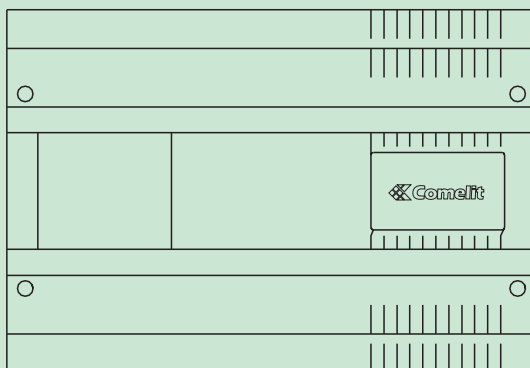


MT CT 01



Telephone switchboard Art. 2906
Expansion cards
Art. 2907 - 2908 - 2909 - 2913

07-2006

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1 SAFETY REGULATIONS

Read the following regulations carefully because they contain important information which regards the safety of both people and things.

REGULATIONS

Only skilled personnel are allowed access to the inside of the switchboard. It is forbidden to use the telephone switchboard for purposes other than those for which it has been designed. The electrical installation to which the switchboard will be connected must conform to the standards in force.

WARNINGS

In case of a fault or malfunction, disconnect the power supply by removing the mains plug or by means of the mains switch. Only contact skilled personnel for any possible faults. Whilst waiting for the repair or replacement, the switchboard can operate in emergency mode. To do this, simply disconnect the 220V power supply.

POWER SUPPLY

The switchboard must be supplied with a mains voltage of 200...250 V ~. It is recommended to dedicate a two-pole circuit-breaker for exclusive use of the switchboard.

Should there be a mains power failure, the switchboard goes into **EMERGENCY mode**. In this way, the first telephone line is redirected directly to branch one, whereas the second line, if expansion 2908 is mounted, goes to branch two. Operation of the telephone service is therefore guaranteed, whereas the entry phone service remains excluded until return of the power supply.

MAINTENANCE

Any maintenance operations on the switchboard must be carried out by skilled personnel.

2 INTRODUCTION

GENERAL INFORMATION

The system is able to manage:

- Self-learning of the expansion cards.
- Putting an outside line or an extension on hold by means of button R.
- Call waiting for extension, entry phone and telephone calls.
- Conference with three extensions or two extensions + outside line.
- Configuration of a branch as FAX, ANSWER PHONE, TELEPHONE FAX or simple TELEPHONE.
- Programming of the number of branch bell rings following an entry phone call.
- Configuration of max. 5 groups of telephones.
- General internal or group call.
- Room monitor for room control.
- Independent service alarm clock for each branch.
- Possibility of making systems with two partitions.
- Separate DAY/NIGHT operation for each partition. The change of scenario takes place manually by keying in a code or automatically according to pre-recorded times.
- Management of max. 5 simultaneous conversations. For example, with a switchboard equipped with 2 outside lines, 8 branches and the entry phone card, you could have 2 pairs of branches having an internal conversation, 2 branches in conversation with the outside line and 1 branch in conversation with the external unit.

- HOME/OFFICE operation to make it possible to simplify operation of the switchboard.
- Selection from a branch of the first free outside line or of a specific outside line.
- Directory with 40 common speed dialling numbers. It is possible to define speed dialling numbers as SOS. These will not be subject to any filters on the area codes activated in the switchboard.
- Filter on telephone calls for type of carrier and area codes.
- Access to TELECOM services, including the SMS message ones.
- Direct connection of a branch to the outside line just by lifting the microtelephone.
- Management of the caller ID (call identifier- standard ETSI).
- Choice among 3 pieces of music on hold (Spring by Vivaldi, Catalan Melody or Over the Rainbow), with the possibility of listening to these.
- Activation, also remotely, of 3 auxiliary relays, with the possibility of controlling their state.
- Direct connection to the outside line for the telephones connected to branches T1 and T2.
- Connection to a PC by means of RS232 to speed up programming.
- Remote SOS line function which, in case of an alarm, calls up to 5 programmed telephone numbers and sends a pre-recorded message when there is a reply.
- Follow-me function from telephone line to telephone line.
- Follow-me function from external unit entry phone to telephone line (follow-me).
- Possibility of configuring an entry phone call input as "floor door call".
- "Courtesy message" function.
- Firmware updating (local or remote) and switchboard programming remotely by means of PC or telephone.
- Division of the programming in CONFIGURATIONS and ENABLEMENTS. All the CONFIGURATIONS must take place after inserting a personalisable password and only from branch 1.
- Automatic MODEM and FAX recognition.
- DISA function for automatic routing of a call.
- Selection of the country of use to modify some of the switchboard setting and therefore adapt to European markets.
- Reply for absent on extension or telephone call addressed to the individual extension.
- "Do not disturb" function.
- Follow-me function on extension, either immediate or after x rings.
- Possibility of disabling the filter on the carriers and the area codes of the outside line calls by means of a code + personalisable password.
- Booking an engaged extension.
- Booking an engaged outside line.
- Transfer of a telephone call with or without offer.
- "Capturing call" service.
- Possibility of including yourself in a conversation if the branch called is enabled.
- RIDO service for putting multiple lines on hold.

Table 1: Main performances of the switchboard and of the expansions

ARTICLE	SERVICES OFFERED
2906 basic card	Basic telephone services, day night service, automatic day night service, alarm clock, filters, STS, automatic fax recognition
2907 branch expansion	4 branches are added
2908 outside line expansion	1 outside line, line-on-line follow-me is added
2909 traditional entry phone expansion	Entry phone services, entry phone Follow-me, remote relay check
2913 message expansion	Courtesy message, DISA, remote SOS line

DESCRIPTION OF THE MAIN FUNCTIONS

PARTITIONS:

This is meant as the possibility of distributing the switchboard resources over 2 distinct systems called PARTITIONS. Outside lines, telephones branches or telephone call buttons can be associated to each one to allow the same living unit to be divided into two distinct areas.

GROUPS OF BRANCHES:

This is meant as the possibility of dividing the telephone branches connected to the switchboard into groups. It is possible to define up to a maximum of 5 of these, where a branch can belong to different groups. (See paragraph 8.10 to create a group, see paragraph 2.5 for the call.)

CHARACTERISATION OF THE TELEPHONE BRANCH: (See paragraph 8.6)

The telephone branch connected to the switchboard can be configured so that it is recognised as:

- Normal BCA telephone
- Operator Post telephone. This has authorisation to carry out all enablement / disablement operations of the switchboard services (COURTESY MESSAGE - FAX RECOGNITION – DISA etc...)
- Fax. The incoming calls recognised as Fax will be routed over this branch.
- Fax Telephone. Incoming calls of both Fax and vocal type are routed over this. It is a configuration suitable for multi-purpose apparatus.
- Answer phone

DAY / NIGHT SCENARIOS:

It is possible to establish two operating scenarios, defined as DAY and NIGHT SCENARIO, which differ in:

- Different configuration of the incoming or outgoing outside lines per individual the branch.
- Different distribution of the entry phone calls over branch telephones.
- Different characterisation of the extension branches.
- Different activation of the COURTESY MESSAGE – ENTRY PHONE FOLLOW-ME and LINE-TO-LINE FOLLOW-ME services.

Passing from one scenario to the other takes place manually on keying in a command (See paragraph 5.1), or in automatic mode according to times established by the user (See paragraph 5.2).

HOME / OFFICE OPERATION: (See paragraph 8.5)

It is possible to set the switchboard so that it functions in HOME or OFFICE mode:

- HOME: this simplifies the call operations on an outside line, reply for absent and call capturing. It is recommended for home applications.
- OFFICE: this is the mode recommended for office and company applications and is the factory setting of the switchboard.

DISA:

This is the service allowing automatic routing of the call from the outside line. The caller can select the branch or groups of branches to converse with directly by means of a DTMF code (See paragraph 5.5).

COURTESY MESSAGE:

This is the service for which the switchboard gives a pre-recorded “welcoming message” pre-recorded, when a call arrives on the outside or door entry line (See paragraph 5.3).

FOLLOW-ME:

This is the service which allows an entry phone call on the outside line to be transferred to a number programmed by the user (*See paragraph 5.7*).

REMOTE SOS LINE:

This is the service which allows a list of telephone numbers to be called if an alarm signal is present on the switchboard (*See paragraph 5.9*).

LINE-TO-LINE FOLLOW-ME:

This is the service which allows a call from an outside line to be transferred on the other outside line to a telephone number programmed by the user (*See paragraph 5.8*).

AUTOMATIC FAX RECOGNITION:

This is the service allowing the fax on a branch characterised as Fax or Telephone Fax to be routed automatically (*See paragraph 5.4*).

REMOTE RELAY CHECK:

This is the service which allows the relays present on the entry phone expansion card art.2909 to be activated from the outside line and possibly to control their state of closed or open (*See paragraph 5.6*).

LOCAL PROGRAMMING:

This allows configuration of the switchboard to be carried out by means of a RS232 serial line, using the Configuration Manager software Art.1296.

REMOTE MANAGEMENT:

This allows both updating of the firmware and configuration of the switchboard from an outside line (*See paragraph 9*).

FLOOR DOOR CALL:

The signal of an entry phone call present on terminals S1 / S2 / S3 / S4 is treated as a simple signal instead of the standard call which foresees audio connection with the external unit (*See paragraph 8.17*).

RIDO (RIsposta DOppia [DUal ANswer]):

This is the service allowing branch 801 which is in the situation of intermediate call, to serve a further call coming from an outside line.

TYPES OF APPARATUS

The switchboard can operate with BCA keypad telephones (decade or DTMF), cordless (CT1, CT2, DECT), answer phones, faxes, etc.

Furthermore, it is possible to connect the COMTEL telephone Art. 1926 - 4921 - 4922 in the Operator Post version or branched user.

3 INSTALLATION

RECOMMENDATIONS

The switchboard must be installed in a closed room, with a temperature which varies between 0 and 40 °C and with non-condensing relative humidity between 0% and 85%.

For the requirements of authorisation from the telephone carrier company to be satisfied, the switchboard must be connected to the telephone jack by means of a telephone cable and must have a removable plug. Do not run the telephone cables near the 220 V network.

GENERAL INFORMATION

The configuration commands are carried out from branch 01 with a multi-frequency telephone. As in all the operations foreseen on this switchboard, the command is only accepted if the continuous command waiting tone is present in the receiver. If the timed dissuasion tone is present you must hang up the receiver and repeat the operation.

BASIC SWITCHBOARD 2906

The switchboard is contained in a 12 DIN module box. To be able to access the connection terminals, remove the side cover as shown in Fig. 1.

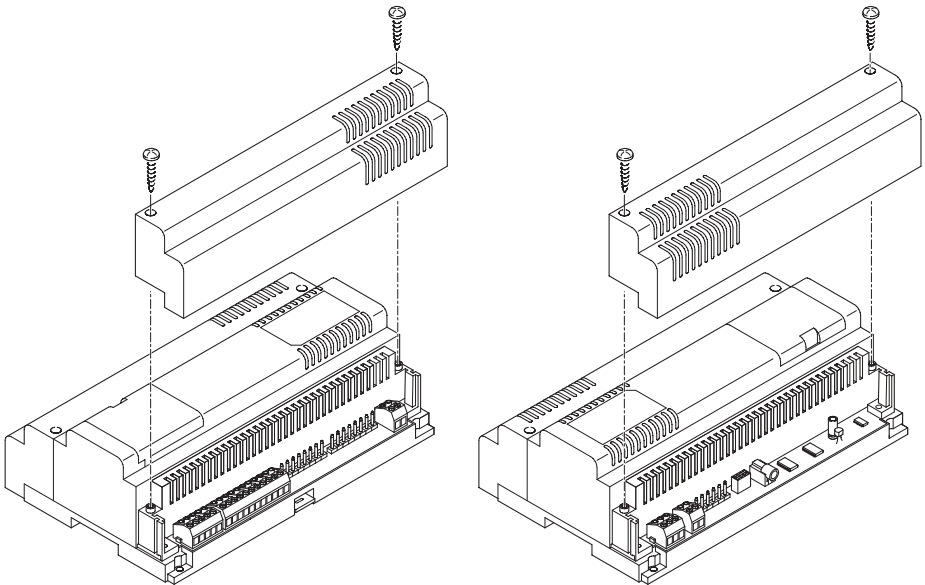


Fig. 1: access to the terminal board compartment

The plug of mains power supply must be disconnected during the system cabling and connection operations. Connection to the telephone apparatus (Telecom lines and branch apparatus) must be carried out using a telephone cable. The polarity of the connection has no importance and can be either mains side or branch side.

The basic installation diagram is given below (Diagram 1).

The connection terminals on the interface are indicated in Table 2.

Table 2: Switchboard terminals and associated expansion cards

TERMINAL	FUNCTION	EXPANSION
EARTH	Earth terminal	
L1 - L1	Terminals of line 1	
L2 - L2	Terminals of line 2	2908
5V	5V power supply terminal for telephone OP	
RX	RX terminal for OP	
TX	TX terminal for OP	
T1	Terminals of branch 1.	
T2	Terminals of branch 2.	
T3	Terminals of branch 3.	
T4	Terminals of branch 4.	
T5	Terminals of branch 5.	2907
T6	Terminals of branch 6.	2907
T7	Terminals of branch 7.	2907
T8	Terminals of branch 8.	2907
2	Sound towards external unit entry phone microphone	2909
3	Sound towards external unit entry phone loudspeaker	2909
4	Entry phone system ground	2909
S1	Entry phone 1 call input signal	2909
S2	Entry phone 2 call input signal	2909
S3	Entry phone 3 call input signal	2909
S4	Entry phone 4 call input signal	2909
+24	Output voltage +24Vdc (max 30mA)	2909
GND	Ground	
AL	Alarm input for remote SOS line service	2913
N1	Relay contact 10A (can be activated with DTMF digit #)	2909
C1	Relay contact 10A (can be activated with DTMF digit #)	2909
N2	Relay contact 1A (can be activated with DTMF digit *)	2909
C2	Relay contact 1A (can be activated with DTMF digit *)	2909
N3	Relay contact 1A (can be activated with DTMF digit 5)	2909
C3	Relay contact 1A (can be activated with DTMF digit 5)	2909
230VAC	Mains power supply 230V (on the terminal external poles)	
BAT 12V	Input for emergency battery (max 80mA)	
Jack Connector	Input for external music	

Diagram 1 - CT 08A: System with 1 analog line and 4 branches

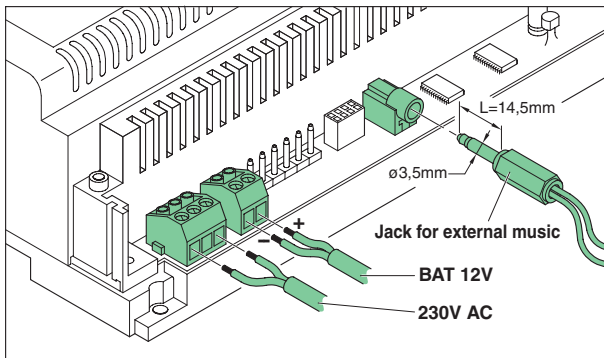
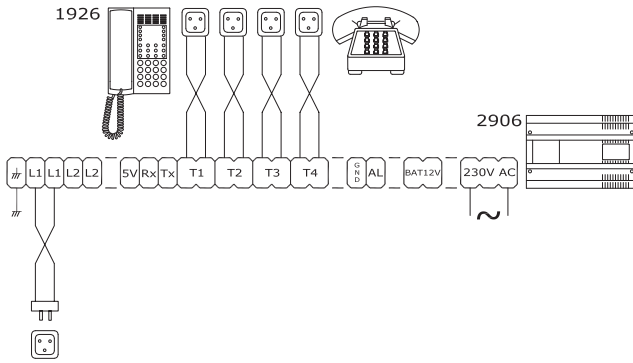


Fig. 2: 230VAC power supply connection, 12V battery, Jack for external music.

EXPANSION CARD FOR ANALOG OUTSIDE LINE ART. 2908

This card allows a second Telecom telephone line to be connected to the switchboard.

A single expansion 2908 can be inserted for a maximum of two telephone lines. In the case of a power supply failure, the second telephone line is automatically connected on branch T2.

Installation of the expansion

Before proceeding, the 220V voltage to the switchboard must be removed.

At this point, according to what is indicated in Fig. 3:

1. Remove the side covers and the central cap from the switchboard.
2. Remove the cap of the connector which will house the card.
3. Insert card 2908.
4. To ensure card stability, it is necessary to fix it using the spacer provided.
5. Put back the covers and the cap.
6. Put back the 220V power supply.
7. The card will be recognised automatically.

Default configuration

Once the card is inserted, the configuration of the branches in relation to line 2 is as follows:

- All the branches are enabled to receive calls from line 2
- All the branches are enabled to outgo over line 2

What needs to be programmed in the case of card replacement:

No programming is needed - the configurations / enablements of the second outside line are kept.

ISDN 1 SYSTEM BASIC ACCESS WITH TELECOM NT1 PLUS INTERFACE

In the case of a telephone system with two ISDN lines (basic access) with only one telephone number and a single group of branches which reply and call on line 1 and 2 indifferently, it is necessary to configure the Telecom NT1 PLUS interface appropriately.

Here is an example: imagine that the user the user Rossi has a basic ISDN access with NT1 PLUS interface.

On the two analog lines (1 and 2) of the interface a 2906 switchboard is attached complete with second expansion line. The telephone number of Mr Rossi is 06-760000.

With the default configuration of NT1 PLUS, by calling number 06-760000 both lines 1 and 2 ring. The first which is used for the reply frees the second.

For correct use of the telephone switchboard it is necessary to programme the NT1 plus so that by calling number 06-760000 only one of the two lines rings - the first which is found to be free.

To programme the Telecom interface, extended configuration of incoming calls must be carried out:

par. 6.1.1.1 of NT1 PLUS manual

- disconnect the mains power supply
- open the terminal board compartment and disconnect the line telephone cable
- reconnect the mains power supply
- connect a telephone to the analog output a/b 1 or a/b 2

par. 6.2.1 of NT1 PLUS manual

- digit the multi-frequency keys # * # #*#

par. 6.2.2 of NT1 PLUS manual

- carry out the assignment command: * 05*1#

after the vocal confirmation of command acceptance, you can reconnect the line telephone cable:

- disconnect the mains power supply
- open the terminal board compartment
- connect the line telephone cable
- close the terminal board compartment
- connect the mains power supply

NOTE: the above steps refer to the AETHRA installation manual of NT1 plus rev. 0.

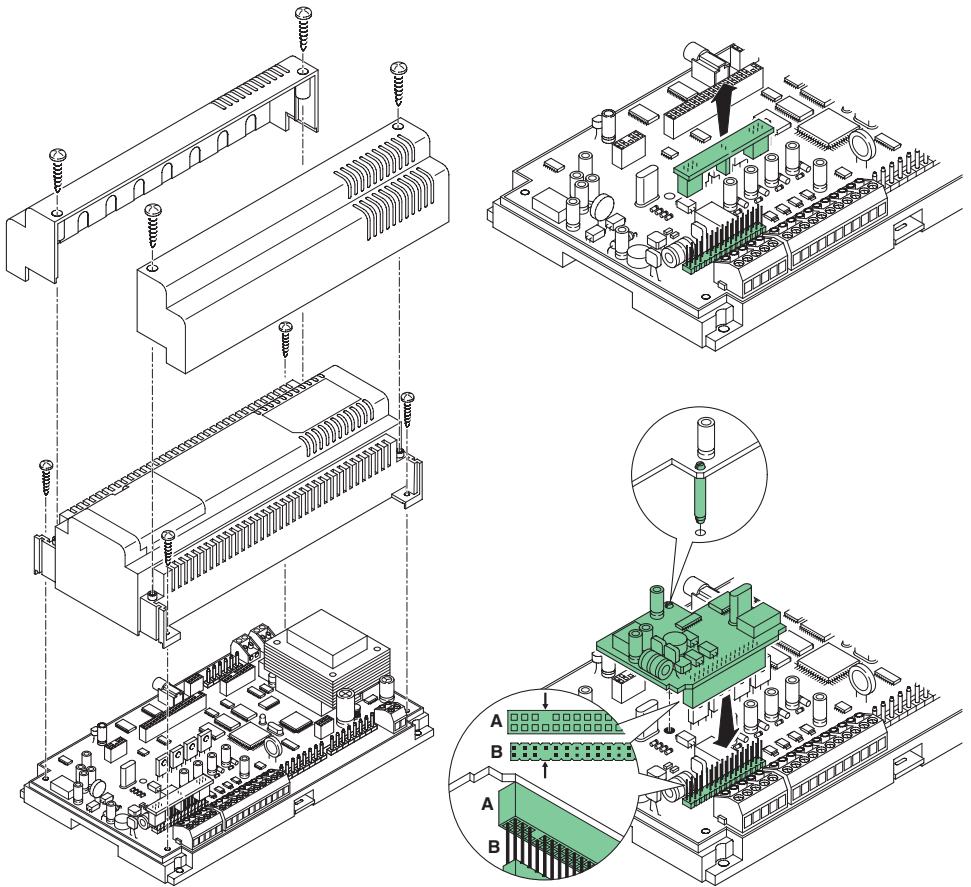
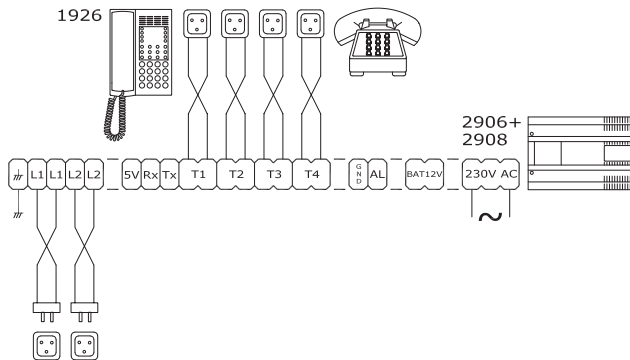


Fig. 3: installation of second line expansion

SYSTEM WITH TWO TELEPHONE LINES

Diagram 3 shows the installation diagram of a system with two telephone lines and four branches.

Diagram 3 - CT 09A: System with 2 analog lines and 4 branches



BRANCH EXPANSION CARD ART. 2907

By inserting an expansion card 2907, it is possible to expand the number of extension branches to 8.

Installation of the expansion

Before proceeding, the 220V voltage to the switchboard must be removed. At this point, according to what is indicated in Fig. 4 :

1. Remove the side covers and the central cap from the switchboard.
2. Insert card 2907 in the special housing.

BE CAREFUL to respect the correct insertion polarity.

3. Put back the covers and the cap.
4. Reconnect the 220V voltage to the switchboard.
5. The card will be recognised automatically.

Default configuration

Once the card is installed and configured, configuration of the branches added is as follows:

- They are enabled to receive and call over the lines present in the switchboard
- If the entry phone expansion (2909) is present, they are enabled to receive calls from the external unit
- They are configured as user branches

What needs to be programmed in the case of card replacement:

No programming is needed - the configurations / enablements of the branches are kept.

SYSTEM WITH EIGHT BRANCHES

Diagram 4 shows the installation diagram of a system with two lines and 8 branches.

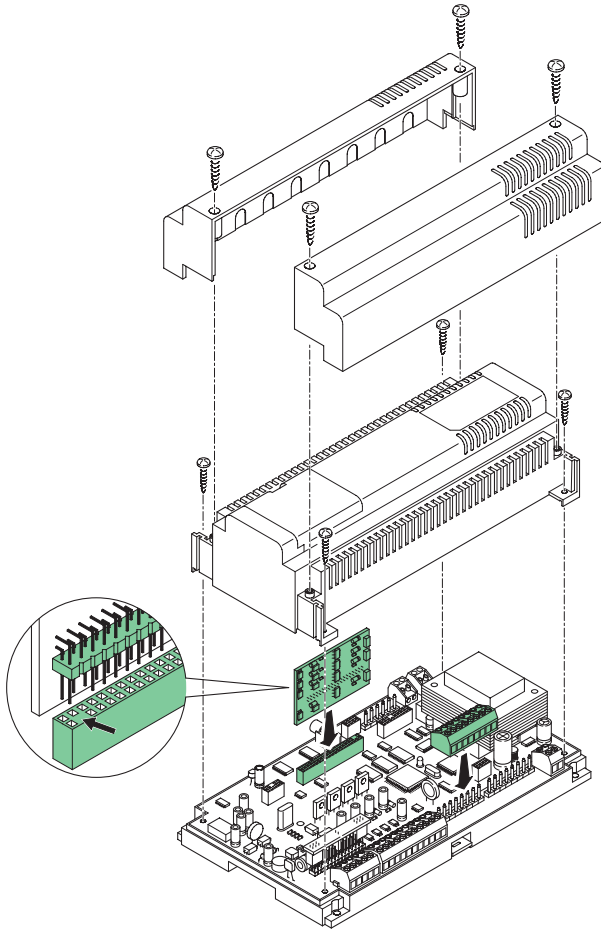
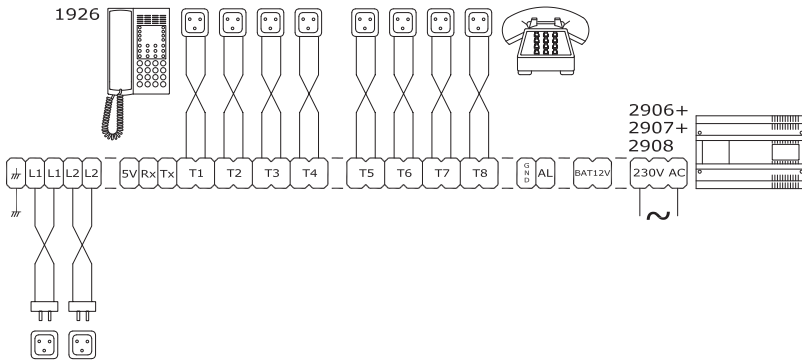


Fig. 4: Installation of card 2907

Diagram 4 - CT01A: System with 2 analog lines and 8 branches



ENTRY PHONE INTERFACE EXPANSION CARD ART. 2909

This card allows the telephone switchboard to be connected to an entry phone system. In this way it is possible to reply to entry phone calls directly from the telephones and control door opening, turning on lights, etc. from these.

It is possible to manage four external unit call inputs or, alternatively, to configure these as floor door call.

Installation of the expansion

Before proceeding, the 220V voltage to the switchboard must be removed. At this point, according to what is indicated in Fig. 5:

1. Remove the side covers and the central cap from the switchboard.
2. Insert card 2909 in the special housing.
3. Put back the covers.
4. Reconnect the 220V voltage to the switchboard.
5. The card will be recognised automatically.

Default configuration

Once expansion 2909 is installed, the configuration is as follows:

- Four external unit calls are configured
- All the telephones are enabled to receive the entry phone calls
- The Door Opener time is one second
- The auxiliary relay outputs are monostabl

What needs to be programmed in the case of card replacement:

Adjustment of the external unit volumes is necessary.

Relay controls

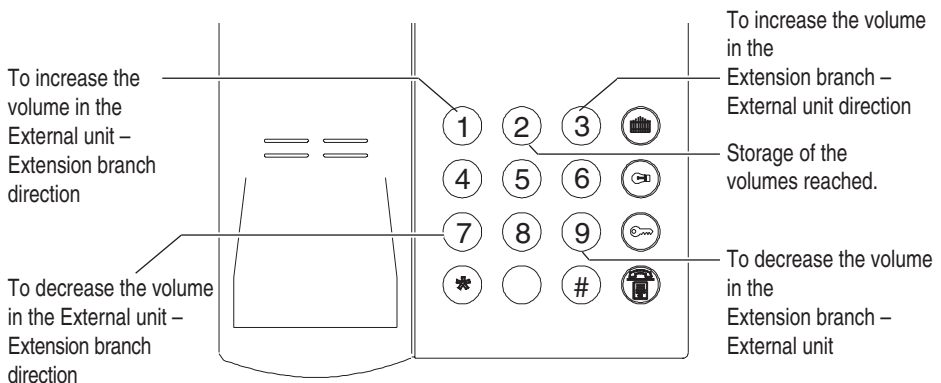
With the microtelephone lifted, it is possible to activate the following relay outputs:

Table 4: Description of the relays present on card 2909

TERMINAL	DESCRIPTION	POWER	COMTEL	BCA	NOTES
N1 – C1	“Door Opener” Control	Relay Max 7 A 80Vdc – 50Vrms		#	The output can be configured as bistable or as monostable. This output can be activated remotely remote on a call from the telephone line.
N2 – C2	“Stair Lights” control	Relay Max 1A - 24Vdc – 120Vrms		*	The output can be configured as: - Bistable or as monostable. - Internal Lighting-up use or generic use. If configured as Internal Lighting-up, the output cannot be activated remotely with the Relay Remote Check service.
N3 – C3	“Gate opener”	Relay Max 1A - 24Vdc – 120Vrms		5	The output can be configured as bistable or as monostable. This output can be activated remotely remote on a call from the telephone line.

Adjustment of external unit volume

The sound of the entry phone interface has been designed in full-duplex mode, according to which the person speaking can also listen to their interlocutor. It has volumes preset by Comelit, and once a conversation with the external unit is set up, it is in any case possible to adjust them directly from the telephone by using buttons 1 – 7 – 3 – 9, according to the method shown in the figure below. 17 adjustment levels are possible, and each time the button is pressed, the volume is changed by 1 level. It is necessary to digit number 2 to store the volume levels reached.



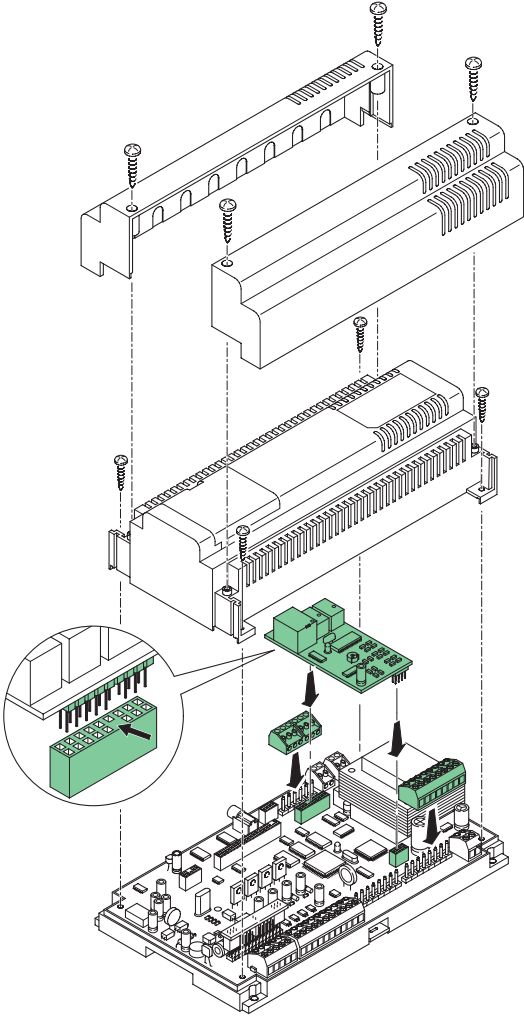


Fig. 5: Installation of entry phone expansion

Diagram 5 - CT 02A: COMELIT entry phone system with 4 calls from external unit

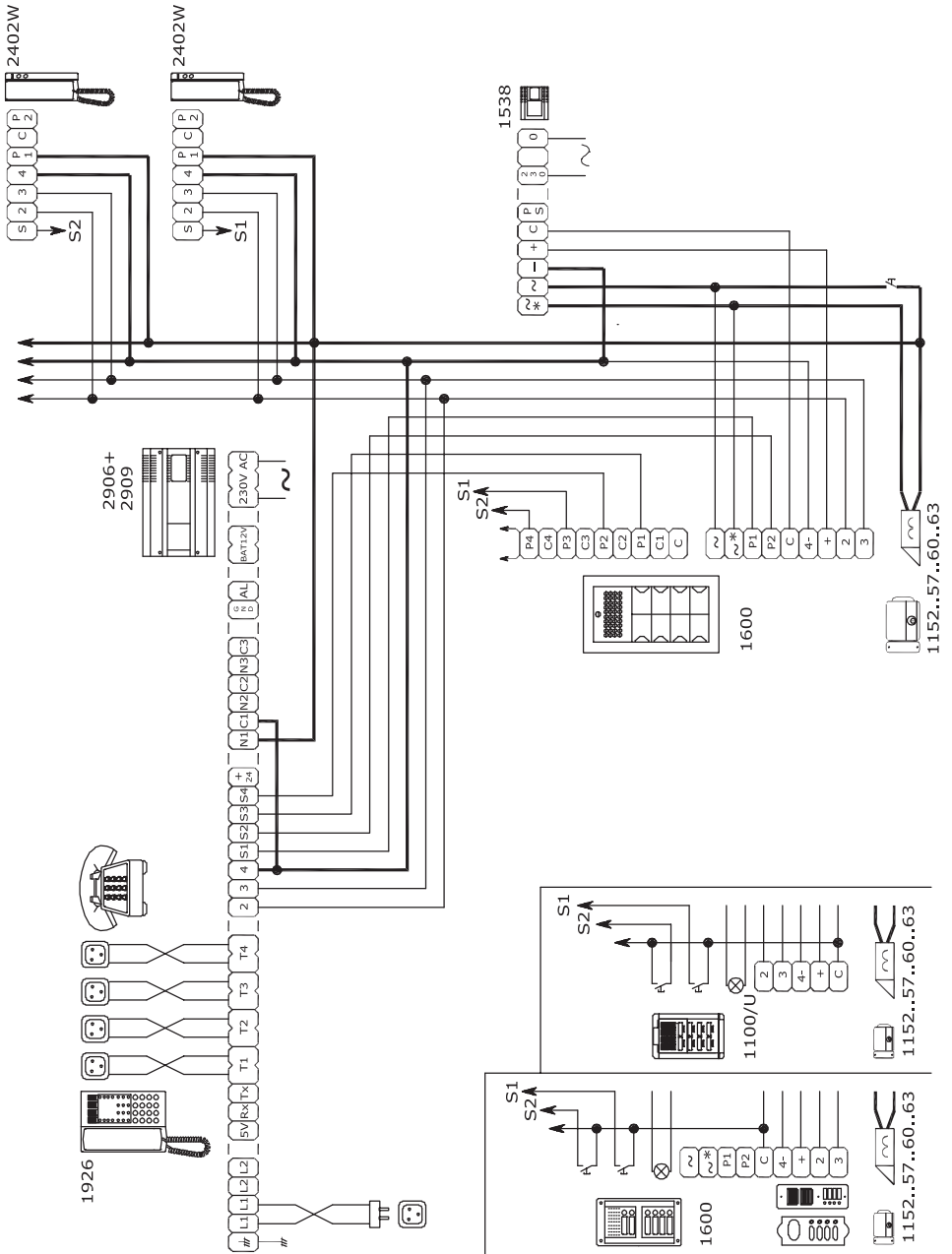


Diagram 6 - CT FA: COMELIT entry phone system call from external unit, floor door call, Stair Lights control

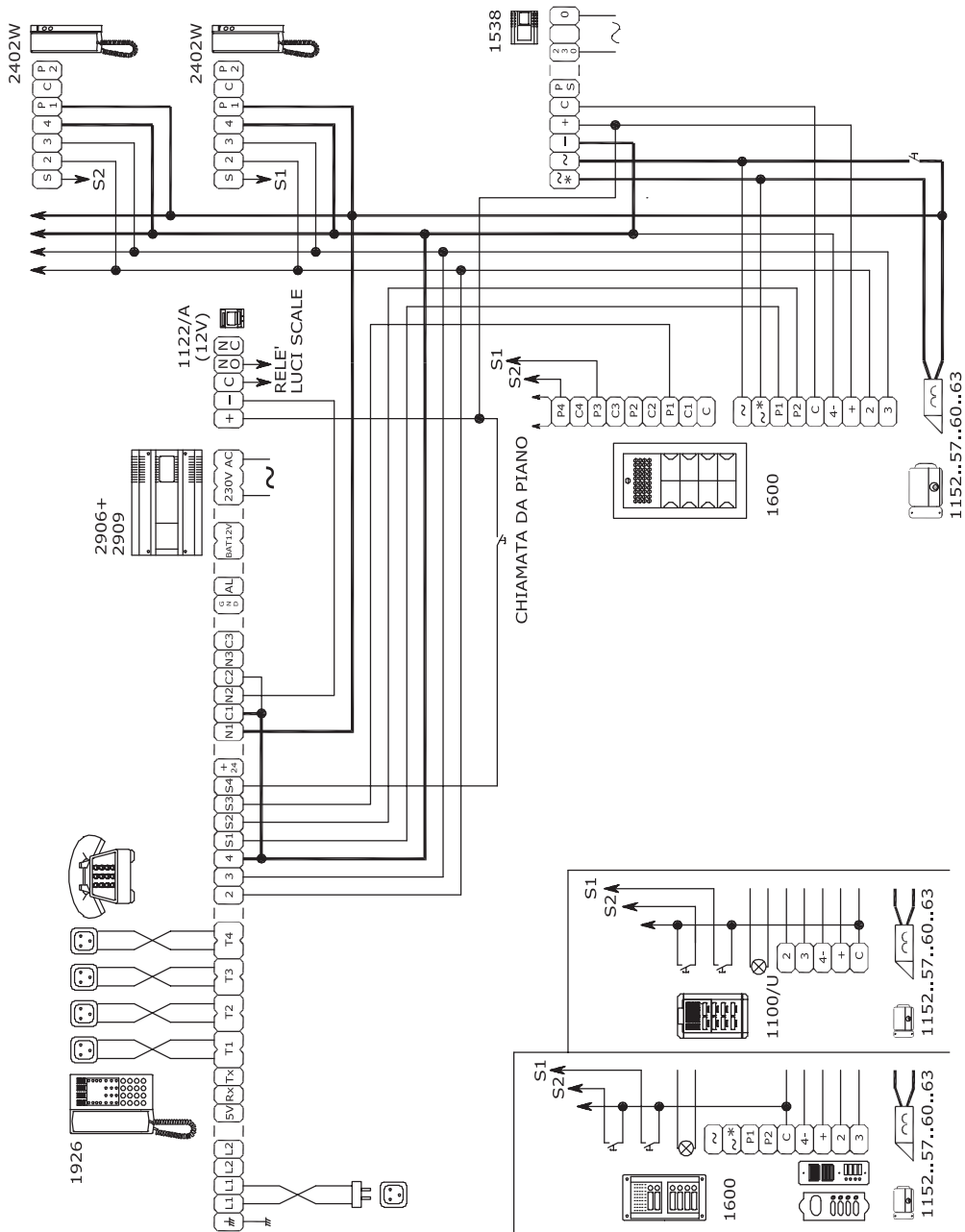


Diagram 7 - CT 10A: Door entry telephone System with IDEALKIT

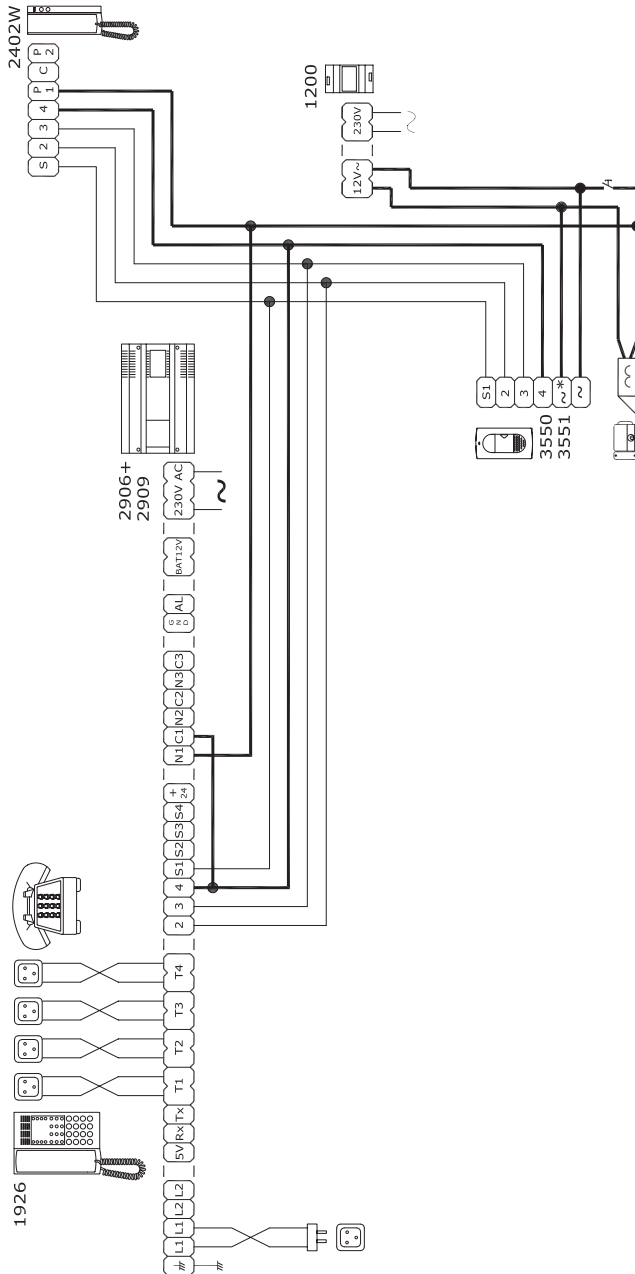
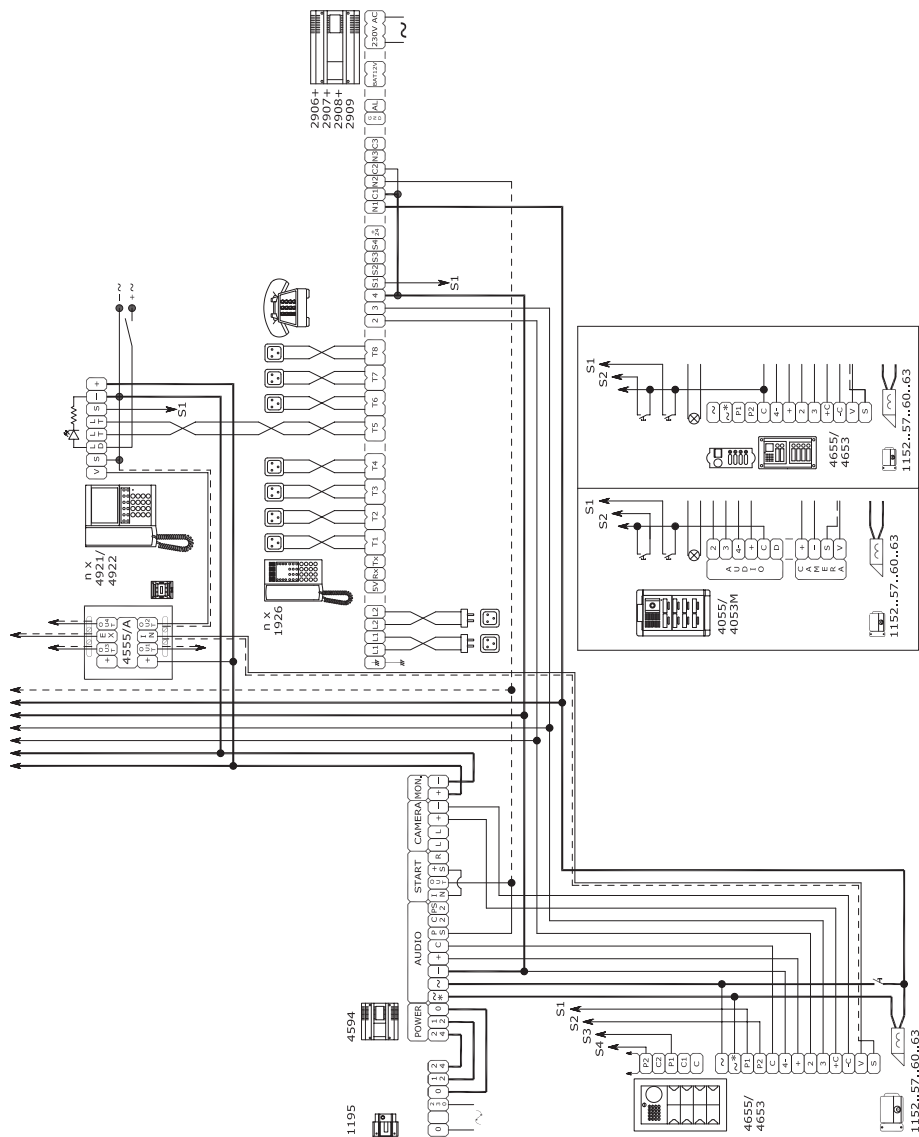


Diagram 8 - VCT 01A: Video – door entry telephone System with traditional cabling.



MESSAGE EXPANSION CARD ART. 2913

Addition of this card allows the messages needed for correct operation of some switchboard services to be recorded, see Courtesy message , DISA etc..

Installation of the expansion

Before proceeding, the 220V voltage to the switchboard must be removed.

At this point, according to what is indicated in Fig. 6.

1. Remove the side covers and the central cap from the switchboard.
2. Insert card 2913 in the special housing.
3. Put back the covers and the cap.
4. Reconnect the 220V voltage.
5. The card will be recognised automatically.

Default configuration

No message is recorded.

What needs to be programmed in the case of card replacement:

It is necessary to record the desired messages.

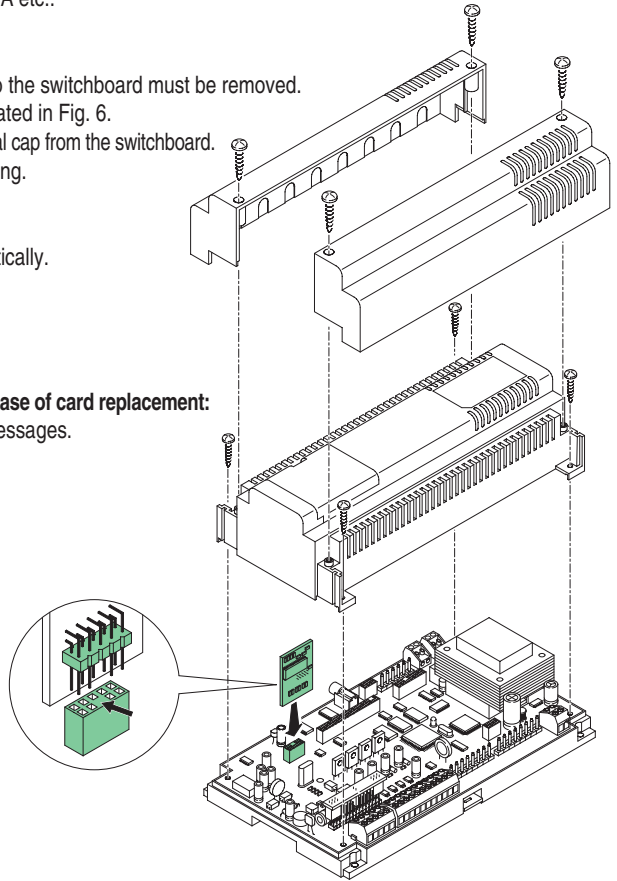
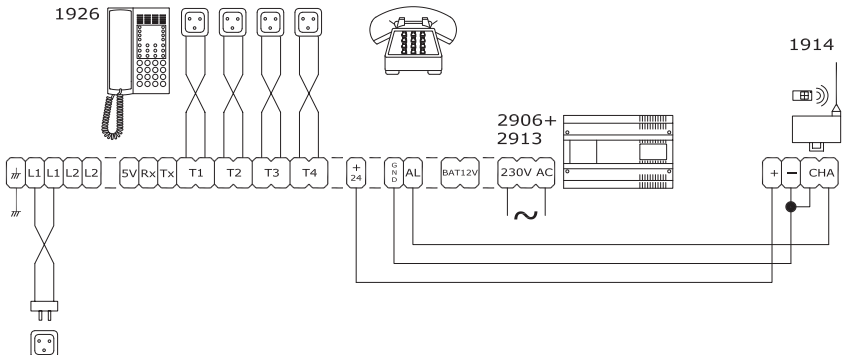










Diagram 13 - CT GA: System with radio receiver for remote SOS line



4 BASIC TELEPHONE SERVICES

4.1 SELECTION OF OUTSIDE LINE

Access to the outside line from a branch				Selection of the remote user			
				EXAMPLE 			
I lift the receiver	Continuous tone	Access to the outside line	Invitation tone to select	Telephone number	The remote user rings	Call tone	Conversation

The first free line is selected. It is only possible to select lines of the same partition. The HOME version has direct access to the outside line as default.









The following alternatives are possible:









- On pressing button 0, the switchboard sends the engaged tone when the line or lines on which the branch is enabled are already busy.
- If the branch generates some digits in line which are part of the disabled area codes, the dissuasion tone is received in the receiver.

4.2 ANSWERING AN EXTERNAL TELEPHONE CALL

The branch rings on the call		
		
The telephone rings	I lift the receiver	Conversation

4.3 SELECTION OF A SPECIFIC OUTSIDE LINE







Access to outside line 1 from a branch				Selection of the remote user			
				EXAMPLE 			
I lift the receiver	Continuous tone	Access to line 1	Invitation tone to select	Telephone number	The remote user rings	Call tone	Conversation

Access to outside line 2 from a branch				Selezione dell'utente remoto			
				EXAMPLE 			
I lift the receiver	Continuous tone	Access to line 2	Invitation tone to select	Telephone number	The remote user rings	Call tone	Conversation

It is only possible to select lines of the same partition.







The HOME version has direct access to the outside line as default.

4.4 CALL TO EXTENSION BRANCH

STANDARD BCA TELEPHONE					
Call			Conversation		
 I lift the receiver	 Continuous tone	<i>EXAMPLE</i>  Button 8 followed by the extension desired from 01 to 08 (e.g. 04)	 The extension called rings	 Call tone	 Conversation







4.5 GENERAL CALL

This means the possibility of a branch to call all the branches of its own partition simultaneously.

STANDARD BCA TELEPHONE					
Call			Conversation		
 I lift the receiver	 Continuous tone	 Button 800	 All the branches ring	 Call tone	 Conversation







4.6 GROUP CALL

This service can only be provided after having created a group of branches (See paragraph 8.10).

STANDARD BCA TELEPHONE					
Call			Conversation		
 I lift the receiver	 Continuous tone	<i>EXAMPLE</i>  Buttons 8 and 3 followed by the group desired from 1 to 5 (e.g. 5)	 The branches belonging to the group ring	 Call tone	 Conversation

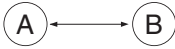



4.7 SELECTION FROM TELEPHONE DIRECTORY

The telephone switchboard has a memory 40 (from 01 to 40) speed dialling numbers with a max. of 16 digits each. All the branches can recall the speed dialling numbers, but only the operator posts can programme them (See paragraph 6.7). The selection is ignored if the speed dialling number has not been programmed.

STANDARD BCA TELEPHONE					
I recall the speed dialling number			Conversation		
 I lift the receiver	 Continuous tone	 Button 4	<i>EXAMPLE</i>  Speed dialling number from 01 to 40 (e.g. 19)	 The remote user rings	 Conversation

In the case of partitions, a directory consisting of 20 speed dialling numbers is assigned to each one.






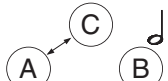
4.8 PUTTING ON HOLD

STANDARD BCA TELEPHONE			
Conversation	Putting B on hold		Telephone waiting for commands
<p><i>EXAMPLE</i></p>  <p>Conversation between branch A and B</p>	 <p>A presses: FLASH button, R</p>	 <p>Music on hold on B</p>	 <p>Continuous tone on A</p>

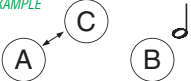


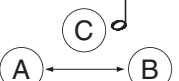
This operation is valid both for internal and telephone calls.

4.9 INTERMEDIATE CALL

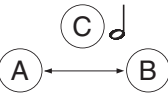

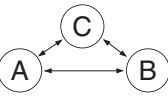
This means the possibility by branch A of putting an outside line / extension branch B on hold and making a second call to an outside line / extension branch C, or a command to an entry phone. It is carried out by following the table below:

STANDARD BCA TELEPHONE					
Conversation	Putting B on hold	Putting extension B on hold and extension C call			
<p><i>EXAMPLE</i></p>  <p>Conversation between branch A and B</p>	 <p>A presses: FLASH button, R</p>	<p><i>EXAMPLE</i></p>  <p>Button 8 followed by the extension desired from 01 to 08 (e.g. 04) (C)</p>	 <p>Music on hold on B</p>	 <p>Extension 04 (C) rings</p>	 <p>Conversation with extension C</p>

By keying in the R2 sequence, branch A can speak alternately (toggle) with user B (C is put on hold) or with user C (B is put on hold).

STANDARD BCA TELEPHONE			
Conversation	Putting C on hold	Putting C on hold and recovery of B	
<p><i>EXAMPLE</i></p>  <p>Conversation between branch A and C with B on hold</p>	 <p>A dials the R2 sequence</p>	 <p>Music on hold on C</p>	 <p>Conversation with extension B</p>

4.10 CONFERENCE

STANDARD BCA TELEPHONE		
Intermediate conversation	Conference	
<p><i>EXAMPLE</i></p>  <p>Conversation between branch A - B and C on hold</p>	 <p>A dials the R3 sequence</p>	 <p>Simultaneous A - B - C conversation</p>

4.11 LEAVING THE CONFERENCE

The following scenarios are possible:

- A) R1 : the one who has generated the conference (A) releases the first interlocutor (B) and remains in conversation with the second (C).
- B) R5 : the one who has generated the conference (A) releases the second interlocutor (C) and remains in conversation with the first (B).
- C) R7 : the one who has generated the conference (A) excludes himself leaving the other two interlocutors (B,C) conversing.

STANDARD BCA TELEPHONE		
Conference	A releases B	Conversation
<p><i>EXAMPLE</i></p> <p>A - B - C simultaneous conversation</p>	<p>A dials the R1 sequence</p>	<p>A - C conversation</p>

STANDARD BCA TELEPHONE		
Conference	A releases C	Conversation
<p><i>EXAMPLE</i></p> <p>A - B - C simultaneous conversation</p>	<p>A dials the R5 sequence</p>	<p>A - B conversation</p>

STANDARD BCA TELEPHONE		
Conference	A excludes him/herself	Conversation
<p><i>EXAMPLE</i></p> <p>A - B - C simultaneous conversation</p>	<p>A dials the R7 sequence</p>	<p>B - C conversation</p>

4.12 TRANSFER WITHOUT OFFER

During a conversation with the outside line or extension branch, it is possible to transfer this onto another branch without waiting for the latter to answer.

STANDARD BCA TELEPHONE					
Conversation	Putting B on hold	Putting B on hold and transfer onto C			
<p><i>EXAMPLE</i></p> <p>Conversation between branch A and B</p>	<p>A presses: FLASH button, R</p>	<p><i>EXAMPLE</i></p> <p>A presses button 8 followed by the extension desired from 01 to 08 (e.g. 04) (C)</p>	<p>Music on hold on B</p>	<p>Extension 04 (C) rings (*)</p>	<p>A puts down the receiver</p>

(*) If A dials the R2 sequence, the call to C can be terminated and B recovered.

4.13 TRANSFER WITH OFFER

During a conversation with the outside line or extension branch, it is possible to transfer this to another branch.

STANDARD BCA TELEPHONE							
Conversation	Messa in attesa B e trasferimento su C					Conversazione B-C	
<i>EXAMPLE</i>							
Conversation between branch A and B	A presses: FLASH button, R	A presses button 8 followed by the extension desired from 01 to 08 (e.g. 04) (C)	Music on hold on B	Extension 04 (C) rings (*)	Conversation with extension C (*)	A puts down the receiver	Conversation between branch A and B

(*) If A dials the R5 sequence, the conversation with C can be terminated and B recovered.

4.14 REPLY TO CALL WAITING

This is only possible on the TELECOM outside line if the user has subscribed to this service, whereas for the extension branches it is possible after enabling these (See paragraph 6.9). After receiving the call waiting tone, it is necessary to digit:

- Button R → the waiting tone will be sent to the interlocutor.
- Number 2 → conversation with the caller.

STANDARD BCA TELEPHONE				
Conversation	External call (C) to A	Reply to call waiting		
<i>EXAMPLE</i>				
Conversation between A and B	Call waiting tone on A	A dials the R2 sequence	Music on hold on B	A - C conversation

4.15 RIDO SERVICE (DUAL ANSWER):

This means the possibility by Branch 801, which is in the intermediate call situation, of serving a further call coming from an outside line. It is carried out according to the methods described below.

STANDARD BCA TELEPHONE				
First intermediate call	External call (D) to A	Dual Answer (RIDO)		
A - B conversation with C on hold	Call waiting tone on A	A dials the R2 sequence	Music on hold on B	A - D conversation with B and C on hold

From the RIDO situation it is possible to generate a Second intermediate call:

STANDARD BCA TELEPHONE					
RIDO	Putting D on hold	Putting D on hold and call to E			Second intermediate call
<p>A - D conversation with B and C on hold</p>	<p>A presses: FLASH button, R</p>	<p>EXAMPLE</p> <p>Button 8 followed by the extension desired from 01 to 08 (e.g. 04) (E)</p>	<p>Music on hold on D</p>	<p>Extension 04 (E) rings</p>	<p>A - E conversation with B - C - D on hold</p>

From the Second intermediate call it is not possible to have a conference with three people. Branch A can return to the First intermediate call situation by making a transfer with/without offer of D onto E.

EXAMPLE: Transfer with offer.

STANDARD BCA TELEPHONE					
Second intermediate call	Transfer of D onto E			First intermediate call	
<p>A - E conversation with B - C - D on hold</p>	<p>A puts the receiver down</p>	<p>Conversation D with E</p>	<p>Extension A rings</p>	<p>A lifts the receiver</p>	<p>Conversation A with B - C and D with E. C remains on hold</p>

If branch A decides to cancel the Second intermediate call, returning to the first one, they can proceed as follows:

STANDARD BCA TELEPHONE					
Second intermediate call	A releases E returning to RIDO	A releases D	First intermediate call		
<p>A - E conversation with B - C - D on hold</p>	<p>A dials sequence R5</p>	<p>Conversation A with D</p>	<p>A puts the receiver down</p>	<p>Extension A rings</p>	<p>Conversation A with B and C on hold</p>

4.16 PARKING AN OUTSIDE LINE

This means the possibility by a branch of parking the outside line previously put on hold.

It takes place in the following way:

- The branch (example 803) is in conversation with the outside line.
- 803 puts the outside line on hold by means of button R.
- 803 dials command 60 receiving the confirmation tone. It is possible to carry out other operations. By hanging up the outside line will not be recovered.
- 803 can recover the parked line by keying in code 63.
- If the line is kept parked for more than 90 seconds, 803 will receive a warning call.

DESCRIPTION	COMMAND	PARAMETER VALUES
Parking the outside line		
Recovery of parked outside line		

5 SWITCHBOARD SERVICES

INTRODUCTION:

All the services described in this chapter, except for 5.1, consist of an initial configuration stage and a second enabling stage. It is not possible to enable a service which is not configured. The operations which can only be carried out by the telephones configured as Operator Post are marked with the acronym OP.

5.1 DAY/NIGHT SERVICE

5.1.1 Description

Two switchboard operating methods are possible defined as DAY scenario or NIGHT scenario, which differ in:

Different configuration of the outside lines on input or output per individual the branch.

Different distribution of the entry phone calls over the branched telephones.

Different characterisation of the extension branches.

Different activation of the COURTESY MESSAGE –FAX RECOGNITION – DISA services etc.

Passing from one scenario to the other takes place manually by keying in a command, or automatically at times established by the user.

5.1.2 Activation (OP)

It is possible to activate the DAY or NIGHT scenario by keying in the following codes:

DESCRIPTION	COMMAND	PARAMETER VALUES
Activation of the DAY scenario	7 * 1 #	
Activation of the NIGHT scenario	7 * 2 #	
DEFAULT VALUES: The DAY scenario is activated.		

5.2 AUTOMATIC DAY/NIGHT SERVICE

5.2.1 Description

This allows passing from the DAY scenario to the NIGHT one at established times.

When the service is de-activated, the switchboard goes onto DAY.

5.2.2 Configuration

Enter the configuration state (See paragraph 8.0).

a = 1 (partiz. 1) b c = ore
 2 (partiz. 2) d e = minuti

DESCRIPTION	COMMAND	PARAMETER VALUES
Setting the DAY/NIGHT changeover time	7 5 a b c d e #	a = 1 (partition 1) b c = hours 2 (partition 2) d e = minutes
Setting the NIGHT/DAY changeover time	7 6 a b c d e #	a = 1 (partition 1) b c = hours 2 (partition 2) d e = minutes
DEFAULT VALUES: 20:30 - 8.30		
EXAMPLE: 75 1 20 30 # partition 1 is in the day scenario from 08:30 to 20:29, 75 1 08 30 # in the night scenario from 20:30 to 08:29.		

5.2.3 Enabling / disabling (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Activation of automatic DAY/NIGHT service	7 * 3 #	
Deactivation of automatic DAY/NIGHT service	7 * 4 #	
DEFAULT VALUES: Service deactivated.		

5.3 COURTESY MESSAGE

5.3.1 Description

With expansion card 2913 it is possible to record a message which can be sent to an external unit in the case of entry phone call or to a line in the case of a telephone call.

A typical example is the message giving the opening times of the offices which can be sent to an external unit and to a line during the times the offices are closed.

The message is recorded directly from a telephone. During the *configuration* stage it is defined which telephone line and / or which call from an external unit the message must be sent over.

5.3.2 Configuration

Enter the state of configuration (*See paragraph 8.0*).

It is not possible to carry out the Courtesy message service if the switchboard is already sending a message over an outside line or over an entry phone. In this case a simple call will be sent.

DESCRIPTION	COMMAND	PARAMETER VALUES
Activation of Courtesy on Outside Lines	6 3 a b ... #	a = 0 (Day) 1 (Night) b = 1, 2 (list of lines)
Deactivation Courtesy on Outside Lines	6 4 a b ... #	a = 0 (Day) 1 (Night) b = 1, 2 (list of lines)
Activation of Courtesy on entry phone call buttons	6 5 a b ... #	a = 0 (Day) 1 (Night) b = 1,2,3,4 (list of call buttons)
Deactivation of Courtesy on entry phone call buttons	6 6 a b ... #	a = 0 (Day) 1 (Night) b = 1,2,3,4 (list of call buttons)
DEFAULT VALUES: Service not configured on all the lines either in DAY or NIGHT scenario. Service not configured on all the call buttons either in DAY or NIGHT scenario.		
EXAMPLE: 63 0 12 # configure the Courtesy service on Line 1 and Line 2 in the day scenario. 65 0 124 # configure the Courtesy service on entry phone call 1, 2 and 4 in the day scenario.		

5.3.3 Activation / Deactivation (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation	7 0 0	
Activation	7 0 1	
Recording of message (*)	7 0 2 a	a = 0 (Day) 1 (Night) # = end of recording
Listening to the message	7 0 3 a	a = 0 (Day) 1 (Night)

(*) Recording of the message starts after having pressed button “a” (Day/Night) and ends when “#” is pressed or the receiver is put down.

5.4 AUTOMATIC FAX RECOGNITION

5.4.1 Description

By activating this service it is possible to recognise fax calls automatically. In detail, on receipt of a telephone call the switchboard replies engaging the line, it waits for 4 seconds during which it verifies whether the remote caller is a fax, and if this is so, diverts the call to the fax or tel-fax branch, if not, it sends the call according to the methods programmed. The music on hold is sent to the remote user, and the line will be released if no user replies within 60 seconds.

To inform the caller better that his call has been sent , it is advisable to combine this service with the COURTESY MESSAGE one. In this case, instead of the music on hold, a message of the type “This is the company Asse, please hold the line, an operator will be at your disposal” will be sent.

5.4.2 Configuration

Enter the state of configuration (See paragraph 8.0).

Refer to the configuration described in paragraph 8.6 to characterise the fax or tel-fax branch based on the characteristics of the fax to be connected.

The switchboard sends a fax type call only to a branch programmed as such.

5.4.3 Activation / Deactivation (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation	7 1 0	
Activation	7 1 1	

5.5 DISA

5.5.1 Description

With expansion card 2913 it is possible to use the DISA function, by means of which it is possible to call a precise branch of the switchboard directly from the telephone line. The function regards the incoming outside line calls to the switchboard: on receipt of a call, the switchboard replies by sending a message pre-recorded by the user on line at the end of which the remote user can digit the number (801...808) of the branch with which they want to speak on their own multi-frequency telephone, or the numbers (1...5) for a group of branches.

If the remote user does not digit any number or if the branch selected is engaged, the call is automatically diverted towards the operator posts.

The message recorded by the user is typically one of inviting them to make a selection, for example: "This is the company Asse, if you want to speak with the purchasing group digit 2, if you want to speak with the logistics group digit 3, if you want to speak to Mr. Rossi digit 803, otherwise hold the line and the operator will answer your call".

It is not possible to carry out the DISA service if the switchboard is already sending a message on an outside line or on an entry phone. In this case a simple call will be sent.

5.5.2 Configuration

Enter the state of configuration (See paragraph 8.0).

DESCRIPTION	COMMAND	PARAMETER VALUES
Enabling DISA on Lines	5 9 a ... #	a = 1-2 (List of lines)
Disabling DISA on Lines	6 0 a ... #	a = 1-2 (List of lines)
DEFAULT VALUES: Service not configured on all the lines.		

5.5.3 Activation / Deactivation (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation	7 2 0	
Activation	7 2 1	
Recording message	7 2 2	# = end of recording
Listening to message	7 2 3	

5.6 REMOTE RELAY CHECK

5.6.1 Description

This allows remote activation of the relays present on the entry phone interface card. On receiving a call, the switchboard replies by sending an invitation tone to insert the password. If verification of the code keyed-in is positive, a confirmation tone will be given and it will be possible to control the relay with the codes described in table 4 (page 16), or to check the state of closed or open by means of the commands described (See paragraph 7.3).

This stage is time to about 30s. To reactivate the function it is necessary to send another call. If relay N2 – C2 is configured for use of internal Turning on, it will not be possible to activate it and/or check its state.

5.6.2 Configuration

Enter the state of configuration (See paragraph 8.0).

DESCRIPTION	COMMAND	PARAMETER VALUES
Configuration of relay	6 9 a b c d e #	a = 1 (relay N1 – C1) 2 (relay N2 – C2) 3 (relay N3 – C3) b = 0 (Monostable) 1 (Bistable) cd = 01 : 99 (Duration in seconds if monostable) e = 0 (Relay N2 – C2 for general uses) 1 (Relay N2 – C2 for internal Turning on use)
Definition of Password	7 0 a b #	a = 4 digits (Password) b = 4 digits (password repetition)
Enabling Lines	7 1 a b #	a = 0 (Day) 1 (Night) b = 1-2 (List of Lines)
Disabling Lines	7 2 a b #	a = 0 (Day) 1 (Night) b = 1-2 (List of Lines)
DEFAULT VALUES: All the relays configured as monostable with a closing time of 1 second. Relay N2 – C2 is configured for internal Turning on use. Password = 0000. Service not configured on all the lines either in DAY or NIGHT scenario.		

5.6.3 Activation / Deactivation (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation	7 3 0	
Activation	7 3 1	

5.7 ENTRY PHONE FOLLOW-ME

5.7.1 Description

If the entry phone expansion card 2909 is present, it is possible to activate the Follow-me service which allows an entry phone call to be diverted to a telephone number programmed by the user. When the remote user receives the call and replies, they will be put in communication with the external unit entry phone and the following will be possible:

- control the relay on card art.2909 (see par. 7.2)
- end the conversation by pressing DTMF digit 0
- the conversation is timed at 1 minute. It is possible to renew it by pressing any DTMF digit when the switch-board signals with a tone the time is running out. It is not possible to carry out the entry phone Follow-me service if the outside line on which the service is configured is engaged in other conversations.

In this case a simple entry phone call will be sent.

5.8.2 Configuration

Enter the state of configuration (See paragraph 8.0).

DESCRIPTION	COMMAND	PARAMETER VALUES
Configuration		a = 1-2 (incoming outside line) b = 0 (resets configuration) 1-2 (outgoing outside line) 3 (first available) c = 0 (Day) 1 (Night) d = telephone number (max 16 digits)
<p>DEFAULT VALUES: Service not configured.</p> <p>EXAMPLE: 33 1 2 0 034675001# Call from outside line 1 diverted to outside line 2 on number 0346750001 in the DAY scenario</p> <p>33 2 1 1 034675002# Call from outside line 2 diverted to outside line 1 on number 0346750002 in the NIGHT scenario</p>		

5.8.3 Activation / Deactivation (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation		a = 1-2 (line)
Activation		a = 1-2 (line)

5.9 REMOTE SOS LINE

5.9.1 Description

With expansion card 2913 it is possible to use the remote SOS line function.

If the service is enabled, on pressing the remote control (Art.1914) button the switchboard operates in one of the following 3 ways.


1. "signalling" : Branches ring for 4 seconds and the service ends.
2. "SOS" : This consists of the following stages:
 - a. the branches ring for 4 seconds.
 - b. the switchboard engages the outside line and calls the first number on the list. At this point:
 - When the remote user replies the recorded message is sent on line, for the number of times programmed (from 5 to 9). The branches ring for 2 seconds; by lifting the receiver from one of these, you go into communication with the remote user and the service will be ended.
 - Once the previous stage has ended, the switchboard dials the next number.
 - When all the numbers programmed in the list have been called, the cycle is repeated for the number of times programmed by the user (from 5 to 9).

The remote user who replied can exclude himself from the list by pressing DTMF digit 9.

3. "alarm" : this is the same as the "SOS" method, except that the branches do not ring when the service is activated and when the message is sent on line.

5.9.2 Configuration

Enter the state of configuration (See paragraph 8.0).

DESCRIPTION	COMMAND	PARAMETER VALUES
Configuration	(5) (5) (a) (b) (c) (#)	a = 0 (Disabling) 1 (SOS) 2 (Signalling) 3 (Alarm) b = 5-9 (Call cycles) c = 5-9 (Repetitions of the message)
Entering telephone numbers	(5) (6) (a) (b) ... (#)	a = 1-5 (Index); b = Number to be stored (Max 20 digits)
Recording Message	(5) (7) (#)  (#)	
Listening to message	(5) (8) (#)	
<p>DEFAULT VALUES: Disabled, with 5 call cycles and 5 message repetitions. No telephone number configured No message recorded.</p> <p>EXAMPLE 1: 55 1 6 5 # Configured in combined mode with 6 call cycles I and 5 message repetitions for each number called</p> <p>EXAMPLE 2: 55 2 # Configured in signalling mode</p> <p>EXAMPLE 3: 56 1 0346750001# number 0346750001 is entered in the first position 56 2 0346750002# number 0346750002 is entered in the second position</p>		

5.10 FILTERS

5.10.1 Description

By filters the possibility is intended of the switchboard to regulate access of branches to the outside lines according to rules established by filling in 3 tables. These are:

- Table of carriers consisting of 5 items with a maximum of 6 digits each;
- Table of blocked area codes consisting of 10 items with a maximum of 4 digits each;
- Table of enabled area codes consisting of 5 groups each of which can contain a maximum of 5 item with 4 digits each. Each group represents the area codes combined with the corresponding carrier.

Two assessment criteria are possible:

- Restrictive : This is applied when the Blocked table is empty; only the area codes inserted in the Enabled table are allowed. For further details, please see Example 3 of paragraph 5.10.3.
- Permissive : This is applied when both the Blocked and the Enabled tables are filled in.

If the area code dialled does not appear in the Blocked table, the call will be sent.

To establish the correct telephone carrier, the Enabled table is checked, if the area code does not appear in this table either, the default one is selected (Carrier 0 = TELECOM ITALIA).

For further details, please see Example 1 – 2 of paragraph 5.10.3.

5.10.2 Configuration

Enter the state of configuration (See paragraph 8.0).

DESCRIPTION	COMMAND	PARAMETER VALUES
Configuration of carriers	5 0 a b c ... #	a = 1 (Partition 1), 2 (Partition 2) b = 0-5 (Table index) c = Area code (max 6 digits)
Configuration of Blocking Tables	5 1 a b c ... #	a = 1 (Partition 1), 2 (Partition 2) b = 0-9 (Table index) c = Area code (max 4 digits)
Configuration of enabling Tables	5 2 a b c d ... #	a = 1 (Partition 1), 2 (Partition 2) b = 0-5, 0 = telecom (Carrier index) c = 1-5 (Table index) d = Area code (max 4 digits)
Definition of Password for releasing filters	5 3 a b ... #	a = 1 (Partition 1), 2 (Partition 2); b = Password (4 digits) (default 0000)

DEFAULT VALUES: No telephone carrier configured.
No telephone area code configured.
Password = 0000

EXAMPLE 1: 51 1 0 035 # Area code 035 configured in the blocking table in first position
51 1 0 0346 # Area code 0346 configured in the blocking table in second position

EXAMPLE 2: 50 1 1 1022# Carrier 1022 configured in the carrier table in second position
50 1 2 1055# Carrier 1055 configured in the carrier table in third position
51 1 0 035 # Area code 035 configured in the blocking table in first position
51 1 0 0346 # Area code 0346 configured in the blocking table in second position

52 1 1 1 051 # Area code 051 configured in the enabling table in first position
52 1 2 1 0872 # Area code 0872 configured in the enabling table in first position
52 1 2 2 095 # Area code 095 configured in the enabling table in second position

EXAMPLE 3: 50 1 1 1022# Carrier 1022 configured in the carrier table in second position
50 1 2 1055# Carrier 1055 configured in the carrier table in third position
52 1 0 1 02 # Area code 02 configured in the enabling table in first position
52 1 0 2 06 # Area code 06 configured in the enabling table in second position
52 1 1 1 051 # Area code 051 configured in the enabling table in first position
52 1 2 1 0872 # Area code 0872 configured in the enabling table in first position
52 1 2 2 095 # Area code 095 configured in the enabling table in second position

5.10.3 Configuration with Software Art. 1296

Filters on Call Configuration

Provider Configuration

Partition 1		Partition 2	
00	1033	00	1033
01		01	
02		02	
03		03	
04		04	
05		05	

Default Help Cancel Ok

Filters Unlock Password

Partition 1		Partition 2	
Old Password	0000	Old Password	0000
New Password		New Password	
Conf. New Password		Conf. New Password	

Lock Table Configuration

Partition 1	
00	035
01	0346
02	07
03	08
04	09

Partition 2	
00	05
01	06
02	07
03	08
04	09

Enabling Table Configuration

Partition 1		Provider 0		Provider 1		Provider 2		Provider 3		Provider 4		Provider 5	
01		01		01		01		01		01		01	
02		02		02		02		02		02		02	
03		03		03		03		03		03		03	
04		04		04		04		04		04		04	
05		05		05		05		05		05		05	

Partition 2		Provider 0		Provider 1		Provider 2		Provider 3		Provider 4		Provider 5	
01		01		01		01		01		01		01	
02		02		02		02		02		02		02	
03		03		03		03		03		03		03	
04		04		04		04		04		04		04	
05		05		05		05		05		05		05	

Example 1: permissive criterion

1st case: the branch dials 03467....

Since area code 0346 appears in the blocking table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed)

2nd case: the branch dials 0255....

Since area code 02 does not appear in the blocking table, the switchboard allows the call

3rd case: the branch dials 103303467....

Since area code 0346 appears in the blocking table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed)

4th case: the branch:

- dials 6*0000
- hangs up
- lifts and dials 03467...

Since the unblocking password has been keyed-in correctly, even if area code 0346 appears in the blocking table, the call is sent in any case.

Filters on Call Configuration

Provider Configuration

Partition 1		Partition 2	
00	1033	00	1033
01	1022	01	
02	1055	02	
03		03	
04		04	
05		05	

Default Help Cancel Ok

Filters Unlock Password

Partition 1		Partition 2	
Old Password	0000	Old Password	0000
New Password		New Password	
Conf. New Password		Conf. New Password	

Lock Table Configuration

Partition 1

00	035	05	
01	0346	06	
02		07	
03		08	
04		09	

Partition 2

00		05	
01		06	
02		07	
03		08	
04		09	

Enabling Table Configuration

Partition 1

Provider 0	Provider 1	Provider 2	Provider 3	Provider 4	Provider 5
01	01 051	01 0872	01	01	01
02	02	02 095	02	02	02
03	03	03	03	03	03
04	04	04	04	04	04
05	05	05	05	05	05

Partition 2

Provider 0	Provider 1	Provider 2	Provider 3	Provider 4	Provider 5
01	01	01	01	01	01
02	02	02	02	02	02
03	03	03	03	03	03
04	04	04	04	04	04
05	05	05	05	05	05

Example 2: permissive criterion

1st case: the branch dials 03467....

Since area code 0346 appears in the blocking table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed)

2nd case: the branch dials 0517....

Since area code 051 does not appear in the blocking table, but appears in the enabled table relative to carrier 1 i.e. 1022, the switchboard sends the call to number 10220517....

3rd case: the branch dials 0955....

Since area code 095 does not appear in the blocking table, but appears in the enabled table relative to carrier 2 i.e. 1055, the switchboard sends the call to number 10550955....

4th case: the branch dials 10550872....

Since carrier 1055 appears in the carrier table, area code 0872 does not appear in the blocking table but in the enabling one relative to the carrier in question, the switchboard allows the call.

5th case: the branch dials 10880872....

Since the carrier 1088 does not appear in the carrier table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed).

6th case: the branch dials 105503467....

Since carrier 1055 appears in the carrier table, but area code 0346 appears in the blocking table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed).

7th case: the branch dials 10550517....

Since carrier 1055 appears in the carrier table, but area code 051 does not appear in the enabled table of the area codes of this carrier , the switchboard prohibits the call (dissuasion tone at the branch and outside line freed).

8th case: the branch dials 0689....

Since area code 06 does not appear in the blocking table, or in the enabled table either, the switchboard allows the call on preferential carrier 00 (default: TELECOM ITALIA 1033).

Filters on Call Configuration

Provider Configuration

Partition 1		Partition 2	
00	1033	00	1033
01	1022	01	
02	1055	02	
03		03	
04		04	
05		05	

Default Help Cancel Ok

Filters Unlock Password

Partition 1		Partition 2	
Old Password	0000	Old Password	0000
New Password		New Password	
Conf. New Password		Conf. New Password	

Lock Table Configuration

Partition 1

00		05	
01		06	
02		07	
03		08	
04		09	

Partition 2

00		05	
01		06	
02		07	
03		08	
04		09	

Enabling Table Configuration

Partition 1

Provider 0	Provider 1	Provider 2	Provider 3	Provider 4	Provider 5
01	02	01 051	01 0872	01	01
02	06	02	02 095	02	02
03		03		03	03
04		04		04	04
05		05		05	05

Partition 2

Provider 0	Provider 1	Provider 2	Provider 3	Provider 4	Provider 5
01	01	01	01	01	01
02	02	02	02	02	02
03	03	03	03	03	03
04	04	04	04	04	04
05	05	05	05	05	05

Example 3: restrictive criterion (blocking table empty)

1st case: the branch dials 0955....

Since area code 095 appears in the enabled table relative to carrier 2 i.e. 1055, the switchboard sends the call to number 10550955.....

2nd case: the branch dials 0118....

Since area code 011 does not appear in any enabled table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed)

3rd case: the branch dials 1088051....

Since carrier 1088 does not appear in the carrier table, the switchboard prohibits the call (dissuasion tone at the branch and outside line freed).

5.10.4 Activation of Filters on a branch

It is possible to set two different types of filters on each branch:

- Blocks enabled: the rules set in Configuration of Filters for each outgoing telephone call are valid.
- Directory: it is only possible to call the numbers stored in the directory, which will not be subject to filters.

DESCRIPTION	COMMAND	PARAMETER VALUES
Activation of filter on branch		ab = Number of branch (01 - 08) c = Type of block: 0 (None) 1 (Blocks enabled) 2 (Directory)
DEFAULT VALUES: All the branches with no filter active.		

6 AUXILIARY TELEPHONE SERVICES

The operations which can only be carried out by the telephones configured as Operator Post are marked with the acronym OP.

6.1 RELEASING OUTGOING CALLS

It is possible to temporarily disable a possible filter on outgoing calls. This takes place in the following way:

- The branch digit 6* followed by the “Password for releasing filters”.
- The branch hangs up.
- The branch lifts the receiver and makes a call on the outside line.
- The call will not be subject to filters.

COMMAND	PARAMETER VALUES
	abcd = password of 4 digits (default = 0000)

6.2 REPLY FOR ABSENT

A branch can answer a call addressed to another extension. This takes place with the following method:

- Branch 802 calls branch 803.
- Branch 803 rings.
- Branch 801 dials 6103 and goes into communication with the caller (802).

COMMAND	PARAMETER VALUES
	a b = number of branch (01-08)

6.3 BOOKING EXTENSION / OUTSIDE LINE

A branch can book an extension / outside line found to be engaged.

This takes place with the following method:

- Branch 801 calls branch 803.
- Branch 803 is engaged.
- Branch 801 dials 8 on the engaged tone receiving the confirmation tone.
- Branch 801 hangs up.
- Branch 803 hangs up.
- Branch 801 rings and when the receiver is lifted it will make branch 803 ring.

It is possible to cancel a previous booking.

This takes place with the following method:

- Branch 801 has made a booking.
- Branch 801 lifts the receiver and dials 68, receiving the confirmation tone.
- The booking will be cancelled.

A branch can only have one booking in progress.

DESCRIPTION	COMMAND	PARAMETER VALUES
Cancels booking	6 8	
Activates booking	8	

6.4 CAPTURING A CALL

This allows a communication between a telephone line and a branch set as ANSWER PHONE to be taken up from any extension. It takes place with the following method:

- A communication between an outside line and the branch characterised as answer phone is in progress.
- Branch 801 dials 62.
- Branch 801 goes into conversation with the outside line, excluding the answer phone.

COMMAND	PARAMETER VALUES
6 2	

6.5 INCLUSION

This means the possibility of including yourself in a conversation, as long as the branch called has the service enabled. It takes place with the following method:

- A communication between branch 802 and branch 803 is in progress.
- Branch 801 calls branch 802, receiving the engaged tone.
- Branch 801 dials 7 and is included in the conversation going on between 802 and 803.

COMMAND	PARAMETER VALUES
7	

6.5.1 Enabling / disabling

DESCRIPTION	COMMAND	PARAMETER VALUES
Disabling	7 9 0	
Enabling	7 9 1	

DEFAULT VALUES: Not enabled on all branches

6.6 ENTERING A SPEED DIALLING NUMBER (OP)

The switchboard directory has a capacity of 40 numbers with a maximum of 20 digits each. By means of software Art. 1296 it is possible to associate a name with a maximum of 16 alphanumeric characters.

These numbers are subject to checks imposed by the filters on outgoing calls.

In the case of partitions, each will have 20 numbers available.

COMMAND	PARAMETER VALUES
	a b = 01-40 (speed dialling number index) c = telephone number (max 16 digits)

If you want to enter some the speed dialling numbers not subject to any type of filter, called SOS numbers, it is necessary to proceed as follows:

COMMAND	PARAMETER VALUES
	a b = 01-40 (speed dialling number index) c = SOS telephone number (max 16 digits)

6.7 Do NOT DISTURB

By activating this function, the branch does not ring for calls coming from the outside line and from the entry phone.

When the receiver is lifted an attention tone is received to indicate that the function is active.

DESCRIPTION	COMMAND	PARAMETER VALUES
Disattivazione non disturbare da linea urbana		
Activation do not disturb from outside line		
Deactivation do not disturb from entry phone call		
Activation do not disturb from entry phone call		

6.8 DIVERSION TO EXTENSION

The branch can divert the calls for him towards another extension immediately or timed after five rings, corresponding to about 25 seconds.

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation		
Activation of immediate diversion		a b = 01-08 (branch)
Activation of timed diversion		a b = 01-08 (branch)

6.9 CALL WAITING

A branch in conversation receives a warning tone when it is called from a branch, from the outside line or from the external unit entry phone. It is possible to:

- Ignore the waiting call.
- Reply to the waiting call by keying in R2 sequence.

If the branch has enabled the service of “Caller ID in conversation” (CLI OFF-HOOK), it will receive the number of the caller. The number will only be displayed by the telephones which have that service.

DESCRIPTION	COMMAND	PARAMETER VALUES
Deactivation	7 7 8	
Activation	7 7 9	
DEFAULT VALUES: Only active on the branches configured as Operator Post.		

6.10 CALL NOTIFIED TO BRANCHES (OP) (VALID FOR THE COURTESY SERVICES – ENTRY PHONE FOLLOW-ME – LINE-ON-LINE FOLLOW-ME)

By carrying out this programming it is possible to choose whether to notify the call to the extensions when the Courtesy or Entry Phone follow-me or Line-on-line follow-me service is activated.

DESCRIPTION	COMMAND	PARAMETER VALUES
Call not notified	7 9 2	
Call notified	7 9 3	
DEFAULT VALUES: Call notified		

6.11 AUTOMATIC CONVERSATION (OP) (VALID FOR THE ENTRY PHONE FOLLOW-ME AND LINE-TO-LINE FOLLOW-ME SERVICES)

By carrying out this programming it is possible to decide whether the communication will be started automatically on reply of the person called or on pressing a DTMF digit (digit 0 serves to refuse the call) in the entry phone follow-me or line–line follow-me services.

DESCRIPTION	COMMAND	PARAMETER VALUES
Conversation by means of DTMF digit	7 9 4	
Automatic conversation	7 9 5	
DEFAULT VALUES: Automatic conversation		

6.12 ALARM CLOCK

6.12.1 Description

This means the possibility of programming an independent alarm clock for each branch.

6.12.2 Configuration

DESCRIPTION	COMMAND	PARAMETER VALUES
Setting system time	(7) (4) (a) (b) (c) (d) (#)	a b = hours c d = minutes

6.12.3 Activation / Deactivation

DESCRIPTION	COMMAND	PARAMETER VALUES
Disabling	(7) (8) (0)	
Enabling	(7) (8) (1)	
Setting alarm clock time	(7) (8) (2) (a) (b) (c) (d)	a b = hours c d = minutes

6.13 LISTENING TO MUSIC ON HOLD (OP)

The switchboard is supplied with 3 pieces of on hold music, and it is possible to listen to these with the following command.

DESCRIPTION	COMMAND	PARAMETER VALUES
Listening to music on hold	(7) (8) (3) (a)	a = 1 (Music 1 - Spring by Vivaldi) 2 (Music 2 - Catalan Melody) 3 (Music 3 - Over the Rainbow) 4 (External music)

6.14 REMOTE PROGRAMMING / REMOTE FIRMWARE UPLOADING (OP)

DESCRIPTION	COMMAND	PARAMETER VALUES
Enabling remote configuration without access to the directory	(7) (7) (7) (7)	

6.15 DIRECT OUTSIDE LINE CONNECTION

The branch can be connected directly to the outside line using the relay bypass.

This takes place with the following method:

- The branch dials 95 followed by the telephone number.
- The branch is connected directly to the outside line, skipping the switchboard circuits.
- The service ends when the branch closes the conversation.

Limits of the service:

- If there is only basic card Art. 2906, only Branch 801 can use the service.
- With addition of the outside line expansion card Art. 2908, the service is also extended to branch 802.

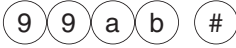
This service is particularly suitable for Internet connections.

COMMAND	PARAMETER VALUES
(9) (5) (a) ...	a = telephone number

6.16 RESETTING CONFIGURATIONS

Reset the Default configuration of the system.

It is necessary to go into configuration (See paragraph 8.0).


COMMAND	PARAMETER VALUES
	ab = 99 (resetting the default configurations) 97 (cancelling directory speed dialling numbers) 96 (resetting the factory entry phone volumes)

6.17 ROOM MONITOR

It is possible to carry out room monitoring where there is a branch.


This is done as follows:

- Branch 802, placed in the room to be monitored, keeps the receiver lifted.
- After 20 seconds branch 802 goes into the encapsulated condition.
- Branch 801 dials 6702 and goes into communication with 802.
- The service ends when one of the two branches hangs up.


COMMAND	PARAMETER VALUES
	ab = 01-08 (Branch)

6.18 STS (SUPPLEMENTARY TELEPHONE SERVICES)


6.18.1 R1

COMMAND	PARAMETER VALUES
	From the conference state the communication with the first interlocutor is put down and you return to conversation with the second.

6.18.2 R5

COMMAND	PARAMETER VALUES
	From the conference state the communication with the second interlocutor is put down and you return to conversation with the first.

6.18.3 R2

COMMAND	PARAMETER VALUES
	From the conference state, this is suspended and you remain in communication with the first interlocutor whilst the second is put on hold.

6.18.4 R7

COMMAND	
	From the conference state, the person who started the conference excludes themselves (receives dissuasion tone) and the two interlocutors remain in conversation.

6.19 SMS TEXT MESSAGES


The switchboard guarantees compatibility with the SMS message services, should a telephone which foresees its management be connected as branch. For activation and configuration of the service, please see the documentation provided by your own telephone carrier.

7 ENTRY PHONE SERVICES




7.1 CALL TO EXTERNAL UNIT

A branch can communicate with the external unit entry phone. This takes place with the following method:




- Branch 801 lifts the receiver and dials 1.

COMMAND	PARAMETER VALUES
	

7.2 RELAY ACTIVATION




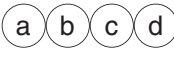

DESCRIPTION	COMMAND	PARAMETER VALUES
Activation of N1-C1 contacts		
Activation of N2-C2 contacts		
Activation of N3-C3 contacts		

7.3 CHECKING RELAY STATE

DESCRIPTION	COMMAND	PARAMETER VALUES
State of N1-C1 contacts		Contact closed: continuous tone Contact open: intermittent tone
State of N2-C2 contacts		Contact closed: continuous tone Contact open: intermittent tone
State of N3-C3 contacts		Contact closed: continuous tone Contact open: intermittent tone





8 SWITCHBOARD CONFIGURATIONS

ACCESS TO CONFIGURATION WITH SYSTEM PASSWORD


BRANCH ONE IN MULTI-FREQUENCY				
Access to configuration				
 Lift receiver	 Continuous tone	 Access code	 Introduce password (default 0000)	 Confirmation tone

Allows access to the configuration commands (only possible from branch 1). The password is common to the partitions and has a length of 4 digits.

8.1 CHANGING SYSTEM CODE

COMMAND				PARAMETER VALUES	
	New code 		Code repetition 		 It is compulsory for the code to have 4 digits (default 0000).
DEFAULT VALUES: Code = 0000					

8.2 DEFINING COUNTRY

COMMAND	PARAMETER VALUES
	<p>a = Countries</p> <ul style="list-style-type: none"> 0 ITALY 1 FRANCE 2 GERMANY 3 SPAIN 4 GREAT BRITAIN 5 HOLLAND 6 PORTUGAL 7 DENMARK 8 FINLAND <p>b = Language</p> <ul style="list-style-type: none"> 0 ITALIAN 1 FRENCH 2 GERMAN 3 SPANISH 4 ENGLISH 5 DUTCH 6 PORTUGUESE 7 DANISH 8 FINNISH <p>c = 0 (summer time not activated) 1 (summer time activated)</p>
DEFAULT VALUES: Country = ITALY - Language = ITALIAN - Summer time = Activated	
EXAMPLE: 01 3 3 1 # I configure the switchboard to operate in Spain with messages in Spanish; passage from solar time to summer time is considered.	

8.3 SELECTING MUSIC ON HOLD

COMMAND	PARAMETER VALUES
	a = 1 – 2 (Number of Line) b = 0 (Waiting tone) 1 (Music 1 - Spring by Vivaldi) 2 (Music 2 - Catalan Melody) 3 (Music 3 - Over the Rainbow) 4 (External music)
DEFAULT VALUES: All lines with Music 1. EXAMPLE 1: 03 1 0 Line 1 with music on hold “Waiting tone”. EXAMPLE 2: 03 2 3 Line 2 with music on hold “Music 3”.	

8.4 PARTITIONS

8.4.1 Activation of partitions

COMMAND	PARAMETER VALUES
	a = 0 (disabled) 1 (enabled)
DEFAULT VALUES: Partitions not activated	

8.4.2 Association of branches – Partitions

COMMAND	PARAMETER VALUES
	a = 1 (Partition 1) 2 (Partition 2) b c = 01÷08 (List of branches)
EXAMPLE: 11 2 01020304 # to associate branches 01 - 02 – 03 – 04 with partition 2 11 1 05060708 # to associate branches 05 - 06 – 07 – 08 with partition 1	
DEFAULT VALUES: Partitions not activated	

8.4.3 Association of lines – Partitions

COMMAND	PARAMETER VALUES
	a = 1 (Partition 1) 2 (Partition 2) b = 1-2 (List of branches)
EXAMPLE: 12 1 2 # to associate outside line 2 with partition 1 12 1 12 # to associate outside Lines 1 and 2 with partition 1	
DEFAULT VALUES: Line 1 on partition 1. Line 2 on partition 2.	

8.4.4 Association of entry phone call buttons – Partitions

COMMAND	PARAMETER VALUES
	a = 1 (Partition 1) 2 (Partition 2) b = 1÷4 (List of branches)
DEFAULT VALUES: Odd buttons on partition 1. Even buttons on partition 2. EXAMPLE: 13 1 12 # to associate buttons 1 and 2 with partition 1 13 2 34 # to associate buttons 3 and 4 with partition 2	

8.5 HOME / OFFICE OPERATION

COMMAND	PARAMETER VALUES
	a = 1 (Partition 1) 2 (Partition 2) b = 0 (Home) 1 (Office)
DEFAULT VALUES: Both partitions on Office. EXAMPLE: 14 1 0 # to define partition 1 in Home mode 14 2 1 # to define partition 2 in Office mode	

If the switchboard is set in HOME mode, i.e. with direct access to the outside line activated, to access the “waiting for commands” stage, it is necessary digit button R.

The example below explains how to make an internal call.

STANDARD BCA TELEPHONE							
Freeing outside line – Waiting for commands – Internal call				Conversation			
 I lift the receiver	 Invitation tone to select from outside line.	 FLASH button, R	 Continuous tone of Waiting for commands. Freeing outside line.	EXAMPLE Button 8 followed by the extension desired from 01 to 08 (e.g. 04)	 The extension called rings	 Call tone	 Conversation

8.6 CHARACTERISATION OF BRANCH

COMMAND	PARAMETER VALUES
	ab = 01÷08 (branch number) c = 0 (Day) 1 (Night) d = 0 (Normal branch) 1 (OP) 2 (Fax) 3 (Telephone + Fax) 4 (Answer phone)
DEFAULT VALUES: Branch 1 as OP both in DAY and NIGHT scenario. The other branches as normal user both in DAY and NIGHT scenario. EXAMPLE: 20 02 0 1 # to define branch 02 as OP during the DAY scenario	

8.7 ENABLING / DISABLING USE OF LINES

8.7.1 Enabling

COMMAND	PARAMETER VALUES
<p>The diagram shows a sequence of circles containing the digits and letters: 2, 1, a, b, c, d, followed by an ellipsis and a hash symbol (#).</p>	<p>ab = 01÷08 (branch number) c = 0 (Day) 1 (Night) d = 1-2 (List of outside lines to be enabled; 1 digit)</p>
<p>DEFAULT VALUES: All the branches enabled to use the lines both in DAY and NIGHT scenario. EXAMPLE: 21 02 0 1 # to enable outside line 1 on branch 02</p>	

8.7.2 Disabling

COMMAND	PARAMETER VALUES
<p>The diagram shows a sequence of circles containing the digits and letters: 2, 2, a, b, c, d, followed by an ellipsis and a hash symbol (#).</p>	<p>ab = 01÷08 (branch number) c = 0 (Day) 1 (Night) d = 1-2 (List of outside lines to be disabled; 1 digit)</p>
<p>DEFAULT VALUES: All branches enabled to use the lines both in DAY and NIGHT scenario. EXAMPLE: 22 02 0 2 # to disable outside line 2 on branch 02</p>	


8.8 DIRECT ACCESS TO OUTSIDE LINE

COMMAND	PARAMETER VALUES
<p>The diagram shows a sequence of circles containing the digits and letters: 2, 5, a, b, c, followed by a hash symbol (#).</p>	<p>ab = 01÷08 (branch number) c = 0 (Direct access disabled) 1 (Direct access enabled)</p>
<p>DEFAULT VALUES: All branches without direct access to the outside line EXAMPLE: 25 02 1 # to enable direct Access to the outside line on branch 02</p>	

8.9 DEFINING NUMBER OF RINGS FOR ENTRY PHONE CALL

COMMAND	PARAMETER VALUES
<p>The diagram shows a sequence of circles containing the digits and letters: 2, 6, a, b, c, d, followed by a hash symbol (#).</p>	<p>ab = 01÷08 (branch number) c = 0 (Day) 1 (Night) d = 3÷9 (Number of rings)</p>
<p>DEFAULT VALUES: All Branches with call with 3 rings both in DAY and NIGHT scenario. EXAMPLE: 26 01 0 5 # to set the number of entry phone call rings to 5 on branch 01</p>	

8.10 GROUPS OF BRANCHES

COMMAND	PARAMETER VALUES
	<p>a = 1-5 (Number of the group). 0 (to cancel all the groups, the next parameter is not needed).</p> <p>bc = 01-08 (List of branches belonging to the same partition; 2 digits as tens and units). 00 (To cancel the group specified by parameter a).</p>
<p>DEFAULT VALUES: No group configured.</p> <p>EXAMPLE: 27 1 010203 # to define group 1 consisting of branches: 01 – 02 – 03 27 2 010405# to define group 2 consisting of branches: 01 – 04 – 05. A branch is allowed to belong to several groups.</p>	

8.11 CLI (CALLER ID)


This service is only possible on the outside line of the telephone operator (TELECOMITALIA for Italy) if:

- 1) the user has signed a subscription with the operator;
- 2) a telephone preset for this function is used;


If these conditions are fulfilled, the service allows the number of the caller to be shown on the display both during the call stage (CLI ON-HOOK i.e. with "receiver put down) and, should the user be subscribed to the "call waiting" service, also during conversation (CLI OFF-HOOK i.e. with "receiver lifted").

In "Caller ID" during the call stage, between the first and second ring, the telephone operator sends the caller number. If the user replies before the second ring, the number will not be displayed.

In " Caller ID" during the conversation stage you will notice a short break in the communication.

COMMAND	PARAMETER VALUES
	<p>ab = 01÷08 (Branch)</p> <p>c = CLI ON-HOOK 1 (Activated) 0 (Not activated)</p> <p>d = CLI OFF-HOOK 1 (Attiva) 0 (Not activated)</p>
<p>DEFAULT VALUES: All branches with CLI ON-HOOK activated. All branches with CLI OFF-HOOK deactivated.</p>	

8.12 INCOMING CALL OPERATION

COMMAND	PARAMETER VALUES
	<p>a = 1 (Partition 1) 2 (Partition 2)</p> <p>b = 0 (All branches) 1 (Operator Post)</p>
<p>DEFAULT VALUES: Incoming calls addressed to Operator Post.</p>	

8.13 ENABLING / DISABLING LINES ON BRANCHES

DESCRIPTION	COMMAND	PARAMETER VALUES
Enabling Lines on branches	3 1 a b c d... #	a = 1-2 (Line Number) b = 0 (Day) 1 (Night) cd= 01-08 (List of branches to be enabled)

DESCRIPTION	COMMAND	PARAMETER VALUES
Disabling Lines on branches	3 2 a b c d... #	a = 1-2 (Line Number) b = 0 (Day) 1 (Night) cd=01-08 (List of branches to be enabled)

DEFAULT VALUES: All the branches enabled to receive calls from the line both in DAY and NIGHT scenario.

8.14 SUPPLEMENTARY TELEPHONE SERVICES

COMMAND	PARAMETER VALUES
3 7 a b #	a = 1-2 (Line Number) b = 1 (Services subscribed to) 0 (Services not subscribed to)

DEFAULT VALUES: Services not subscribed to.

8.15 CHARACTERISATION OF ENTRY PHONE CALL BUTTONS

COMMAND	PARAMETER VALUES
4 0 a b #	a = 1-4 (Number of call button) b = 0 (Entry phone call) 1 (Floor door call)

DEFAULT VALUES: All the buttons set as entry phone call.

8.16 ENABLING / DISABLING ENTRY PHONE CALL BUTTONS

DESCRIPTION	COMMAND	PARAMETER VALUES
Enabling call buttons on branches	4 1 a b c d... #	a = 1÷4 (Call button number); b = 0 (Day) 1 (Night) cd = 01÷08 (List of branches to be enabled)

Disabling call buttons on branches	4 2 a b c d... #	a = 1÷4 (Call button number); b = 0 (Day) 1 (Night) cd = 01-08 (List of branches to be enabled)
------------------------------------	------------------	--

DEFAULT VALUES: All Branches accept the call from all the buttons.

8.17 NUMBER OF RINGS FOR AUTOMATIC ANSWERING SERVICES

COMMAND	PARAMETER VALUES
	a = 1÷9 (number of rings)
DEFAULT VALUES: 1 ring	

8.18 SETTING THE SYSTEM DATE

COMMAND	PARAMETER VALUES
	ab = day cd = month ef = year

8.19 SETTING THE SYSTEM TIME

COMMAND	PARAMETER VALUES
	ab = hour cd = minutes

9 REMOTE MANAGEMENT

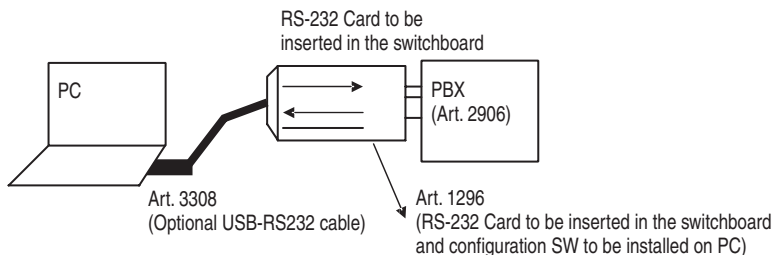
The possibility of carrying out the following operations on the PBX is intended by remote management of the PBX:

- Remote Configuration, i.e. the series of operations which allow the PBX parameters to be acquired and modified.
- Remote Uploading, i.e. the possibility of sending new firmware or parts of this to the PBX.

10 REMOTE CONFIGURATION

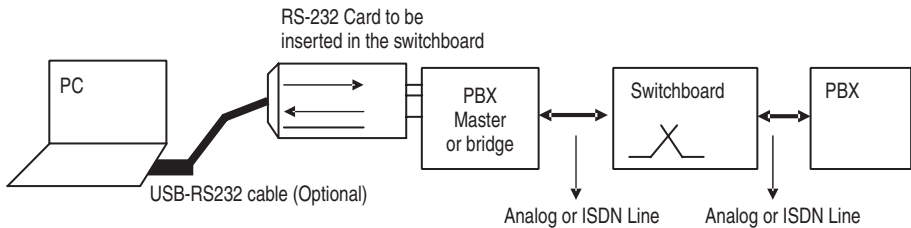
10.1 LOCAL REMOTE CONFIGURATION

Local remote configuration is done by connecting the PC directly to the PBX (Art.2906) which is to be configured, as shown in the following figure:



10.2 REMOTE TELE-CONFIGURATION

Remote tele-configuration is carried out by connecting the PC to a “dedicated” PBX called bridge (or master). The switchboard to be configured is reached by means of an external outside line as shown in the following figure:

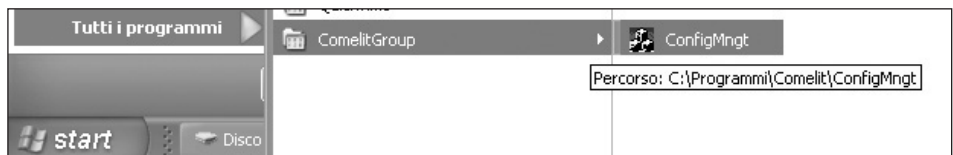


This type of remote configuration is reserved exclusively for the COMELIT assistance centres.

11 SOFTWARE FOR LA REMOTE MANAGEMENT LOCAL

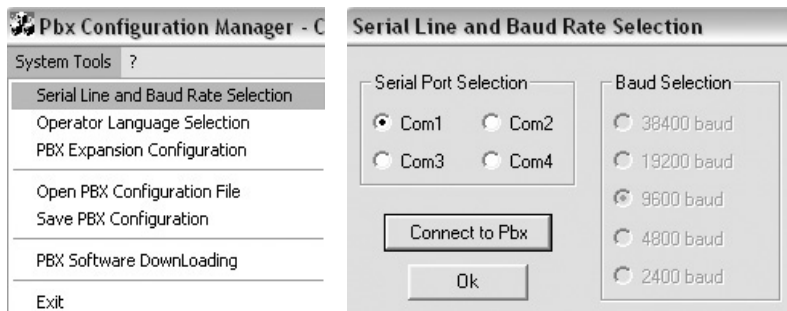
11.1 STARTUP

The programme for the remote management is run by selecting the ConfigMngt application as shown in the figure:



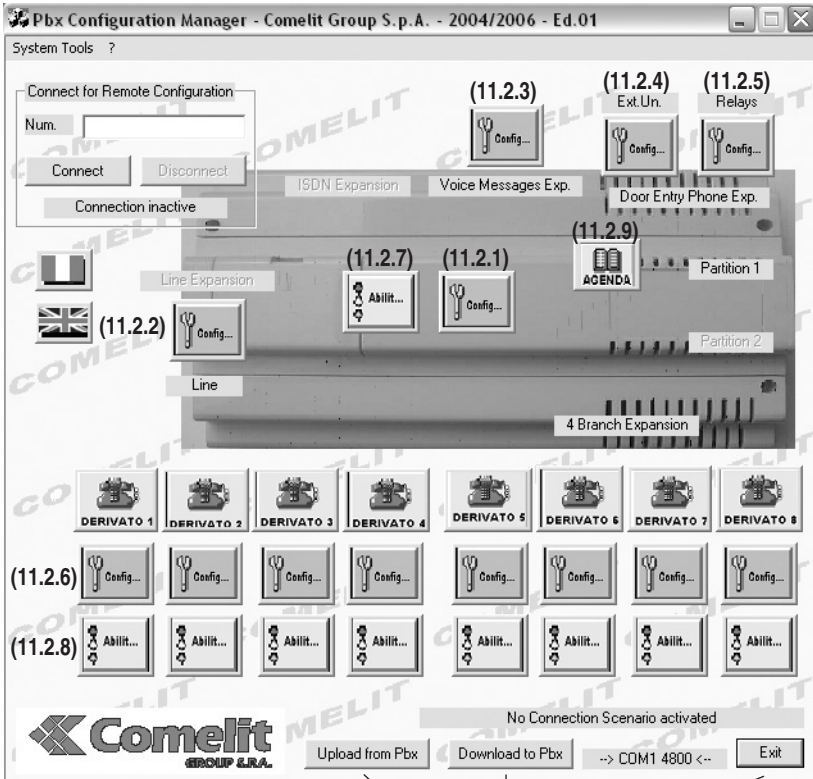
Selection of the serial used for connection to the PBX is required.

This operation is carried out starting from the “Select Operation” pull-down menu and by activating the “Selection Serial Line and Speed” option. Select the port in use in the window which appears and confirm with “OK”.



11.2 PRESENTATION WINDOW

All the switchboard parameters can be programmed and checked by activating the appropriate windows each time. The reference window is as follows:



(11.2.10)

11.2.1 PBX configuration pushbutton

By clicking over this pushbutton, the window relative to the general parameters opens. The following are programmed directly in this:

- Country (ref. Configuration parameter 01)
- Lingua (ref. Parameter 01)
- Changing system code (ref. Parameter 00)
- N° of rings for services with Automatic reply (ref. Parameter 77)

2 immediate commands can then be given:

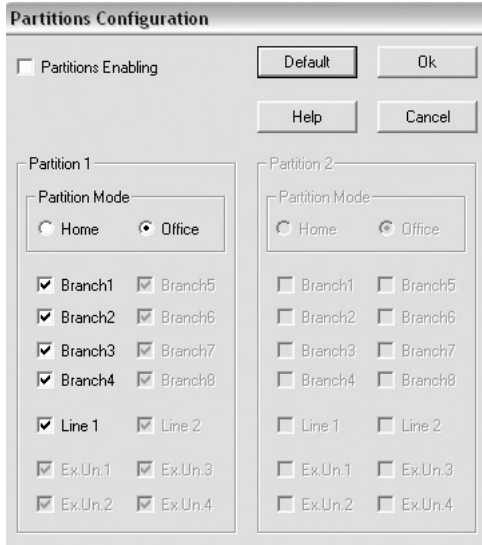
- e. Sending reset Default conditions Command (or factory) (ref. Parameter 99)
- f. Request for HW and SW version

Indirectly, by means of pushbuttons, you access the windows relative to Groups, Partitions, Remote SOS line, Filters and Date-Hour.

g. Groups (ref. Parameter 27). The associated window is as follows:

General enabling (Enabling Groups) and enabling individual groups is foreseen in this. To assign a branch to a group, simply click the corresponding check-box.

h. Partitions. The associated window is as follows:

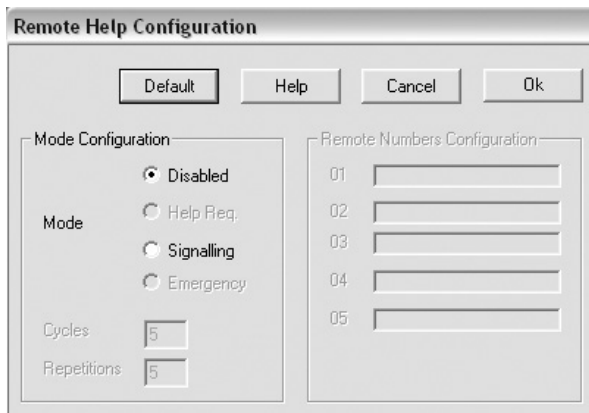


The **Partitions Configuration** dialog box features a 'Partitions Enabling' checkbox at the top left. To its right are buttons for 'Default', 'Ok', 'Help', and 'Cancel'. The main area is divided into two panels: 'Partition 1' and 'Partition 2'. Each panel contains a 'Partition Mode' section with radio buttons for 'Home' and 'Office'. Below this, there are two columns of checkboxes for assigning branches (Branch1-4 and Branch5-8) and lines (Line 1, Line 2) to the partition. At the bottom of each panel, there are checkboxes for external units (Ex.Un.1-4).

In this window it is possible to:

- Enable the partitions (ref. Parameter 10)
- Assign the branches to the partition (ref. Parameter 11)
- Establish the type of partition (ref. Parameter 14)

i. Remote SOS line. The associated window is as follows:



The **Remote Help Configuration** dialog box has buttons for 'Default', 'Help', 'Cancel', and 'Ok' at the top. It is split into two main sections. The 'Mode Configuration' section on the left includes a 'Mode' dropdown with radio buttons for 'Disabled' (selected), 'Help Req.', 'Signalling', and 'Emergency'. Below this are input fields for 'Cycles' (set to 5) and 'Repetitions' (set to 5). The 'Remote Numbers Configuration' section on the right contains five empty input fields labeled 01 through 05.

In this window it is possible to:

- Enable the remote SOS line (ref. Parameter 55)
- Establish the type of the service (ref. Parameter 55)

j. Filters

Refer to par. 5.10 for the details on definition of the filters.

The associated window is as follows:

Filters on Call Configuration

Provider Configuration

Partition 1		Partition 2	
00	1033	00	1033
01		01	
02		02	
03		03	
04		04	
05		05	

Buttons: Default Help Cancel Ok

Filters Unlock Password

Partition 1		Partition 2	
Old Password	0000	Old Password	0000
New Password		New Password	
Conf. New Password		Conf. New Password	

Lock Table Configuration

Partition 1		Partition 2	
00		05	
01		06	
02		07	
03		08	
04		09	

Enabling Table Configuration

Partition 1

Provider 0	Provider 1	Provider 2	Provider 3	Provider 4	Provider 5
01	01	01	01	01	01
02	02	02	02	02	02
03	03	03	03	03	03
04	04	04	04	04	04
05	05	05	05	05	05

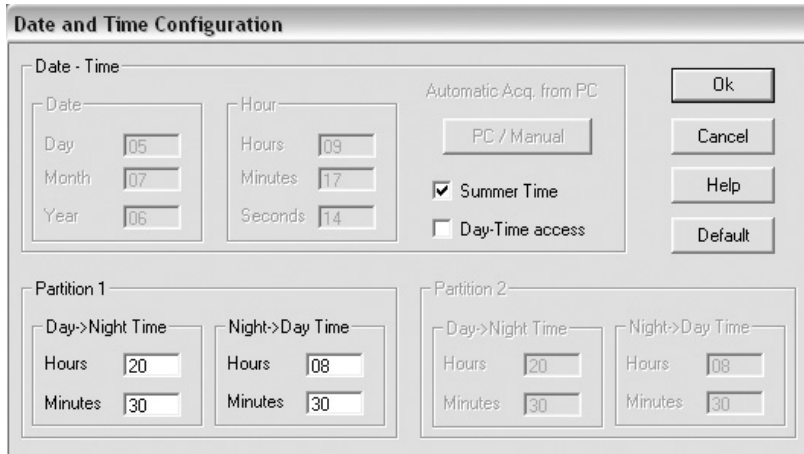
Partition 2

Provider 0	Provider 1	Provider 2	Provider 3	Provider 4	Provider 5
01	01	01	01	01	01
02	02	02	02	02	02
03	03	03	03	03	03
04	04	04	04	04	04
05	05	05	05	05	05

In this window it is possible to:

- Configure the area codes of the carriers (ref. Parameter 50)
- Enter the area codes to be blocked in the blocking table (ref. Parameter 51)
- Enter the area codes to be associated with a certain carrier in the Enabling Table (ref. Parameter 52)
- Change the password to overcome the block (ref. Parameter 53)

k. Date and Hour. The associated window is as follows:



In this window it is possible to:

- Configure the time of passing from the day scenario to the night one (ref. Parameter 75)
- Configure the time of passing from the night scenario to the day one (ref. Parameter 76)
- Enable / Disable management of summer time (ref. Parameter 01)
- Allow / Prohibit configuration of date-hour of the PBX
- In the case of Permission, the date can be changed (ref. Parameter 74) and the time (ref. Parameter 73)

11.2.2 Configuration of OUTSIDE LINE pushbutton

By clicking over this pushbutton, the window relative to the parameters of the outside Lines opens. The following are programmed directly in this window:

Analog Line Configuration

Incoming Calls

Partition 1: All Branches, Operator Post

Partition 2: All Branches, Operator Post

Supplementary Telephone Services

Active on Line 1
 Active on Line 2

Line on Branches Enabling

Follow-me from Line to Line

Line 1: Day, Night, on Line 2, N.

Line 2: Day, Night, on Line 1, N.

Music on hold

Line 1: Tone, Music 1, Music 2, Music 3, External Music

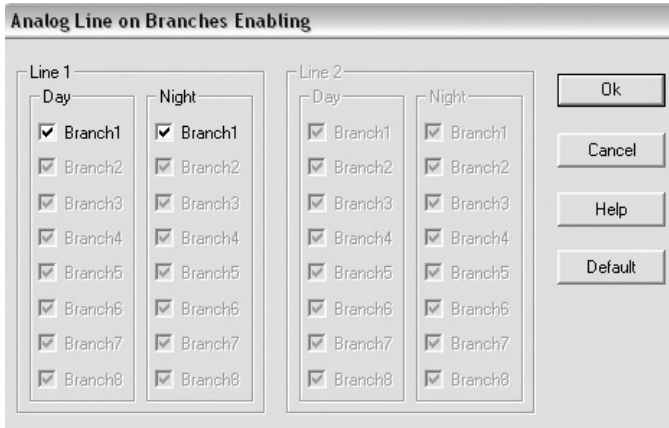
Line 2: Tone, Music 1, Music 2, Music 3, External Music

Default
 Help
 Cancel
 Ok

- Method of managing incoming Calls (ref. Parameter 30)
- Presence/Absence of the Supplementary Telephone Services on the lines (ref. Parameter 37)
- Configuration of the Follow-me service from line (ref. Parameter 33)
- The music on hold to the lines (ref. Parameter 03)

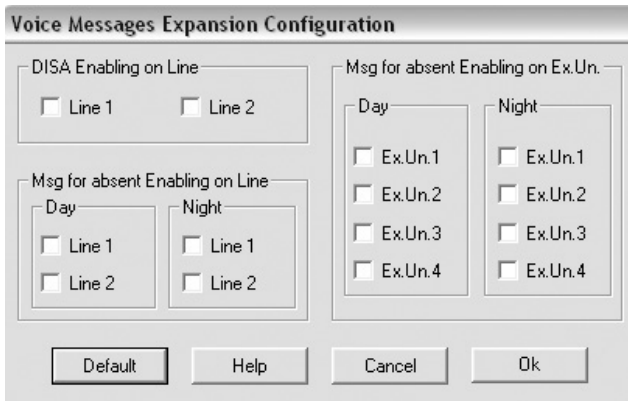
Indirectly, by means of a pushbutton, you access the window relative to:

e. enabling line on branches (ref. Parameter 31-32). The associated window is as follows:



11.2.3 DISA configuration pushbutton

By clicking over this pushbutton, the window relative to the parameters of the message card (DISA) opens. The following parameters are programmed in this window:



- a. Enabling DISA on lines (ref. Parameter 59-60)
- b. Enabling COURTESY on lines (ref. Parameter 63-64)
- c. Enabling COURTESY on the external unit (ref. Parameter 65-66)

11.2.4 P.E. configuration pushbutton

By clicking over this pushbutton, the window relative to the parameters of the entry phone card regarding the telephone call buttons opens. The following parameters are programmed in this window:

Door Entry Phone Interface Expansion Configuration (External Unit)

Enabling Ex.Un. on Branches

Ex.Un. 1		Ex.Un. 2	
Day	Night	Day	Night
<input checked="" type="checkbox"/> Branch1	<input checked="" type="checkbox"/> Branch1	<input checked="" type="checkbox"/> Branch1	<input checked="" type="checkbox"/> Branch1
<input checked="" type="checkbox"/> Branch2	<input checked="" type="checkbox"/> Branch2	<input checked="" type="checkbox"/> Branch2	<input checked="" type="checkbox"/> Branch2
<input checked="" type="checkbox"/> Branch3	<input checked="" type="checkbox"/> Branch3	<input checked="" type="checkbox"/> Branch3	<input checked="" type="checkbox"/> Branch3
<input checked="" type="checkbox"/> Branch4	<input checked="" type="checkbox"/> Branch4	<input checked="" type="checkbox"/> Branch4	<input checked="" type="checkbox"/> Branch4
<input checked="" type="checkbox"/> Branch5	<input checked="" type="checkbox"/> Branch5	<input checked="" type="checkbox"/> Branch5	<input checked="" type="checkbox"/> Branch5
<input checked="" type="checkbox"/> Branch6	<input checked="" type="checkbox"/> Branch6	<input checked="" type="checkbox"/> Branch6	<input checked="" type="checkbox"/> Branch6
<input checked="" type="checkbox"/> Branch7	<input checked="" type="checkbox"/> Branch7	<input checked="" type="checkbox"/> Branch7	<input checked="" type="checkbox"/> Branch7
<input checked="" type="checkbox"/> Branch8	<input checked="" type="checkbox"/> Branch8	<input checked="" type="checkbox"/> Branch8	<input checked="" type="checkbox"/> Branch8

Ex.Un. 3		Ex.Un. 4	
Day	Night	Day	Night
<input checked="" type="checkbox"/> Branch1	<input checked="" type="checkbox"/> Branch1	<input checked="" type="checkbox"/> Branch1	<input checked="" type="checkbox"/> Branch1
<input checked="" type="checkbox"/> Branch2	<input checked="" type="checkbox"/> Branch2	<input checked="" type="checkbox"/> Branch2	<input checked="" type="checkbox"/> Branch2
<input checked="" type="checkbox"/> Branch3	<input checked="" type="checkbox"/> Branch3	<input checked="" type="checkbox"/> Branch3	<input checked="" type="checkbox"/> Branch3
<input checked="" type="checkbox"/> Branch4	<input checked="" type="checkbox"/> Branch4	<input checked="" type="checkbox"/> Branch4	<input checked="" type="checkbox"/> Branch4
<input checked="" type="checkbox"/> Branch5	<input checked="" type="checkbox"/> Branch5	<input checked="" type="checkbox"/> Branch5	<input checked="" type="checkbox"/> Branch5
<input checked="" type="checkbox"/> Branch6	<input checked="" type="checkbox"/> Branch6	<input checked="" type="checkbox"/> Branch6	<input checked="" type="checkbox"/> Branch6
<input checked="" type="checkbox"/> Branch7	<input checked="" type="checkbox"/> Branch7	<input checked="" type="checkbox"/> Branch7	<input checked="" type="checkbox"/> Branch7
<input checked="" type="checkbox"/> Branch8	<input checked="" type="checkbox"/> Branch8	<input checked="" type="checkbox"/> Branch8	<input checked="" type="checkbox"/> Branch8

Ex.Un. Characteristic			
	Push	Floor Call	S.B. Address
Ex.Un.1	<input checked="" type="radio"/>	<input type="radio"/>	170
Ex.Un.2	<input checked="" type="radio"/>	<input type="radio"/>	170
Ex.Un.3	<input checked="" type="radio"/>	<input type="radio"/>	000
Ex.Un.4	<input checked="" type="radio"/>	<input type="radio"/>	000

SimpleBus

Mode 1
 Mode 2

Services

Follow-me from Ex.Un.

Ex.Un. 1		Ex.Un. 2	
Day	Night	Day	Night
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N: _____		N: _____	
Line Selection:		Line Selection:	
<input type="radio"/> First avail.		<input type="radio"/> First avail.	
<input checked="" type="radio"/> Line 1 <input type="radio"/> Line 2		<input checked="" type="radio"/> Line 1 <input type="radio"/> Line 2	

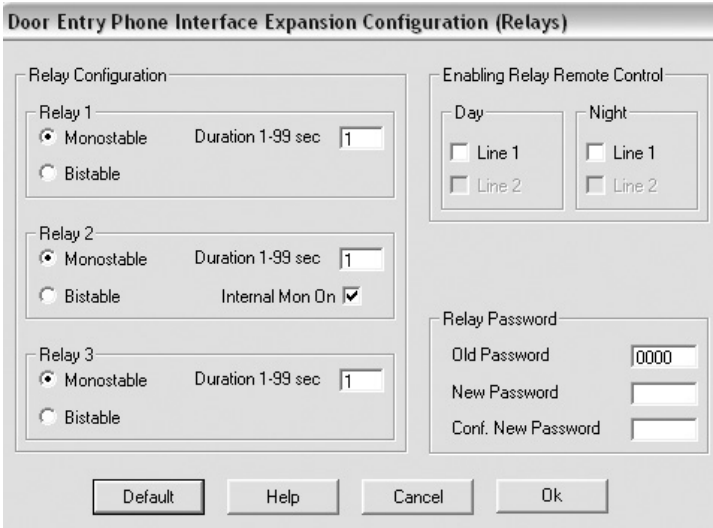
Ex.Un. 3		Ex.Un. 4	
Day	Night	Day	Night
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N: _____		N: _____	
Line Selection:		Line Selection:	
<input type="radio"/> First avail.		<input type="radio"/> First avail.	
<input checked="" type="radio"/> Line 1 <input type="radio"/> Line 2		<input checked="" type="radio"/> Line 1 <input type="radio"/> Line 2	

Default Help Cancel Ok

- Enabling entry phone call buttons on branches (ref. Parameter 41-42)
- Characterisation of entry phone call buttons (ref. Parameter 40)
- Configuration of follow-me from external unit (ref. Parameter 43)

11.2.5 RELAY configuration pushbutton

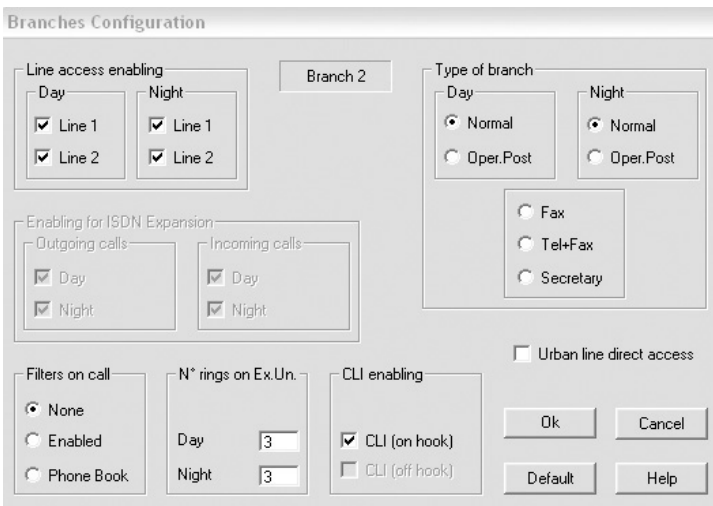
By clicking over this pushbutton, the window relative to the parameters of the entry phone card regarding configuration of the relay opens. The following parameters are programmed in this window:



- Configuration (mode of operation) of the relay (ref. Parameter 69)
- Configuration of permission for checking the state of the relay from an outside line (ref. Parameter 71)
- Configuration of access password (ref. Parameter 70)

11.2.6 Branch configuration pushbutton

By clicking over this pushbutton, the window relative to the parameters of branch configurations opens. The following parameters are programmed in this window:



- a. Enabling use of outside Lines (ref. Parameter 21)
- b. Characterisation of branch (ref. Parameter 20)
- c. Filter on calls to the outside (ref. Parameter 28)
- d. Number of rings when called from external entry phone unit (ref. Parameter 26)
- e. Caller identification ("Caller ID" service) (ref. Parameter 29)

11.2.7 Pushbutton for switchboard Enabling operations

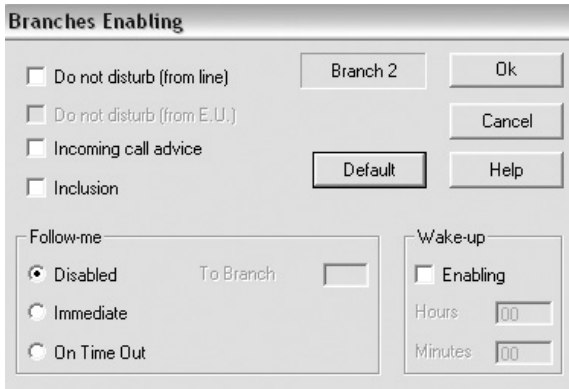
By clicking over this pushbutton, the window relative to the enabling operations of the switchboard services opens. The following services are enabled in this window:

The screenshot shows a 'General Enabling' dialog box with two sections for Partition 1 and Partition 2. Each section has a 'Scenario' group with radio buttons for Day, Night, and Automatic. There are also checkboxes for 'Follow-me from Line' (Line 1, Line 2) and 'Follow-me from Ex.Un.' (Ex.Un.1, Ex.Un.2, Ex.Un.3, Ex.Un.4). Other options include 'Fax Switch', 'Remote Control', 'Absent Msg', 'Disa', 'Automatic conversation', and 'Incoming call notified to internal extensions'. At the bottom are buttons for 'Default', 'Help', 'Cancel', and 'Ok'.

- a. Enabling automatic/fixed day/fixed night scenario (ref. Command 7*1/7*2/7*3)
- b. Enabling/Disabling Fax (ref. Command 711/710)
- c. Enabling/Disabling Fax (ref. Command 701/700)
- d. Enabling/Disabling DISA (ref. Command 721/720)
- e. Enabling/Disabling remote relay checking (ref. Command 731/730)
- f. Enabling/Disabling Follow-me from line (ref. Command 751/750)
- g. Enabling/Disabling entry phone follow-me (ref. Command 741/740)

11.2.8 Branch enabling pushbutton

By clicking over this pushbutton, the window relative to enablements of the switchboard services opens. The following services are enabled in this window:



Branches Enabling

Do not disturb (from line) Branch 2 Ok

Do not disturb (from E,U.) Cancel

Incoming call advice Default Help

Inclusion

Follow-me

Disabled To Branch

Immediate

On Time Out

Wake-up

Enabling

Hours

Minutes

- a. Enabling/Disabling "Do not disturb" from line (ref. Command 771/770)
- b. Enabling/Disabling "Do not disturb" from P.E. (ref. Command 773/772)
- c. Enabling/Disabling Call waiting (ref. Command 779/778)
- d. Enabling/Disabling inclusion (ref. Command 791/790)
- e. Enabling/Disabling diverting incoming calls (ref. Command 774/775/776)
- f. Enabling with time/ Alarm clock Disabling loading (ref. Command 780/781/782)

11.2.9 Name Directory Pushbutton

By clicking over this pushbutton, the window relative to the switchboard directory opens. In this window it is possible to insert the 40 speed dialling numbers (number and name):

Phone Book Configuration

SDS	Number	Name	SDS	Number	Name
01	<input type="checkbox"/>	<input type="text"/>	21	<input type="checkbox"/>	<input type="text"/>
02	<input type="checkbox"/>	<input type="text"/>	22	<input type="checkbox"/>	<input type="text"/>
03	<input type="checkbox"/>	<input type="text"/>	23	<input type="checkbox"/>	<input type="text"/>
04	<input type="checkbox"/>	<input type="text"/>	24	<input type="checkbox"/>	<input type="text"/>
05	<input type="checkbox"/>	<input type="text"/>	25	<input type="checkbox"/>	<input type="text"/>
06	<input type="checkbox"/>	<input type="text"/>	26	<input type="checkbox"/>	<input type="text"/>
07	<input type="checkbox"/>	<input type="text"/>	27	<input type="checkbox"/>	<input type="text"/>
08	<input type="checkbox"/>	<input type="text"/>	28	<input type="checkbox"/>	<input type="text"/>
09	<input type="checkbox"/>	<input type="text"/>	29	<input type="checkbox"/>	<input type="text"/>
10	<input type="checkbox"/>	<input type="text"/>	30	<input type="checkbox"/>	<input type="text"/>
11	<input type="checkbox"/>	<input type="text"/>	31	<input type="checkbox"/>	<input type="text"/>
12	<input type="checkbox"/>	<input type="text"/>	32	<input type="checkbox"/>	<input type="text"/>
13	<input type="checkbox"/>	<input type="text"/>	33	<input type="checkbox"/>	<input type="text"/>
14	<input type="checkbox"/>	<input type="text"/>	34	<input type="checkbox"/>	<input type="text"/>
15	<input type="checkbox"/>	<input type="text"/>	35	<input type="checkbox"/>	<input type="text"/>
16	<input type="checkbox"/>	<input type="text"/>	36	<input type="checkbox"/>	<input type="text"/>
17	<input type="checkbox"/>	<input type="text"/>	37	<input type="checkbox"/>	<input type="text"/>
18	<input type="checkbox"/>	<input type="text"/>	38	<input type="checkbox"/>	<input type="text"/>
19	<input type="checkbox"/>	<input type="text"/>	39	<input type="checkbox"/>	<input type="text"/>
20	<input type="checkbox"/>	<input type="text"/>	40	<input type="checkbox"/>	<input type="text"/>

Default Help Cancel Ok

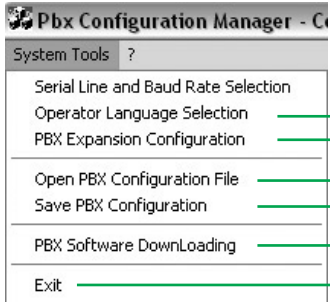
11.2.10 Control pushbuttons and status windows

The function of these pushbuttons is as follows:

- By clicking over this pushbutton the current switchboard configuration is imported;
- By clicking over this pushbutton the configuration set is written in the switchboard;
- By clicking over this pushbutton you exit the programme
- Window with indication of the serial connection used and the speed reached in the connection between PC and switchboard
- Window of the type of connection established by the PC

11.2.11 Programme utilities

The following operations are possible in the “Select operation” pull-down menu:



Allows selection of the programme language

Allows making a configuration of the switchboard with expansion cards - only on PC

Allows recalling a configuration of the switchboard saved previously

Allows saving the current configuration of the switchboard to file.

If enabled, this allows entry to the switchboard firmware updating menu.

Closes and exits the programme

ANNEX A

DESCRIPTION	COMMAND				PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
<p>Generale Changing system code</p>		<p>The code must be of 4 digits (default 0000).</p>	<p>Code = 0000</p>	<p>8.1</p>			
<p>Defining country</p>		<p>a = Countries 0 ITALY 1 FRANCE 2 GERMANY 3 SPAIN 4 GREAT BRITAIN 5 HOLLAND 6 PORTUGAL 7 DENMARK 8 FINLAND b = Language 0 ITALIAN 1 FRENCH 2 GERMAN 3 SPANISH 4 ENGLISH 5 DUTCH 6 PORTUGUESE 7 DANISH 8 FINNISH c = 0 (summer time not activated) 1 (summer time activated)</p>	<p>Country = ITALY Language = ITALIAN Summer time = Activated</p>	<p>8.2</p>			

(annex A contd.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Selecting music on hold	0 3 a b #	a = 1-2 (Number of Line) b = 0 (Waiting tone) 1 (Music 1 - Spring by Vivaldi) 2 (Music 2 - Catalan Melody) 3 (Music 3 - Over the Rainbow) 4 (External music)	All lines with Music 1.	8.3
Number of rings for automatic answering services	7 7 a #	a = 1-9 (number of rings)	1 ring	8.17
Resetting configurations	9 9 a b #	ab = 99 (resetting the default configurations) 97 (cancelling directory speed dialling numbers) 96 (resetting the factory volumes)		6.16
Partitions				
Activation of partitions	1 0 a #	0 = Disabled 1 = Enabled	Partitions not activated	8.4.1
Association of Branches-Partitions	1 1 a b c ... #	a = 1 (Partition 1) 2 (Partition 2) b c = 01-08 (List of branches)	Odd branches on partition 1. Even branches on partition 2.	8.4.2
Association of Lines-Partitions	1 2 a b ... #	a = 1 (Partition 1) 2 (Partition 2) b = 1-2 (List of lines)	Line 1 on partition 1. Line 2 on partition 2.	8.4.3
Association of Entry phone call buttons – Partitions	1 3 a b ... #	a = 1 (Partition 1) 2 (Partition 2) b = 1-4 (List of branches)	Odd buttons on partition 1. Even buttons on partition 2.	8.4.4
Home/Office	1 4 a b #	a = 1 (Partition 1) 2 (Partition 2) b = 0 (Home) 1 (Office)	Both partitions on Office.	8.5

(annex A contid.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Branches / Groups				
Characterisation of branch	(2) (0) (a) (b) (c) (d) (#)	ab = 01 ÷ 08 (branch number) c = 0 (Day) 1 (Night) d = 0 (Normal branch) 1 (OP) 2 (Fax) 3 (Telephone + Fax) 4 (Answer phone)	Branch 1 as OP both in DAY and NIGHT scenario. The other branches as normal user both in DAY and NIGHT scenario.	8.6
Enabling use of lines	(2) (1) (a) (b) (c) (d) ... (#)	ab = 01 ÷ 08 (branch number) c = 0 (Day) 1 (Night) d = 1-2 (List of outside lines to be enabled; 1 digit)	All the branches enabled to use the lines both in DAY and NIGHT scenario.	8.7.1
Disabling use of lines	(2) (2) (a) (b) (c) (d) ... (#)	ab = 01 ÷ 08 (branch number) c = 0 (Day) 1 (Night) d = 1-2 (List of outside lines to be disabled; 1 digit)	All the branches enabled to use the lines both in DAY and NIGHT scenario.	8.7.2
Direct access to outside line	(2) (5) (a) (b) (c) (#)	ab = 01-08 (branch number) c = 0 (Direct access disabled) 1 (Direct access enabled)	All the branches without direct access to the outside line	8.8
Definition of number of rings for entry phone call	(2) (6) (a) (b) (c) (d) (#)	ab = 01 ÷ 08 (branch number) c = 0 (Day) 1 (Night) d = 3-9 (Number of rings)	All the branches with call with 3 rings both in DAY and NIGHT scenario.	8.9

(annex A contid.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Groups of branches	(2) (7) (a) (b) (c) ... (#)	a = 1-5 (Number of the group). 0 (to cancel all the groups, the next parameter is not needed). bc = 01-08 (List of branches belonging to the same partition); 00 (To cancel the group specified by parameter a).	No group configured.	8.10
Activation of filter on branch	(2) (8) (a) (b) (c) (#)	ab = Number of branch (01 - 08) c = Type of block: 0 (None) 1 (Blocks enabled) 2 (Directory)	All the branches with no filter active.	5.10.4
CLI (CALLER ID)	(2) (9) (a) (b) (c) (d) (#)	ab = 01÷08 (Branch) c = CLI ON-HOOK 1 (Activated) 0 (Not activated) d = CLI OFF-HOOK 1 (Activated) 0 (Not activated)	All branches with CLI ON-HOOK activated. All branches with CLI OFF-HOOK deactivated.	8.11
Outside Lines				
Operation Incoming calls	(3) (0) (a) (b) (#)	a = 1 (Partition 1) 2 (Partition 2) b = 0 (All branches) 1 (Operator Post)	Incoming calls addressed to Operator Post.	8.12


(annex A contid.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Enabling Lines on branches	3 1 a b c d ... #	a = 1-2 (Line Number) b = 0 (Day) 1 (Night) cd= 01-08 (List of branches to be enabled)	All the branches enabled to receive calls from the line both in DAY and NIGHT scenario.	8.13
Disabling Lines on Branches	3 2 a b c d ... #	a = 1-2 (Line Number) b = 0 (Day) 1 (Night) cd= 01-08 (List of branches to be enabled)	All the branches enabled to receive calls from the line both in DAY and NIGHT scenario.	8.13
Supplementary Telephone Services	3 7 a b #	a = 1-2 (Line Number) b = 1 (Services subscribed to) 0 (Services not subscribed to)	Services not subscribed to.	8.14
Line-to-line Follow-me				
Configuration	3 3 a b c d ... #	a = 1-2 (incoming outside line) b = 0 (resets configuration) 1-2 (outgoing outside line) 3 (first available) c = 0 (Day) 1 (Night) d = telephone number (max 16 digits)	Service not configured.	5.8.2
Entry phone				
Characterisation of Entry phone call buttons	4 0 a b #	a = 1-4 (Number of call button) b = 0 (Entry phone call) 1 (Floor door call)	All the buttons set as entry phone call.	8.15
Enabling call buttons on branches	4 1 a b c d ... #	a = 1-4 (Call button number) b = 0 (Day) 1 (Night) cd = 01-08 (List of branches to be enabled)	All Branches accept the call from all the buttons.	8.16

(annex A contd.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Disabling call buttons on branches	4 2 a b c d ... #	a = 1-4 (Call button number); b = 0 (Day) 1 (Night) cd = 01÷08 (List of branches to be enabled)	All the branches enabled to receive calls from the line both in DAY and NIGHT scenario.	8.16
Entry phone follow-me				
Configuration	4 3 a b c d ... #	a = 1-4 (entry phone call button) b = 0 (resets configuration) 1-2 (outside line) 3 (first available) c = 0 (Day) 1 (Night) d = telephone number (max 16 digits)	Service not configured.	5.7.2
Filters				
Configuration of carriers	5 0 a b c ... #	a = 1 (Partition 1), 2 (Partition 2) b = 0-5 (Table index) c = Area code (max 6 digits)	No telephone carrier configured.	5.10.2
Configurazione Tabella di blocco	5 1 a b c ... #	a = 1 (Partizione 1) 2 (Partizione 2) b = 0-9 (Indice tabella) c = Prefisso (max 4 digit)	Nessun prefisso telefonico configurato.	5.10.2
Configuration of enabling Tables	5 2 a b c d ... #	a = 1 (Partition 1), 2 (Partition 2) b = 0-5, 0 = telecom (Carrier index) c = 1-5 (Table index) d = Area code (max 4 digits)	No telephone area code configured.	5.10.2
Definition of Password for releasing filters	5 3 a b ... #	a = 1 (Partition 1), 2 (Partition 2); b = Password (4 digit) (default 0000)	Password = 0000	5.10.2

(annex A contd.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Remote SOS				
Configuration	5 5 a b c #	a = 0 (Disabling) 1 (SOS) 2 (Signalling) 3 (Alarm) b = 5-9 (Call cycles) c = 5-9 (Repetitions of the message)	Disabled, with 5 call cycles and 5 message repetitions.	5.9.2
Entering telephone numbers	5 6 a b ... #	a = 1-5 (index); b = Number to be stored (Max 20 digits)	No telephone number configured.	5.9.2
Recording Message	5 7 #  #		No message recorded.	5.9.2
Listening to message	5 8 #		No message recorded.	5.9.2
DISA				
Enabling DISA on Lines	5 9 a ... #	a = 1-2 (List of lines)	Service not configured on all the lines.	5.5.2
Disabling DISA on Lines	6 0 a ... #	a = 1-2 (List of lines)	Service not configured on all the lines.	5.5.2
Courtesy				
Activation of Courtesy on Lines	6 3 a b ... #	a = 0 (Day) 1 (Night) b = 1, 2 (list of lines)	Service not configured on all the lines either in DAY or NIGHT scenario.	5.3.2
Deactivation of Courtesy on Lines	6 4 a b ... #	a = 0 (Day) 1 (Night) b = 1, 2 (list of lines)	Service not configured on all the lines either in DAY or NIGHT scenario.	5.3.2
Activation of Courtesy on entry phone call buttons	6 5 a b ... #	a = 0 (Day) 1 (Night) b = 1, 2, 3, 4 (list of call buttons)	Service not configured on all the call buttons either in DAY or NIGHT scenario.	5.3.2

(annex A contd.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Deactivation of Courtesy on entry phone call buttons	6 6 a b ... #	a = 0 (Day) 1 (Night) b = 1, 2, 3, 4 (list of call buttons)	Service not configured on all the call buttons either in DAY or NIGHT scenario.	5.3.2
Remote relay check				
Configuration of relay	6 9 a b c d e #	a = 1 (relay N1 - C1) 2 (relay N2 - C2) 3 (relay N3 - C3) b = 0 (Monostable) 1 (Bistable) cd= 01-99 (Duration in seconds if monostable) e = 0 (Relay N2 – C2 per usi generici) 1 (Relay N2 – C2 for internal Turning on use)	All the relays configured as monostable with a closing time of 1 second.	5.6.2
Definition of Password	7 0 a b #	a = 4 digits (Password) b = 4 digits (password repetition)	Password = 0000	5.6.2
Enabling Lines	7 1 a b #	a = 0 (Day) 1 (Night) b = 1-2 (List of Lines)	Service not configured on all the lines either in DAY or NIGHT scenario.	5.6.2
Disabling Lines	7 2 a b #	a = 0 (Day) 1 (Night) b = 1-2 (List of Lines)	Service not configured on all the lines either in DAY or NIGHT scenario.	5.6.2

(annex A contid.)

DESCRIPTION	COMMAND	PARAMETER VALUES	DEFAULT VALUES	PAR. REF.
Automatic Day / Night				
Setting the Day/Night changeover time	(7) (5) (a) (b) (c) (d) (e) (#)	a = 1 (partition 1) 2 (partition 2) b c = hours d e = minutes	20:30	5.2.2
Setting the Day/Night changeover time	(7) (6) (a) (b) (c) (d) (e) (#)	a = 1 (partition 1) 2 (partition 2) b c = hours d e = minutes	08:30	5.2.2
Clock				
Setting the system date	(7) (3) (a) (b) (c) (d) (e) (f) (#)	ab = day cd = month ef = year		8.18
Setting the system time	(7) (4) (a) (b) (c) (d) (#)	ab = hour cd = minutes		8.18

ANNEX B - Reminder of Enabling

DESCRIPTION	COMMAND	PARAMETER VALUES
DAY/NIGHT scenario (this is carried out from the operator post branch)		
Activation of DAY scenario	7 * 1 #	
Activation of NIGHT scenario	7 * 2 #	
Automatic DAY/NIGHT service activation	7 * 3 #	
Automatic DAY/NIGHT service deactivation	7 * 4 #	
Courtesy (this is carried out from the operator post branch)		
Deactivation	7 0 0	
Activation	7 0 1	
Recording message	7 0 2 a	a = 0 (Day) 1 (Night) # = end of recording
Listening to the message	7 0 3 a	a = 0 (Day) 1 (Night)
FAX recognition(this is carried out from the operator post branch)		
Deactivation	7 1 0	
Activation	7 1 1	
DISA (this is carried out from the operator post branch)		
Deactivation	7 2 0	
Activation	7 2 1	
Recording message	7 2 2	# = end of recording
Listening to the message	7 2 3	
Remote Relay check (this is carried out from the operator post branch)		
Deactivation	7 3 0	
Activation	7 3 1	
Entry phone follow-me (this is carried out from the operator post branch)		
Deactivation	7 4 0 a	a = 1-2-3-4 (button of call)
Activation	7 4 1 a	a = 1-2-3-4 (button of call)

(annex B contd.)

DESCRIPTION	COMMAND	PARAMETER VALUES
<i>Line-on-line follow-me (this is carried out from the operator post branch)</i>		
Deactivation	(7)(5)(0)(a)	a = 1-2 (line)
Activation	(7)(5)(1)(a)	a = 1-2 (line)
<i>Do not disturb (this is carried out from the branch involved)</i>		
Deactivation of do not disturb from outside line	(7)(7)(0)	
Activation of do not disturb from outside line	(7)(7)(1)	
Deactivation of do not disturb from entry phone call	(7)(7)(2)	
Activation of do not disturb from entry phone call	(7)(7)(3)	
<i>Diversion to extension (this is carried out from the branch involved)</i>		
Deactivation	(7)(7)(4)	
Activation of immediate diversion	(7)(7)(5)(a)(b)	a b = 01-08 (branch)
Activation of timed diversion	(7)(7)(6)(a)(b)	a b = 01-08 (branch)
<i>Call waiting (this is carried out from the branch involved)</i>		
Deactivation	(7)(7)(8)	
Activation	(7)(7)(9)	
<i>Alarm clock (this is carried out from the branch involved)</i>		
Disabling	(7)(8)(0)	
Enabling	(7)(8)(1)	
Setting alarm clock time	(7)(8)(2)(a)(b)(c)(d)	a b = hours; c d = minutes
<i>Inclusion (this is carried out from the branch involved)</i>		
Disabling	(7)(9)(0)	
Enabling	(7)(9)(1)	
<i>Call notified to branches in the Courtesy and Follow-me services (it is carried out from the Operator Post branch)</i>		
Call not notified	(7)(9)(2)	
Call notified	(7)(9)(3)	
<i>Automatic conversation in the Follow-me services (this is carried out from the operator post branch)</i>		
Conversation by means of DTMF digit	(7)(9)(4)	
Automatic conversation	(7)(9)(5)	

ANNEX C - Reminder of the Commands:

DESCRIPTION	COMMAND	PARAMETER VALUES
General		
Selection of outside line	(0)	
Selection of a specific outside line	(9) (a)	a = 1 (Line 1) 2 (Line 2)
Call to external unit	(1)	
Room monitor	(6) (7) (a) (b)	ab = 01- 08 (Branch)
Direct outside line connection	(9) (5) (a) ...	a = telephone number
Releasing outgoing calls	(6) (*) (a) (b) (c) (d)	abcd = password of 4 digits (default = 0000)
Remote programming	(7) (7) (7) (7)	
Listening to music on hold	(7) (8) (3) (a)	a = 1 (Music 1 - Spring by Vivaldi) 2 (Music 2 - Catalan Melody) 3 (Music 3 - Over the Rainbow) 4 (External music)
Putting outside line / branch on hold	(R)	
Relay Control		
Activation of N1 – C1 contacts	(#)	
Activation of N2 – C2 contacts	(*)	
Activation of N3 – C3 contacts	(5)	
Speed dialling number Directory		
Selection of number	(4) (a) (b)	ab = 01 – 40 (Directory number index)
Entering number	(7) (6) (a) (b) (c) ... (#)	ab = index c = telephone number (max 16 digits)
Entering SOS number	(7) (6) (a) (b) (*) (c) ... (#)	ab = index c = telephone number (max 16 digits)

(annex Contd.)

DESCRIPTION	COMMAND	PARAMETER VALUES
Checking relay state		
Checking state of contacts N1 – C1	6 4	Contact closed = continuous tone Contact open = intermittent tone
Checking state of contacts N2 – C2	6 5	Contact closed = continuous tone Contact open = intermittent tone
Checking state of contacts N3 – C3	6 6	Contact closed = continuous tone Contact open = intermittent tone
Parking outside line		
Parking	6 0	
Recovery of the parked line	6 3	
Reply for absent / Capturing call / Inclusion / Booking extension or outside line		
Reply for absent	6 1 a b	a b = branch number (01-08)
Capturing call	6 2	
Cancelling extension / outside line Booking	6 8	
Inclusion	7	
Booking extension / outside line	8	
Internal calls		
Call to branch	8 a b	a b = branch number (01-08)
General call	8 0 0	
Group call	8 3 a	a = Groups of branches (01-05)
STS (Supplementary telephone services)		
Replying to call waiting / toggle	R 2	
Conference with 3	R 3	
From conference with 3, return to the second interlocutor and release of the first	R 1	
From conference with 3, return to the first interlocutor and release of the second	R 5	
From conference with 3 to conversation of just the interlocutors	R 7	

ANNEX D

REMOTE RELAY MANAGEMENT	DISA	COURTESY ANSWER (from entry phone)	COURTESY ANSWER (from outside line)	LINE-TO-LINE FOLLOW-ME	FOLLOW-ME	REMOTE SOS	FAX RECOGNITION	+
Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Incompatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Compatible Functions	Incompatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Compatible Functions	Compatible Functions	Incompatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Incompatible Functions	Incompatible Functions	Compatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Incompatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions
Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions	Compatible Functions

 Compatible Functions

 Equivalent Functions

 Incompatible Functions

ANNEX F

RHYTHM										
TYPE OF TONE	2s	2s	2s	2s	2s	2s	2s	2s	2s	DURATION
FREE	█	█	█	█	█	█	█	█	█	max 1 minute
ENGAGED	█	█	█	█	█	█	█	█	█	max 15 seconds
DISSUASION	█	█	█	█	█	█	█	█	█	max 30 seconds
PROGRAMMING ACCEPTED	█	█	█	█	█	█	█	█	█	3 impulses
PROGRAMMING NOT ACCEPTED	█	█	█	█	█	█	█	█	█	1 impulse
INCLUSION	█	█	█	█	█	█	█	█	█	Every 15s, until the inclusion is accepted
CONFERENCE	█	█	█	█	█	█	█	█	█	As long as the conference lasts
HOLD	█	█	█	█	█	█	█	█	█	As long as the put on hold lasts
CALL WAITING	█	█	█	█	█	█	█	█	█	Every 13s, until the call is served
ENTRY INTO CONFIGURATION	█	█	█	█	█	█	█	█	█	As long as the branch is in the configuration stage
DO NOT DISTURB ACTIVE	█	█	█	█	█	█	█	█	█	10s



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