

GXT 4000 – 16
GXT 4000 – 32
GXT 4000 – 48
GXT 4000 – 64






**TOUCH SCREEN
MICROPHONE CONSOLES
OPERATOR MANUAL**

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1 Introduction

The GXT 4000 microphone console is a PA console with built-in zone selection, designed for use with bus architectures on CS 2500, CC 3816 and DN 3816 platforms.

The GXT 4000 comes in four versions, suffixed -16, -32, -48 or -64 depending on whether it has 16, 32, 48 or 64 programmable soft keys. They all come with a set of 5 additional function keys:

- **General Announcement** key (programmable key) ,
- **Cancel** key (for cancelling zone inputs) ,
- **Message** key (for starting a pre-recorded message) ,
- **Chime** key (to broadcast a chime before an announcement) ,
- **Microphone** key (to broadcast a spoken announcement) .

This manual describes how to cable and configure the console to the various systems it can be connected to, and how to programme the soft keys.

2 Connections

2.1 Connecting to a CS 2500 Central Monitoring Unit

When connected to a CS 2500 central monitoring unit, the GXT 4000 can be used to make safety and PA broadcasts within zones selected on the touch screen.

IMPORTANT: Ensure that the CS 2500's software version is version V4.50 or greater

Installation:

- install the CS 2500 central monitoring unit. The default configuration uses no consoles;
- place the console on the working surface (i.e. where it is to be used);
- connect a NS110557 type external power supply (cf. *GXT 4000 Technical Specifications § 4.1 General Data – Operational Limits*);
- configure the console, programme the soft keys (by assigning a key number or general announcement to a soft key), the serial link address and the host system type;
- configure the console soft key program for each bus on the CS 2500 (assign a zone or a group of zones to a soft key number);
- connect the RJ45 In/Out to the RJ45 of the corresponding CS 2500.

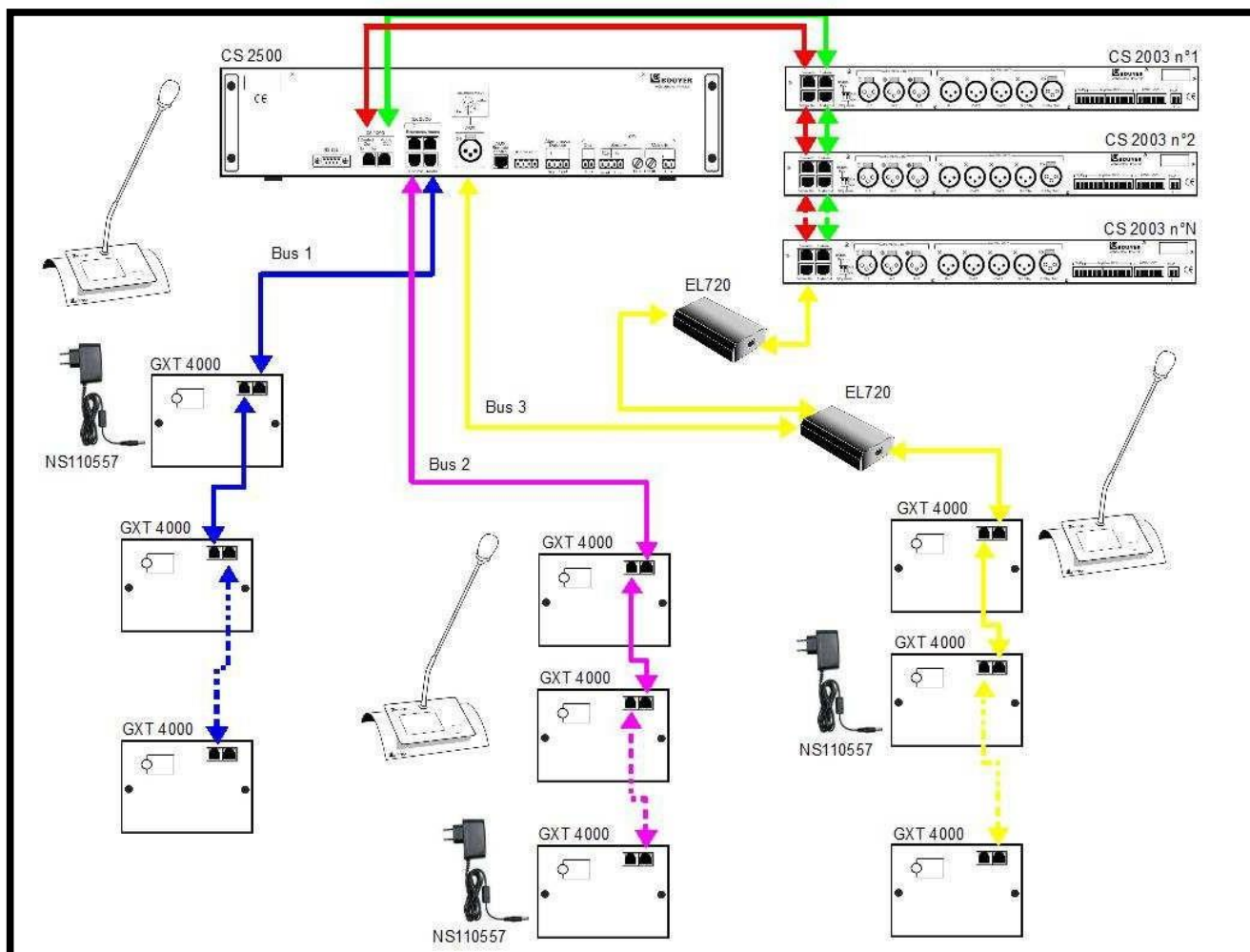
The CS 2500 has 3 separate audio buses:

- audio bus GX1 (GX 2500 Control/Audio 1 RJ45 socket) to which can be connected either a GX 2500 or one or more GXT 4000 or GX 3016 units (address 1);
- audio bus GX2 (GX 2500 Control/Audio 2 RJ45 socket) to which can be connected either a GX 2500 or one or more GXT 4000 or GX 3016 units (address 2);
- audio bus AUX (AUX XLR socket) to which can be connected either a 0dB source or one or more GXT 4000 or GX 3016 units (address 3).

The maximum number of GXT 4000 consoles that are capable of being connected to an installation depends on what other equipment is present (independent of any power or distance restrictions); the actual number can be calculated as follows:

No. of GXT 4000 \leq 50 - No. of CS 2500 - No. of CS 2003 - No. of GX 2500 - No. of GX 3016

Below is an example installation showing how several GXT 4000s connect together:



2.2 Connecting to a CC 3816 AV Matrix

The CC 3816 matrix has two special inputs for connecting two GXT 4000 or GX 3016 console buses together.
Installation:

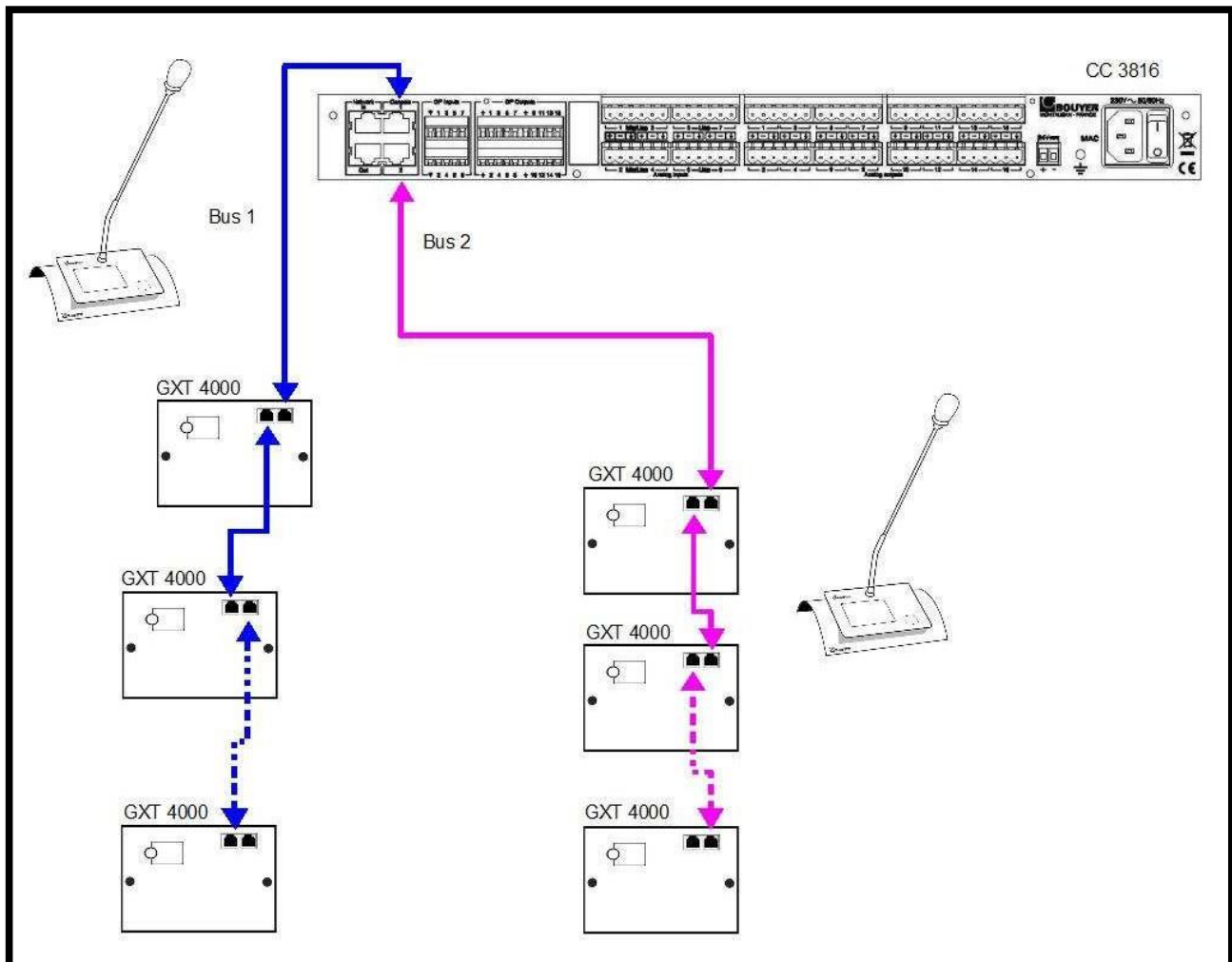
- install the CC 3816 matrix;
- place the console on the working surface (i.e. where it is to be used);
- connect up the console power supplies: the GXT 4000 consoles may be powered directly via the CC 3816 matrix' special outputs (cf. *GXT 4000 Technical Specifications § 4.1 General Data – Operational Limits*) or by connecting an external power supply;
- configure the console, programme the touch screen (by assigning key numbers or general announcements to the soft keys), the serial link address and the host system type;
- program the console soft keys for each bus on the Matrix Control software of the CC 3816 (assign a zone or a group of zones to a soft key number);
- connect the RJ45 In/Out to the corresponding RJ45 of the CC 3816.

The CC 3816 has 2 distinct audio buses:


- audio bus 1 (RJ45 Console 1 socket) to which can be connected one or more GXT 4000 or GX 3016 (address 1);
- audio bus 2 (RJ45 Console 2 socket) to which can be connected one or more GXT 4000 or GX 3016 (address 2).

Refer to the CC 3816 Manual for additional information.

Below is an example installation showing how several GXT 4000s connect together:



3 Standard configuration: selecting serial link address and host system type

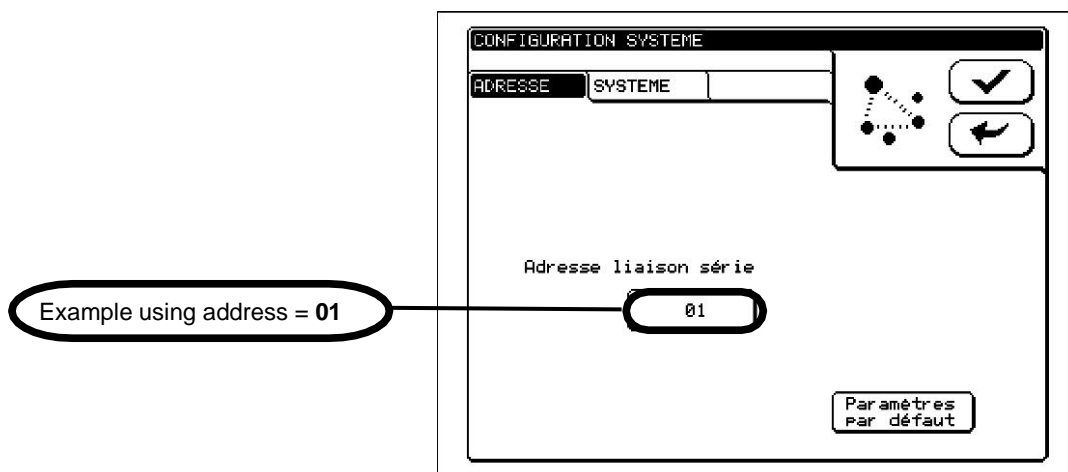
To configure the system host and address, press the **MENU** key or use the **SYSTEM** menu .

Click on the first tab, **ADDRESS**, to set the address to use to communicate with the host system via the serial link. For the CS 2500 central monitoring unit, there are 3 possible choices:

- **01**: console bus number 1 connected to the GX 2500 Control/Audio 1 RJ45 socket;
- **02**: console bus number 2 connected to the GX 2500 Control/Audio 2 RJ45 socket;
- **03**: console bus number 3 connected to the AUX XLR socket.

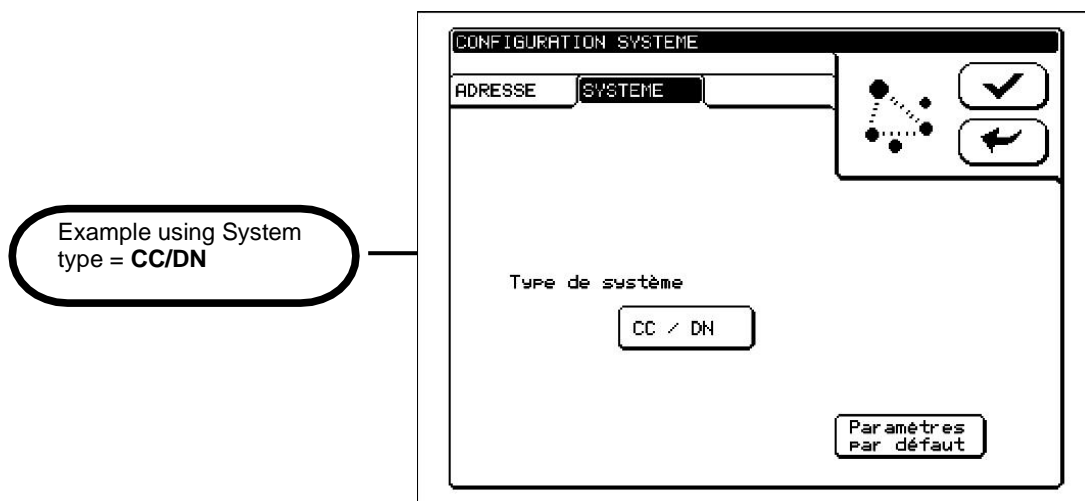
For the CC 3816 switch matrix, there are 2 possible choices:

- **01**: console bus number 1 connected to the Console 1 RJ45 socket;
- **02**: console bus number 2 connected to the Console 2 RJ45 socket.



Click on the second tab, **SYSTEM**, to set the type of host system the console will communicate with. There are 2 possible options:

- **CS 2500**: to connect a console to a CS 2500 central monitoring unit;
- **CC / DN**: to connect a console to a CC 3816 or DN 3816 switch matrix.



4 Programming the soft keys

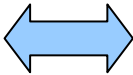
The GXT 4000 console's soft keys can be given different functions according to how they have been programmed:

- **Selecting zones:** a soft key is programmed to issue a request to switch the console's audio channel to a zone or group of zones on the site. Once the switch request has been accepted, the user can then make an announcement using the microphone, precede the same announcement with a chime, or manually broadcast a pre-recorded message;
- **Broadcasting a pre-recorded message:** pressing the soft key broadcasts a pre-recorded message stored in the console's memory card. A *select zone* request needs to be issued first of all, and the zone needs to have already been assigned;
- **Selecting zones & broadcasting a pre-recorded message:** this programming is a combination of the previous two methods. Pressing the soft key produces a switching request which, if accepted, is followed by the broadcasting of the pre-recorded message.

4.1 Zone selection

To direct the GXT 4000 console's audio channel to the required zone(s), the serial link address and the type of system to which the console and soft keys will be connected need to be programmed. These will then enable a link to be established between the physical zone required by the user, and the data the host system will process to switch the audio stream.

There are three steps involved:

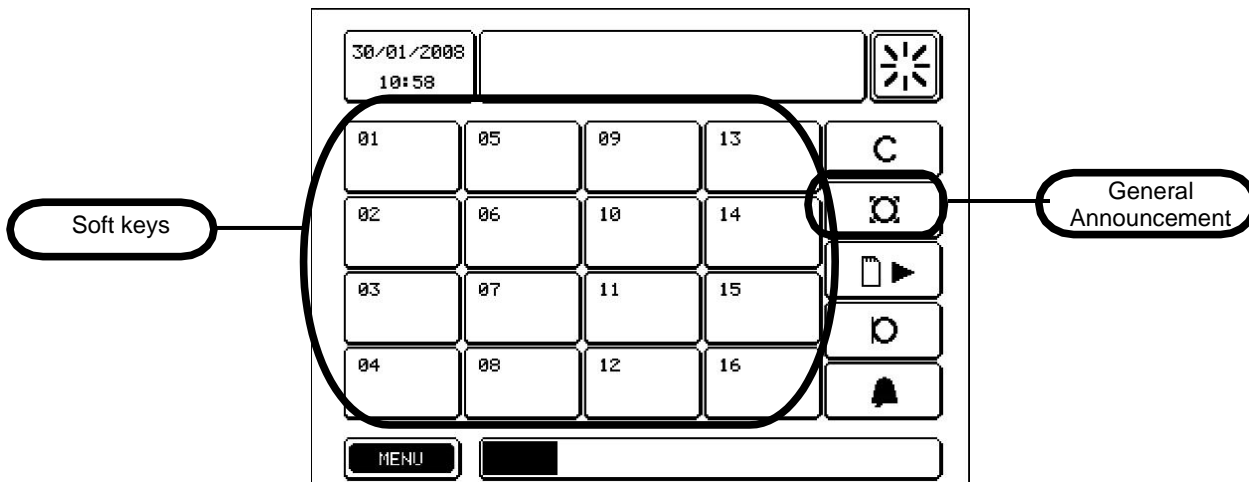
The GXT 4000 console			Serial link	Host system (CS 2500, CC 3816, etc.)
<p>Standard configuration</p> <p>Select serial link and host system addresses.</p> <p><i>The serial link address provides the number of the bus to which the console will be connected.</i></p>	<p>Step 1:</p> <p>Select the soft key: Soft key n° 1 to 64 (per configuration) + <i>General Announcement</i> soft key.</p> <p><i>The zone is located on the screen which the user physically presses.</i></p>	<p>Step 2:</p> <p>Assigning a soft key number: Key number 1 to 64 + <i>General Announcement</i>.</p> <p><i>The soft key number that uses the transfer element between the console and the host system.</i></p>	 <p><i>Transmission of required key numbers and state of associated lamps.</i></p>	<p>Step 3:</p> <p>Managing key numbers using the console bus:</p> <p><i>For each audio bus, the host system will make the link between the soft key number and the associated zone or group of zones.</i></p>

4.1.1 Step 1: Selecting the soft key

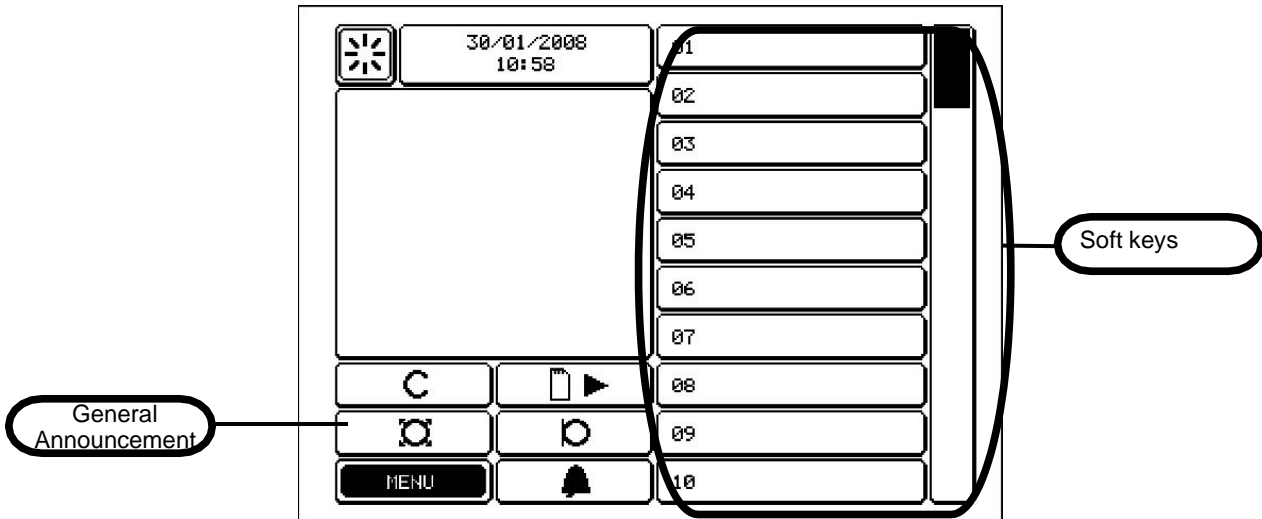
The two display modes on the GXT 4000 console's screen contain:

- the programmable *General Announcement* soft key;
- in mode 1, the first 16 programmable soft keys;
- in mode 2, the first 10 programmable soft keys;
- in both modes, the slider which provides access to the next set of soft keys (up to 64 depending on the configuration used).

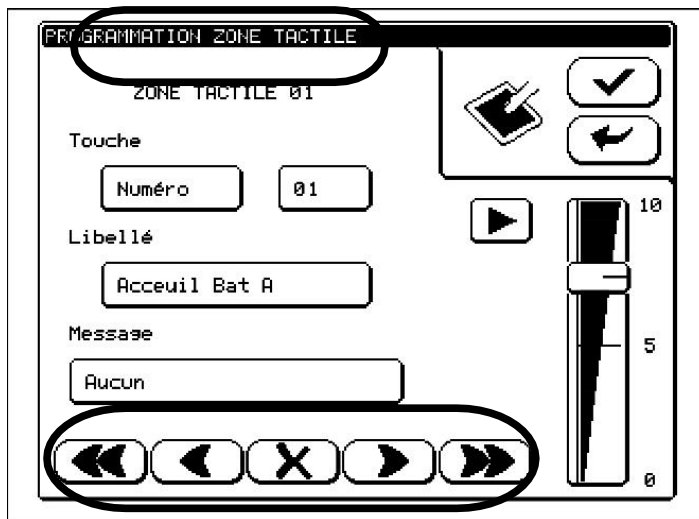
Mode 1



Mode 2



To program any given soft key, press the **MENU** key followed by the **KEY** menu



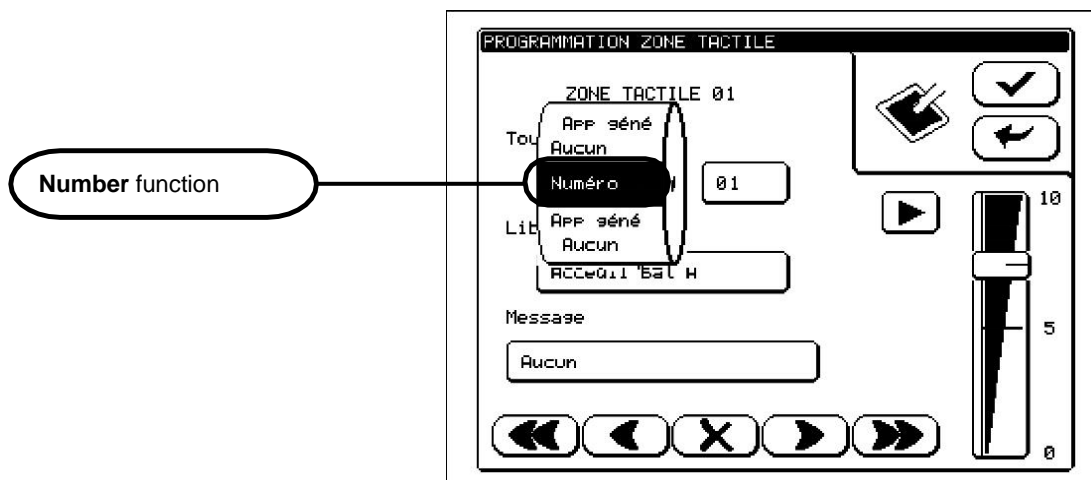
Next, simply scroll through the programming pages for each soft key (General Announcement + 1 through 64) using the arrows located at the foot of the page:

- : scroll down 5 pages/keys at a time through the numbered soft keys,
- : scroll down 1 page/key at a time through the numbered soft keys,
- : clear the program for an individual soft key or for all the soft keys,
- : scroll up 1 page/key at a time through the numbered soft keys,
- : scroll up 5 pages/keys at a time through the numbered soft keys.

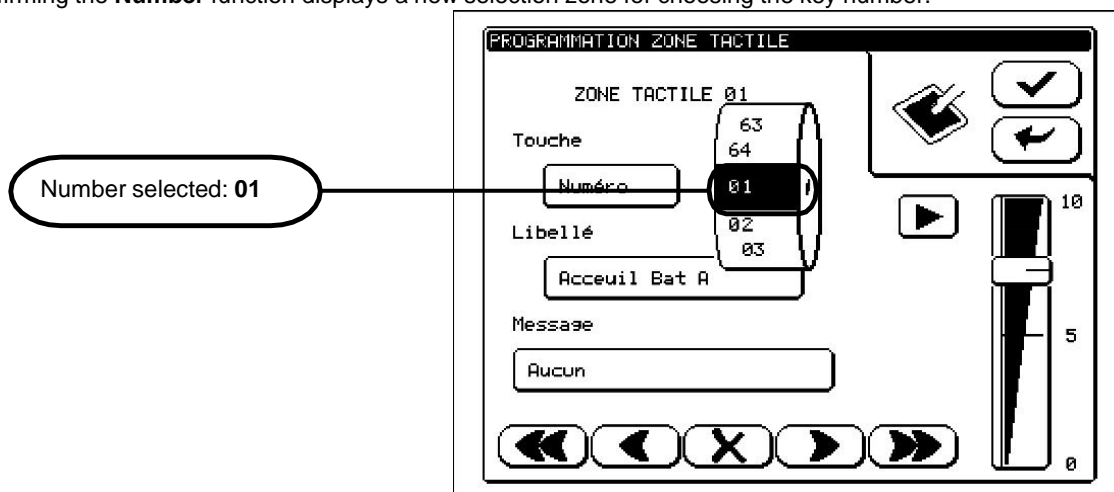
4.1.2 Step 2: Assigning a soft key number

A soft key may be assigned three functions:

- **None**: pressing the soft key does not issue any request to select zones or groups;
- **Number**: assigns a soft key number to a soft key. According to how it is configured, the host system will make the link between soft key number and the zone or group of zones to be selected;
- **General announcement**: assigns the general announcement function to the soft key.



Confirming the **Number** function displays a new selection zone for choosing the key number.



4.1.3 Step 3: Managing key numbers using the console bus

4.1.3.1 CS 2500 Configuration

IMPORTANT: Ensure that the CS 2500's software version is version V4.50 or greater

The CS 2500 central monitoring unit then makes the connection between the soft key number and the associated zone (or group of zones).

The configuration menu may be accessed via the general menu: **System config > Config GX keys.**

```
MENU      16:22
Mode manuel  ▲
Confis CS 2500
> Confis systeme ▼
```

```
CONFIG SYSTEME
Chargeur batteri ▲
Confis CS2003Ω
> Touches GX conf ▼
```

There is then the option of configuring one of the three console buses capable of being connected to the CS 2500 central monitoring unit:

- Bus number 1: GX1 audio bus (the GX 2500 Control/Audio 1 RJ45 socket) (address 1);
- Bus number 2: GX2 audio bus (the GX 2500 Control/Audio 2 RJ45 socket) (address 2);
- Bus number 3: AUX audio bus (AUX XLR socket) (address 3).

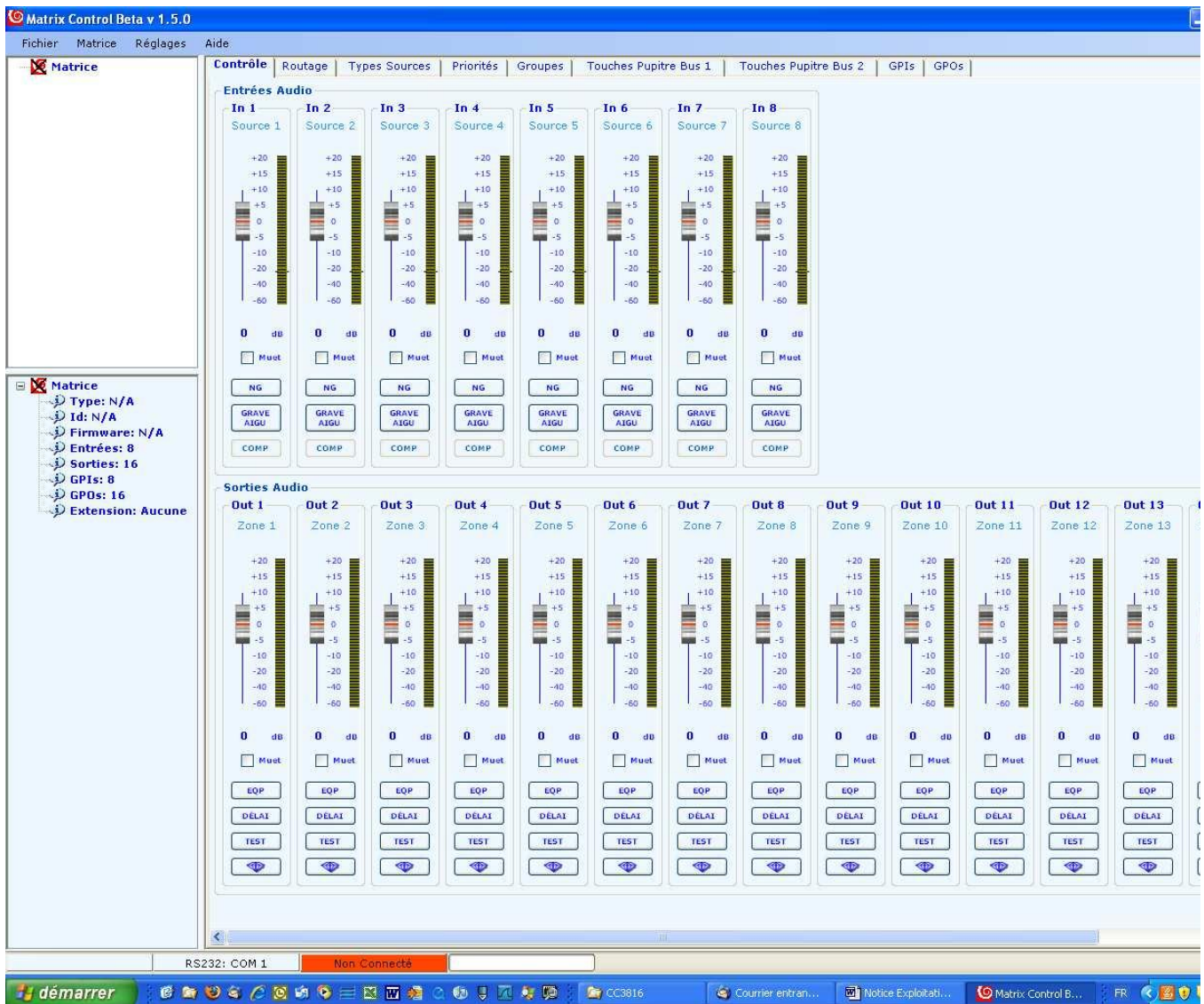
```
TOUCHES GX CONF
Numero bus: 1
```

```
TOUCHES GX CONF1
> Touche 001 Z001 ▲
Touche 002 Z002
Touche 003 Z003 ▼
```

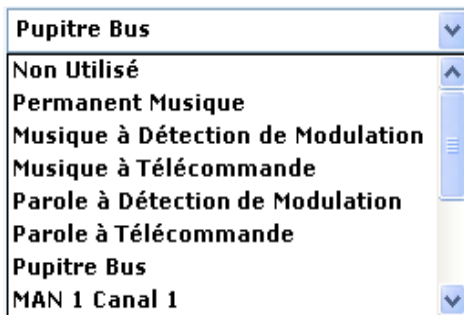
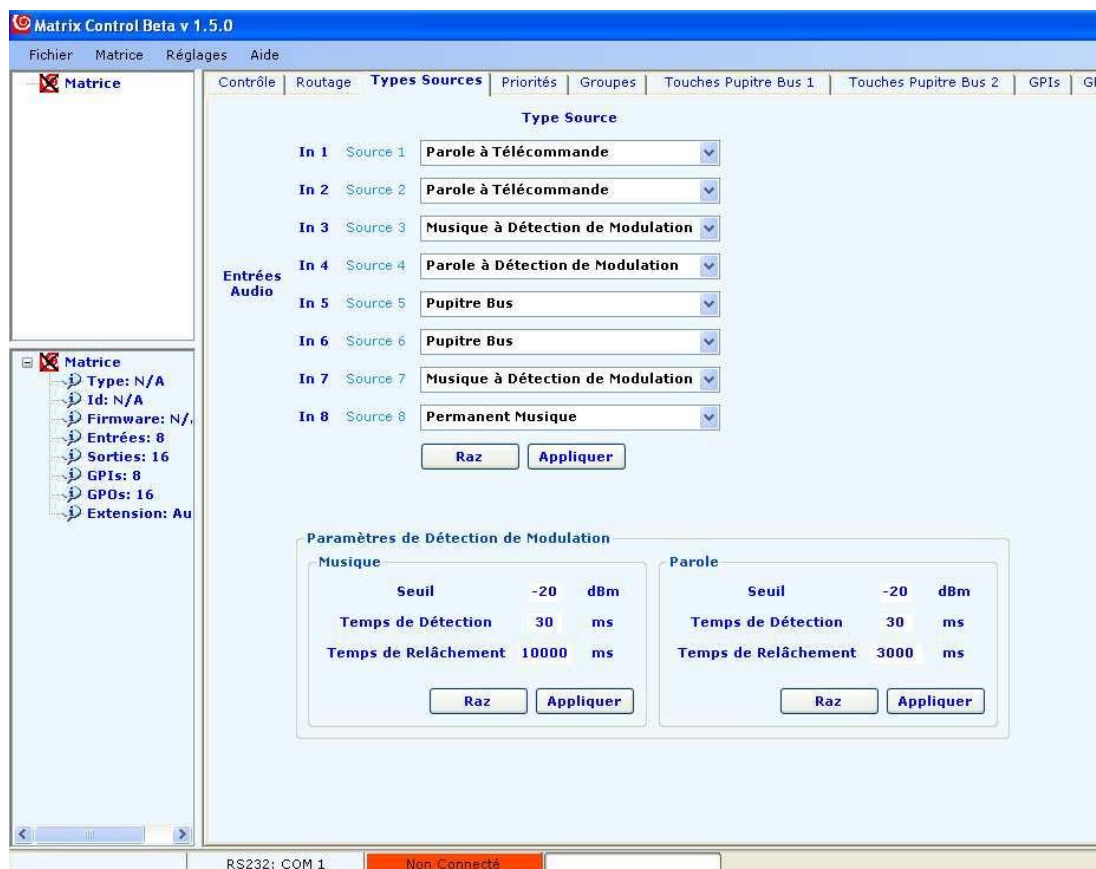
For the selected bus, the number of the required zone or group then needs to be assigned to the number of the key to be programmed (Key 001 to key 064).

4.1.3.2 Configuration of the CC 3816

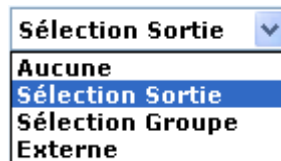
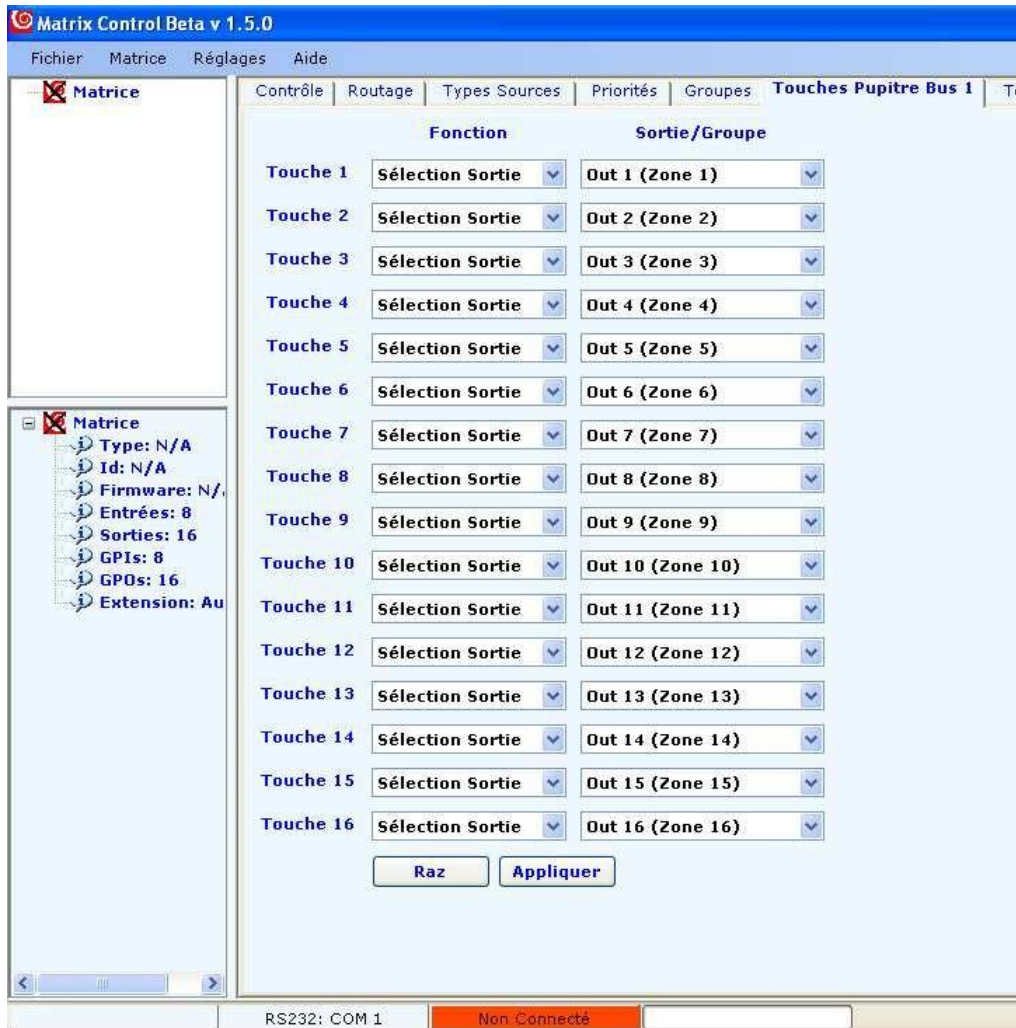
The Matrix Control software is an application used to configure all of the CC 3816 matrix parameters; the screenshot below shows the application's user interface:



To configure the matrix inputs, first select the **Source type** tab. The audio inputs In5 and In6 correspond respectively to the RJ45 audio inputs on Console 1 and Console 2 (if consoles are plugged into these inputs, it is important that nothing is connected to input terminals 5 and 6). The **Bus Console** source type provides communication with a console bus which itself needs to be set to address 01 when connected to Console 1 (In 5) or to address 02 where connected to Console 2 (In 6).



The user then has the option of configuring one of the two console buses that can be connected to the CC 3816 matrix via the **Bus 1 Console Keys** and **Bus 2 Console Keys** tabs. Whichever bus is selected, the function (Select Output or Select Group) and the number of the output or group of outputs required should be assigned to the number of the soft key to be programmed (key 1 through key 16).



4.1.4 Example of how to set up zone selection

For a spoken announcement to be broadcast in zone 8 (matrix output number 8) by pressing soft key n° 02 on a GXT 4000 console connected to the Console 1 input of a CC 3816 matrix, the following needs to be done:

> On the GXT 4000 console:

In the **SYSTEM** menu:

- First set the serial link address to 01 (connect to Console 1);
- Then select the type of host system, CC or DN (CC 3816 switch matrix).

In the **KEY** menu:

- Use the arrows to navigate to the **SOFT KEY 02** programming page;
- Specify an available soft key number, for example **Number** and **01**.

> On the CC 3816 matrix:

First select the Matrix Control tab **Source Types**

- Set the source type for input 5 (In 5) on the Bus Console (connect to Console 1).

Then under the Matrix Control tab **Bus 1 Console Keys**

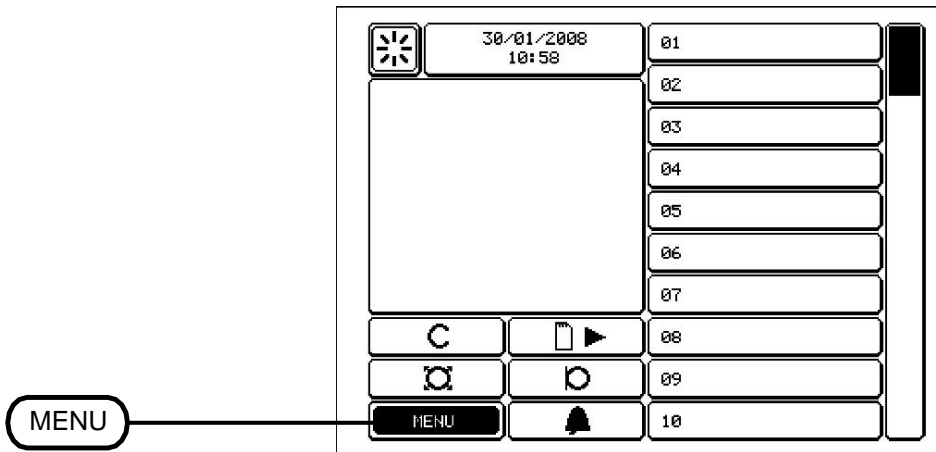
- Program Key 1 by selecting Function = Select Output and Output/Group = Out 8.

Thus a press of the console's soft key 02 will switch the CC 3816 matrix input In 5 (the GXT 4000 audio signal) to output number 8 of the CC 3816 matrix.

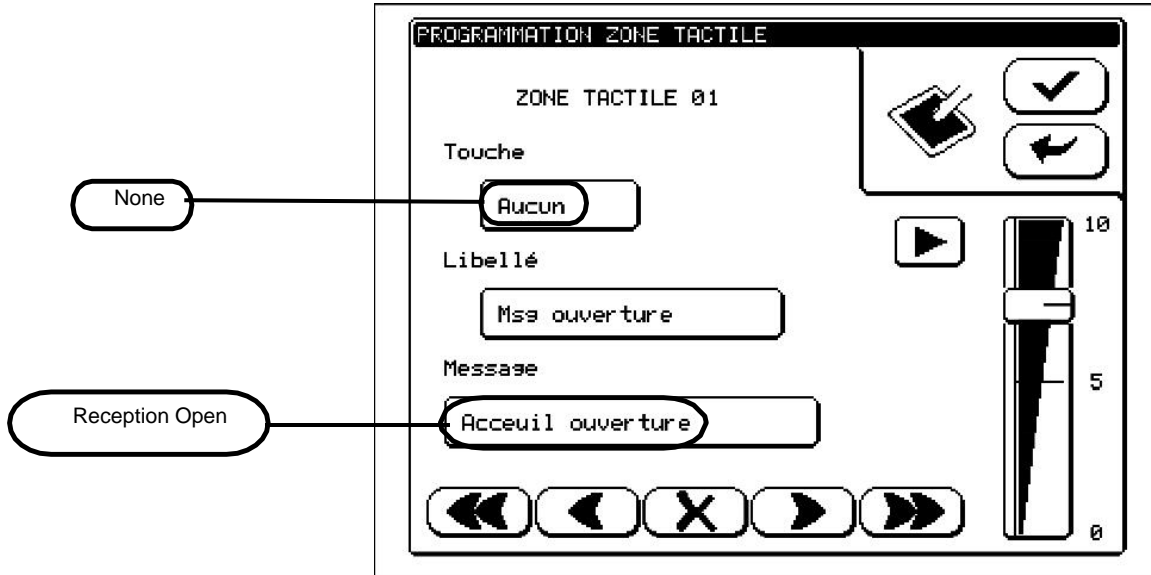
4.2 Broadcasting a pre-programmed message

Once a message is assigned to a soft key, the message may then be broadcast by pressing the soft key; this will only work, however, if the zone is already selected.

To program a soft key, press the **MENU** key followed by the **KEY** menu .



The programmed soft key will not then be able to switch zones (as this is set to **None** in the key programming screen), but will instead start broadcasting the message in the preselected zones.



In the above case, pressing soft key 01 will cause the **Reception Open** message to be broadcast in whichever zones have already been selected.

4.3 Selecting zones & broadcasting a pre-programmed message

Once a message and a soft key number are assigned to a soft key, the message can then be broadcast in the zone (or group of zones) associated with the key number, immediately the soft key is pressed.

A combination of the two previous methods (cf. § 4.1 and 4.2) is used to program the soft keys in this way. The zone is selected by pressing the soft key; if this request is accepted, the pre-programmed message will then be broadcast.