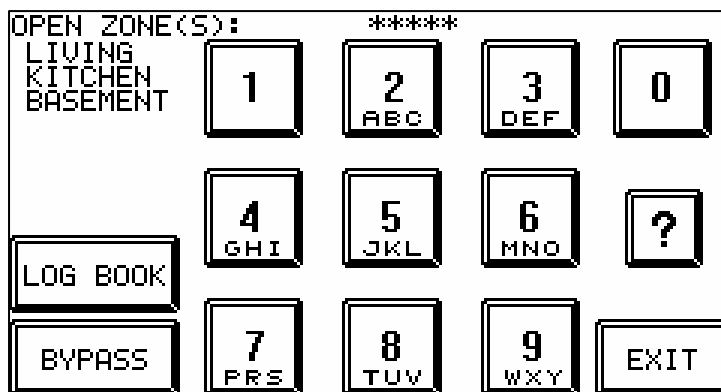
To arm the alarm system

Position the cursor at the right time

Press



The following screen appears:




During programming, Cardio always requires a password to validate arming (bypass) or disarming of the system. Refer to the section "Security" (p.6) to ignore zones if necessary.

## Particularity

When programming the **disarming** of the alarm system, the screen, which appears, does not include zones. Enter an access code.

When programming the **arming** of the alarm system, zones will not appear. Press Bypass to ignore zones. Then press EXIT and enter either an access code or the quick arm code (easy exit).

If at the time scheduled to arm the alarm system, one or many zones are not ready (open doors or windows, etc.), Cardio will arm all zones ready to be armed and will ignore those that are not.

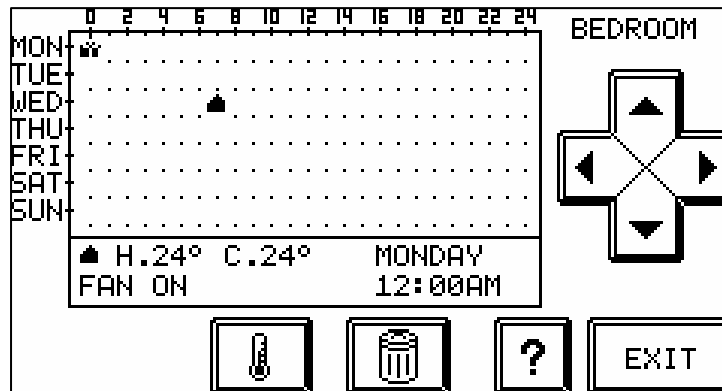
Press  and program a new schedule.

## Temperature scheduling

From programming menu press



The following screen appears:



Position the cursor at the right time

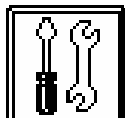
See section "Temperature" (p.8) to adjust properly the temperature according to your heating/cooling system.

***ATTENTION!:*** *CARDIO allows certain functions (lighting, security, heating, etc.) to be controlled directly, through scenes or via programming (of schedule). In order to avoid any conflict, the last command executed always takes priority over any previous ones, whether they are manual (direct or scene) or automatic (scheduling).*

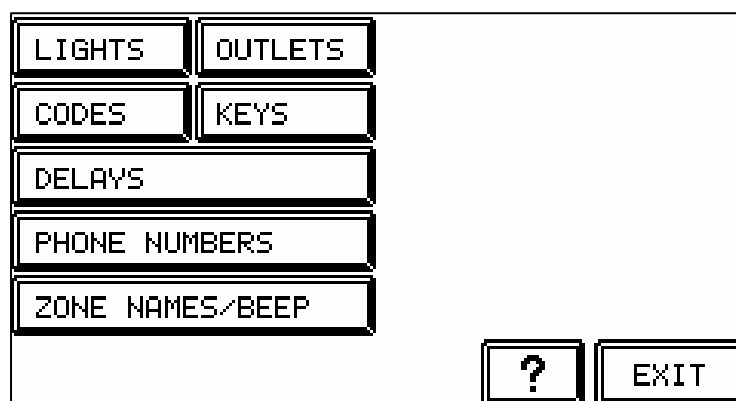
# Configuration

The configuration menu that can be accessed from the programming menu let the user adjust and modify some data regarding lights, outlets, telephone, and security.

From the programming menu, press



The following screen appears:




## Programming

The programming method is identical for all functions to be configured.

See below an outline of the different procedures that will be needed in the programming section.

### Help

In all the screens offered by CARDIO, a key HELP indicates the goal of each table and briefly explains the process of them.

Press  to obtain help on the current function.

To return to the previous screen, press



## Moves

Arrows to move the cursor (black triangle) forward or backward



Quick move arrow (forward only)



## Modification of a data

**To change a status (yes/no);**

Press successively  until obtaining the desired status

Press  when you have finish.

**To compose or modify text;**

To enter text (name, etc.): press  and enter text with the keyboard that appears on the screen.

. Press  to come back to the initial screen.

**To modify a number;**

Press successively  until obtaining the desired number

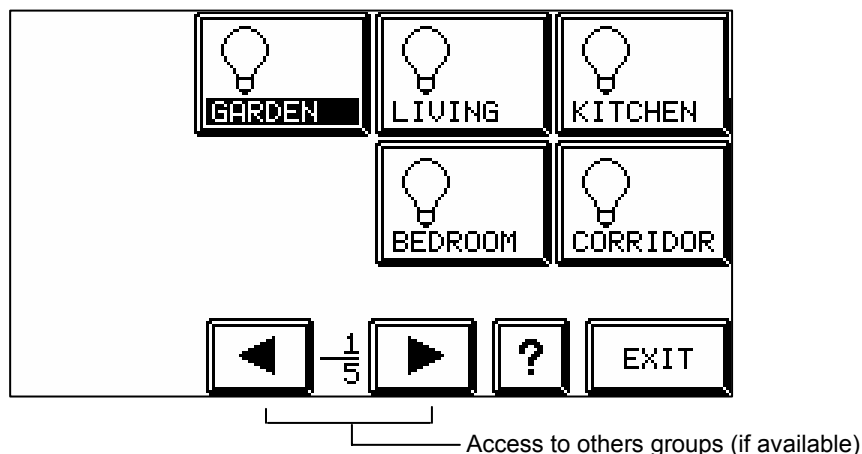
Press  to reach the following unit and reiterating the process.

Press  when you have finish.

## Light

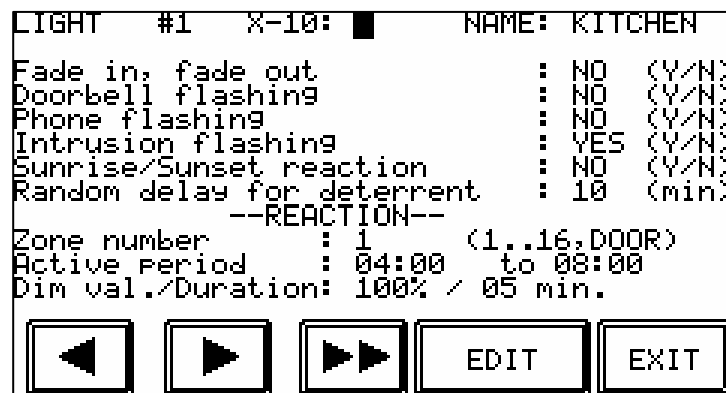
Used to name and configure groups of lights

Press lamp icon and the following screen appears:



Press the group to be modified (at start #1,2,3,4 et 5).

The following screen appears:



- **X10:** Enter the X-10 code to be attached to the light
- **NAME:** Press EDIT and enter name of light
- **Fade in, fade out (yes/no):** When changing intensity, variation will be progressive.
- **Doorbell flashing (yes/no):** Determines whether a light (or group) will flash 5 times when someone rings the doorbell.
- **Phone flashing (yes/no):** Determines whether a light will flash when the telephone rings.
- **Intrusion flashing (yes/no):** Will this light flash (5 minutes) when an intrusion is detected.



- **Sunset/sunrise reaction (yes/no):** Allows to control groups of lightings according to sunset/sunrise.

By entering YES in this section, this light or group of lights will be turned ON and OFF automatically at sunset and sunrise respectively. To turn off the light or outlet before dawn, simply, use a schedule (OFF) at the chosen time, 11 p.m for instance

*NOTE: adjustment is made according to theoretical sunrise sunset for the given day. CARDIO will never adjust lights and outlets according to the weather (cloud cover)*

- **Random delay for deterrent:** When these lights are used in the deterrent function, it is possible to turn them on within a random time period (0..99 minutes).

Example: turn on at 10 PM, at 65% brightness with a random delay of 6 minutes. This light (or group) will automatically turn on at 65% brightness between 10 PM and 10:06 PM.

- **Reaction:** When an alarm system detector (motion, contact) is not in use, it is possible to use the detector to activate light(s) and outlet(s) during a preset delay (0..99 minutes), at the desired intensity (ONN OFF only for outlets) and within a preset time period.

For instance, activate the group LOBBY from the Entrance detector (zone 1) at 100% for 10 minutes from 4 p.m. and 8 a.m the following morning

Zone number: 1

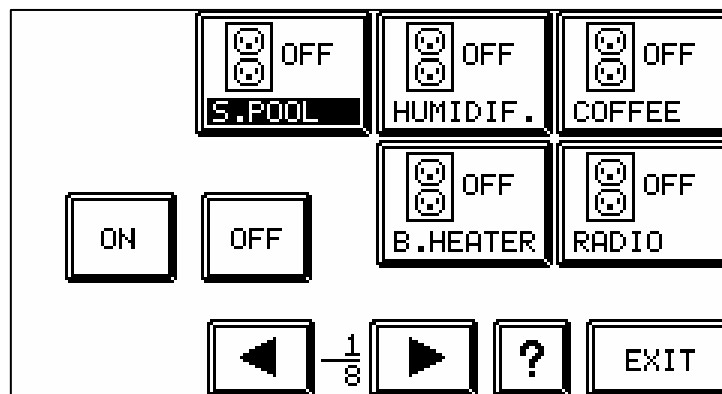
Period 4:00 p.m. to 8:00 a.m.

Dim 100%

Duration: 10 minutes

## Outlet

Used to name and configure outlets. The name of the outlet is very often the name of the appliance to which it is linked.




Press outlet group to configure.

The following screen appears:

```

OUTLET #1 X-10: ■ NAME: S.POOL
Turn OFF when doorbell      : YES (Y/N)
Turn OFF when phone rings   : YES (Y/N)
Sunrise/Sunset reaction     : YES (Y/N)
Auto OFF (00..99)          : 00 sec.

      --REACTION--
Zone number      : (1..16,DOOR)
Active period    : 00:00 to 00:00
Outlet state     : ON (ON/OFF)
Reaction duration: 05 (00..99 min)
  
```



- **X-10:** Enter the X-10 code to be attached to the outlet
- **NAME:** Press EDIT and enter name of outlet.
- **Turn OFF when doorbell (yes/no):** To turn OFF the outlet when the doorbell rings
- **Turn OFF when phone rings (yes/no):** To turn OFF the outlet when the telephone rings.
- **Sunrise/sunset reaction (yes/no):** .it is possible to schedule outlets according to daylight (dark, bright). To turn off outlets before dawn, simply program a schedule

***NOTE:** Adjustment is made according to the theoretical sunset sunrise times. CARDIO will never adjust outlets according to the weather (cloud cover).*

- **Auto off (0..99 sec.):** To simulate a momentary contact (ex.: to activate an electrical door strike).
- **Reaction:** When an alarm detector (motion, contact) is not in use, it is possible to use this detector to activate outlets during a preset delay (0..99 minutes)

For instance, activate the group LOBBY from the Entrance detector (zone 1) for 10 minutes between 4 p.m. and 8 a.m. the following morning

Zone number: 1

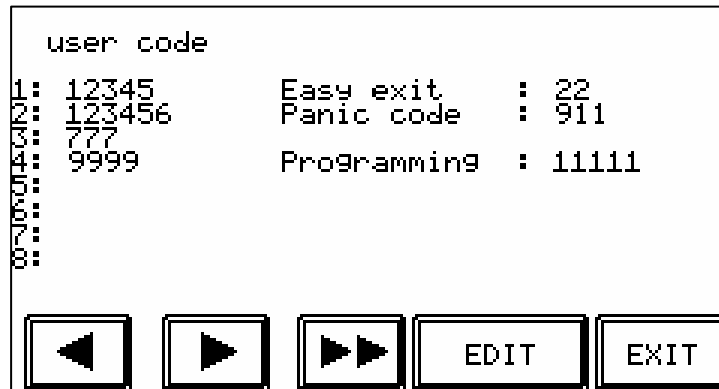
Period: 4 p.m. to 8:00 a.m.

Outlet state: ON

Duration: 10 minutes

## Codes

Used to name and configure security zones as well as to enter various access codes.



- **Code (1 to 8):** Enter here the access codes used to arm and disarm the alarm system.
- **Easy exit:** Code used to arm the alarm system when exiting only. **This code is absolutely not valid for disarming the alarm system.**
- **Panic code:** To disarm the alarm system and send out a silent emergency call at the same time.
- **Programming code:** Used to obtain access to the programming menu. The default code is 11111.

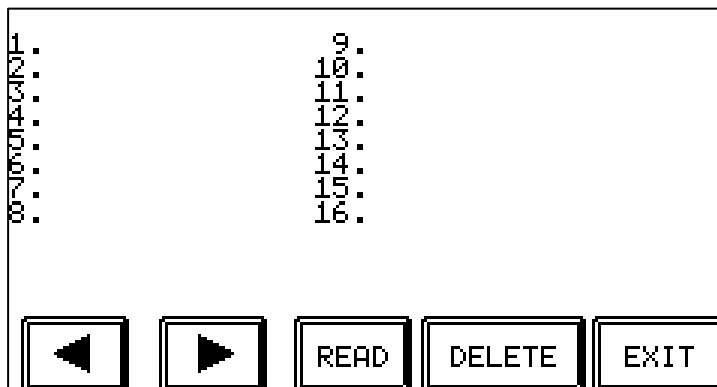
***NOTE:** The default installer user code (entry level) is 11111 but it can be modified (see p.33). Once this code is modified and if forgotten, the user will have to call the installer (advanced user) who will use the installer programming code to have access to the advance configuration menu and then retrieve the user's code.*

***ATTENTION!:** For all security codes (user, easy and panic) to be different, make sure that no code is the first digits of a bigger one. CARDIO will allow arming/disarming the security as soon as digits entered match one of the user codes. Ex: codes 12 and 123456 have been entered as valid user codes for two different users. When the user associated with code 123456 tries to arm/disarm, CARDIO will validate as soon as digits 12 is entered and will think that the user is the one associated with code 12.*

***!WARNING!:** We strongly recommend to personalize both user's and installer's codes. For security reasons, do not use default codes.*

## Digital keys

Allows the configuration of the electronic keys.



To declare a digital key, use arrows to position the prompt on a blank spot (1 to 16) and press READ. Then apply the new key on any “digital key switch” and its code will automatically be recorded. To delete a key, position the cursor on the right spot (1 to 16) and press DELETE.

## Delays

To set exit and entry delays when arming and disarming the security system.



Exit delays can be different for digital key readers than for keypads. Enter entry delays for each security zone.

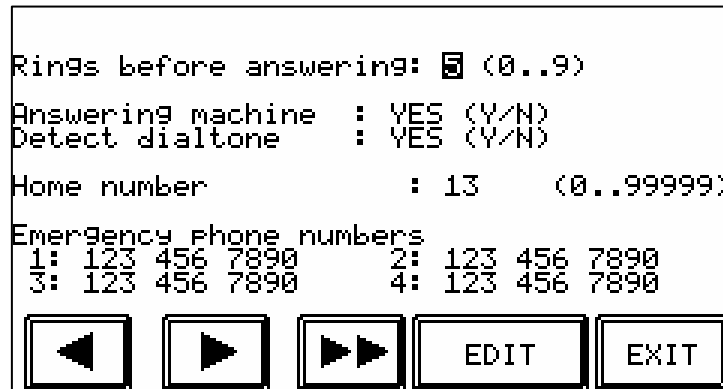
## Telephone

Used to configure the control of Cardio by telephone from anywhere outside the home. Also used for programming numbers for emergency calls.

```

Rings before answering: 5 (0..9)
Answering machine      : YES (Y/N)
Detect dialtone       : YES (Y/N)
Home number           : 13   (0..99999)
Emergency phone numbers
1: 123 456 7890      2: 123 456 7890
3: 123 456 7890      4: 123 456 7890

```



- **Rings before answering (0..9):** Used mostly when an answering machine is plugged into the same telephone line as CARDIO. In this case, always adjust the number of rings before CARDIO answers to a higher number than that of the answering machine. To contact CARDIO by phone from outside the home, call and let the telephone ring once or twice and hang up before the answering machine can take the line. Within the following 60 seconds, call again and CARDIO will then automatically have priority over the answering machine. If someone else calls within this delay and before the user does, this person will then be connected to CARDIO but will not be able to enter the proper code and will therefore be denied access to the system
- **Answering machine (yes/no):** When an answering machine (or any other appliance) is plugged into the same line as CARDIO.
- **Home number:** Used to identify the home when CARDIO calls outside to emergency numbers.
- **Emergency numbers:** Enter the four numbers (family, neighbors, friends) to be called in case of an emergency.

**NOTE:** It is possible to insert a blank between numbers (for telephone numbers only)

For instance 4161234567 and 416 123 4567 are two identical telephone numbers for CARDIO. A blank indicates that there is a 2-second delay between the numbers preceding and following the blank.

A pictogram telephone will appear in the screen on page 3 to indicate that CARDIO's telephone line is not plugged or that the line is already in use for a normal telephone call.

**ATTENTION!:** Inserting a blank in any number other than a telephone number will automatically delete all numbers following the blank,

## Zone names "BEEP"

Used to name security zones

zone name	"BEEP"	zone name	"BEEP"
1: LIVING	YES	9: Zone #9	NO
2: KITCHEN	NO	10: Zone #10	NO
3: BASEMENT	YES	11: Zone #11	NO
4: Zone #4	NO	12: Zone #12	NO
5: Zone #5	NO	13: Zone #13	NO
6: Zone #6	NO	14: Zone #14	NO
7: Zone #7	NO	15: Zone #15	NO
8: Zone #8	NO	16: SMOKE	NO

◀ ▶ ▶▶ EDIT EXIT

- **NAME (1 to 16):** Name of the zone.
- **BEEP (yes/no):** Beep when a detector is triggered no matter the alarm system being ON or OFF.

## Control by telephone

In addition to the ease of use offered by Cardio's touch screen, the system can also be controlled by a simple telephone call from either inside or outside the home (touch-tone and can be cordless). In either case, control by telephone allows access to direct commands (alarm system, temperature, lighting, outlets, scenes).

**ATTENTION!** Under no circumstances is it possible to change Cardio's programming by telephone. It is recommended that a RJ45 (CA38A in Canada) digital communicator modular jack be installed to send messages out in case of an emergency. It is imperative to install this type of jack for telephone control from inside the house.

### **Access from inside the home**

Go off-hook and press # on the keypad within 5 seconds to obtain access to Cardio (any longer delay will necessitate hanging up, and starting again).

Cardio requires no access code except when modifying the alarm system (arming/disarming). A digitized human voice guides the user through the various functions that can be modified. (refer to the telephone operation diagram found on next page)

### **Access from outside the home**

Just as it is possible to control Cardio from a telephone located inside the house, it is also possible to execute the same commands from outside the home. The procedure is exactly the same as the one described above, with the only difference being that Cardio requires a valid access code. Three invalid access codes can be entered before Cardio will automatically hang up. (refer to the telephone operation diagram found on next page )

When arming or disarming the alarm system, Cardio will request a valid access code.

### **Emergency Calls**

Cardio can send emergency calls (fire, break-in, medical emergency etc.) either to a monitoring station or to people whose telephone numbers have been previously entered in the system. Emergency calls are clearly identified by the digitized voice. It is also possible to send both types of calls (monitoring and emergency numbers).

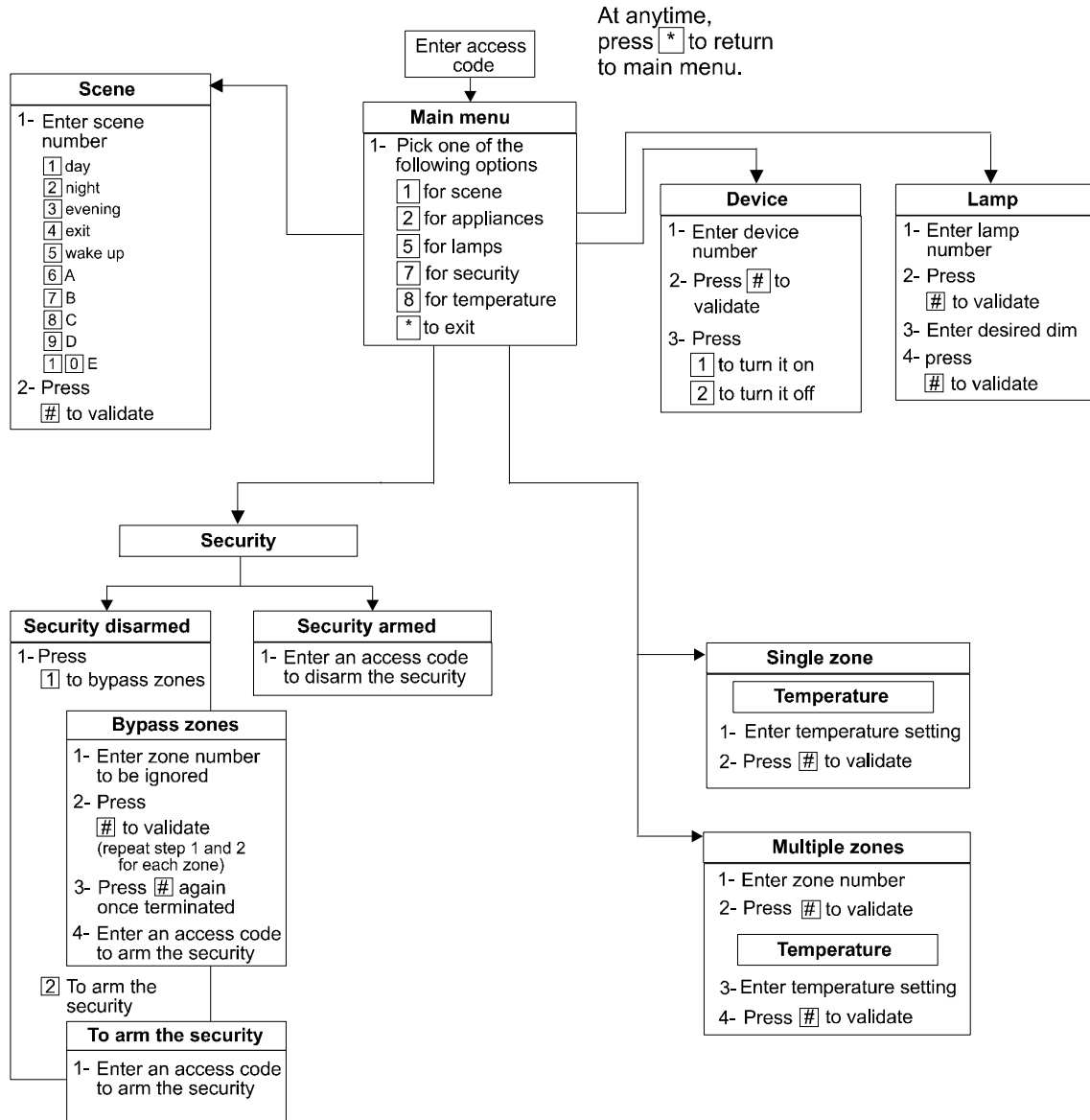
**Monitoring only:** Cardio calls up the first number. If busy, it will call up the second number (if available) and so on for a total of 8 calls..

**Emergency numbers only:** Cardio calls up the first number. If it is busy or there is no answer, it will dial the second number and so on until all 4 numbers have been called.

**Monitoring station and emergency numbers:** Monitoring and emergency numbers: Cardio calls up the monitoring station first. If there is no answer after 4 consecutive calls, it will call the first emergency number and will stop after a total of 8 calls. If the monitoring station answers as expected, the system will call the first emergency number after a 5-minute delay in order to give the monitoring station enough time to call back the user.

When calling an emergency number, Cardio asks the person who answers the phone to validate the call by pressing 7 (S) on the telephone keypad. It is only after this validation has been received that Cardio will give the description of the emergency. If there is nobody to answer (or only an answering machine) or if the line is busy, the system will skip to the next number and so on for a overall total of 8 calls.

# Telephone operation diagram





## Recommendations and maintenance

Here a list of functions and appliances that must be checked in order to secure an optimal operation of the system CARDIO.

- ✓ Check phone jack when Cardio's telephone functions do not seem to be working properly.
- ✓ Check breaker and battery if no screens appear.
- ✓ Check battery at least once a year.
- ✓ Check smoke detectors at least once a year.
- ✓ Test the security system once a week.

**!WARNING!: Do not use Cardio as low temperature detector. Use mechanical device for this purpose.**

## Industry Canada warnings

The Industry Canada Label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

***!WARNING!: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.***

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Number of all the devices does not exceed 5.

**SECANT** inc. Domotique  
Home Automation  
w w w . s e c a n t . c a

1744, William street, suite 401  
Montréal, Québec, H3J 1R4

Tel: (514) 935-3069

Fax: (514) 935-6655

email: [info@secant.ca](mailto:info@secant.ca)

[www.secant.ca](http://www.secant.ca)

Secant Home Automation Inc.

Cardio 2e User Manual

Fifth edition 2006 All rights reserved.