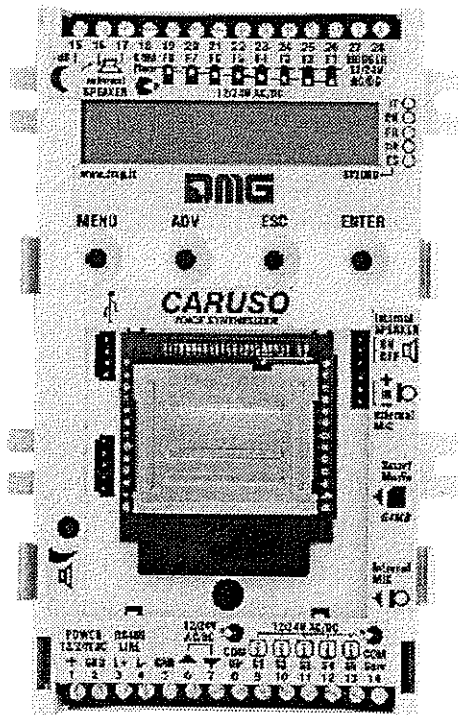




# CARUSO

*Voice synthesizer for lifts*



ESY2000EN

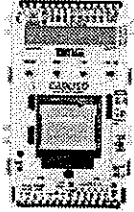
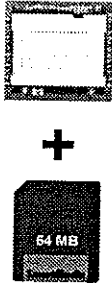
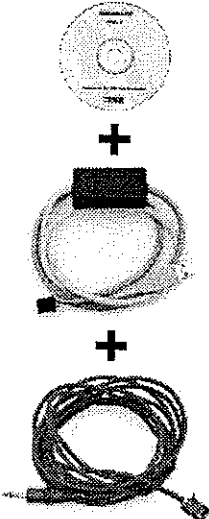

**Installation manual**  
*Vers. 1.0 - English*



# CARUSO

Voice synthesizer for lifts

## SYSTEM COMPONENTS

<u>Code</u>		<u>Description</u>
ESY2000EN		Voice synthesizer (version with messages in English)
ESYSC64EN		Message library on the SMARTMEDIA + adaptor
ESYKSW		Software / libraries for programming synthesis using PC + USB adaptor cable + audio cable
ESYSPK		External loudspeaker

## INDEX

<b>1. Product description</b>	<b>page 4</b>
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1.2 Main functions	page 4
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2.3 Advanced connections	page 11
<b>3. Programming</b>	<b>page 12</b>
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# CARUSO

*Voice synthesizer for lifts*

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## 1. - Product description

CARUSO is a voice synthesizer dedicated to lifts. It allows to reproduce previously recorded floor and service messages; it is also particularly versatile as it adapts to every type of installation.

CARUSO has an internal library of pre-recorded messages assignable to different inputs. The device has an internal microphone to allow the user to record messages and allows to download audio messages both from PC, via USB port, and from SMARTMEDIA card.

Floor messages can be assigned using serial protocol (using DMG DEUN8/16 encoder) or with parallel connections (up to 8 floors).

The device can be programmed using a keyboard or LCD display.

### 1.1 - Technical features

- Power supply 12/24Vdc
- Absorption in stand by 75 mA
- Max. absorption 400mA (internal fuse 1A self-restoring)
- Internal loudspeaker (can be deactivated) 22 ohm 0.25W
- Output external loudspeaker 8 ohm 1W
- Serial input for floor messages (DMG protocol)
- Dimensions : 90x150x20 mm                      Weight : 160 gr.

### 1.2 - Main functions

- Internal memory of 120 seconds distributed in the following way:
  - 24 floor messages (4 seconds each) that can be assigned to the relevant floor inputs
  - 2 direction messages (4 seconds each)
  - 1 Gong (2 seconds)
  - 5 service messages (4 seconds each) that can be assigned to the relevant service inputs
- Possibility of connecting an external loudspeaker
- Internal microphone for on-site message recording
- Audio input to record messages from external audio sources (optional adaptor)
- USB port to modify/add messages from the PC (optional adaptor)
- SMART MEDIA CARD reader to modify/add messages (optional)
- Night shift feature: volume decrease input
- Trimmer for volume adjustment
- 16 optoisolated non polarised inputs with common independents 12/24V (4.4 Kohm):
  - 8 inputs for floor messages
  - 2 inputs for direction messages
  - 5 inputs for service messages
  - 1 trigger input

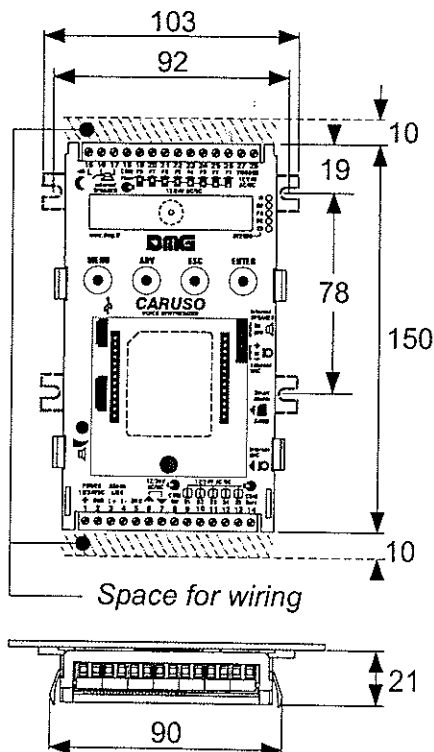
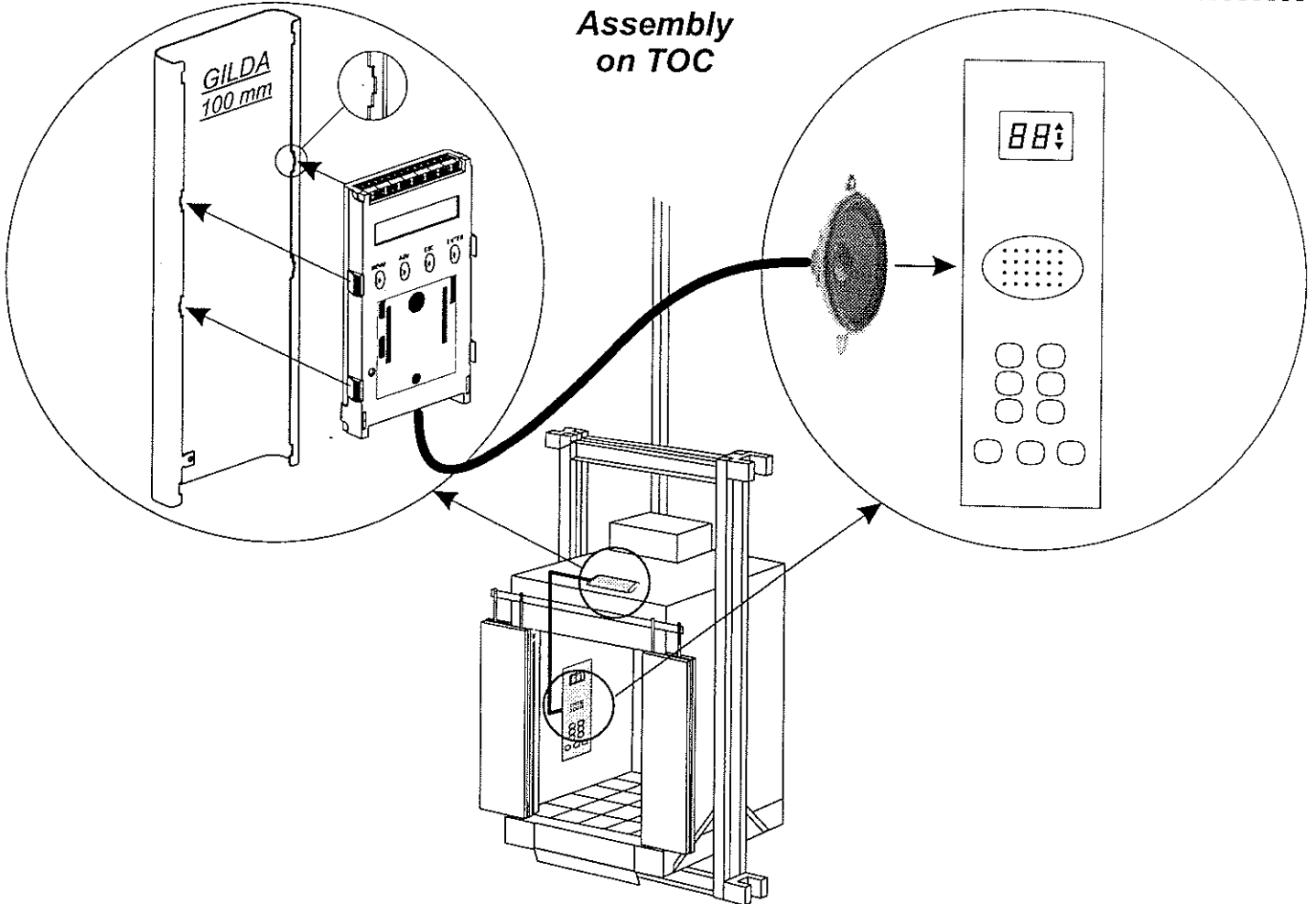
# CARUSO

Voice synthesizer for lifts

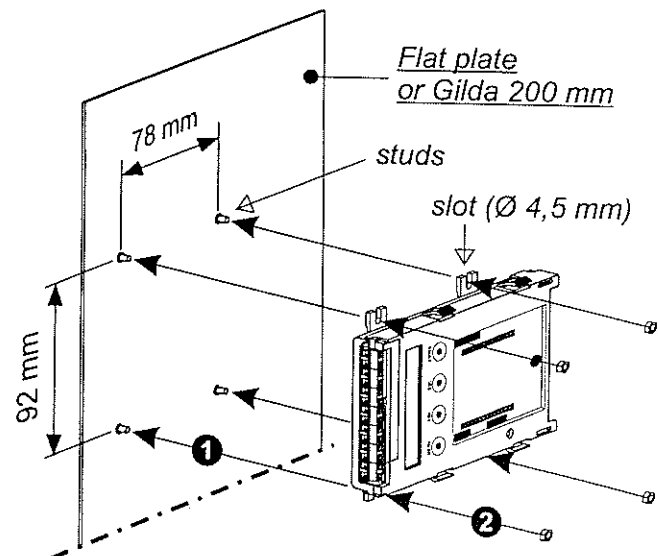


## 2 - Installation

### 2.1 - Installation instructions



### Assembly behind Car panel



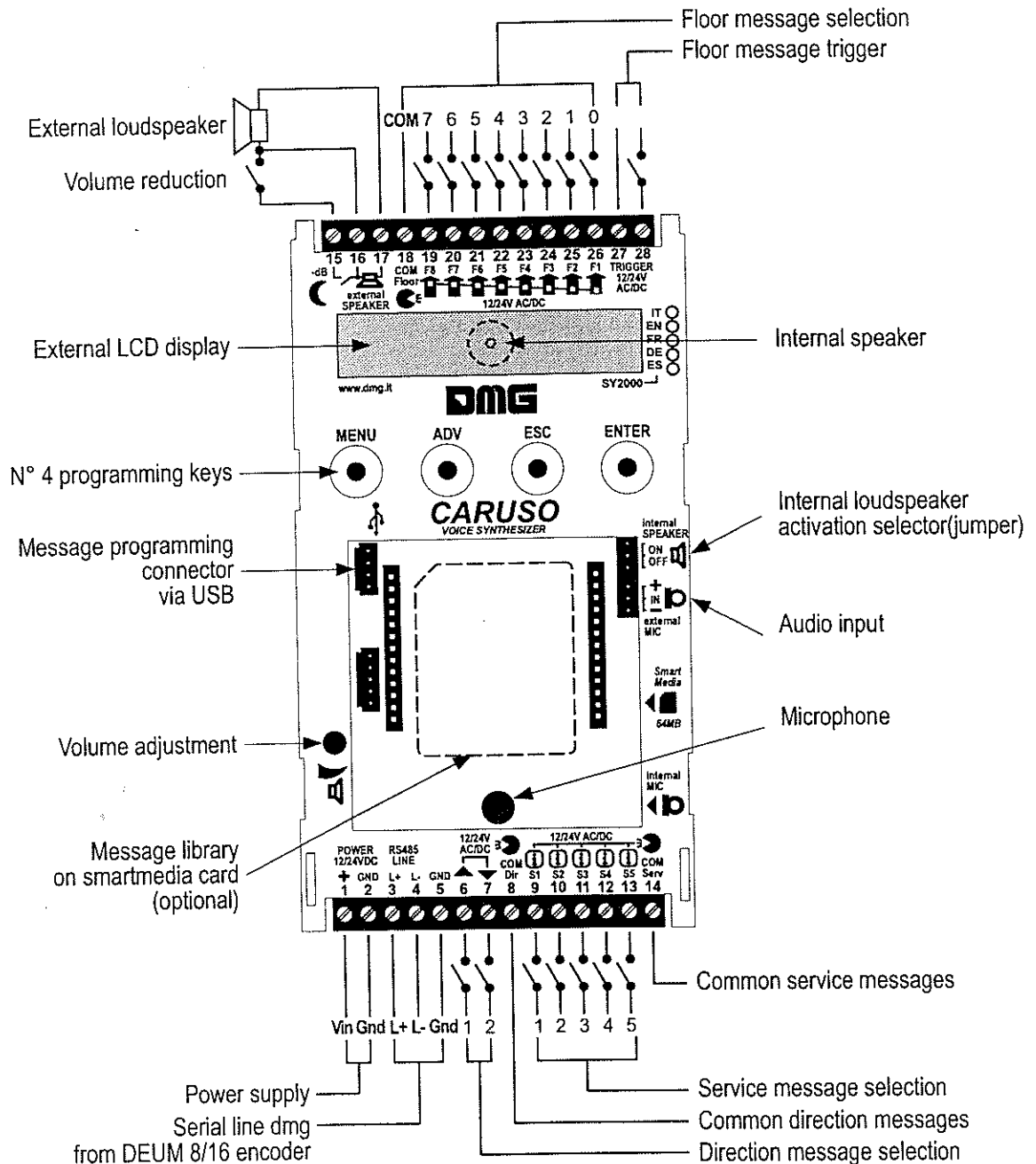


# CARUSO

## Voice synthesizer for lifts

### 2.2 - Basic connections

All connections relative to the CARUSO device are shown in the diagram below.  
 All functions and relative connections will be explained in detail in the following pages.

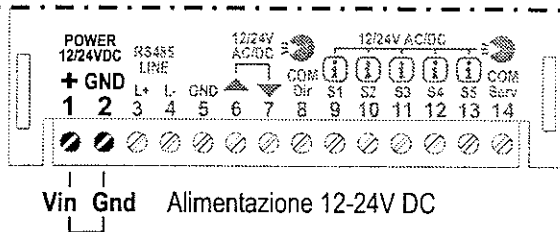


# CARUSO

## Voice synthesizer for lifts



### 2.2.1 - Power supply



NOTE: The three message groups (floor, direction and service messages) and the trigger, are **optoisolated** and therefore **electrically isolated among themselves** and **electrically isolated with respect to the power supply circuit**. This allows connection of the device to different and electrically

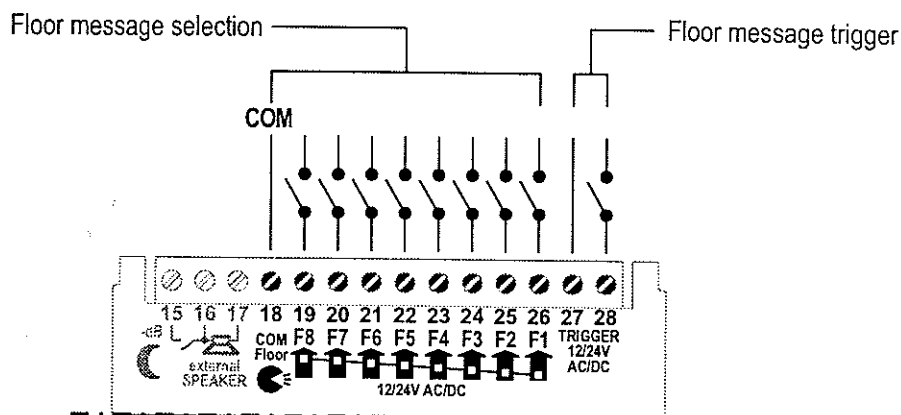
incompatible circuits (e.g. Power supply connected to a circuit with buffer battery, floor messages referring to the floor indicator circuit powered in DC, direction messages corrected in parallel to the direction indicators powered in AC and service messages connected to an emergency device completely isolated from the controller).

### 2.2.2 - Floor message input

Selection of floor messages can be programmed using the "code messages" (§ 3.3.1) and can be of two types:

**1) Parallel selection** envisions reproduction of the message following the TRIGGER command connected to clamps 27 and 28. With this type of selection the device is prepared to function with the following protocols:

- 1 line per floor code - max 8 floors
- 1 line per segment code - max 19 floors (-9,0,9)
- BINARY/GRAY code - max 24 floors



SIGNAL PROTOCOL			
	<i>1 line per floor</i>	<i>1 line per segment</i>	<i>Gray / Binary</i>
F1	Lowest floor	segment A (unit)	Gray 0 input
F2	+1	segment B (unit)	Gray 1 input
F3	+2	segment C (unit)	Gray 2 input
F4	+3	segment D (unit)	Gray 3 input
F5	+4	segment E (unit)	Gray 4 input
F6	+5	segment F (unit)	Gray 5 input
F7	+6	segment G (unit)	Gray 6 input
F8	+7	segment G - (tens)	Gray 7 input

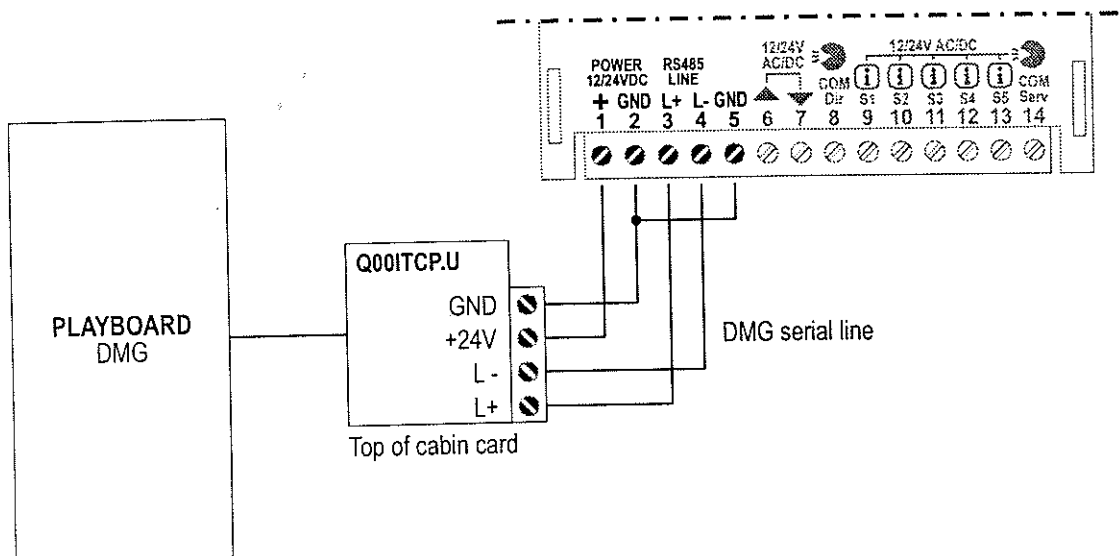
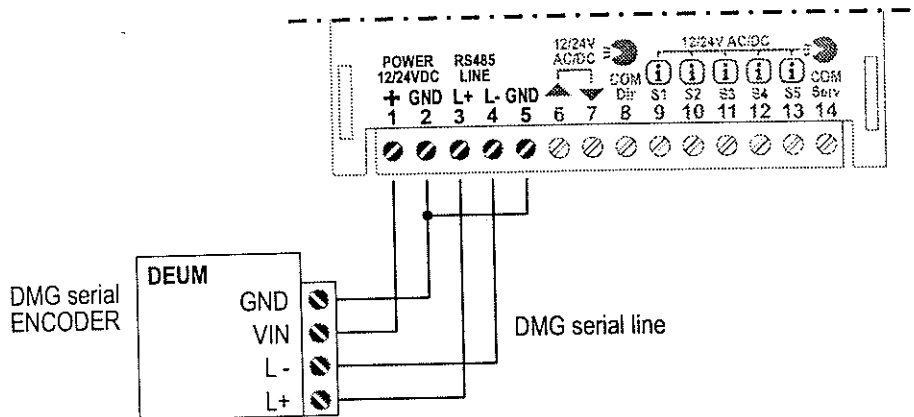


# CARUSO

## Voice synthesizer for lifts

**2) Serial selection** is recommended when coupled with the DMG PLAYBOARD controller or to the ENCODER DMG. Use of the DMG encoder is recommended when DMG serial position indicators are present, or when the number of parallel inputs present on the ESY2000 synthesizer are not sufficient to cover the installation requirements. With this type of connection the TRIGGER control (start-up command) can be both serial or parallel, depending on the following cases:

- PLAYBOARD controller
  - DMG DEUN/P serial encoder
  - DMG DEUM8/16 serial encoder
- serial TRIGGER (automatic command from control board)
  - TRIGGER parallel on synthesis (clamps 27/28 ESY2000)
  - serial TRIGGER (connect to encoder)
  - parallel TRIGGER (clamps 27/28 ESY2000)



# CARUSO

## Voice synthesizer for lifts

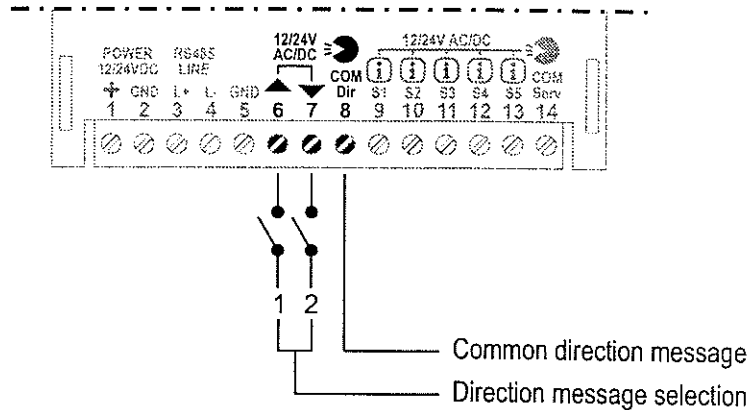


### 2.2.3 - Direction message input

It is possible to play two messages relative to the next direction of the lift.

The selection of these two messages can be parallel or serial.

When these messages are activated, they are only played once and the TRIGGER is not necessary.



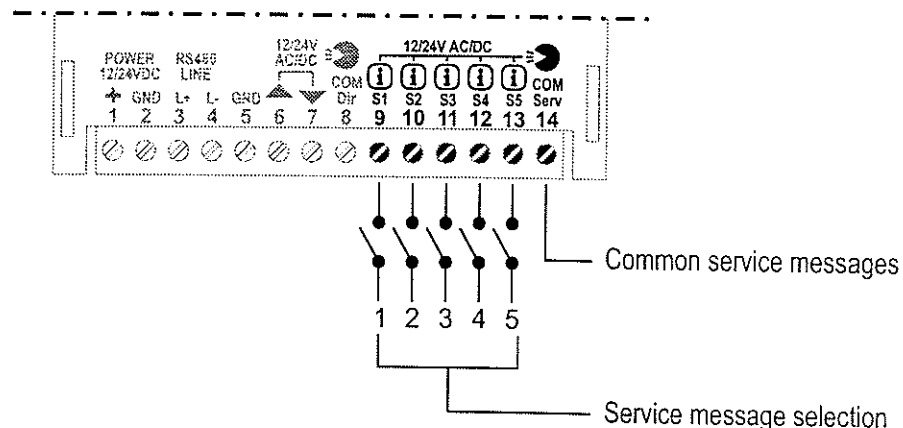
If direction message are not required in the parallel condition, do not connect the relevant inputs, or in the serial condition, disable them from the "Up/Down message" menu (direction messages).

### 2.2.4 - Service message inputs

It is possible to reproduce up to 5 service messages using as many parallel inputs (selection of service messages using serial line is not possible). These messages are played continuously as long as the relevant inputs are activated.

If more inputs are activated at the same time, messages will be reproduced in sequence.

Service messages do not require TRIGGER command.





# CARUSO

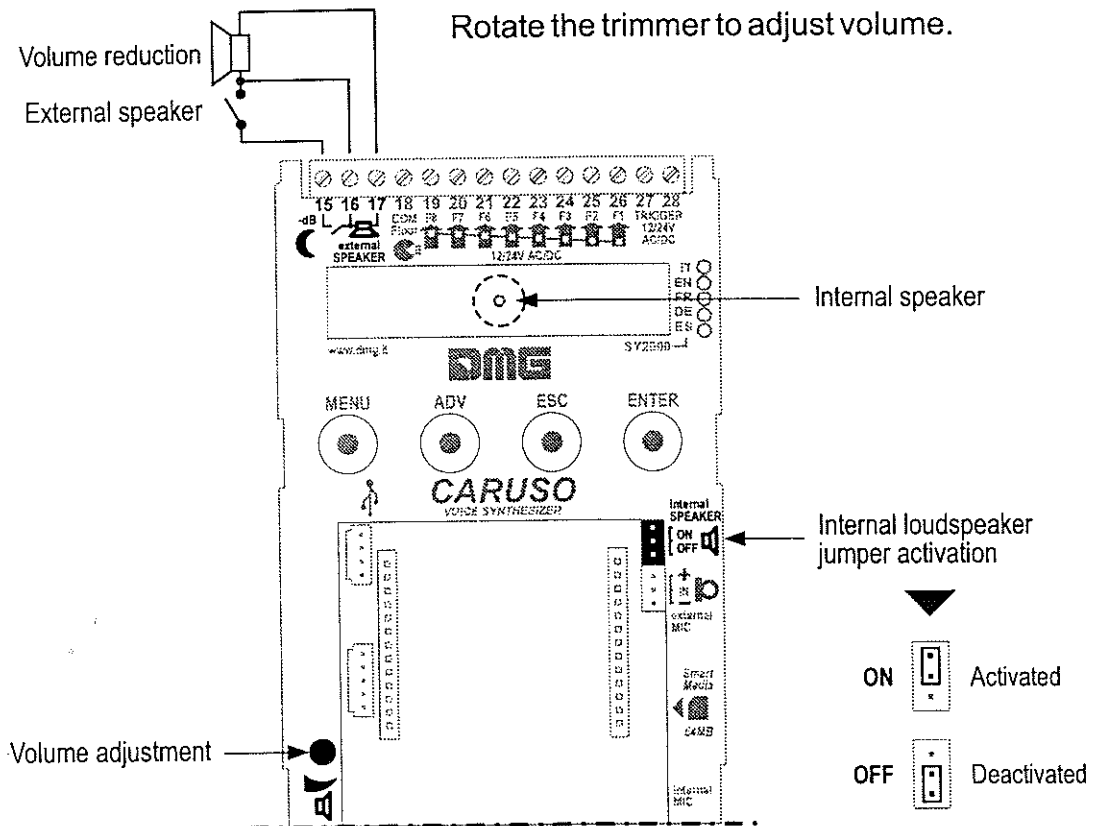
Voice synthesizer for lifts

## 2.2.5 - Internal loudspeaker and external loudspeaker output

The CARUSO synthesiser has an internal loudspeaker which is particularly useful when in programming mode (especially if this takes place before installation or if the device is positioned in the machine room). The use of an external loudspeaker is recommended for normal functioning of the synthesizer as the reduced size of the internal loudspeaker reduces acoustic quality. To disable the internal loudspeaker just move the relative JUMPER as indicated in the diagram.

Refer to the diagram to connect the external ESYSK loudspeaker.

It is possible to decrease the volume of the device using a clean contact connected between clamps 16 and 17 as indicated in the diagram (e.g. Night shift feature).



**ESYSK External loudspeaker**

Impedence: 8 ohm  
Power: 1W

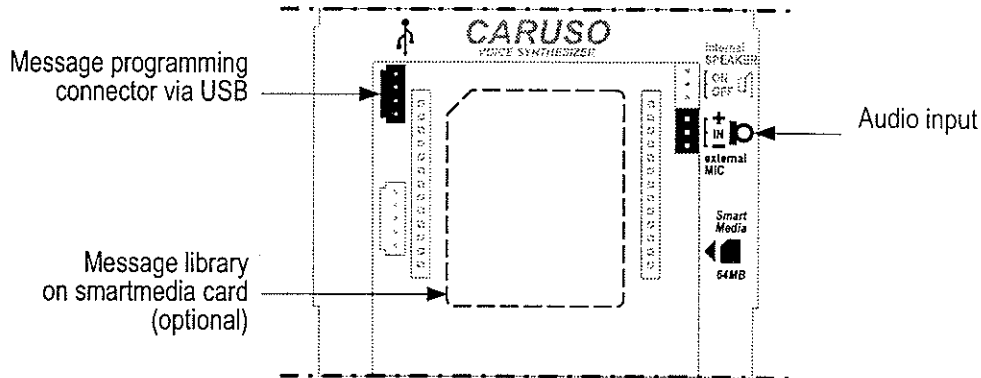
# CARUSO

## Voice synthesizer for lifts



### 2.3 - Advanced connections

A series of optional accessories are available, which make the CARUSO synthesizer even more versatile.

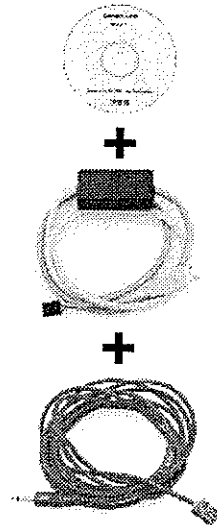


#### 2.3.1 - Use of the ESYKSW software kit

Through the USB port it is possible to use messages not present in the memory inside the CARUSO synthesizer to completely or partially replace the internal message library (other languages etc.). The optional ESYKSW kit (software, cable USB and audio cable) allows to connect the CARUSO synthesizer to a PC and manage vocal message association. The messages can be recorded:

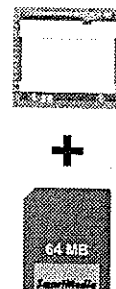
- From external audio source (CD players, MC, etc.)
- Using .wav audio files, previously recorded on the PC.

For details consult instructions in the ESYKSW kit.



#### 2.3.2 - SmartMedia ESYSC64EN card connection

With the optional SmartMedia card, an additional library of more than 100 messages is available to partially or completely replace the message in the internal library. For this function it is necessary to purchase the SmartMedia ESYSC64EN adaptor and follow the attached instructions.





# CARUSO

## Voice synthesizer for lifts

### 3 - Programming

Use the 4 keys and the LCD display to program the voice synthesizer.

**MENU** Allows to enter the main menu

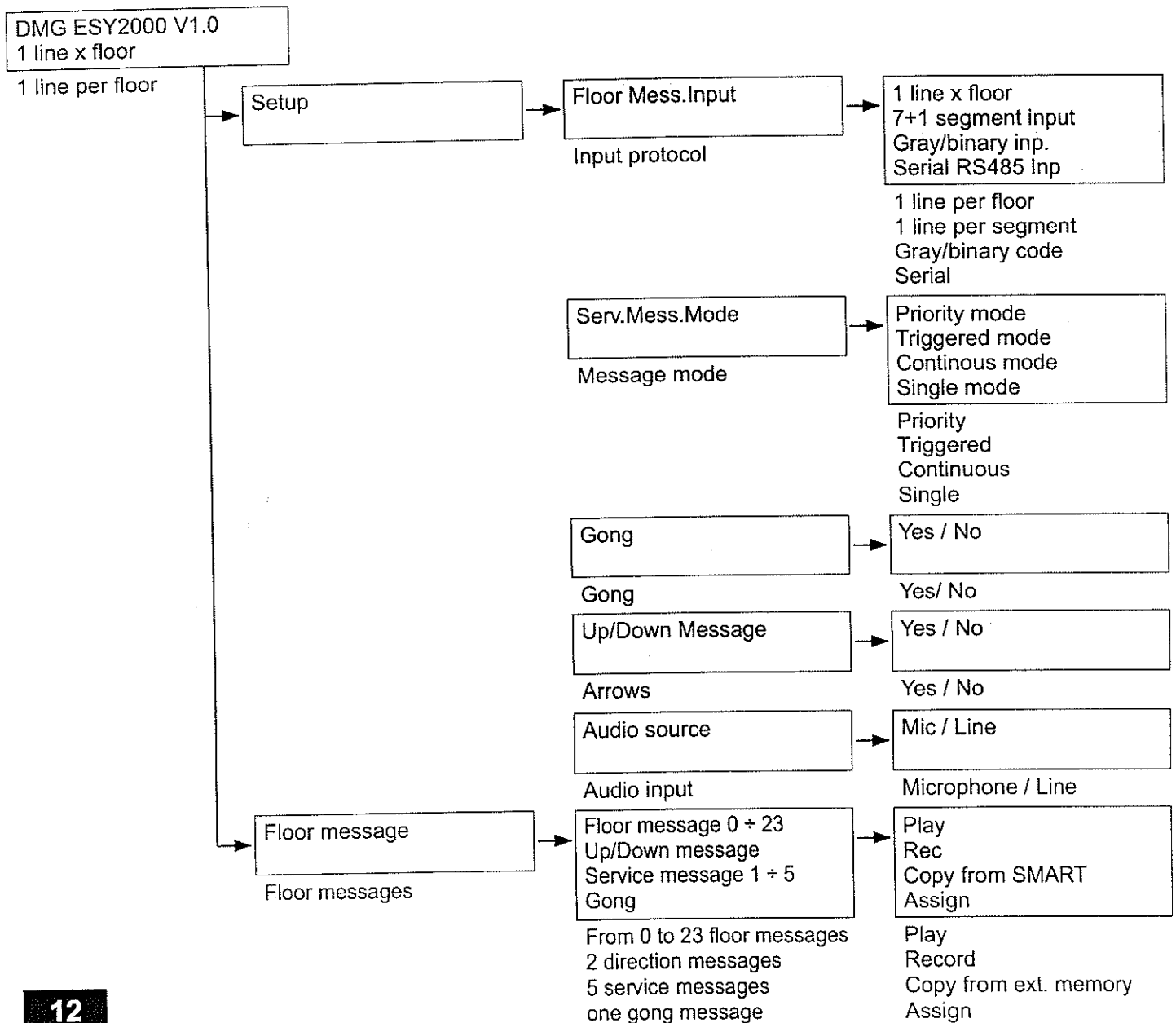
**ADV** Go to the next screen

**ESC** Exit from the menu; return to the previous screen. By pressing for more than 3 secs. Return to the main screen

**ENTER** Confirm the selection

NOTE: To restore default programming of the device, switch the synthesizer off and then back on again, maintaining the MENU key pressed down.

#### 3.1 - Menu Map

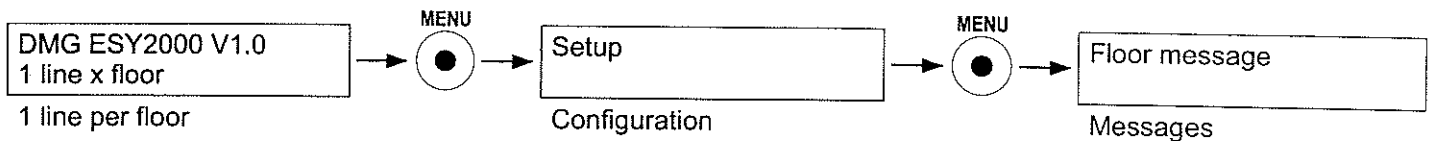


## 3.2 - Main menu

Main screen shown upon activation of the device indicates the version of the software.

DMG ESY2000 V1.0  
1 line x floor  
1 line per floor

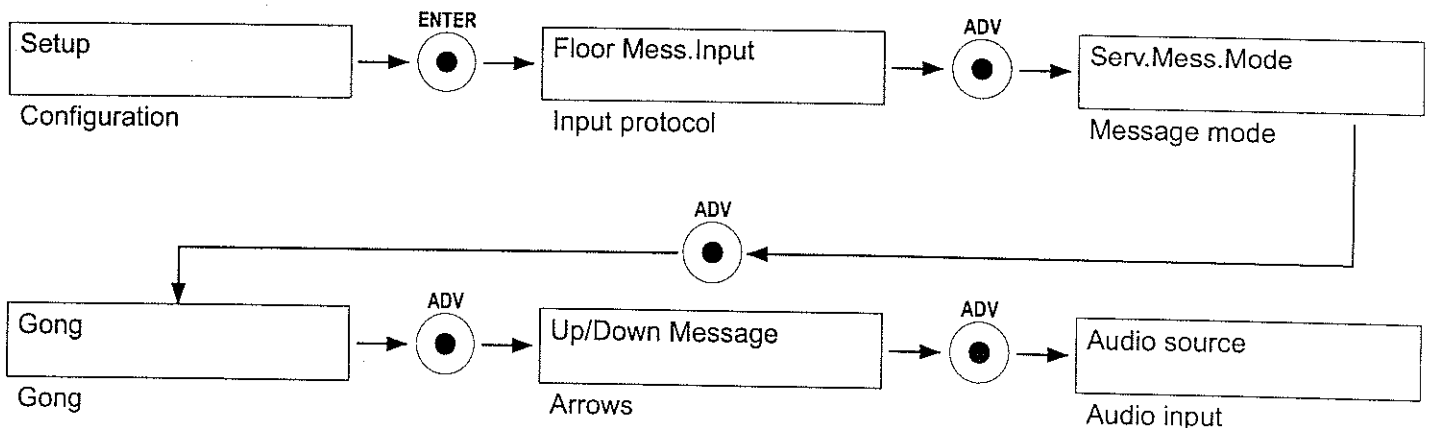
To enter the main menu just press the MENU key. The "SETUP" section will be shown on the display. By pressing the MENU key a second time the "Floor message" section will be shown on the display.



## 3.3 - Configuration

Accesss the "Setup" menu and press ENTER; from here, by scrolling with the ADV key it is possible to select :

- Input protocol for floor messages
- Message mode
- Enabling of the gong
- Enabling of direction messages (Arrows)
- Enabling of audio input

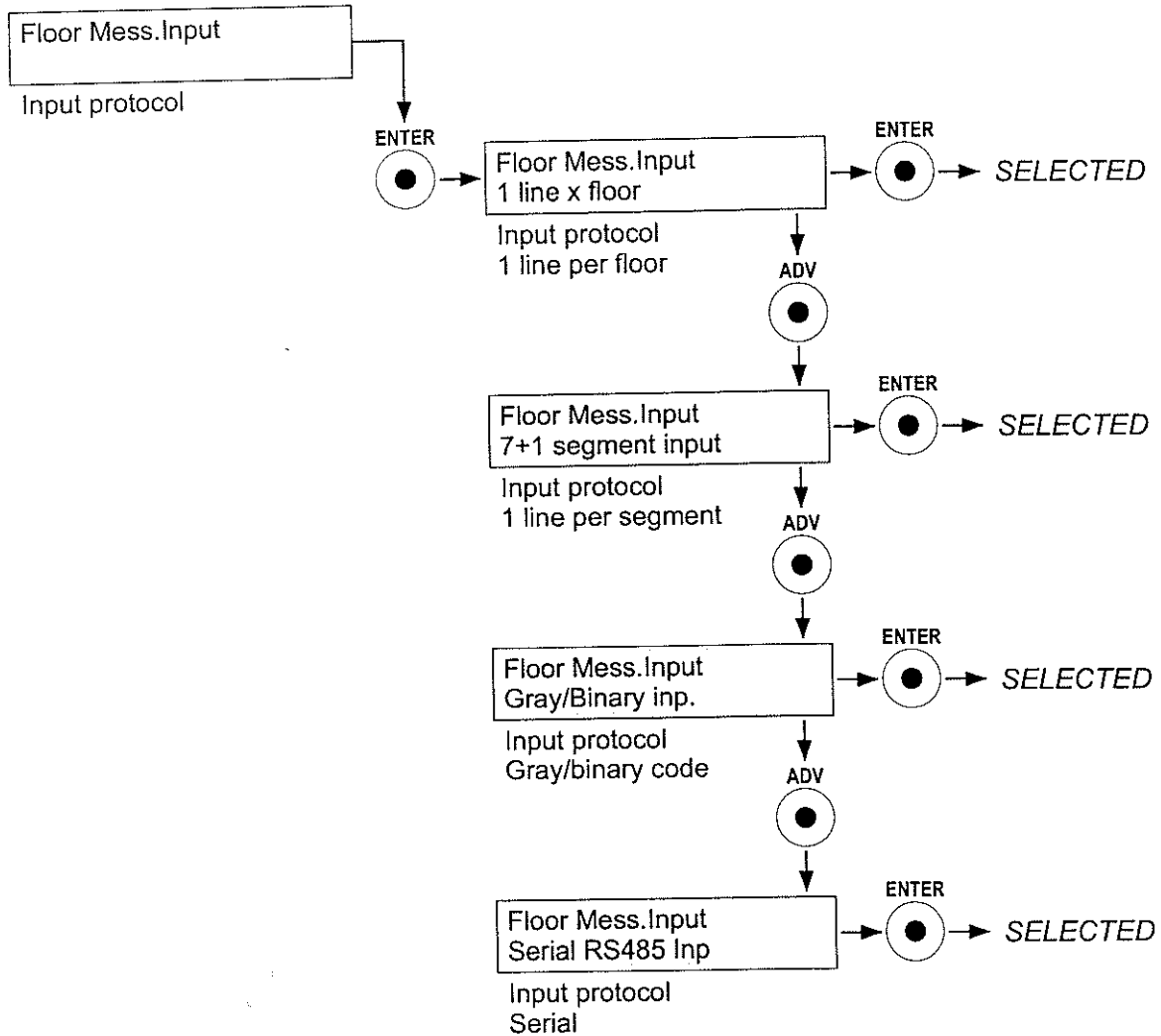




# CARUSO

Voice synthesizer for lifts

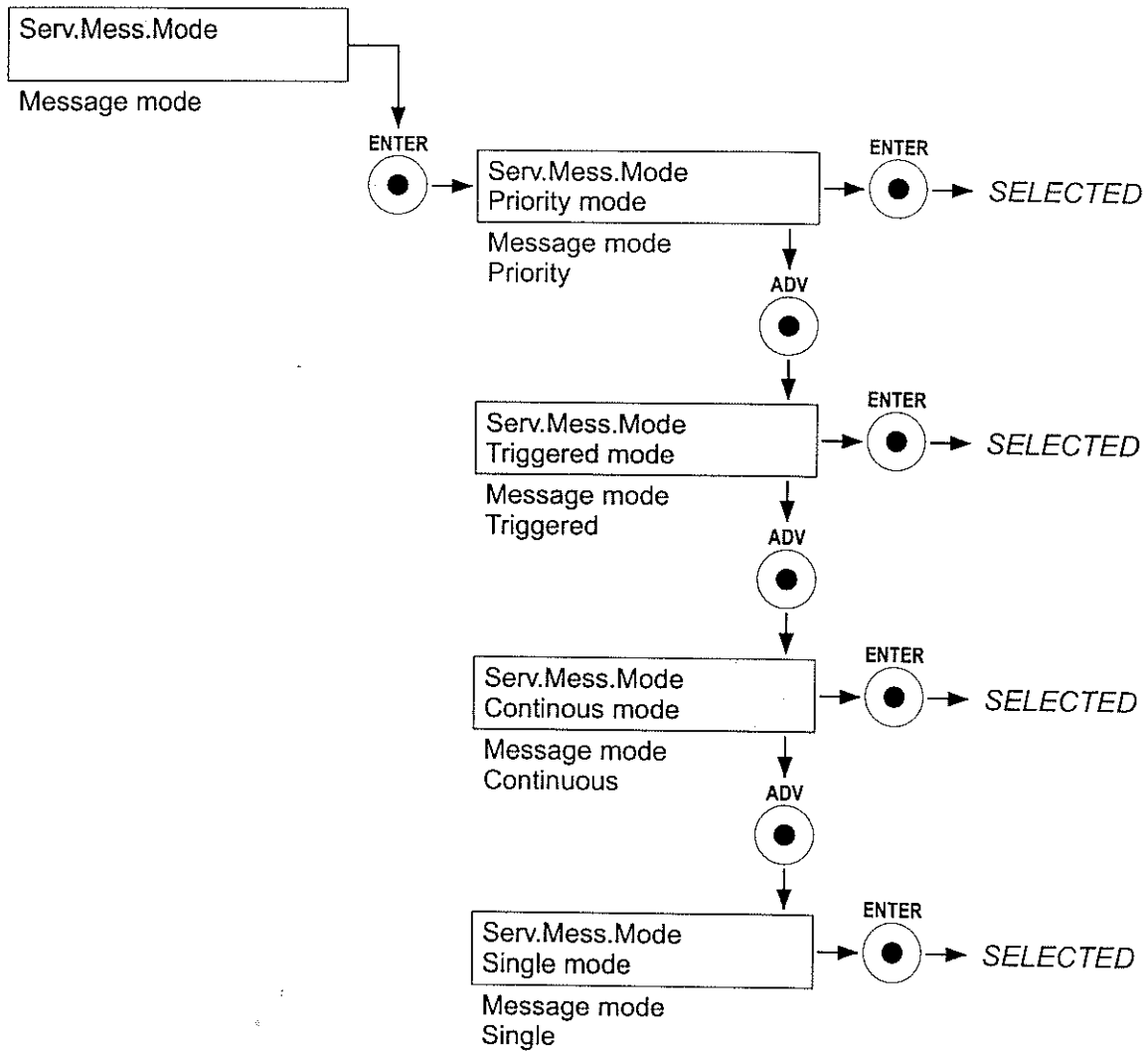
## 3.3.1 - Input protocol



**NOTE :**

The default programming is "1 line x floor" (1 line per floor); to enable it, it is necessary to power the voice synthesizer and hold the MENU key down at the same time.

## 3.3.2 - Message modes



**NOTE :**

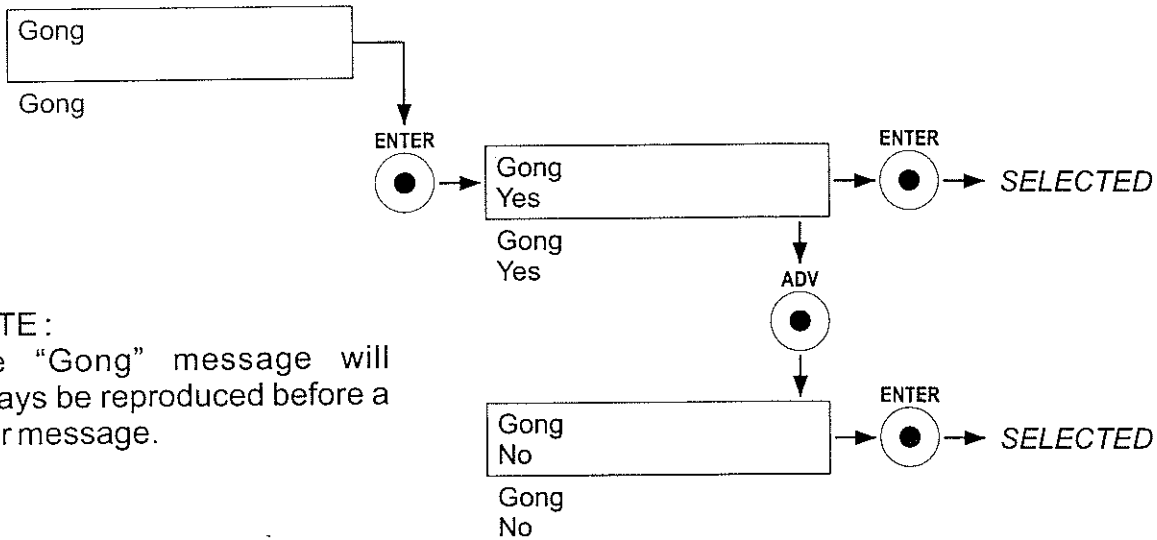
Only "Continous mode" and "Single mode" modes are available with V1.0 software version.



# CARUSO

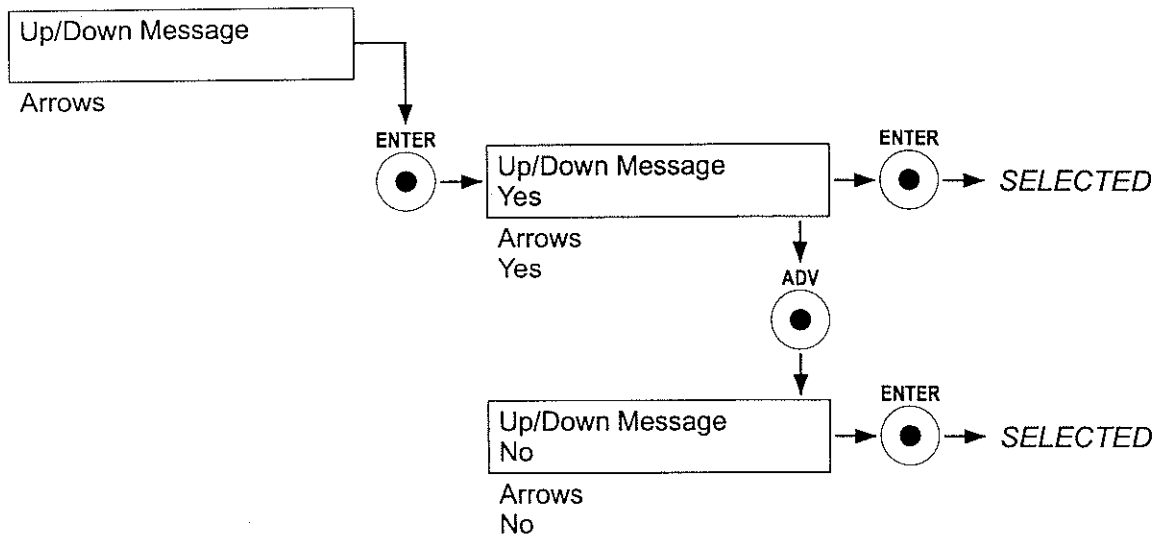
Voice synthesizer for lifts

### 3.3.3 - Enabling of the "Gong"

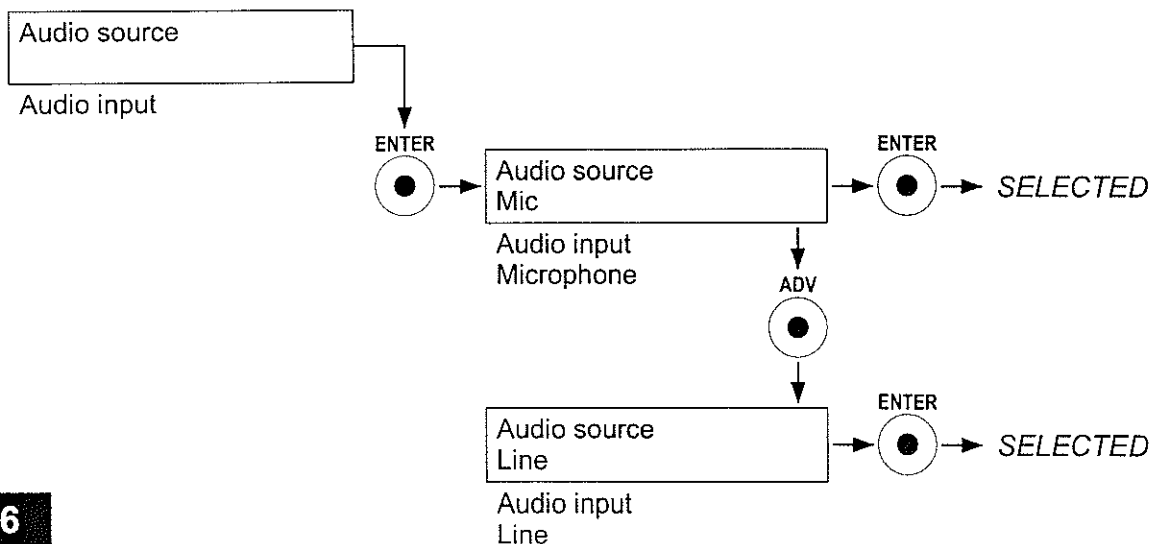


NOTE:  
The "Gong" message will always be reproduced before a floor message.

### 3.3.4 - Enabling of "direction messages"



### 3.3.5 - Enabling "audio input"





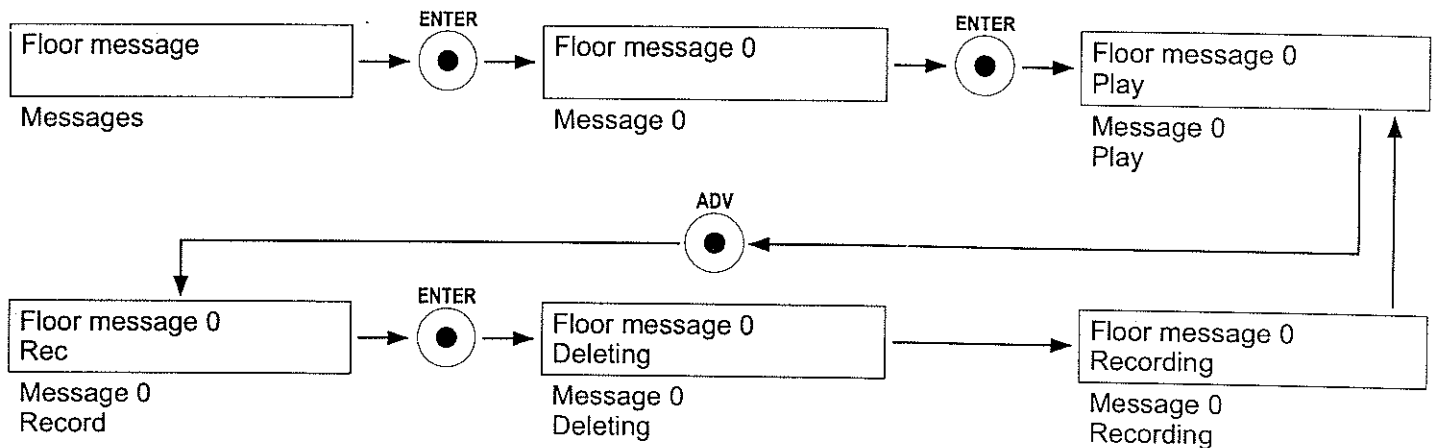
### 3.4 - Recording messages using the internal microphone

The CARUSO synthesizer allows to record up to 24 floor messages, 2 direction messages, 5 auxiliary messages and a "gong" message using the internal microphone.

Enter in the "Floor message" section, use the ADV key to select the message to be recorded, press ENTER. Now the display will show the "Play" sub-menu with the message, scroll with ADV to show "Rec" then press ENTER.

At this point the device will automatically delete the existing message ("Deleting" will appear on the display) and record the new message. Max. recording time for each message is 4 seconds.

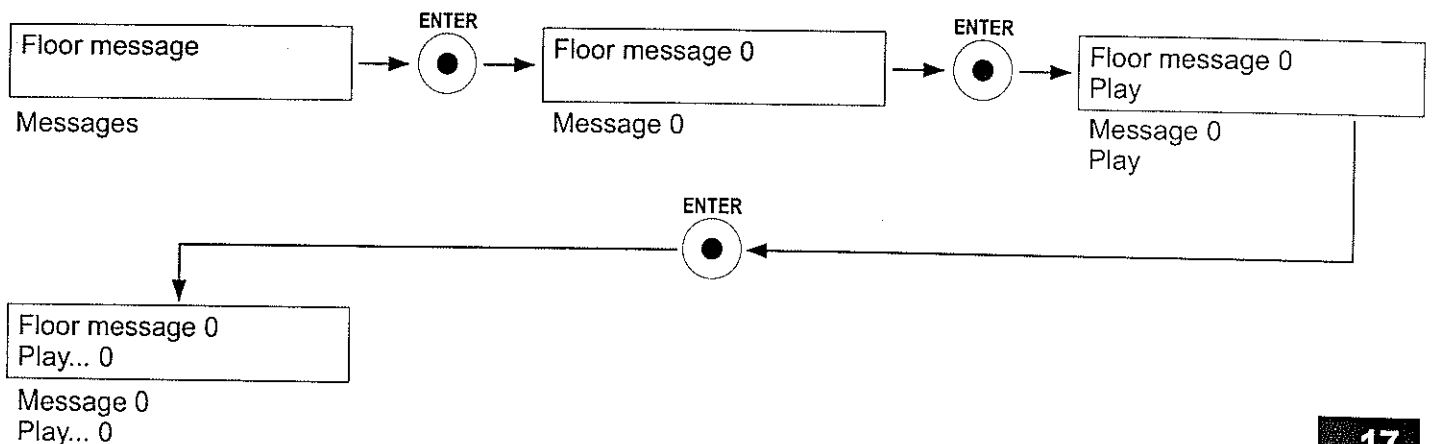
To record another message press ESC and use ADV to select the following message.



#### 3.4.1 - Playing a message

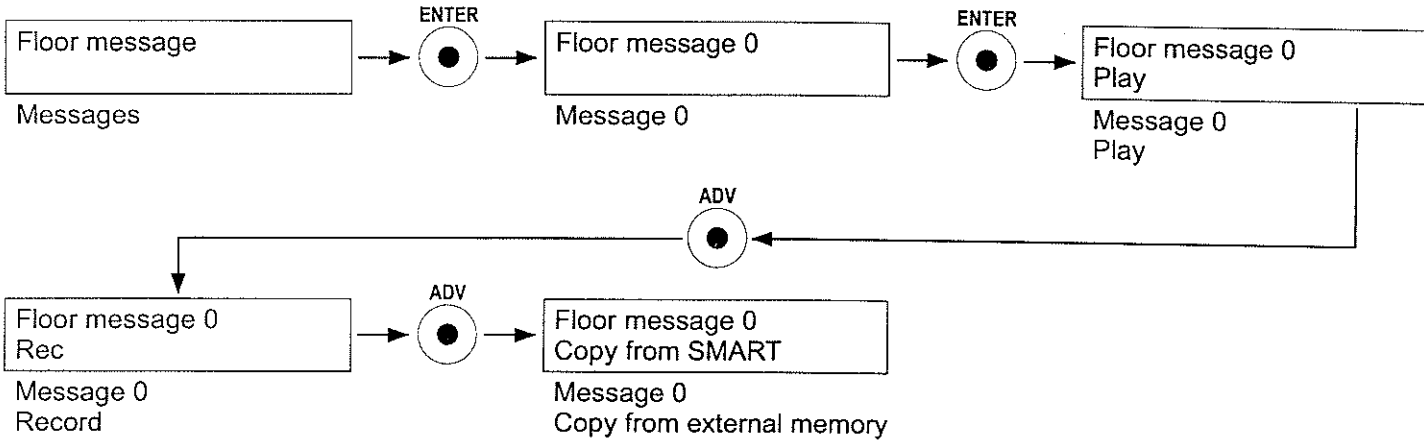
When a message is recorded "Play" will automatically appear on the display. Press ENTER to playback the message.

If you want to playback message present in the memory, enter the "Floor message" menu and press ENTER, use the ADV key to select the message to be played, press ENTER again. When "Play" is visualised press the ENTER key to playback the message.



### 3.4.2 - Importing messages from the external SmartMedia memory

See § 2.3 (Advanced connections).

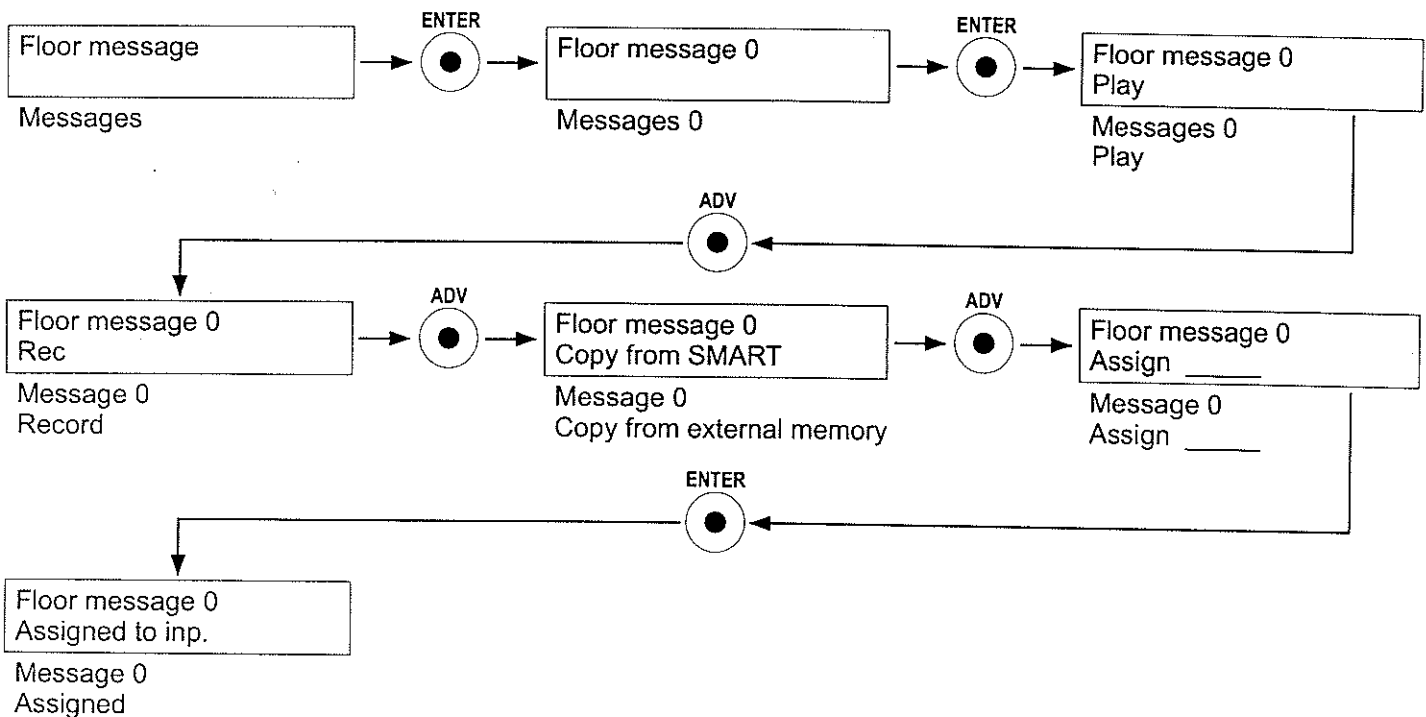


### 3.4.3 - Message assignment

To assign a message the lift must be positioned at the desired floor to activate the proper floor input signal. After having entered the "Floor message" menu press the ENTER key to access the messages, use the ADV key to select the message to be assigned and then press ENTER. Press the ADV key to visualise the "Assign" sub-menu.

At this point the synthesizer will recognise the floor where the lift is located showing the word "Assign" next to it (e.g. If the lift is on ground floor, 0 will appear indifferently from the type of protocol selected), press ENTER to assign.

If the operation has been performed correctly "Assigned" will be displayed in the sub-menu.





## 4 - Standard message library

### 4.1 - Basic library

#### FLOOR MESSAGES

0 - Second basement  
1 - First basement  
2 - Lower ground floor  
3 - Ground floor  
4 - Upper ground floor  
5 - First floor  
6 - Second floor  
7 - Third floor  
8 - Fourth floor  
9 - Fifth floor  
10 - Sixth floor  
11 - Seventh floor  
12 - Eighth floor  
13 - Ninth floor  
14 - Tenth floor  
15 - Eleventh floor  
16 - Twelfth floor

17 - Thirteenth floor  
18 - Mezzanine  
19 - Garage  
20 - Hotel  
21 - Parking  
22 - Information  
23 - Restaurant

#### SERVICE MESSAGES

24 - Lift going up  
25 - Lift going down  
26 - Lift out of order, press the alarm button  
27 - Lift arriving at level  
28 - Lift overload, will the last passenger please leave the car  
29 - Stay calm, help is coming  
30 - Fireman's control - lift returning to ground floor  
31 - Gong

### 4.2 - Additional library on SmartMedia memory

#### FLOOR MESSAGES

-

#### SERVICES MESSAGES

-



**DMG SpA**  
*Via Quarto Negrone, 10*  
*00040 CECCHINA (ROMA) • ITALIA*  
*Tel. +39 06930251 • Fax +39 0693025240*  
*info@dmg.it • www.dmg.it*