b-line bold

Digital POTS/IP Hybrid and Phone System

Manual

YELLOWTEC

A Publication of

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T A B L E O F C O N T E N T S

1 S A F E T Y

The unit described is designed against the latest technical parameters and complies with all national and international safety requirements. It operates with a high level of operational safety resulting from long development experience and stringent quality control in our company.

In normal operation this equipment is safe.

There are, however, some potential sources of danger that cannot be completely eliminated.

This Operator Manual therefore contains basic safety instructions that must be observed during system configuration and operation. This Operator Manual must be read before the system is used and the current version of the document must always be kept close to the equipment.

All safety instructions have a uniform appearance. This appearance is described in detail in CHAP. 1.2 .

1.1 General Safety Requirements

In order to keep the technically unavoidable residual risk to a minimum, it is imperative to observe the following rules:

- Transport, storage and operation of the unit/system must be under the permissible conditions only.
- Installation, configuration and disassembly must be carried out only by expert personnel and with reference to the respective documentation.
- The system must be operated by expert and authorised users only.
- The system must not be operated unless it is in perfect working order.
- Any conversions or changes to the system or parts of the system (including the software) must be carried out by qualified personnel from our company or by expert personnel authorised by our company.
  All changes carried out by other persons lead to a complete exemption from liability.
- The removal or disabling of safety facilities, the clearing of faults and errors, and the maintenance of the equipment must be carried out by specially qualified personnel only.
- Non-system software is used at one’s own risk. The use/installation of non-system software can adversely affect the normal functioning of the system software.
- Only use tested and virus-free data carriers!

1.2 Appearance of the Safety Instructions

All safety instructions include a signal word that classifies the danger and a text block that contains descriptions of the type and cause of the danger, the consequences of ignoring the safety instruction and the measures that can be

taken to minimise the danger. In some safety instructions, a warning symbol is placed underneath the signal word (see also CHAP. 1.2.2):

Signal word

Type and cause of danger

Possible Consequences of ignoring the safety instruction

Measures to minimise the danger

1.2.1 Classification of Safety Instructions

There are five classes of safety instructions: "Danger", "Warning", "Caution", "Notice" and "Important". The classification is shown in the following table.

Result	Death			Serious injury			Minor injury			Material damage[1]			Fault[2]		
Signal word	definite	likely	possible	definite	likely	possible	definite	likely	possible	definite	likely	possible	definite	likely	possible
DANGER[3]															
WARNING															
CAUTION															
NOTICE															
IMPORTANT															

The signal word "Note" is also used in the Operator Manual. Text passages marked in this way do not describe a danger, but rather contain reminders, tips and general information to ensure optimum operation of the system.

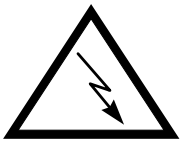
[1] Damage to product or product environment

[2] Considerable impairment to operation

[3] This danger class is not required for B-LINE BOLD

1.2.2 Warning Symbols

The following warning symbols are used:

Symbol	Meaning
	**General warning about a danger**
	**Warning about a dangerous electrical voltage**

The safety instructions classified "Danger", "Warning" and "Caution" always include a warning symbol. "Notice" and "Important" safety instructions sometimes include a warning symbol.

2 INTRODUCTION

B-LINE BOLD is a 6 caller digital Telephone Hybrid.
B-LINE BOLD incorporates 6 x POTS line interfaces, 2 x analogue Audio inputs and outputs, 4 x digital AES3 inputs and outputs available on 2 x physical AES3 interfaces and 2 x Handset interfaces. For control purpose the unit provides 2 x RS232/RS485 interfaces for the connection of remote keypads, a LAN interface for PC connection and a GPIO interface.
B-LINE BOLD has an integrated 230 V AC power supply with standard connector, a keypad with display on the front site of the unit.

B-LINE BOLD can accept up to 6 calls and can provide the caller signals at the Audio interfaces as individual Audio signals or as mixed Audio signals for PRE TALK and ON AIR. B-LINE BOLD has integrated echo cancellers for each individual caller line.
A manual level control as well as an Automatic Gain Control (AGC) for each caller line can be used.

3 SYSTEM DESCRIPTION

3.1 Mechanical Design

B-LINE BOLD incorporates a main board, a power supply with connector, a display with keypad. All components are mounted in a 19“ housing 1U high with the dimensions (W x H x D) 434 mm x 44,5 mm x 252 mm. B-LINE BOLD can be installed as a table top unit or, using the 19“ mounting angles included in the delivery, in 19“ racks. Sufficient ventilation is ensured by ventilation holes located at the button and top of the housing.
Figure 1 shows the rear view of B-LINE BOLD, Figure 2 shows the front view of B-LINE BOLD.

Figure 1: Rear view of B-LINE BOLD

Figure 2: Front view of B-LINE BOLD

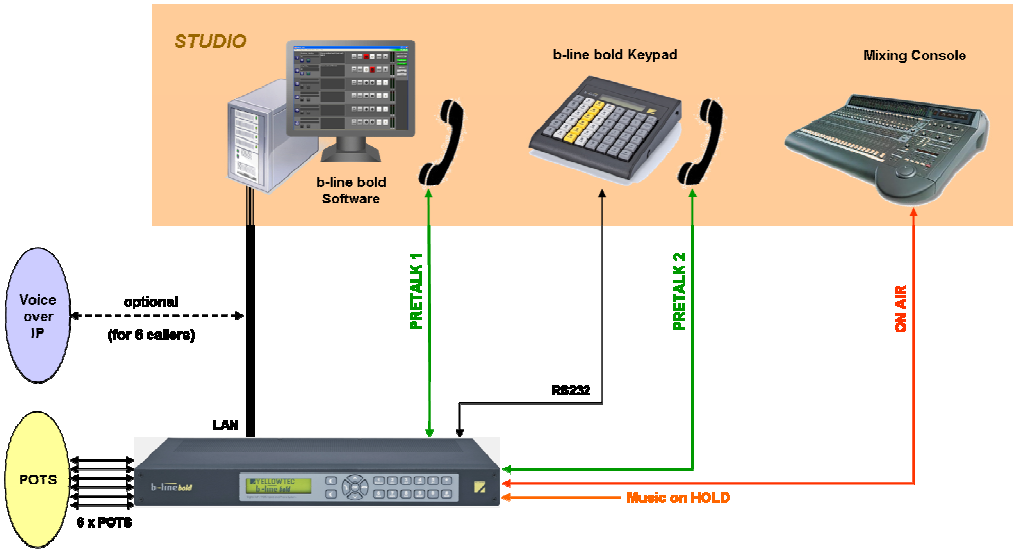
B-LINE BOLD is powered by an internal power supply. The power supply unit of B-LINE BOLD can operate on AC voltages between 100V and 240V (nominal voltage range 230-240V). The mains frequency can also vary between 50 Hz and 60 Hz. The maximum power consumption is approx. 14 W. For cooling purposes holes are provided in the housing. The equipment has a keypad and display on the front panel that are used for configuration and status indication of the system. The configuration of the system can also be done by a PC via the LAN interface at the rear side of the unit.

3.2 Functionality

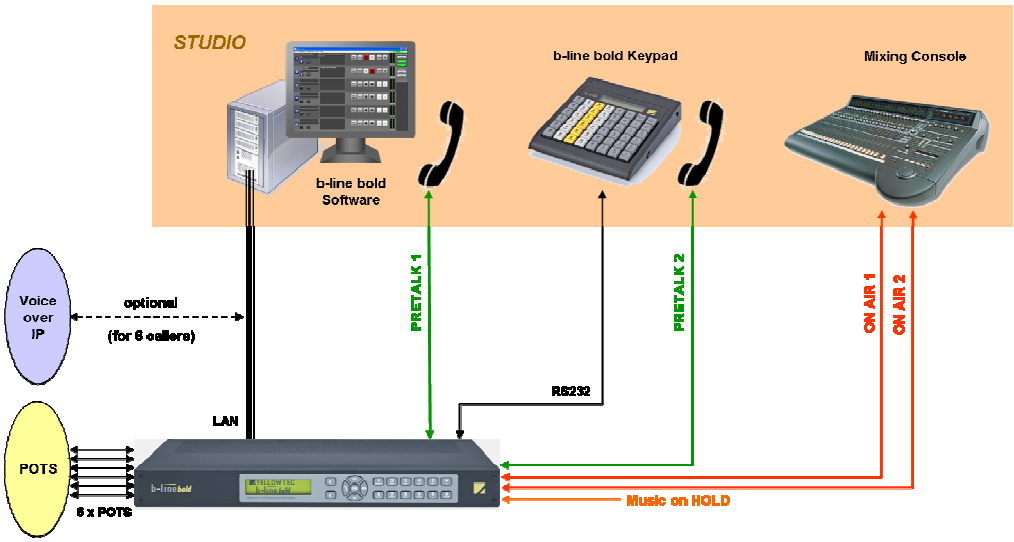
B-LINE BOLD is a 6 x caller line digital telephone hybrid with various Audio and control interfaces. For each POTS interface an echo canceller is realised. The Audio level of each caller can be individually adjusted. It can be done manually or automatically by using the Automatic Gain Control (AGC) function. The B-LINE BOLD can be operated by 2 separate Keypads and by the B-LINE BOLD PC Software. The Software is designed for Touch Screen con-

trol. In addition to the control capability also screening information can be stored and displayed. An integrated telephone book and the clipping function of the hybrid allow the identification of callers and provide the caller information for an integrated black list.
B-LINE BOLD incorporates a conferencing function for callers in PRE TALK and ON AIR.
B-LINE BOLD provides the following operation modes:

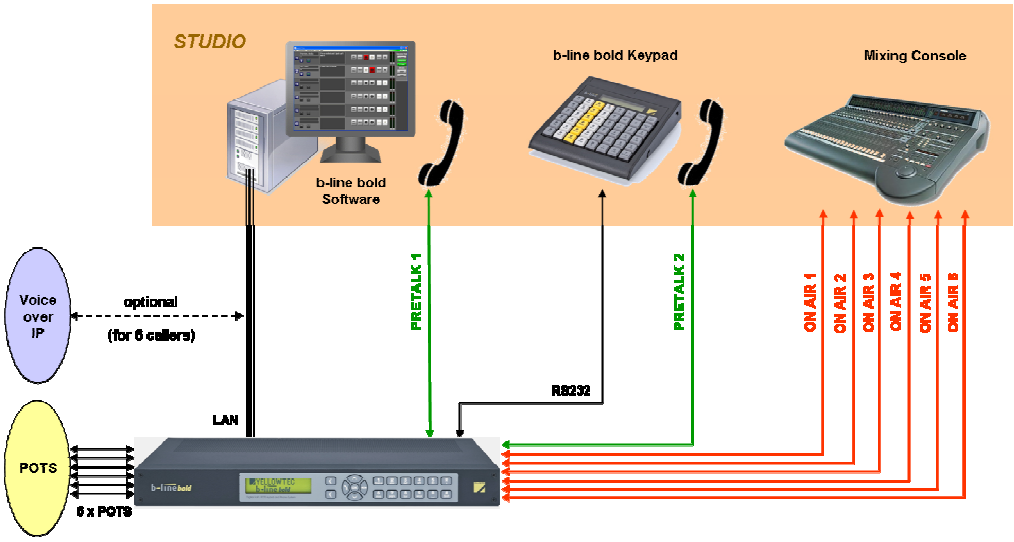
- One Fader operation:
  One On Air Audio signal it contains a single caller signal or the mixed signal of in conference switched callers.



- Two Fader operation:
  Two separate ON AIR Audio signals: Two separate caller signals or two separate caller conferences.

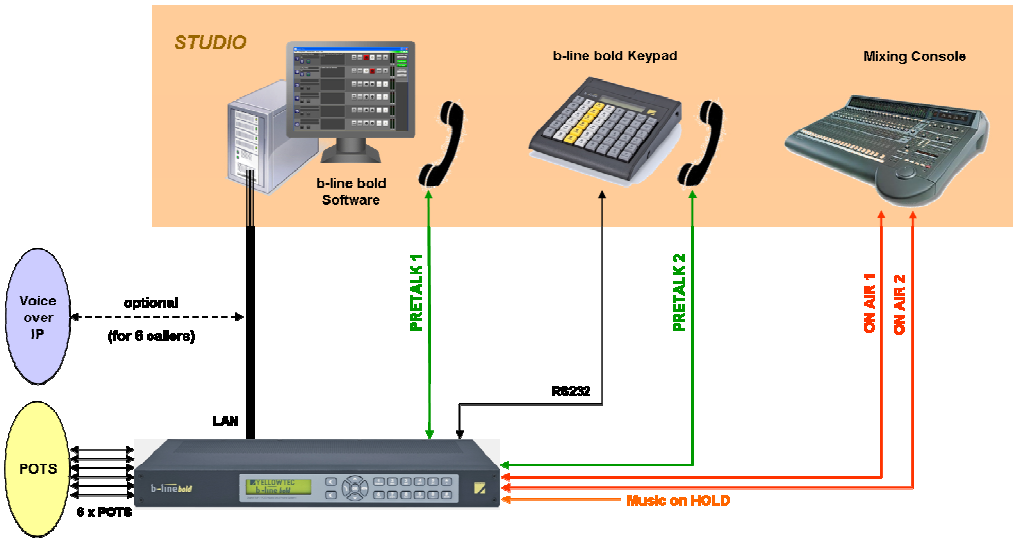


- Six Fader operation:
  Six separate ON AIR Audio signals: Separate Audio interfaces for each caller.



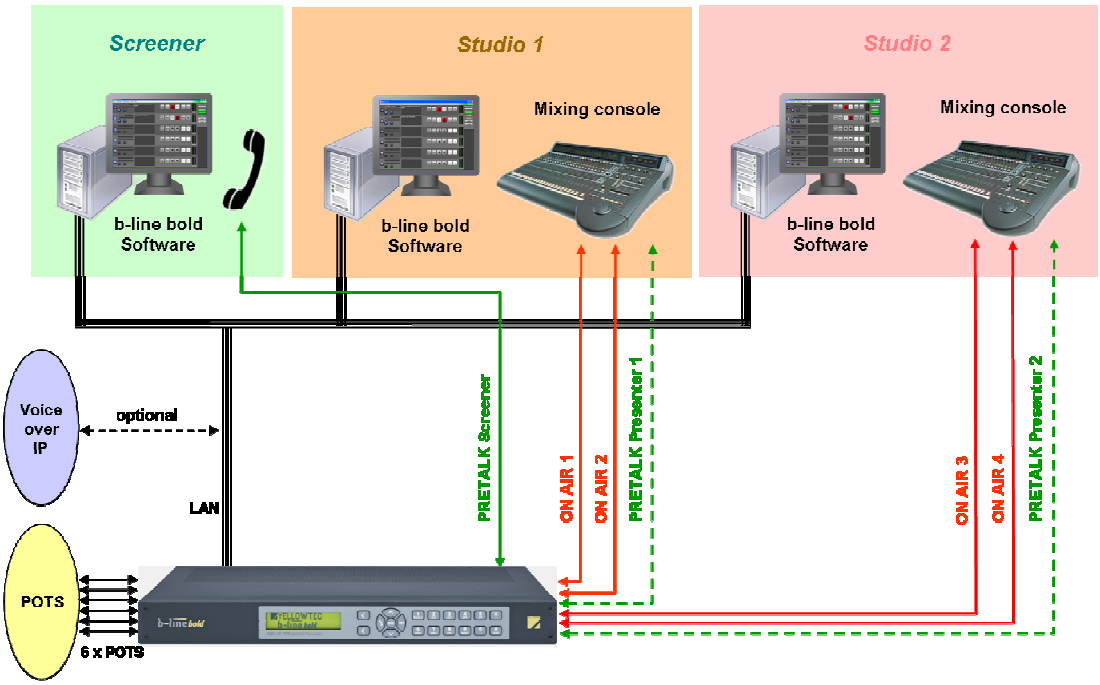
3.2.1 One Studio Solution

B-LINE BOLD supports a one studio solution. All control units such as external keypads and up to four PCs with B-LINE BOLD software are controlling the same ON AIR Audio lines. Each control unit can have its own PRETALK interface.



3.2.2 Two Studio Solution

B-LINE BOLD supports also a two studio solution. For each Studio an external keypad and up to two PCs with B-LINE BOLD software can control the B-LINE BOLD Telephone Hybrid. For each studio separate ON AIR Audio lines can be configured which can only be controlled by the keypad and PCs with B-LINE BOLD software which are configured for the studio. In the HOLD status each studio can take the caller in PRE TALK or ON AIR. Each control unit can have its own PRETALK interface.



4 PUTTING THE SYSTEM INTO OPERATION

4.1 Mounting

With its dimensions of 434 mm x 44,5 mm x 252 mm (W x H x D) the B-LINE BOLD can be operated as a table top device or be inserted into 19“ racks using the 19“ mounting angles included in the delivery.

The dimensions given above are valid for the table top version with no feet. If B-LINE BOLD is to be inserted into a rack, it should be remembered that the bending radius of the cables should always be greater than the minimum allowed value.

If the B-LINE BOLD is installed in a rack, it should also be ensured that sufficient ventilation is provided. It is recommended that at least 3 cm space is left next to the openings. As a rule, the ambient temperature should not lie outside the range +5℃ to +45℃. These limits are of p articular importance if the system is inserted in a rack. The system operates without a fan.

During operation, the humidity must be between 5% and 85%.

NOTICE 	**Incorrect ambient temperature and humidity can lead to equipment failure.** **Operation of the unit outside the above limits invalidates the warranty.** **The B-LINE BOLD must therefore be operated within the specified limits.**

4.2 Connection of the Mains Voltage

The integrated power supply of the B-LINE BOLD can be operated on a voltage (mains) between 100 V and 240 V. The mains frequency can vary between 50 Hz and 60 Hz. The power consumption is a maximum of approx. 14W.

After switching on the display flashes for approx. 1 second. An internal reset is then triggered. This is indicated by a switched off display. After approx. 10 seconds, the unit is operational and the display should indicate “YELLOWTEC b-line bold“.

4.3 Display and Keypad

B-LINE BOLD (see Figure 3) contains a graphical display and a keypad on the front side. After power reset the display indicates the status of the six caller lines. In case of an incoming call the corresponding part of the display is flashing and after call acceptance the Audio level is indicated.

Figure 3: Front view of B-LINE BOLD

4.4 Configuration with Keypad and Display

This chapter provides an overview of the system configuration. Detailed instructions are given in the following chapters.

- Configuration of the LAN parameters
- Configuration of the RS232 interfaces
- Configuration of the Audio line levels

After a power up reset the display of B-LINE BOLD indicates the status of all 6 caller lines.

After pressing the softkey MENU the following items can be selected.

4.4.1 LAN Interface

The LAN settings are part of the SYSTEM SETTINGS. Therefore select SYSTEM SETTINGS. The content of the display is described below.

Select with the cursor keys LAN and press the softkey SELECT. The following LAN configuration items can be selected:

4.4.1.1 IP Address

The IP address for the B-LINE BOLD Telephone Hybrid can be entered or checked.

4.4.1.2 Subnet Mask

The Subnet Mask can be entered or checked.

4.4.1.3 Default Gateway

The Default Gateway number can be entered or checked.

4.4.1.4 CTRL UDP Port

Control Port number can be entered.

4.4.2 RS232 Interfaces

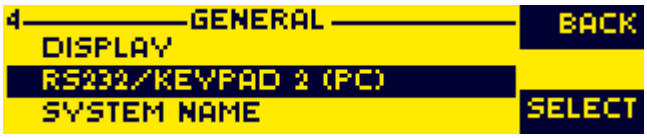
B-LINE BOLD provides 2 x RS232 interfaces

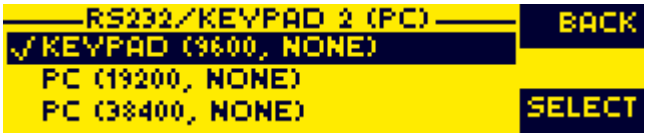
- RS232 /1 is always configured for the connection of an external key-pad with the following parameters 9,600 bit per second, 8 data-bits, no parity and can not be changed

- RS232/2 can be configured for the connection of an external keypad or a PC.
  Note: If PC is configured and connected the PC control via LAN interface is not allowed

4.4.2.1 RS232/2 Interface

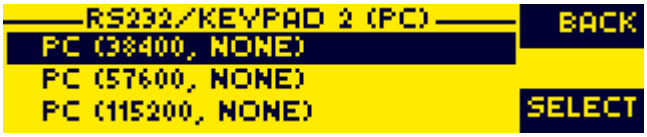
The RS232/2 interface can be configured for the connection of an external keypad to control B-LINE BOLD.
First select SYSTEM SETTINGS followed by GENERAL and RS232/KEYPAD 2 (PC). Select KEYPAD (9600, NONE).





4.4.2.2 PC Interface

If the RS232/2 interface shall be used for PC control, PC with data rate must be configured as shown in the following screen shot.



4.4.3 Audio Interfaces

The Audio interfaces such as analogue Audio AES/EBU Audio and handsets can be configured selecting the AUDIO System settings.
First select SYSTEM SETTINGS followed by AUDIO.

4.4.3.1 AES/EBU Audio Interface

The Clock Source for the AES/EBU Audio interface can be configured by selecting AES/EBU CLOCK SOURCE. It can be configured

- Internal
- External
- Recovered

4.4.3.2 Analogue Audio Interface

The output and input levels can be configured by selecting NOMINAL OUTPUT LEVEL and NOMINAL INPUT LEVEL.

4.4.3.3 Handset interfaces

For both Handset interfaces the amplification for the input and output can be configured by selecting the HANDSET 1/2 GAIN OUT and HANSET 1/2 GAIN IN.

4.4.3.4 Audio Headroom

The headroom can be configured selecting AUDIO HEADROOM.

4.5 Display of the Operation Status

For each caller line the actual status of the caller lines are displayed.

5 OPERATION WITH PC

The “B-LINE BOLD“ Windows PC control software is included in delivery and allows simple configuration and operation of the system.

5.1 Hardware Requirements

The PC must meet the following minimum requirements:

- IBM PC AT, IBM PS/2 or 100% compatible
- Pentium Processor (> 500 MHz) recommended
- Windows XP Professional
- Approx. 600-Kbytes available RAM
- 5 MB available hard disk space
- Screen resolution of 800 x 600 Pixels
- LAN interface
- Microsoft, IBM PS/2 or 100% software compatible mouse

5.2 Connection of the B-LINE BOLD to the PC

Connect the PC via a CAT5 crossover cable to the LAN interface on the rear panel of the B-LINE BOLD or connect PC and B-LINE BOLD to a LAN switch.

B-LINE BOLD and the PC must be configured for the same network. For this purpose the IP address, Subnet Mask and default Gateway can be entered in the B-LINE BOLD using the integrated keypad and display as described in chapter 4.4.2.

5.3 Installation of the Software on the PC

Please insert the CD included in the delivery into your CD-ROM or DVD drive. The software automatically starts your Internet browser. Possible safety warnings can be ignored for the moment. Under the Software Updates heading click on **B-LINE BOLD.** This opens a download window. Click on *Save to Disk*. The software is now downloaded into the sub directory previously selected on your PC to receive downloads. Select the directory into which the software has been downloaded and double-click on the b-line bold Setup file to open the B-LINE BOLD Setup Wizard.

Please follow the instructions of the installation routine. Subsequently, the setup program is executed.

After the installation the software can be started by clicking on  b-line bold.

5.4 Main Panel B-LINE BOLD Commander

After starting the software the user will see the Main Panel displayed. The software shows the operation status of the Hybrid indicating the 6 caller lines with information fields and the switching status of the individual caller lines. Also the icons “DROP”, “LOCK” and “MENU” are displayed. On the right top side of the screen PC ONLINE must be displayed in green colour. If something different is displayed all indicted items are wrong.

The icons “DROP” and “LOCK” are common for all caller lines.

DROP Button

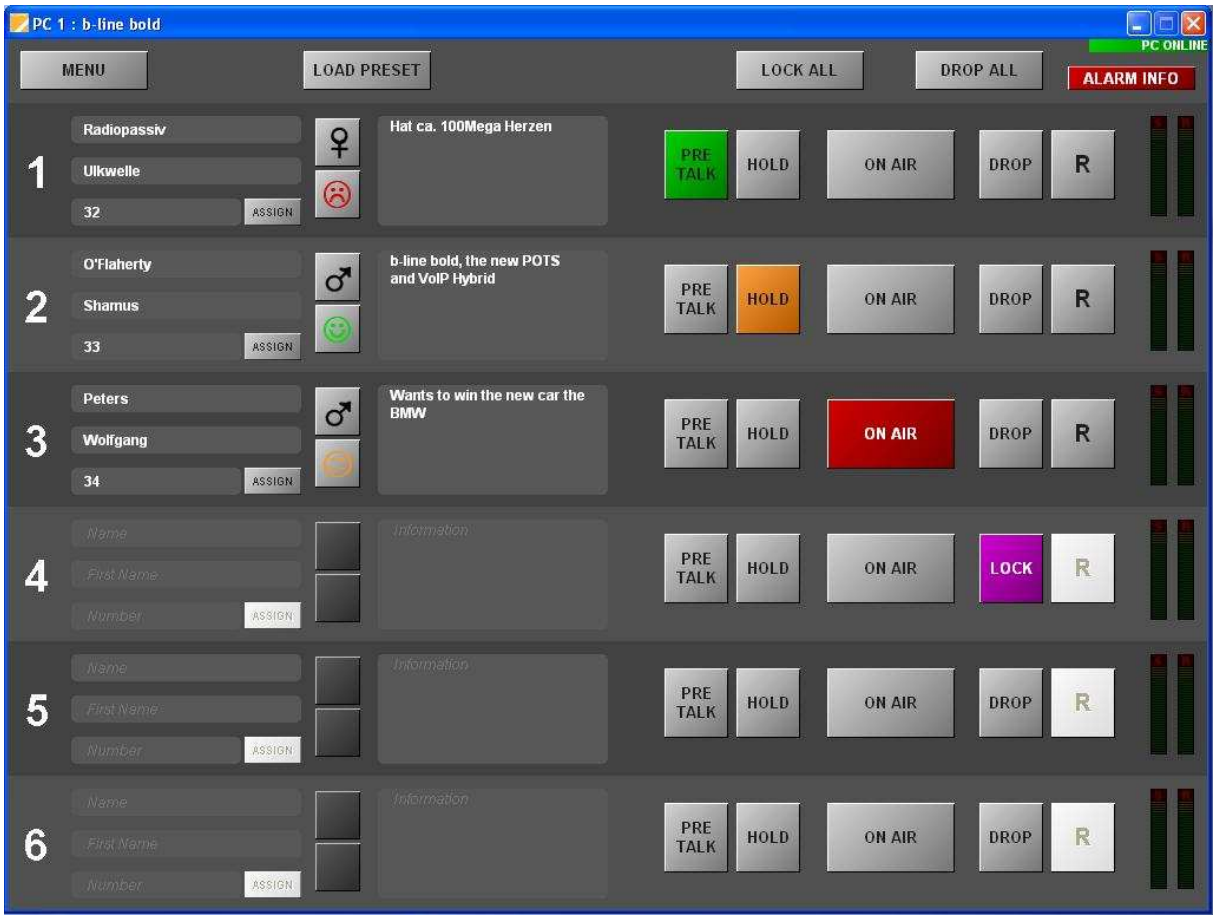
After selecting the DROP button all callers are dropped.

LOCK Button

After selecting the LOCK button all caller lines are locked. The hybrid does not accept any call. The caller is getting the busy signal. Only outgoing calls are possible. The locking is indicated by a violet coloured LOCK button.

Single Caller Line Locking

After selecting the “DROP” button of an unused caller line, the selected caller line is locked and indicated by a violet coloured LOCK button.



LOAD PRESET

After selecting the LOAD PRESET button a list of all available Presets will be displayed. If a Preset is selected the corresponding configuration will be loaded in B-LINE BOLD.

ALARM INFO

If the ALARM INFO button is displayed in red colour alarms happened. After selecting the ALARM INFO button a red window with all alarms is displayed. Using the button HIDE the windows can be closed.

Caller line number

On the left side of the screen all caller lines are numbered from 1 to 6.

Address field

The address field consists of three lines. Name, First Name and Phone number can be entered. If the phone number can be detected by B-LINE BOLD it is automatically indicated. If the phone number is inside the data base, the name and first name are indicated automatically, too.

Special symbols for sex and atmosphere

Two areas with special symbols for the selection of sex and atmosphere are available for every caller.

Information field

Details of caller information can be written in the information field.

PRETALK

If the PRETALK button is indicated in green colour the caller of the selected caller line is switched in the PRETALK mode and can communicate via the configured PRETALK Audio interface (e.g. Handset or analogue or digital Audio interface).

HOLD

The caller is switched to the HOLD status if the HOLD button is indicated in orange colour. The caller receives the HOLD signal which can be the program, a separate HOLD signal or a stored HOLD signal in B-LINE BOLD.

ON AIR

If the caller is switched to the ON AIR status the ON AIR button is indicated in red colour and the caller signal is available at the ON AIR Audio line interface.

DROP

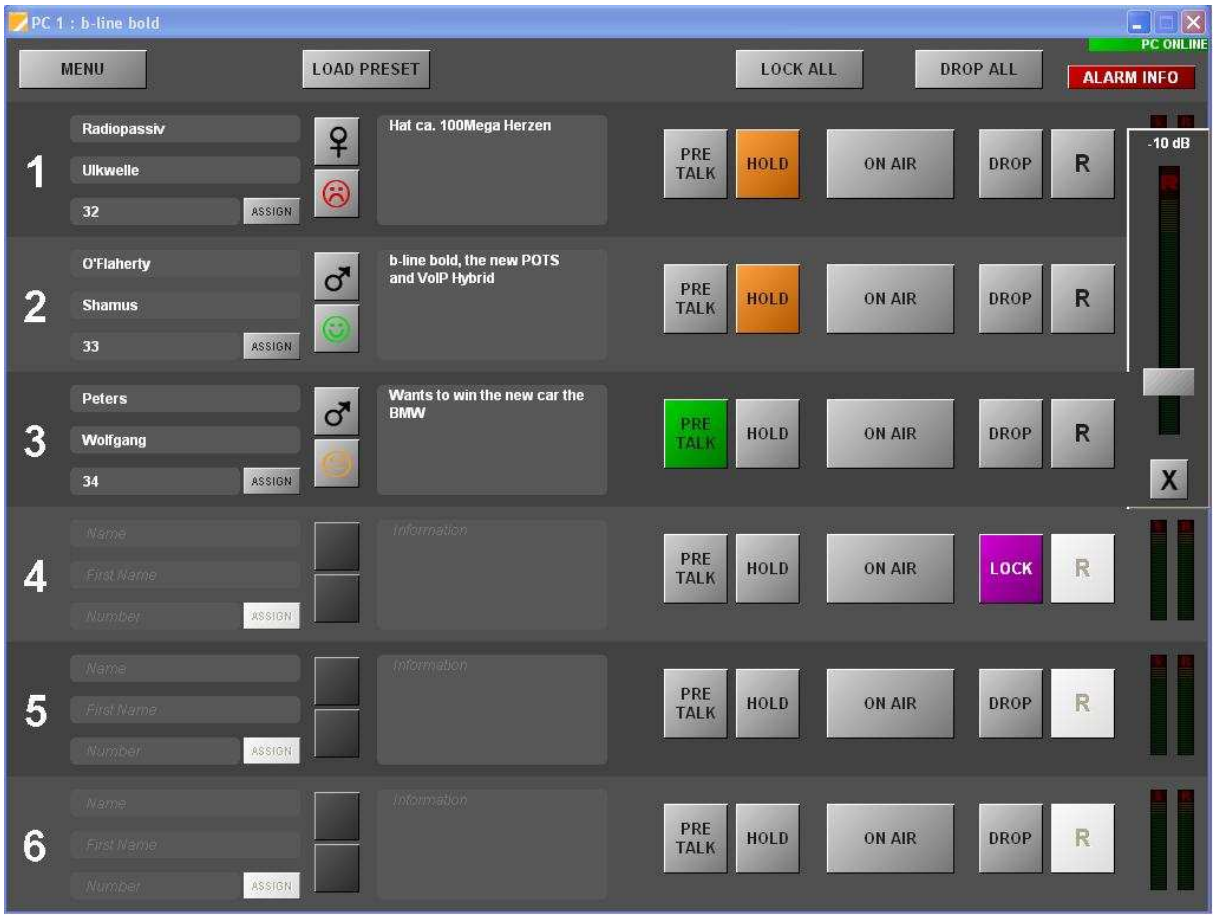
Selecting the DROP button the caller is disconnected. If the DROP button is pressed of an unused caller line the caller line is locked and indicated by a violet coloured LOCK button. To unlock the caller line the DROP button must be pressed again.

R

The R button can be used for Call forwarding. Press the R button and dial the number of a phone (forwarded phone) where the caller shall be connected. First a connection will be established to the forwarded phone and the program presenter or screener can talk to the person on the forwarded phone. By pressing the DROP button the caller is connected to the forwarded phone.

Level indication and control

For each caller line the received Audio signal level (red coloured R) and the transmitted Audio signal level (red coloured S) are indicated.
After selecting the level indication a new area with a bigger level indication for the received signal appears. Also the received Audio signal level is indicated on the top of the field as a value in dB. A white pointer can be moved to adjust the amplification and to control the received Audio signal level.



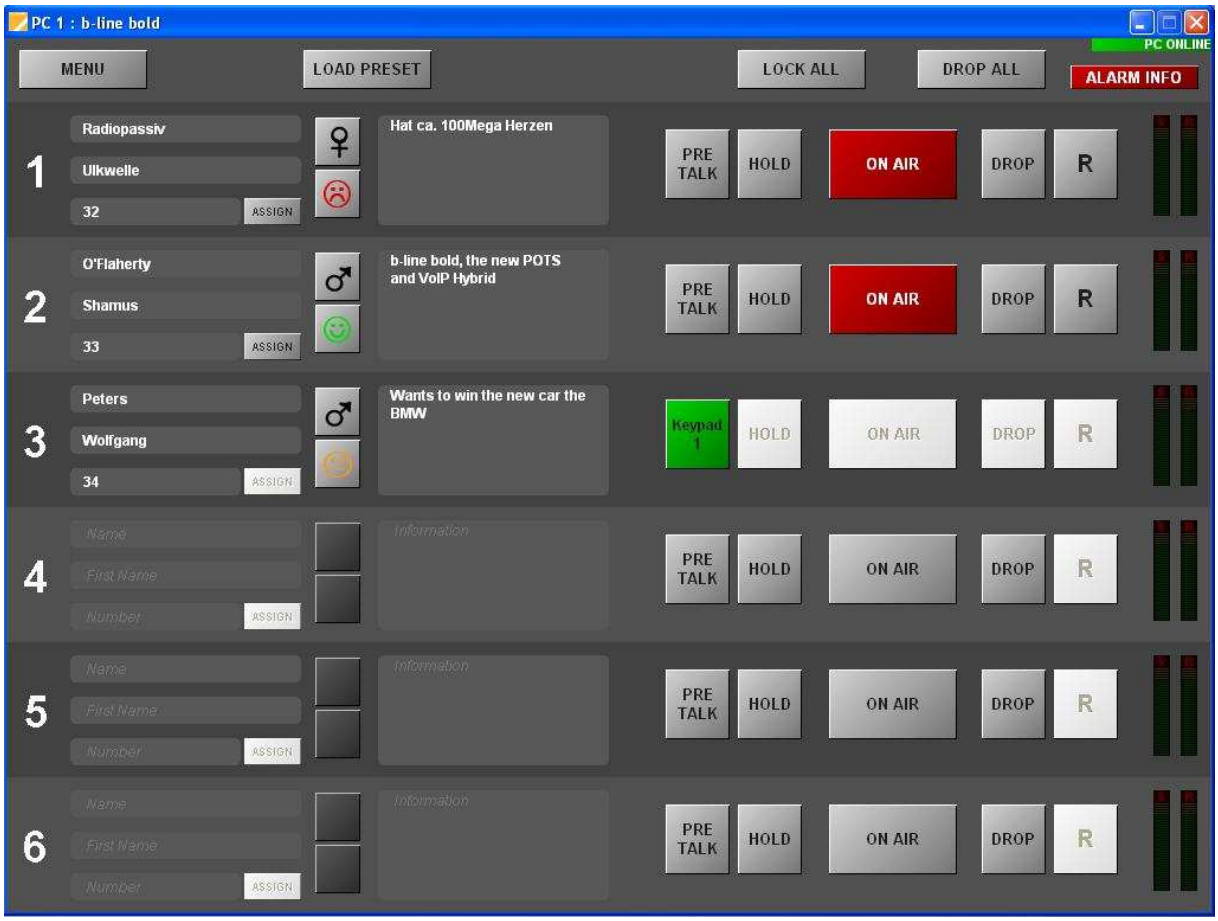
5.4.1 Operation Mode “One Fader”

In the **One Fader Operation Mode one ON AIR Audio line** is configured for the connection to the mixing console. All callers who are switched to the ON AIR status are mixed together and provided as a common signal to the mixing console. The return signal from the mixing console shall contain the Audio signal of the program presenter without caller signals. The mix minus signals for all callers are generated in the B-LINE BOLD and provided as individual return signals to the callers.
This mode is indicated by a single **“ON AIR”** button.

Independent of the ON AIR signal are the PRETALK signals. B-LINE BOLD can provide 3 different PRETALK signals

- PRETALK Handset 1
- PRETALK Handset 2
- PRETALK analogue or digital Audio line

The adjustment of the Handset and Audio interfaces to the PRETALK functions is explained in chapter “Configuration”.



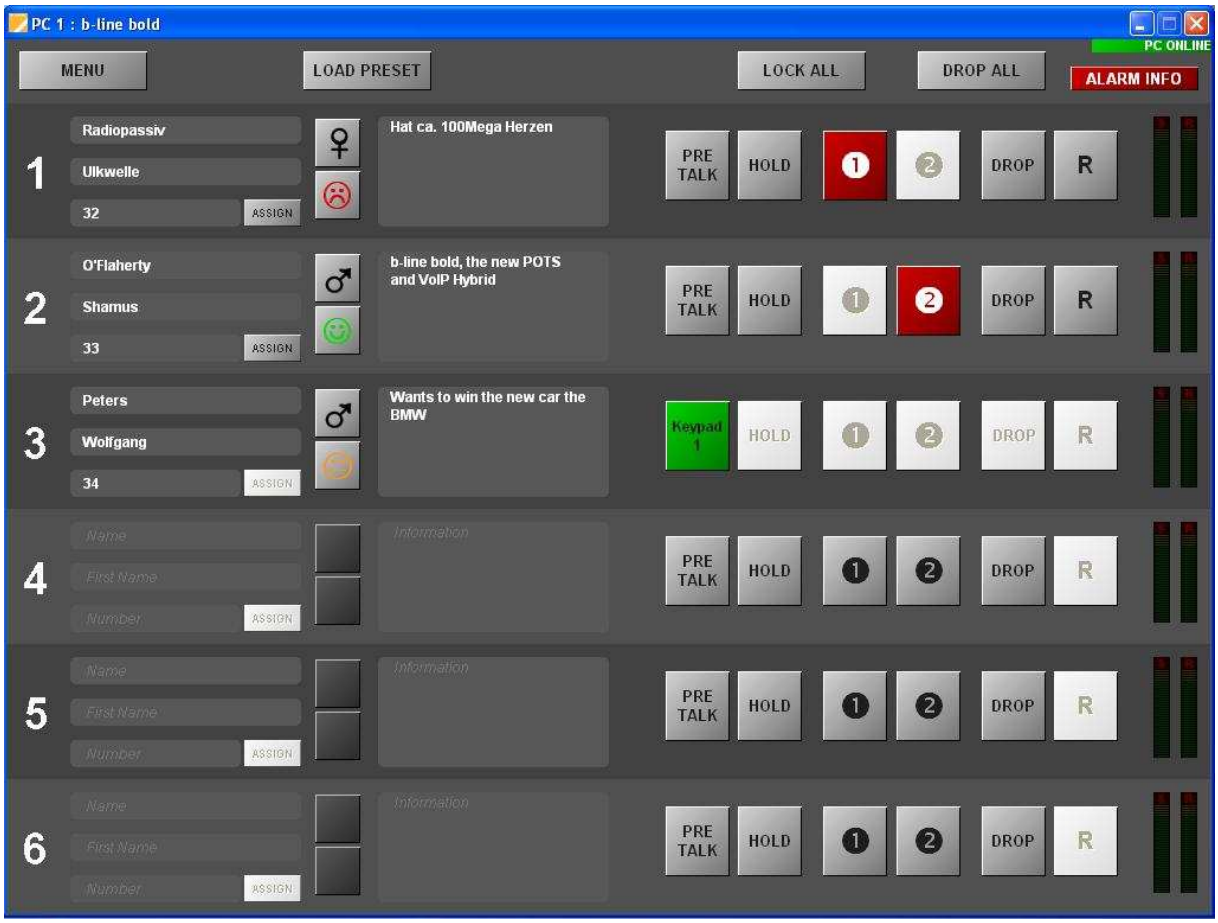
Operation Mode “Two Fader”

In the **Two Fader Operation Mode two ON AIR Audio lines** are configured for the connection to the mixing console. Two callers can be switched to the separate ON AIR lines ON AIR1 and ON AIR2. But all callers who are switched to the ON AIR 1 status are mixed together and provided as a common signal to the mixing console. The same is true for callers who are switched to the ON AIR2 line. The return signals from the mixing console shall contain the Audio signal of the program presenter without caller signals. The mix minus signals for all callers are generated in the B-LINE BOLD and provided as individual return signals to the callers.
This mode is indicated by the two “ON AIR” buttons **“ON AIR1” and “ON AIR2”.**

Independent of the ON AIR signals are the PRETALK signals. B-LINE BOLD can provide 3 different PRETALK signals

- PRETALK Handset 1
- PRETALK Handset 2
- PRETALK analogue or digital Audio line

The adjustment of the Handset and Audio interfaces to the PRETALK functions is explained in chapter “Configuration”.



5.4.2 Operation Mode “Six Fader”

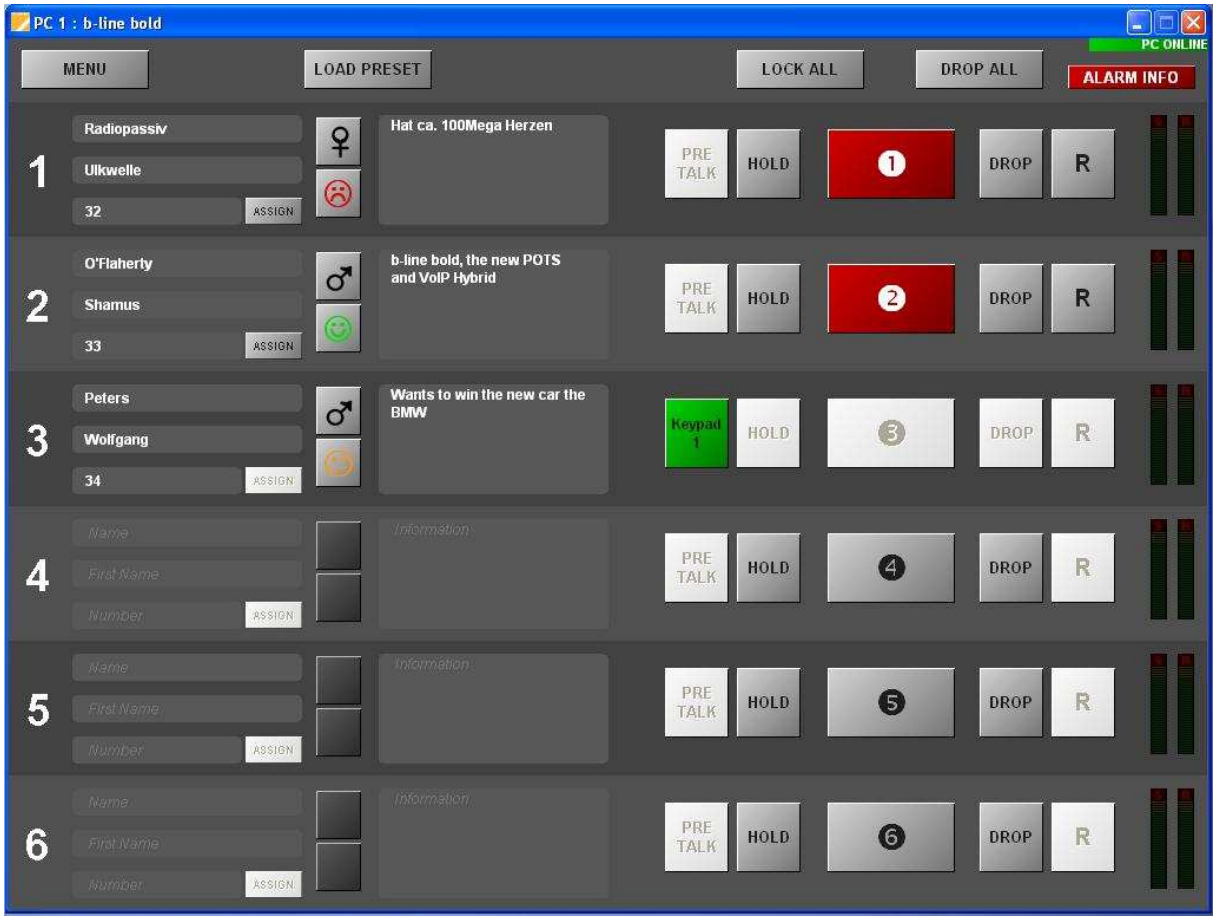
In the **Six Fader Operation Mode six ON AIR Audio lines** are configured for the connection to the mixing console. All callers are switched to separate ON AIR lines and provided on ON AIR1 to ON AIR6 Audio lines to the mixing console. The return signals from the mixing console shall contain the Audio signal of the program presenter without caller signals.

This mode is indicated by the six “ON AIR” buttons “ON AIR1” to “ON AIR6”.

Independent of the ON AIR signals two PRETALK signals can be defined.

- PRETALK Handset 1
- PRETALK Handset 2

The adjustment of the Handset interfaces to the PRETALK functions is explained in chapter “Configuration”.



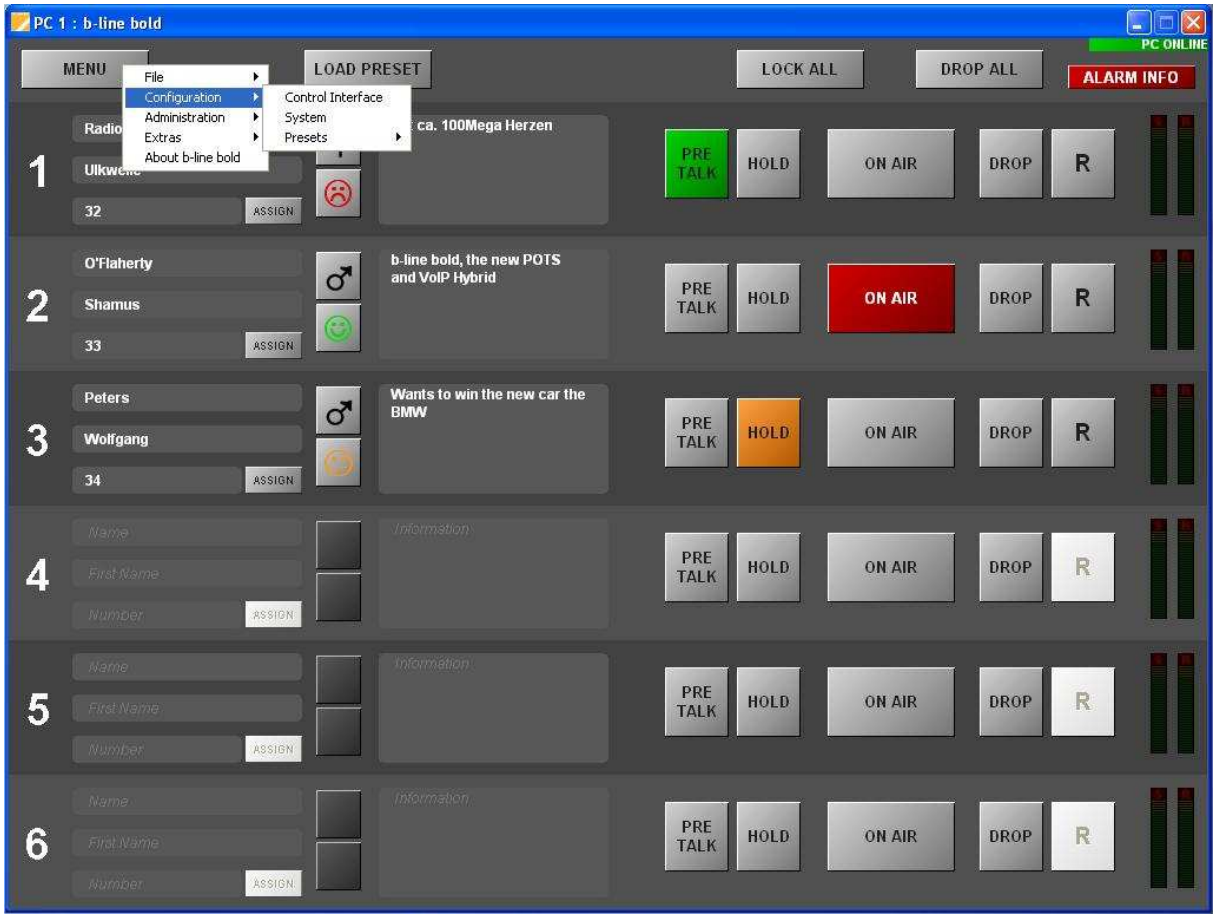
5.5 MENU Button

After selection of the “MENU” button the following items will be displayed:

- File
- Configuration
- Administration
- Extras
- About B-LINE BOLD

For the configuration of B-LINE BOLD select “Configuration”.
Three choices for the configuration are selectable:

- Control Interface
- System
- Presets



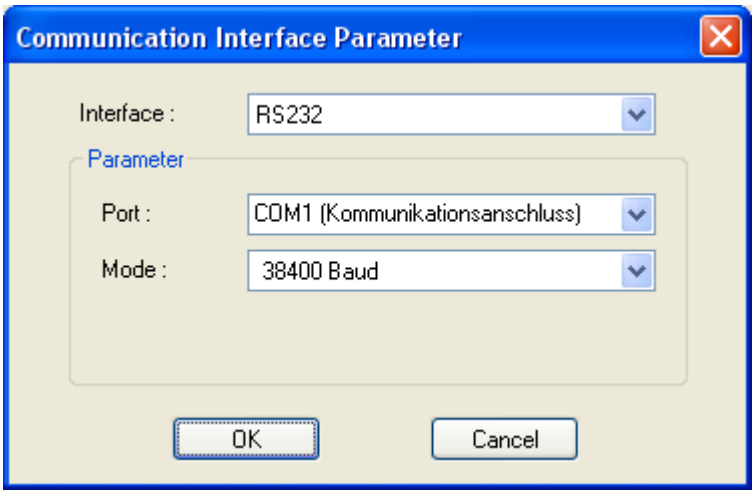
5.5.1 Sub Menu Control Interface

After selection of the **Control Interface** sub menu item a window for the selection and configuration of the control interfaces of the PC opens. Selected can be:

- RS232
- TCP/IP
- Control Interface List

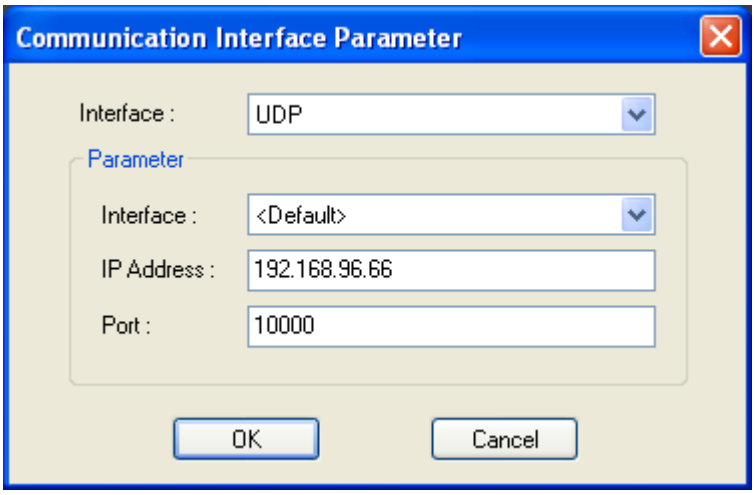
5.5.1.1 RS232 Interface

If the RS232 Interface is selected COM port and Baud rate must be configured.
If the selected COM port is already occupied an error message will be displayed. Then select another open COM port. The default Baud rate in the system is 38400 Baud.



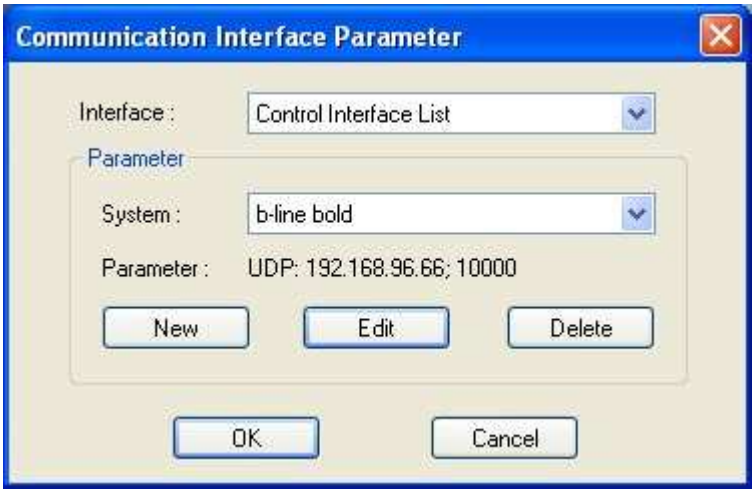
5.5.1.2 LAN Interface (UDP)

If the LAN Interface is selected UDP data such as IP address and Port address must be entered.



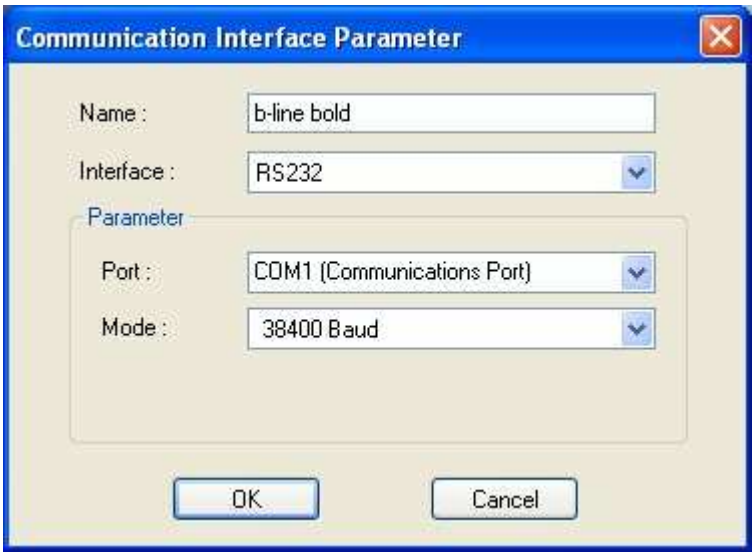
5.5.1.3 Control Interface List

As a third interface the Control Interface List can be chosen. As in a telephone book different control interfaces can be pre configured and selected in a simple manner. In the following example a B-LINE BOLD can be controlled over its LAN interface. For control purposes the UDP parameters are displayed.

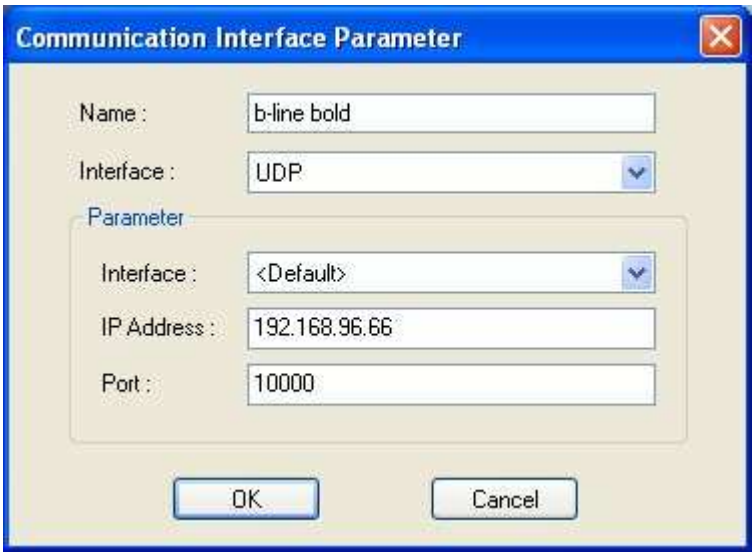


A new entry in the Control Interface List can be made by selecting the “New” button. In the following, new entries for LAN and RS232 interfaces are shown.

New entry for the RS232 Interface



New entry for the LAN Interface



5.5.2 Sub Menu System

In the sub menu *System* the B-LINE BOLD can be configured. Operation Settings and System Settings can be configured. System settings are permanent settings whereas Operation settings can be stored in a Preset and can be changed by loading a Preset.

5.5.2.1 Operation Settings

Operation Settings are variable settings which can be changed by loading Presets. The following items are Operation Settings:

- Audio Line Assignment
- HOLD Signal
- Signal Processing
- Relay/TTL

The configuration is saved by selecting the "OK" button.
The command "Apply Now" only causes the transmission of the configuration from the PC to the B-LINE BOLD but does not store the configuration. The command "OK" also closes the window of the PC software.

5.5.2.1.1 Audio Line Assignment

In this Sub Menu the Operation Mode can be selected, such as

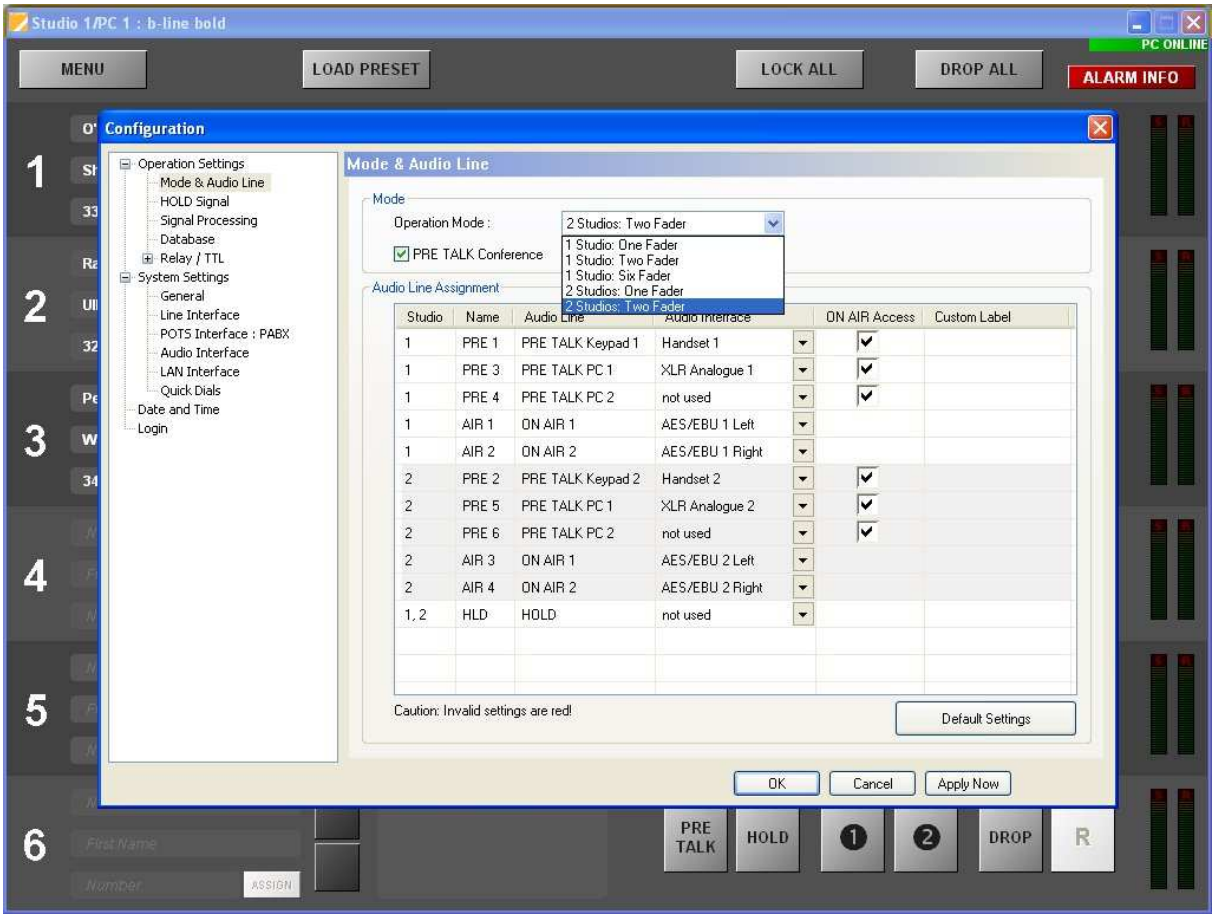
- 1 Studio: One Fader
- 1 Studio: Two Fader
- 1 Studio: Six Fader
- 2 Studios: One Fader
- 2 Studios: Two Fader

Also it can be defined whether the conferencing function shall be used in PRETALK and ON AIR.

The next step is the Audio Line assignment to the Audio interface circuits.
In total the following Audio interfaces can be assigned to PRETALK, HOLD and ON AIR (One Fader mode) or ON AIR1 and ON AIR2 (Two Fader mode) or ON AIR1 to ON AIR6 (Six Fader mode) and for One Studio or for Two Studio solutions:

- Handset 1
- Handset 2
- XLR Analogue 1
- XLR Analogue 2
- AES/EBU 1 left
- AES/EBU 1 right
- AES/EBU 2 left
- AES/EBU 2 right

Each control unit keypad or PC can get the right to put the caller to the ON AIR status (ON AIR access)



5.5.2.1.2 HOLD Signal

In this Sub Menu the HOLD signal can be selected, in “General settings” the following settings are possible:

- ON AIR signal
- Recorded HOLD signal
- Audio line signal, e. g. AES 1 left
- Muted

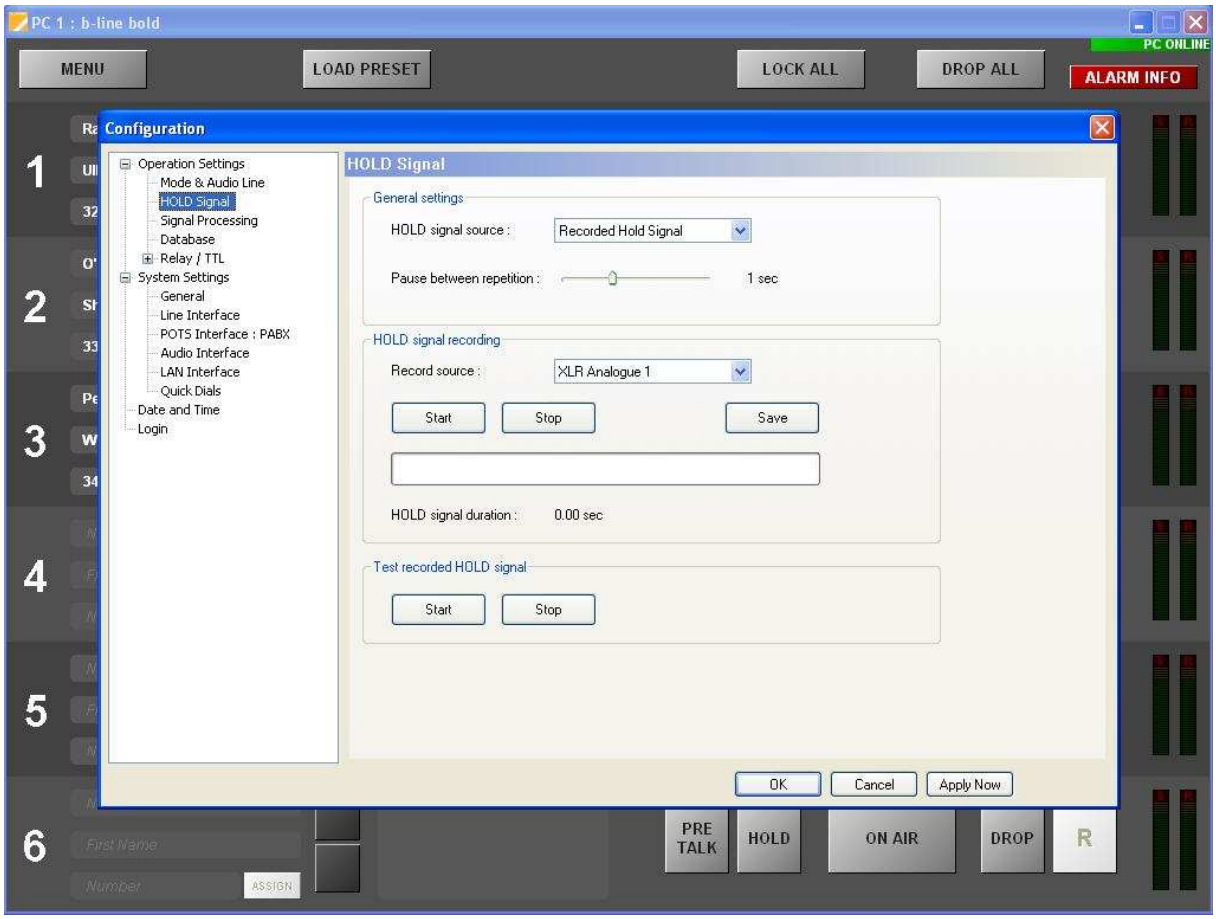
If “Recorded HOLD signal” is selected a pause between the repetition of the recorded HOLD signal can be configured.

HOLD signal recording

For the storage of the HOLD signal the signal source can be selected. It can be any of the Audio interfaces, such as Handset, XLR Analogue1 etc.
The maximum duration of the recorded HOLD signal can be 16 s.

Test recorded HOLD signal

The stored signal can be checked with Start and Stop button. The same Audio interface is in operation as for the storage.



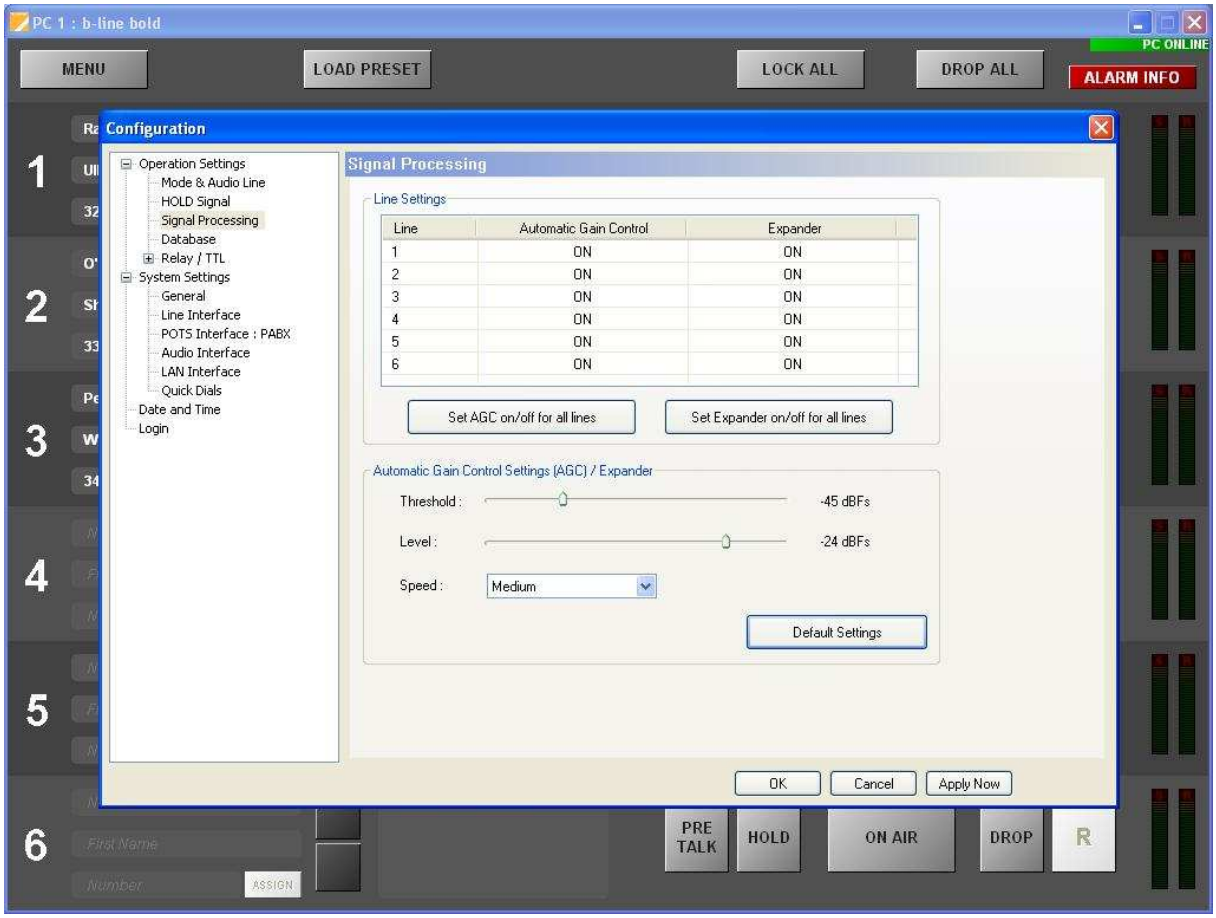
5.5.2.1.3 Signal Processing

In this sub menu the signal processing items can be configured:

- Automatic Gain Control
- Expander

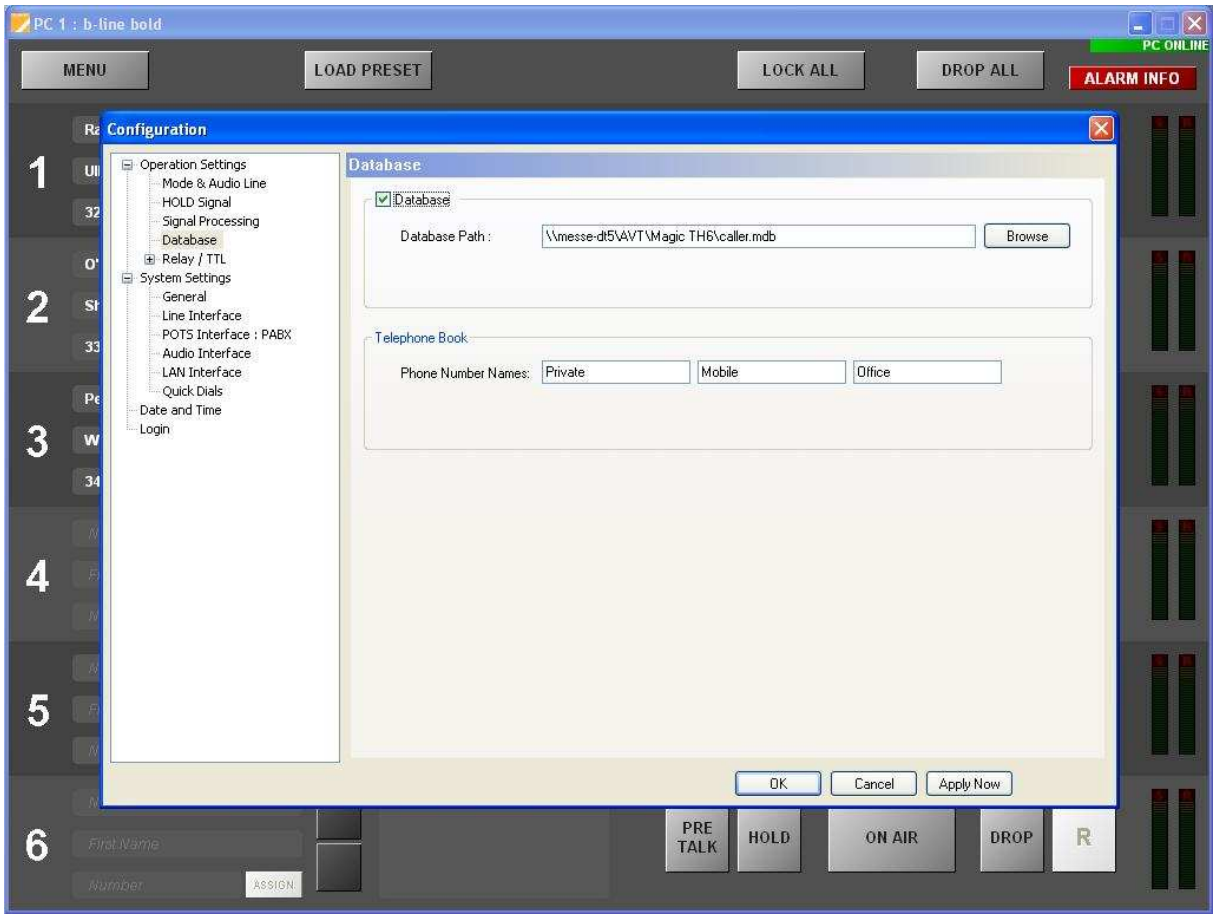
For both item Threshold and Level values are the same. The speed can be defined for the AGC.

Default Settings can be used for the configuration of basic settings.



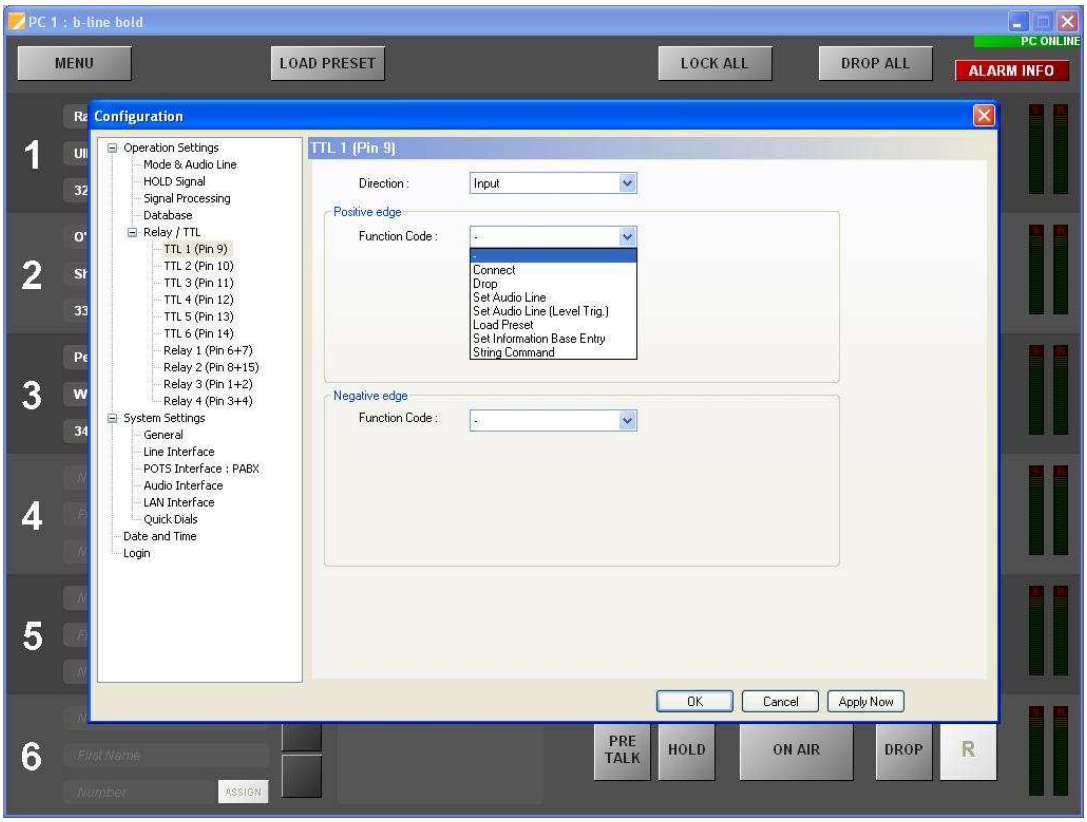
5.5.2.1.4 Data Base

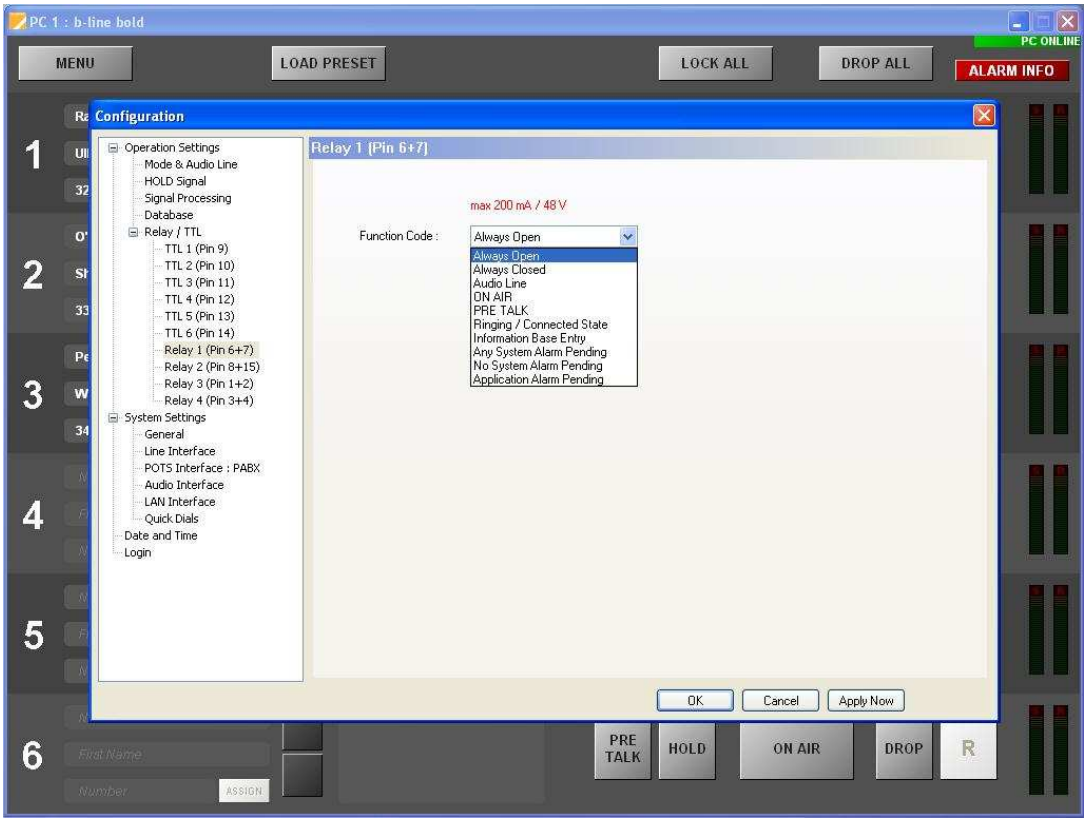
The B-LINE BOLD Software supports the screening of callers. The caller data can be stored in an Access Data Base. In this sub menu the Database Path can be defined.
Per caller three different telephone numbers can be stored. For each of these numbers a category (Phone Number Names) can be defined.



5.5.2.1.5 Relay/TTL

B-LINE BOLD provides 6 x TTL interfaces and 4 x Relay outputs.
The TTL interfaces can be configured as inputs or outputs.
For the positive edge and negative edge special function codes can be selected.
Also for the relay outputs a list of special function codes is provided.





5.5.2.2 System Settings

System Settings are permanent settings and can not be changed by loading Presets. The following items are System Settings:

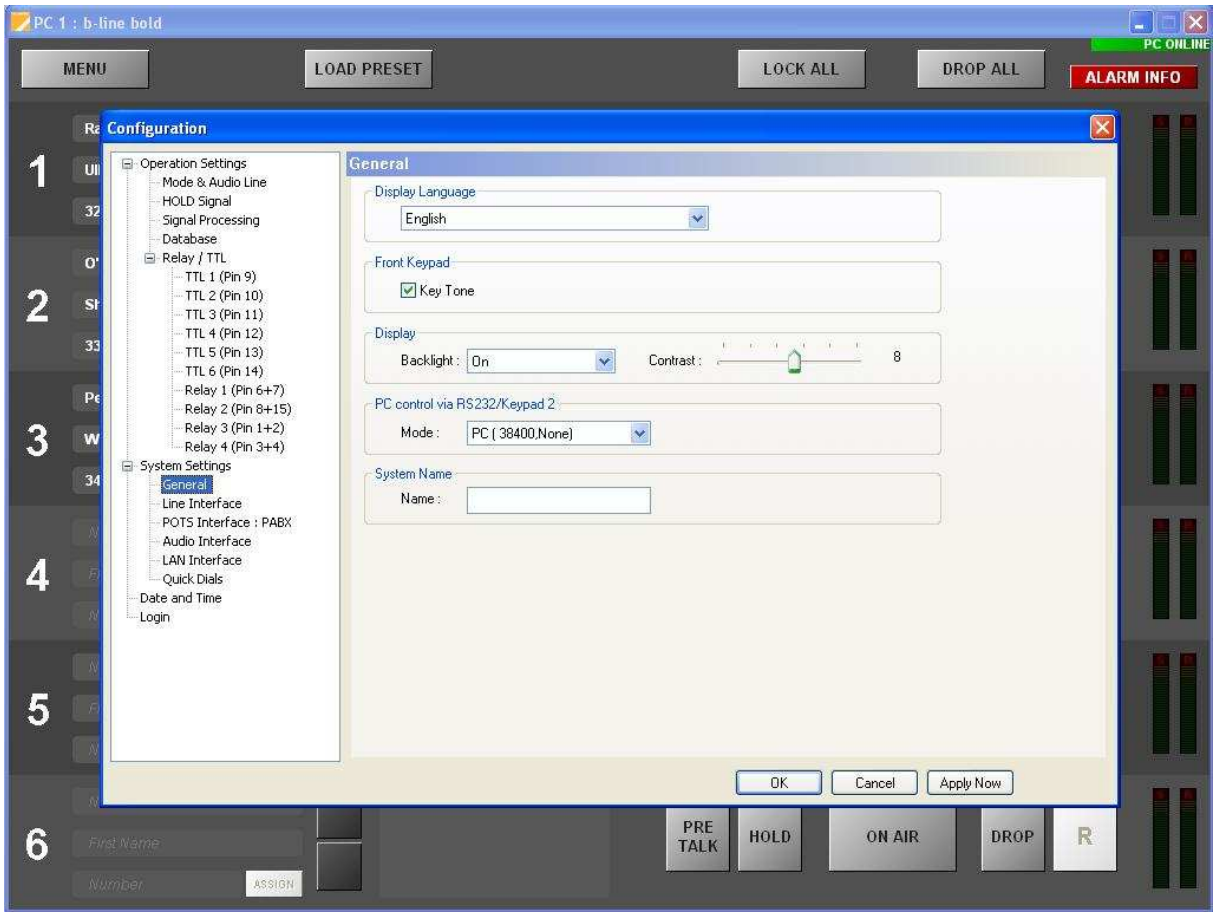
- General
- Line Interface
- POTS Interface
- Audio Interface
- LAN Interface
- Short Cuts

The configuration is saved by selecting the "OK" button.
The command "Apply Now" only causes the transmission of the configuration from the PC to the B-LINE BOLD but does not store the configuration. The command "OK" also closes the window of the PC software.

5.5.2.2.1 General

In the “General“ Sub Menu basic items can be configured.
The following items can be selected or configured:

- Language of the display content
- Activation of a Key Tone
- Backlight and Contrast of the display
- Back light of the display
- Operation mode of the RS232/Keypad 2 interface: PC or Keypad
- System name



5.5.2.2.2 Line Interface

This submenu allows the configuration of the POTS Line interface type. Each POTS line can individually selected as:

- PABX line interface

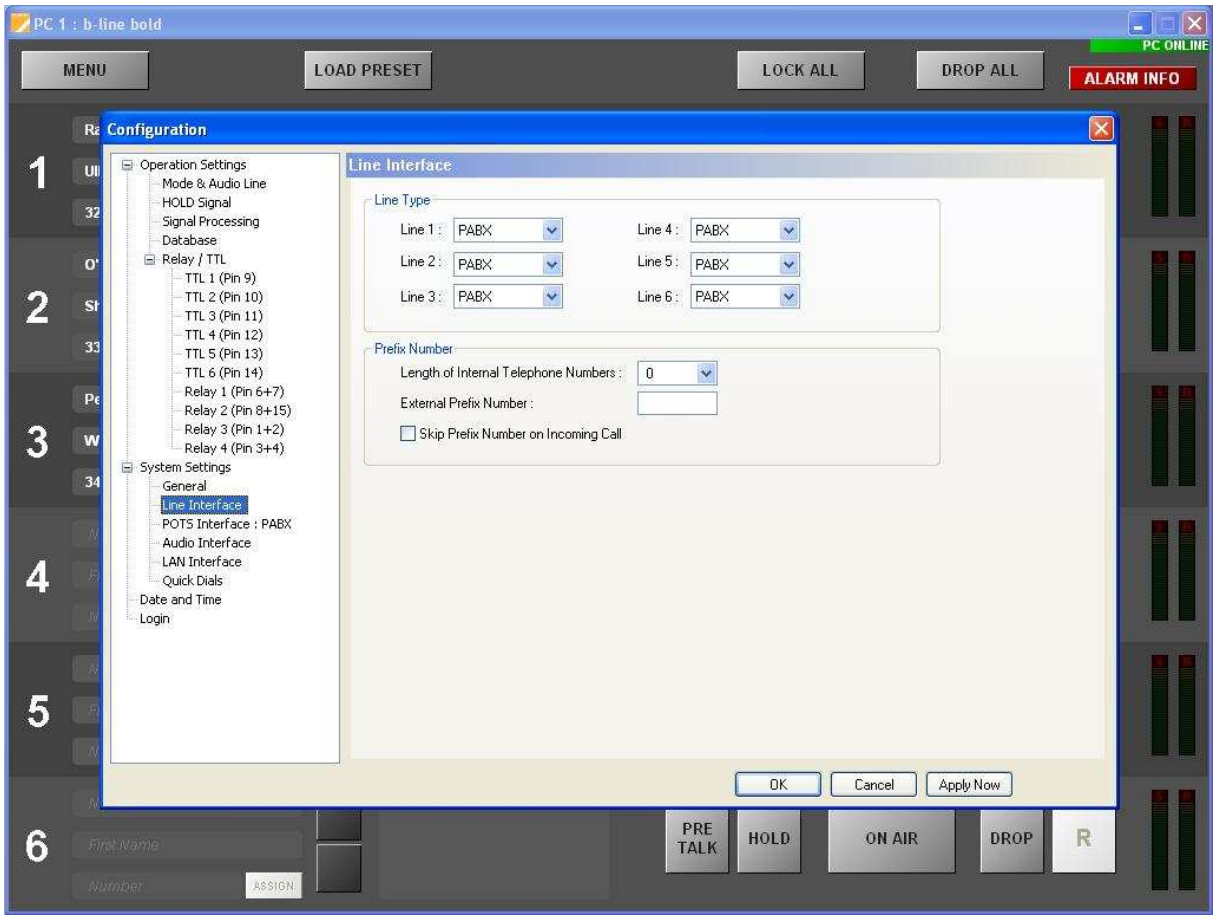
or

- Outside Line interface

If both line types are selected the configuration of the POTS interfaces has to be done for both types and the software offers two POTS Interface panels, such as:

- POTS Interface: PABX
- POTS Interface Outside Line

Also the Prefix number can be entered.



5.5.2.2.3 POTS Interface: PABX or Outside line

As described in chapter “Line Interface” the parameters of the PABX line interface or the Outside line interface has to be configured.

Country Setting
This is an important setting for the Audio quality. The POTS impedance must be selected for the POTS line interfaces. Echo cancellation is only working if the value is correct.

Clip Functionality
Clip function is the detection of caller’s phone number. It takes 2 or 3 ringing tones to receive the whole phone number. Therefore the user can decide whether to wait and to get the name before the incoming call will be displayed (select “Wait for received phone number CLIP before call in signalling) or the incoming call will be displayed immediately but without phone number.

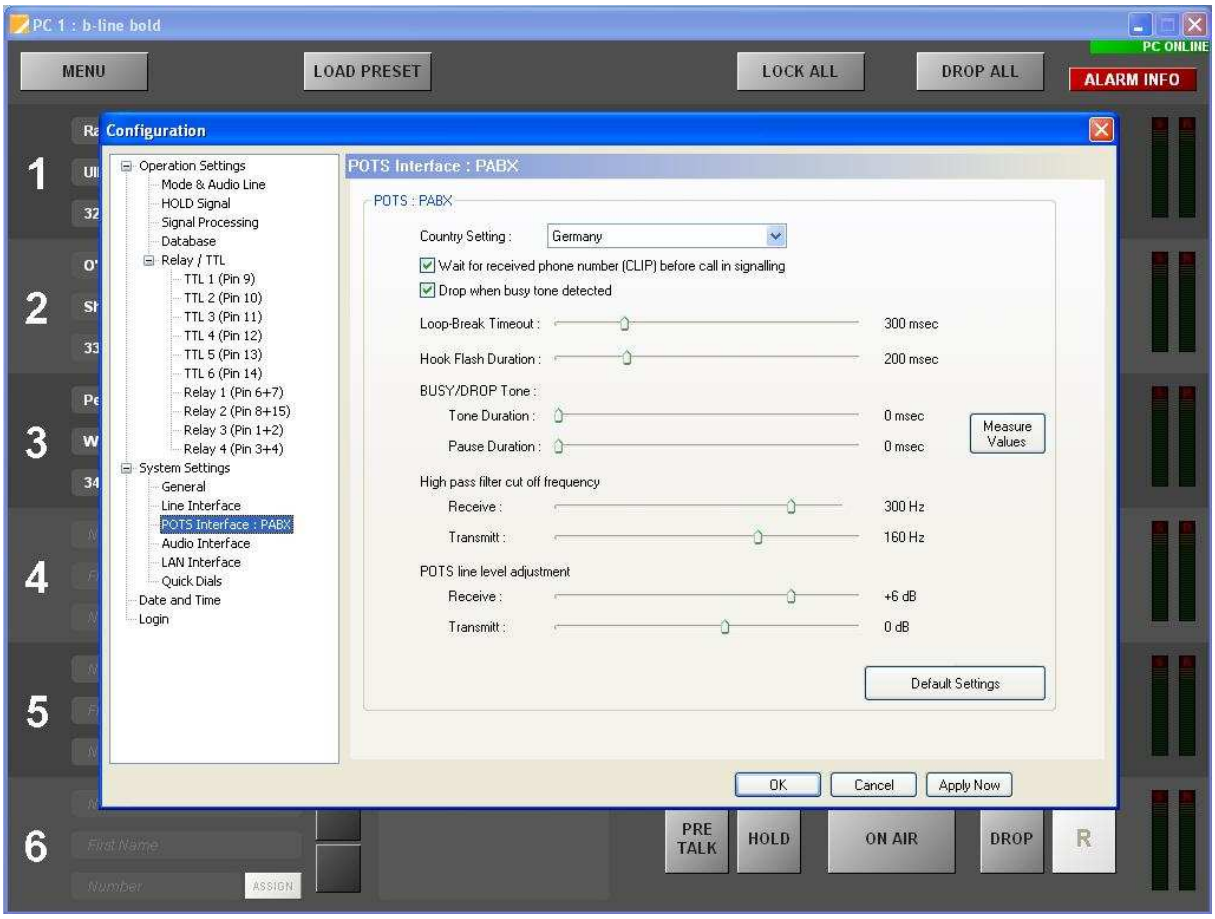
Busy tone detection and measurement
The busy tone can be used to detect the end of a caller connection by selecting “Drop when busy tone detected”. But the busy tone must be measured before by calling a busy line and activating “Measure Values”

Loop Break Timeout
This time is necessary to eliminate loop-break disturbances of the unit to answer a call. Values of 300 ms to 500 ms should always work, if not take higher values.

Hock Flash Duration
This time is given by the PABX or the outside line and is necessary for call forwarding function.

High pass filter out of frequency
For transmit and receive directions separate filters can be used to eliminate disturbances in the Telephone signal. All signals parts up to the selected frequency are eliminated. Recommended configuration: 300-Hz for both directions.

POTS Line Level adjustment
The levels fort he receive and transmit Telephone signal can be adjusted.

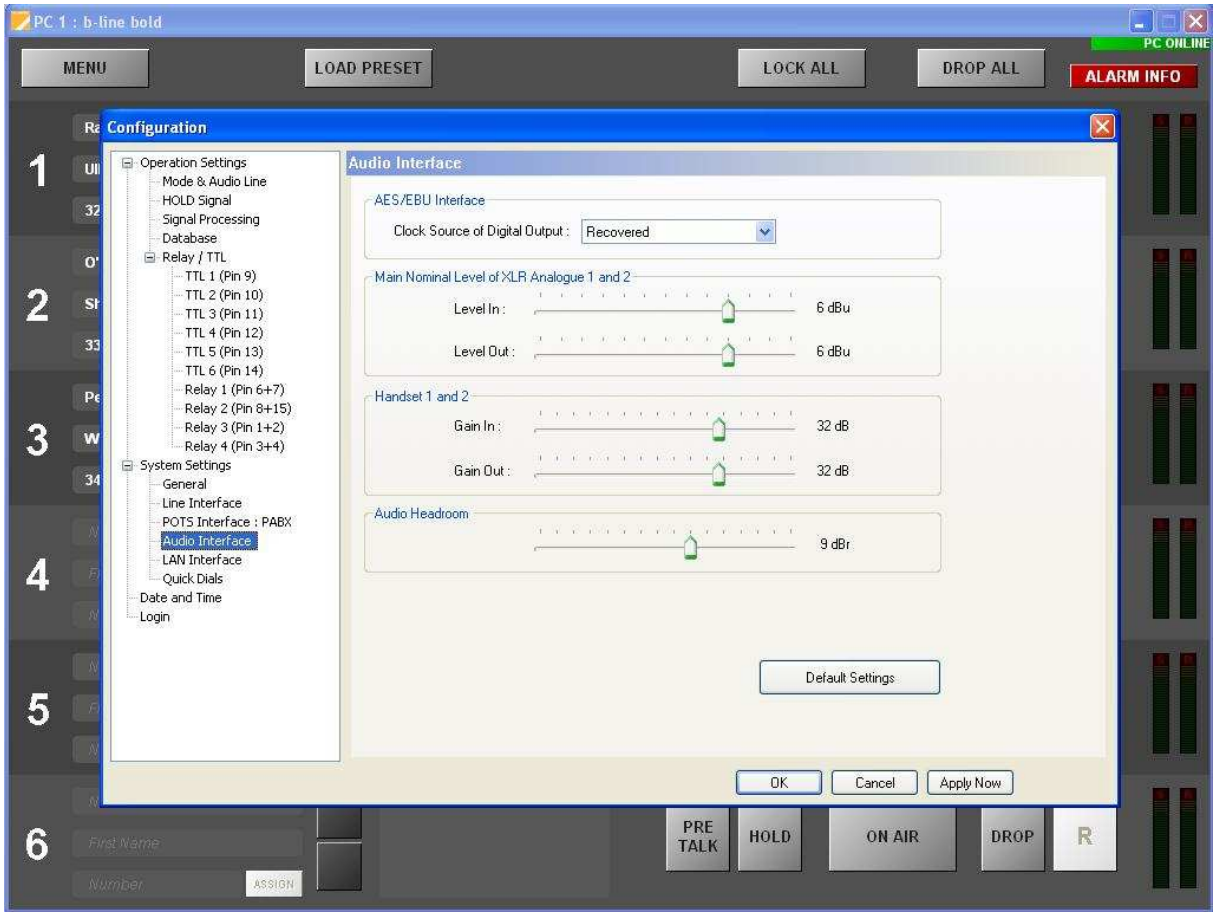

PC 1 : b-line bold
MENU
LOAD PRESET
LOCK ALL
DROP ALL
PC ONLINE
ALARM INFO
Configuration
Operation Settings
Mode & Audio Line
HOLD Signal
Signal Processing
Database
Relay / TTL
TTL 1 (Pin 9)
TTL 2 (Pin 10)
TTL 3 (Pin 11)
TTL 4 (Pin 12)
TTL 5 (Pin 13)
TTL 6 (Pin 14)
Relay 1 (Pin 6+7)
Relay 2 (Pin 8+15)
Relay 3 (Pin 1+2)
Relay 4 (Pin 3+4)
System Settings
General
Line Interface
POTS Interface : PABX
Audio Interface
LAN Interface
Quick Dials
Date and Time
Login
POTS Interface : PABX
POTS : PABX
Country Setting :
Germany
Wait for received phone number (CLIP) before call in signalling
Drop when busy tone detected
Loop-Break Timeout :
300 msec
Hook Flash Duration :
200 msec
BUSY/DROP Tone :
Tone Duration :
0 msec
Pause Duration :
0 msec
Measure Values
High pass filter cut off frequency
Receive :
300 Hz
Transmit :
160 Hz
POTS line level adjustment
Receive :
+6 dB
Transmit :
0 dB
Default Settings
OK
Cancel
Apply Now
PRE TALK
HOLD
ON AIR
DROP
R
First Name
Number
ASSIGN

5.5.2.2.4 Audio interface

In the sub menu Audio Interface the Clock Source of the Digital output can be configured:

- Internal
- External
- Recovered

In addition the nominal levels for the analogue Audio inputs and outputs can be configured.
The gain for both handset interfaces can be selected as well as the Audio headroom can be defined.



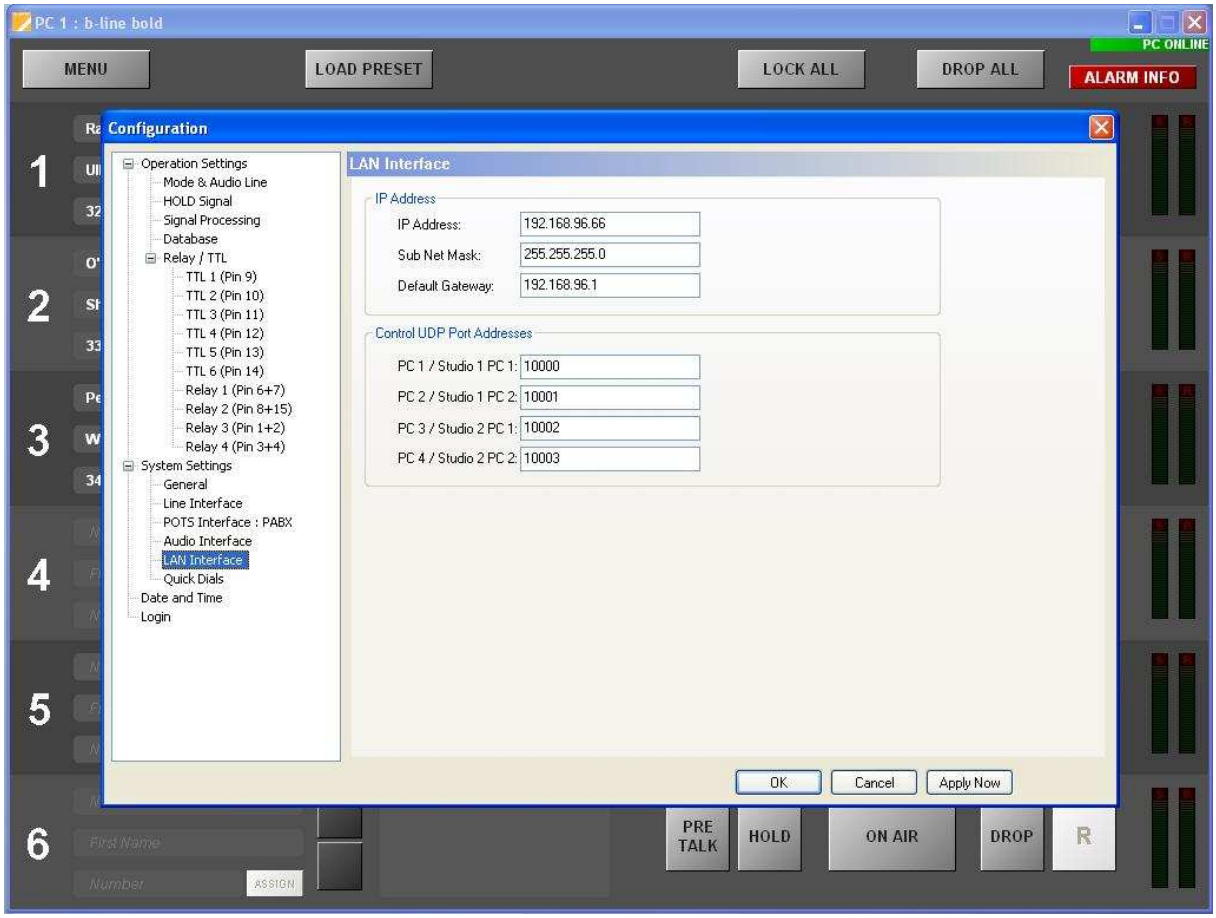
5.5.2.2.5 LAN Interface

In this sub menu the LAN parameters can be entered or modified:

IP Address
In this area the following parameters can be entered or changed:

- IP Address
- Sub Net Mask
- Default Gateway

Control UDP Port Addresses
In this area the Port Addresses of the Control Ports for the 4 control PCs can be entered or modified.
All 4 PCs can control B-LINE BOLD in the 1 Studio operation mode.
In the 2 Studio operation mode 2 PCs in each studio can control B-LINE BOLD.

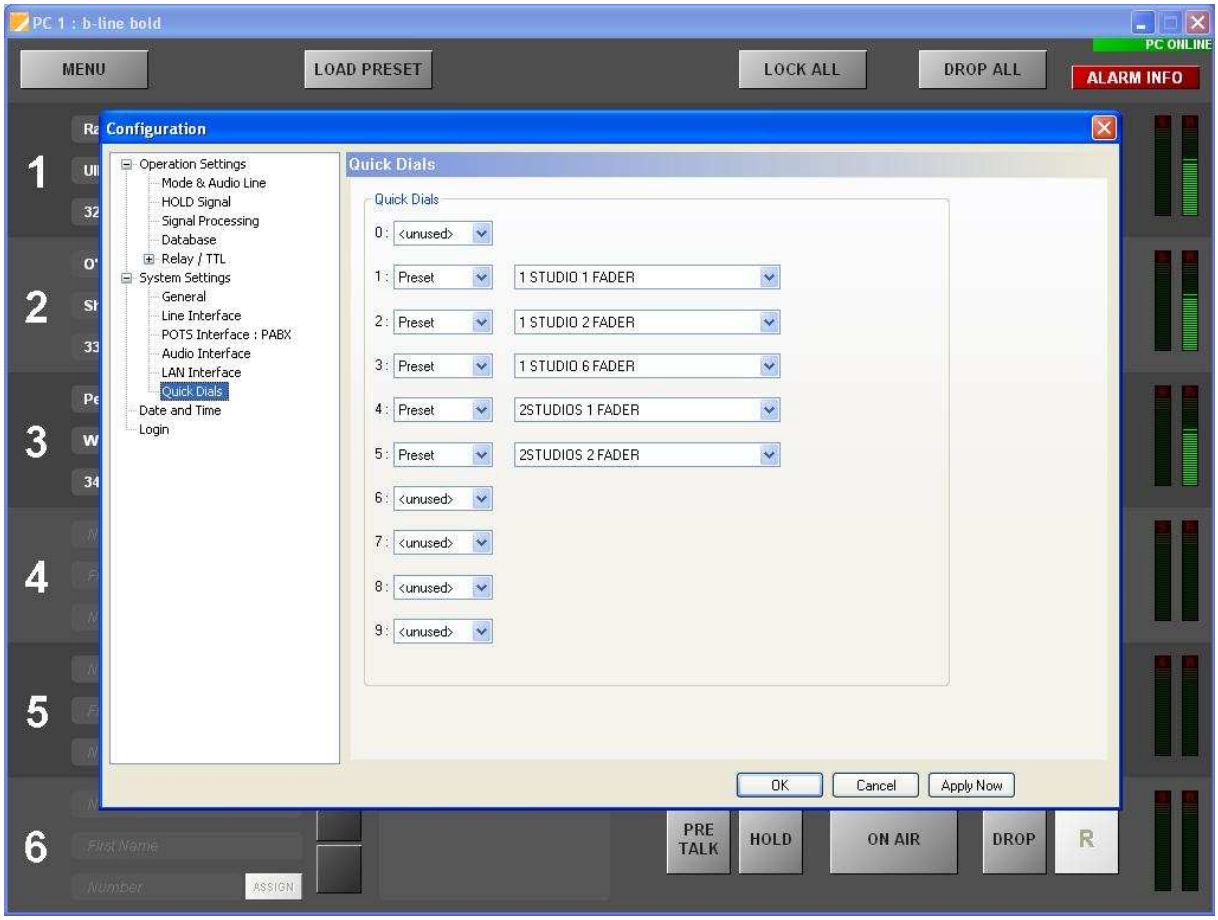


5.5.2.2.6 Short Cuts

In this Sub Menu Short Cuts for the keys 0 … 9 for the front keypad and for the external keypads can be configured.

Per key the following configurations are possible:

- Unused
- Presets



5.5.2.3 Date and Time

This sub menu can be used to set time and date of the clock component in B-LINE BOLD.

System Time

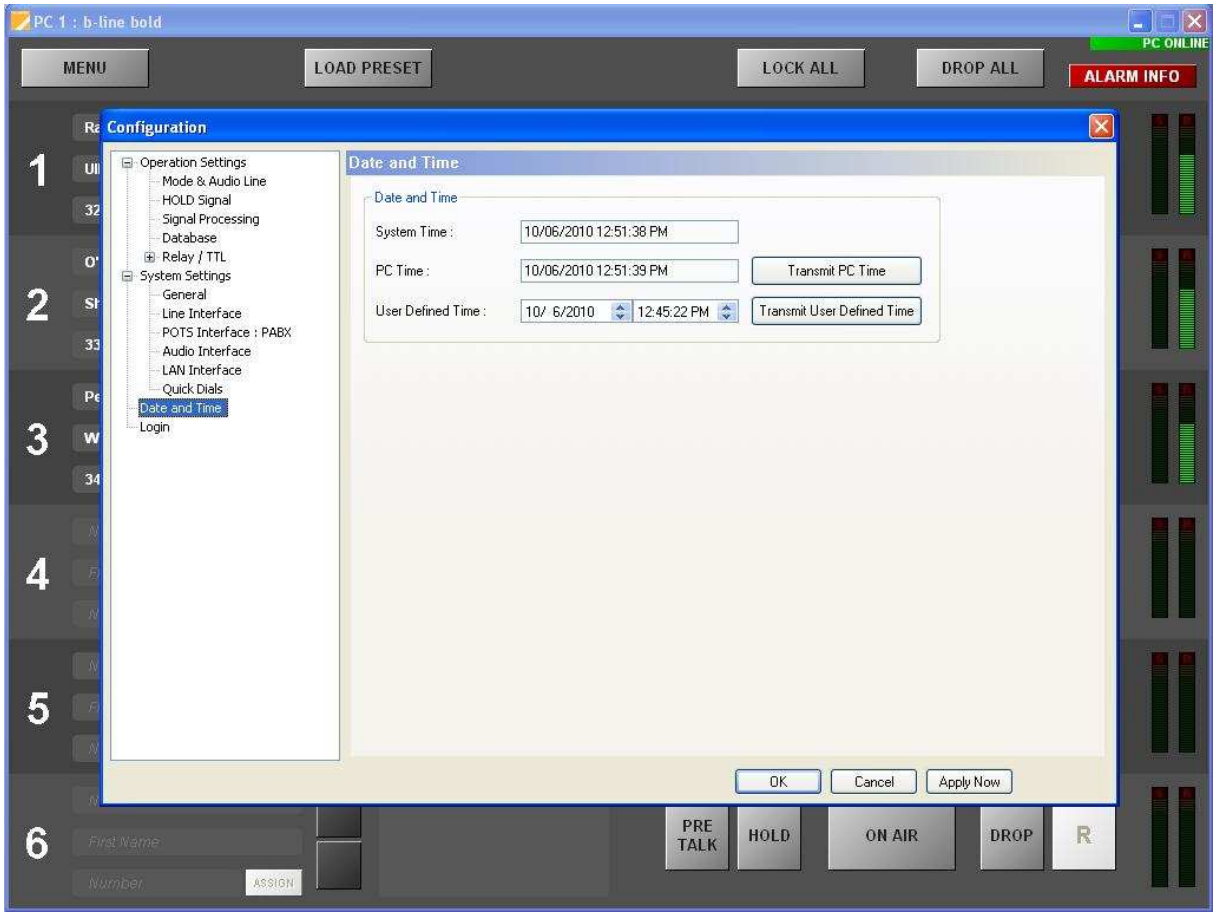
The actual values of Time and Date of the B-LINE BOLD clock component are displayed.

PC Time

The actual values of Time and Date of the PC are displayed. With the button “Transmit PC Time” the PC Time is used to set the clock component.

User Defined Time

A user can define its own time and with the button “Transmit User Defined Time” this pre-defined values are used to set the clock component.



5.5.3 Sub Menu Administration

In the sub menu Administration the following panels are available:

- Registration

The panel shows the B-LINE BOLD data, e.g. product number, hardware version, MAC address etc.

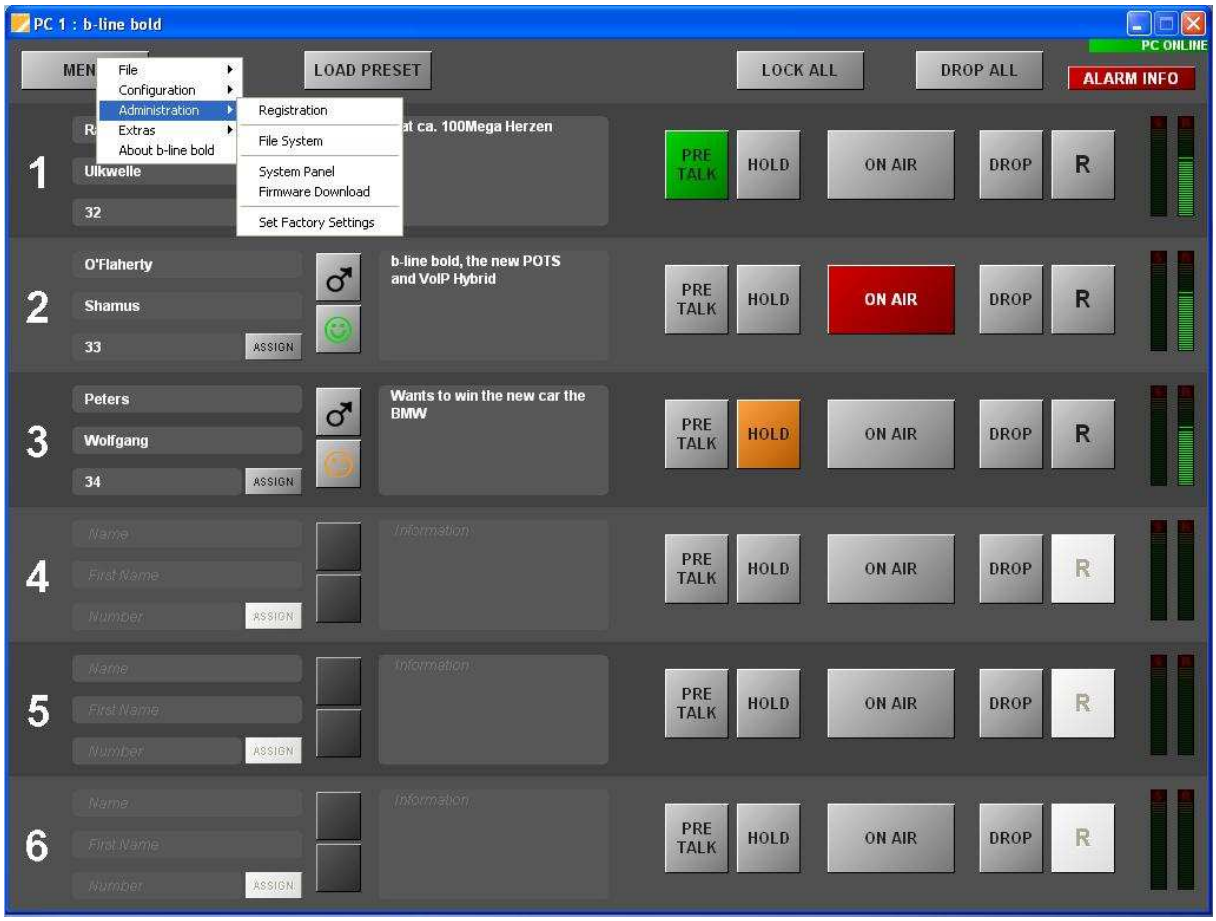
- File System
- System Panel

In the System Panel special debug commands can be entered.

- Firmware Download

New Software can be loaded into B-LINE BOLD.

- Set Factory Setting

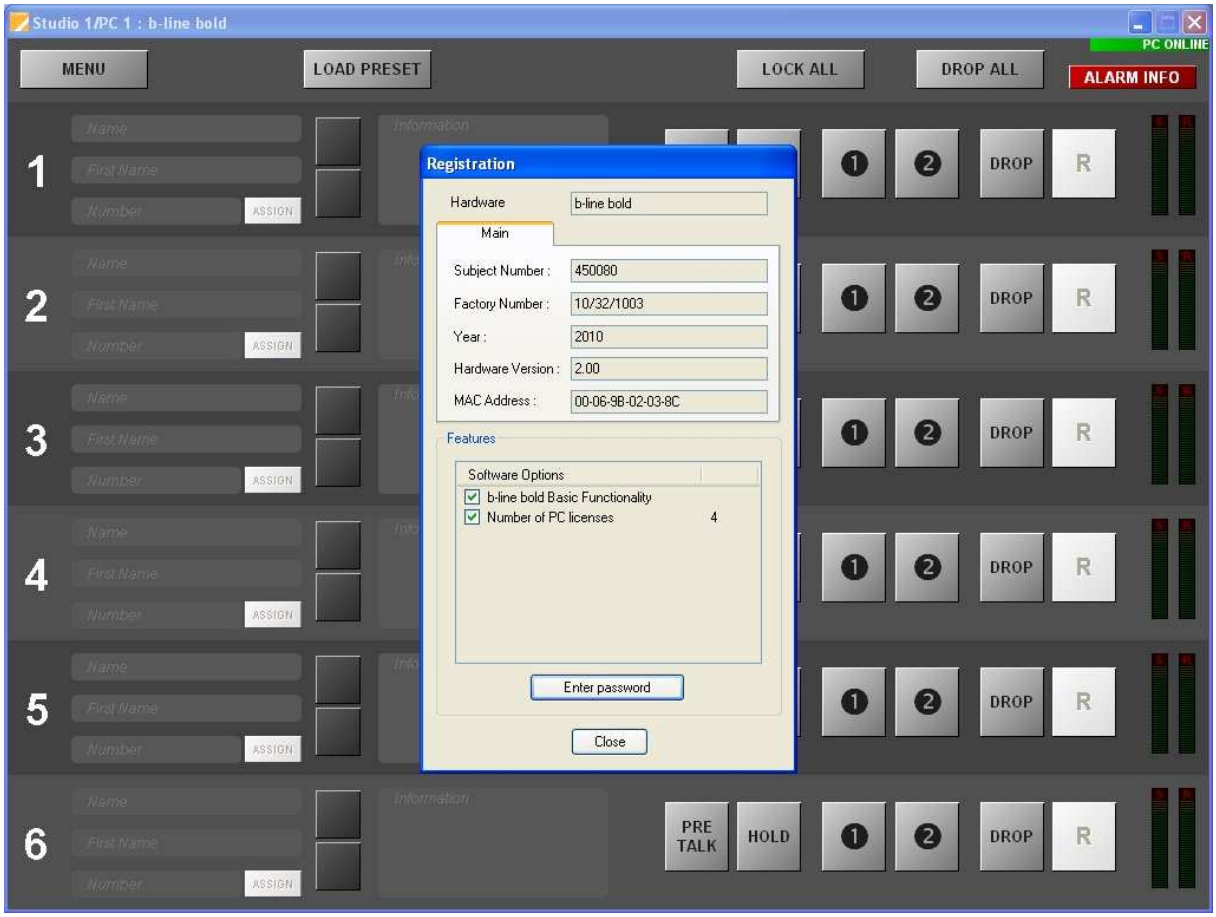


5.5.3.1 Registration

This sub menu shows all product specific data:

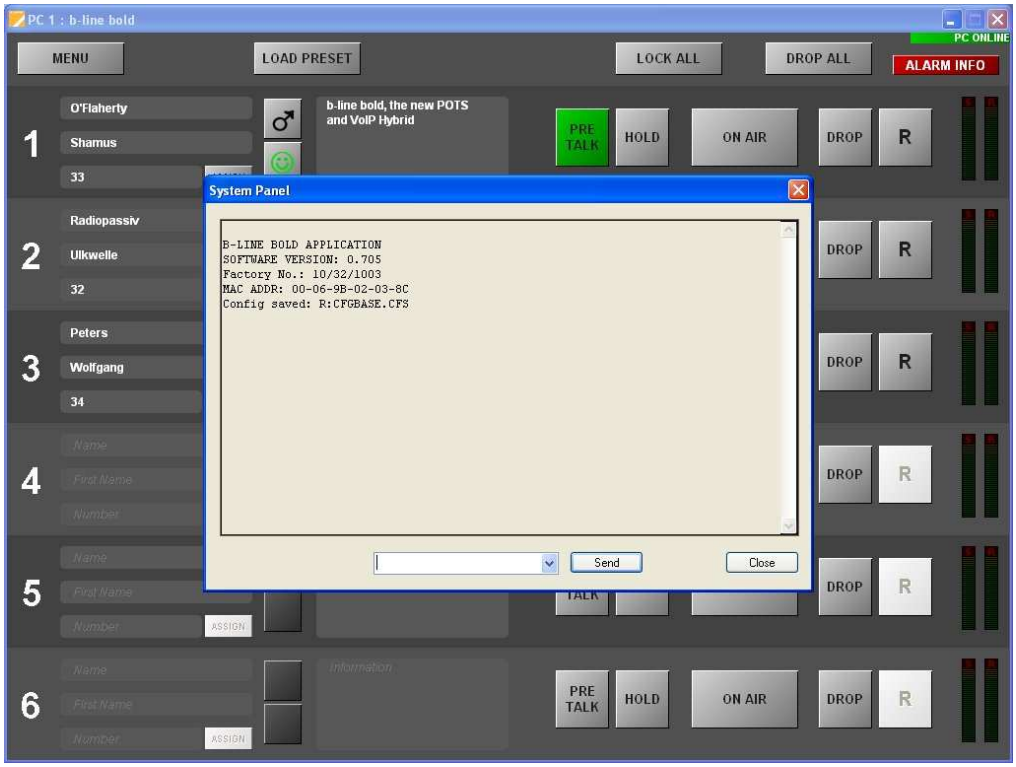
- Subject number
- Factory number
- Year of production
- Hardware Version
- MAC Address
- Software options

If new software upgrades are available, passwords to open the functions can be entered.



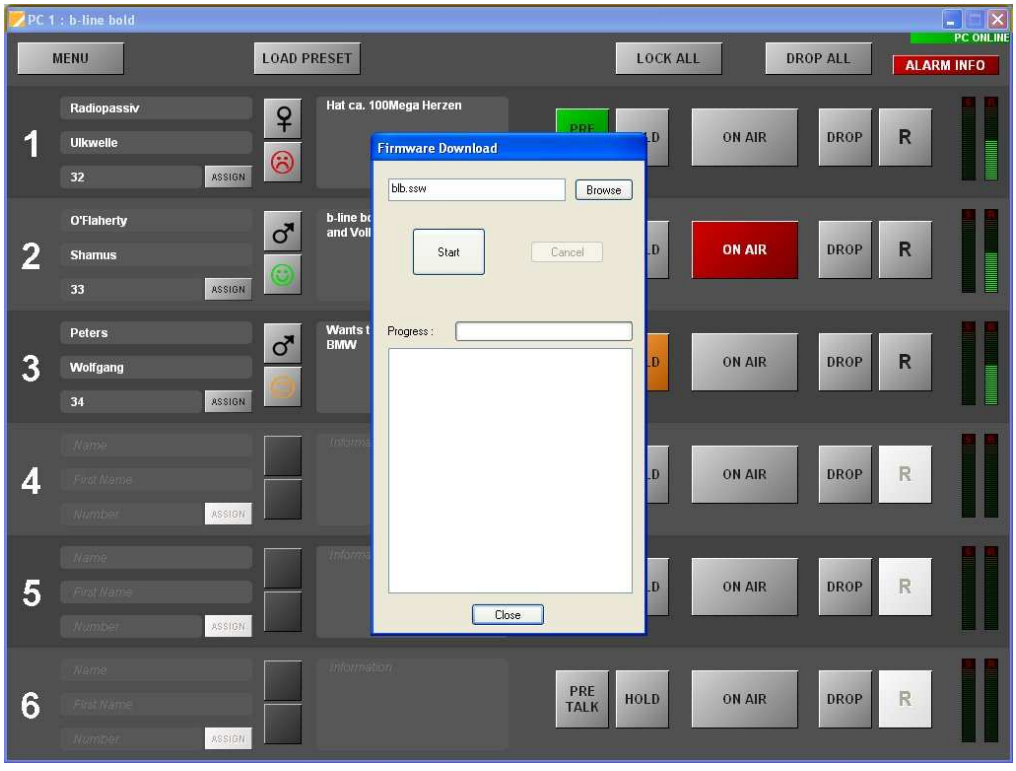
5.5.3.2 System Panel

In the System Panel special debug commands can be entered.



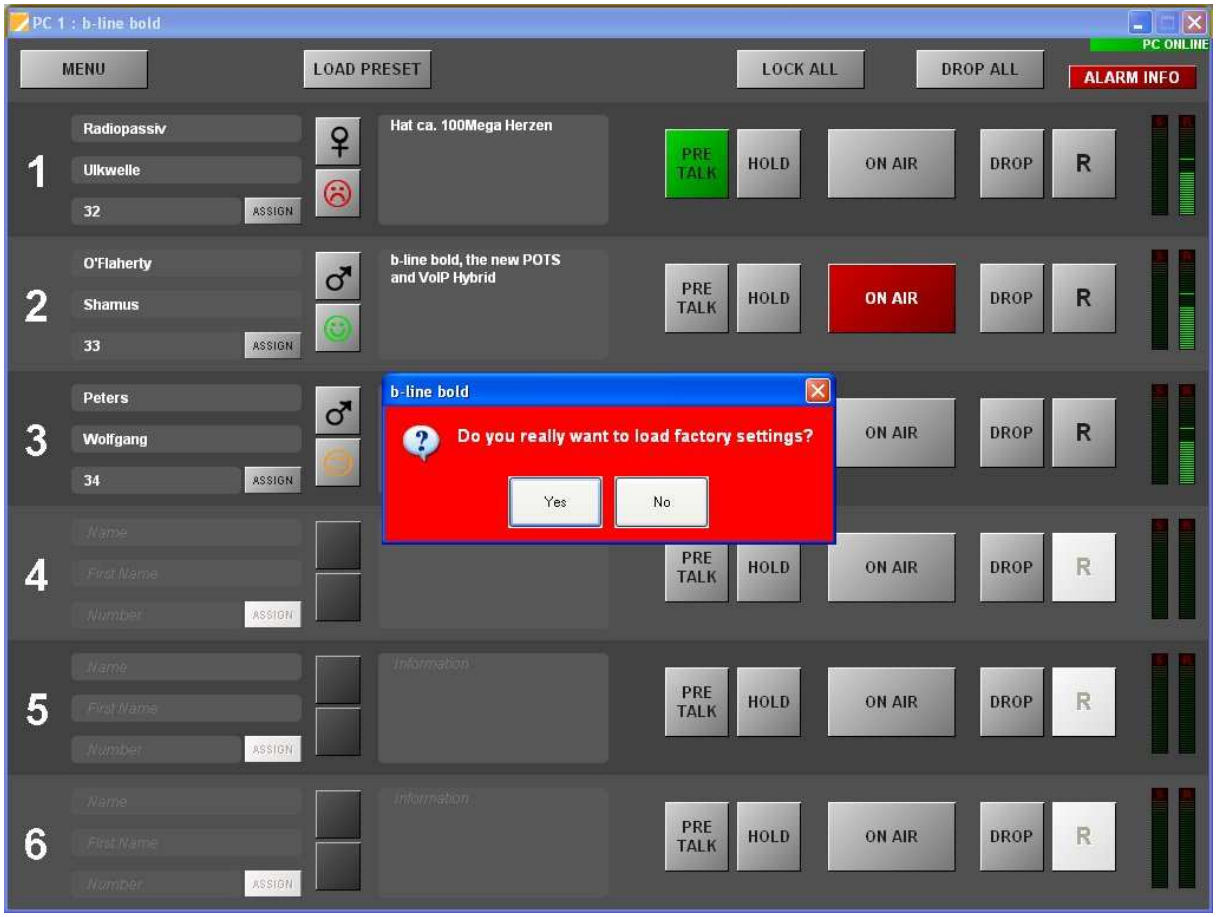
5.5.3.3 Firmware Download

A new Firmware can be downloaded.



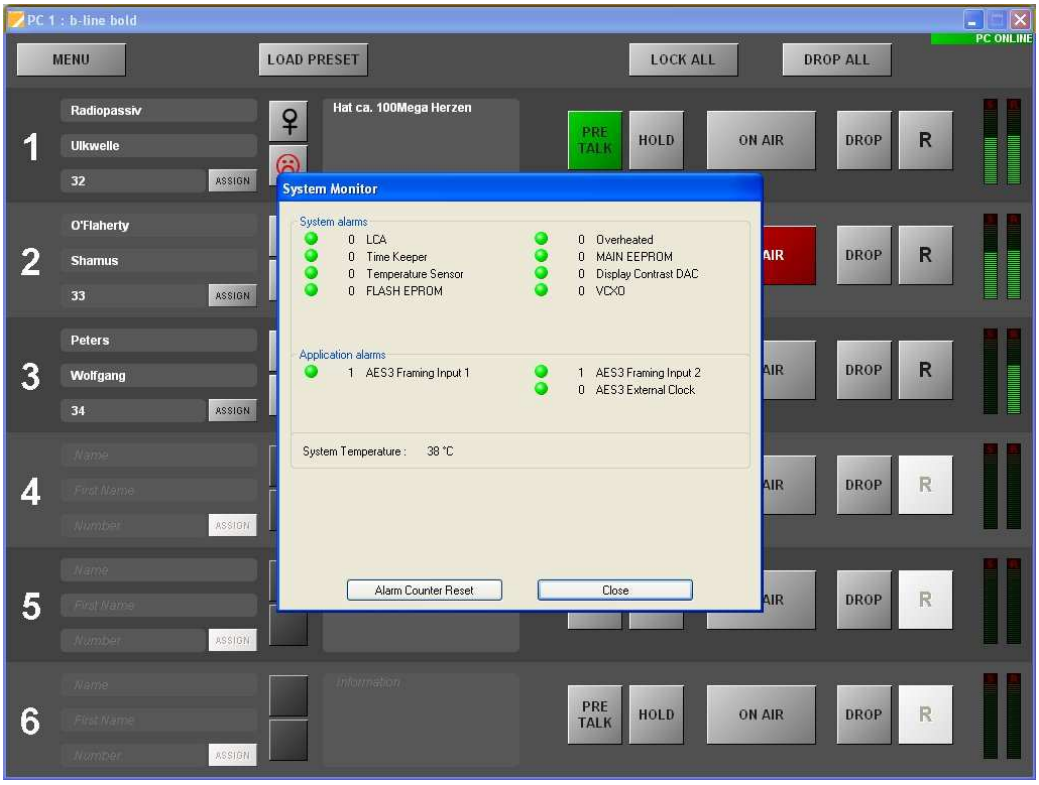
5.5.3.4 Set Factory Setting

A setting of basic parameters will be done after selecting the Set Factory Setting.



5.5.4 Sub Extras

In the sub menu Extras a system monitor is available.



5.5.5 Sub Menu about B-LINE BOLD

In this Sub Menu the software versions of the B-LINE BOLD and the PC software are displayed.

6 MULTIPLE CONTROL OF B-LINE BOLD IN THE STUDIO OPERATION MODES

B-LINE BOLD provides 1 Studio and 2 Studio operation modes. In the 2 Studio operation mode each studio has separate ON AIR Audio lines

1 Studio operation modes:

- 1 Studio One Fader
- 1 Studio Two Faders
- 1 Studio Six Faders

2 Studio operation modes:

- 2 Studios One Fader
- 2 Studios Two Faders

The operation modes can be configured in the “Mode & Audio line” panel.

6.1 1 Studio Operation Modes

The following items are common for all 1 Studio operation modes:

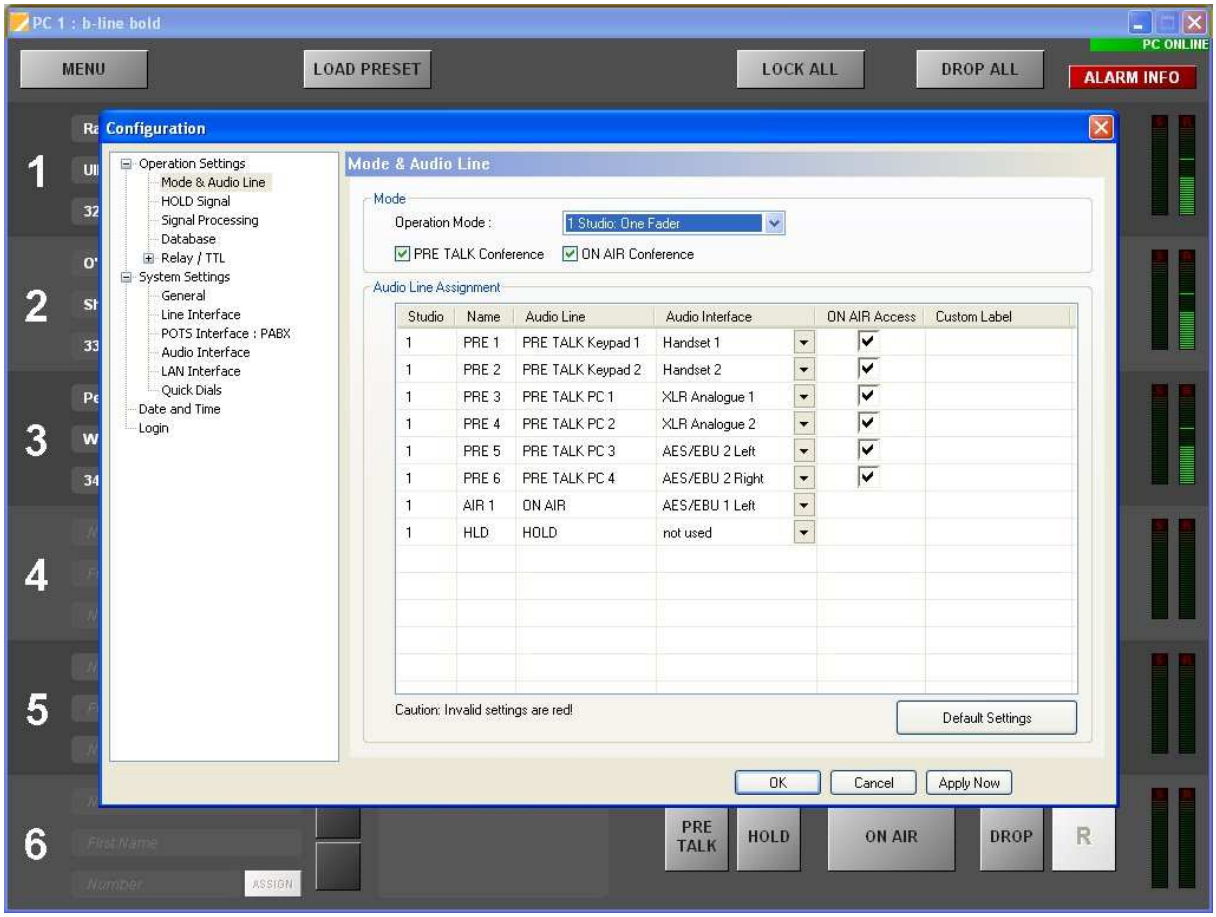
- 4 PCs with B-LINE BOLD software can configure and operate the hybrid
- 2 external keypads can operate the hybrid
- If a caller is in the status HOLD each operation unit (Keypad or PC) can switch the caller to PRE TALK or ONAIR
- A caller in PRE TALK or ON AIR can only be switched to HOLD by the same operation unit. The other operation units can not change the caller status.

6.1.1 Configuration: 1 Studio One Fader

In the “Mode & Audio line” panel all Audio lines can be adjusted to 6 x PRE-TALK locations and an ON AIR Audio line to the mixing console. Also a HOLD signal can be selected if the other HOLD sources can not be used.

- PRE1: PRE TALK Keypad1: PRE TALK Audio interface controlled by Keypad 1
- PRE2: PRE TALK Keypad2: PRE TALK Audio interface controlled by Keypad 2
- PRE3: PRE TALK PC1: PRE TALK Audio interface controlled by PC1
- PRE4: PRE TALK PC2: PRE TALK Audio interface controlled by PC2

- PRE5: PRE TALK PC3: PRE TALK Audio interface controlled by PC3
- PRE6: PRE TALK PC4: PRE TALK Audio interface controlled by PC4
- AIR1: ON AIR: ON AIR Audio interface for the connection to the mixing console
- HLD: HOLD: Audio input for an external HOLD source.



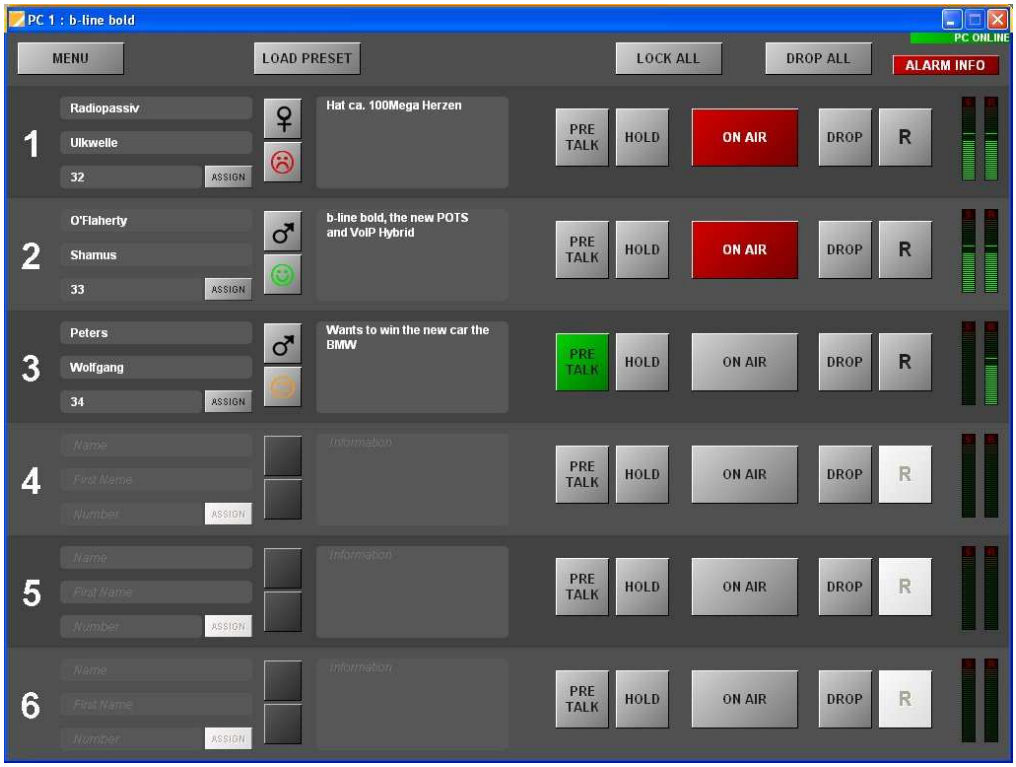
6.1.2 Main Panel PC1 to PC4: 1 Studio One Fader

In total 4 PCs can control the B-LINE BOLD hybrid. In this chapter only 2 PCs are operating the hybrid. In the Main panel of each PC screen the actual switching status of the caller lines are displayed. It will be indicted which control unit (PC or keypad) switched the caller into the PRE TALK Mode and which callers are ON AIR and which callers are in the HOLD status. Also it is displayed which control unit switched the caller in the ON AIR status. All other PCs show white buttons for PRE TALK, HOLD and DROP.

Remark:
Any control unit can get access to the B-LINE BOLD if the Caller line is in the HOLD status.

PC1

The operator of PC1 switched the first two callers in the ON AIR status and caller 3 in the PRE TALK status.



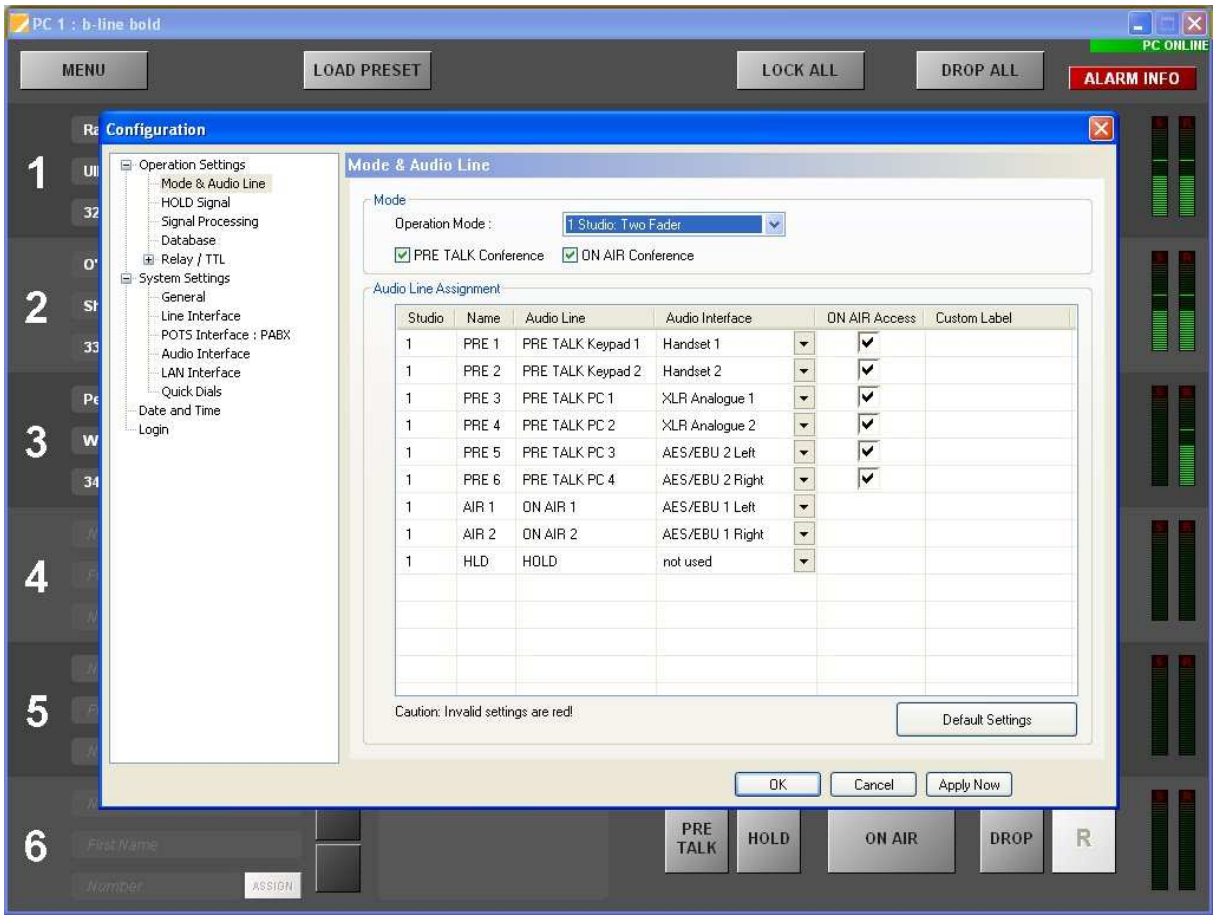
PC2

The operator is getting indicated the ON AIR status of the first two callers and the PRE TALK status of caller 3 used by PC1 operator. PC2 can not switch the caller because all unused buttons of caller 1 to 3 are displayed in white colour

6.1.3 Configuration: 1 Studio Two Fader

In the “Mode & Audio line” panel all Audio lines can be adjusted to 6 x PRE-TALK locations and two ON AIR Audio lines (ONAIR 1 and ONAIR 2) to the mixing console. As HOLD signal the ON AIR1 signal or an internal stored HOLD Signal can be selected.

- PRE1: PRE TALK Keypad1: PRE TALK Audio interface controlled by Keypad 1
- PRE2: PRE TALK Keypad2: PRE TALK Audio interface controlled by Keypad 2
- PRE3: PRE TALK PC1: PRE TALK Audio interface controlled by PC1
- PRE4: PRE TALK PC2: PRE TALK Audio interface controlled by PC2
- PRE5: PRE TALK PC3: PRE TALK Audio interface controlled by PC3
- PRE6: PRE TALK PC4: PRE TALK Audio interface controlled by PC4
- AIR1: ON AIR1: ON AIR1 Audio interface for the connection to the mixing console
- AIR2: ON AIR2: ON AIR2 Audio interface for the connection to the mixing console



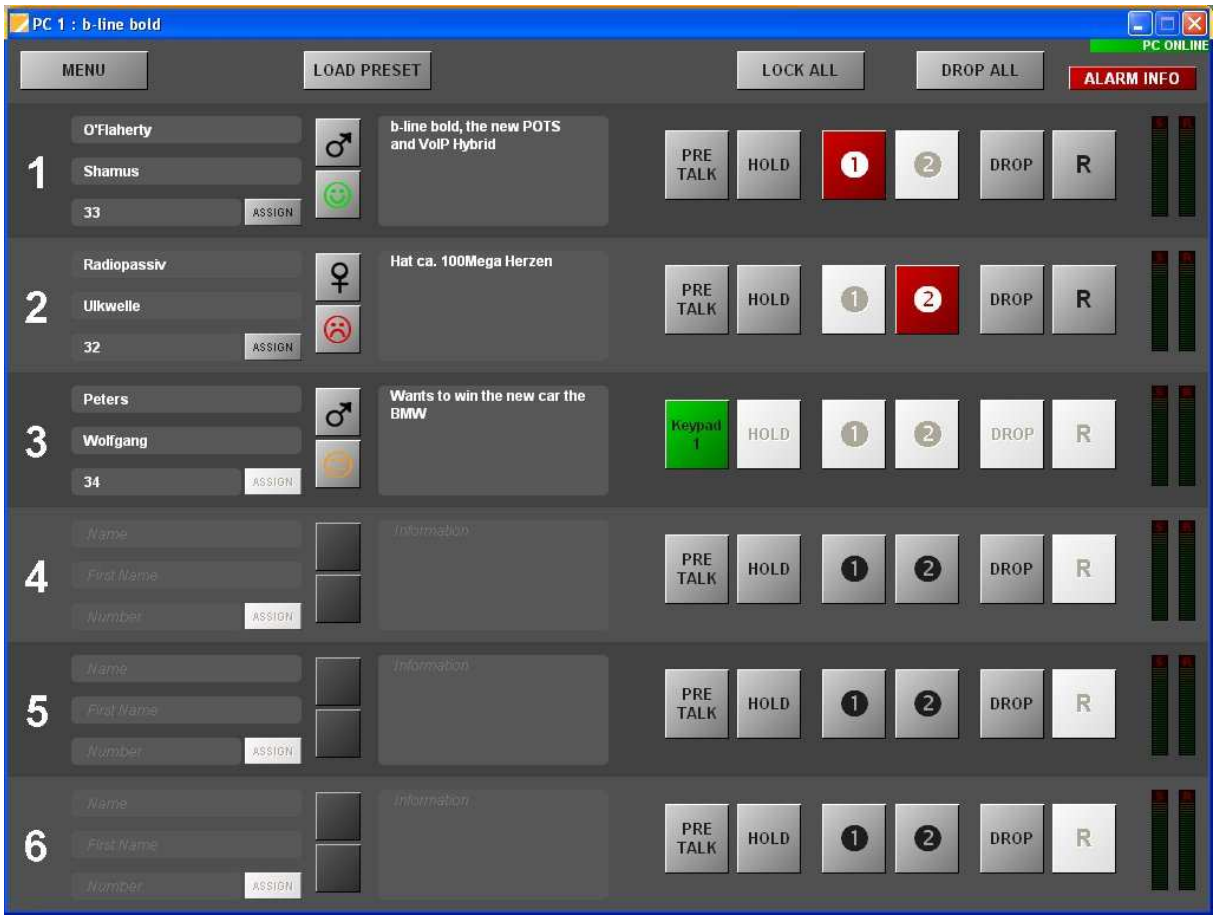
6.1.4 Main Panel PC1 to PC4: 1 Studio Two Fader

4 PCs can operate the B-LINE BOLD Telephone Hybrid. In this chapter 2 PCs are operating the hybrid. In the Main panel of each PC screen the actual switching status of the caller lines are displayed. It will be indicted which control unit (PC or keypad) switched the caller into the PRE TALK Mode and which callers are in the ON AIR1 and ONAIR 2 status and which callers are in the HOLD status. Also it is displayed which control unit switched the caller in the ON AIR status. All other PCs show white buttons for PRE TALK, HOLD and DROP.

Remark:
Any control unit can get access to the B-LINE BOLD if the Caller line is in the HOLD status.

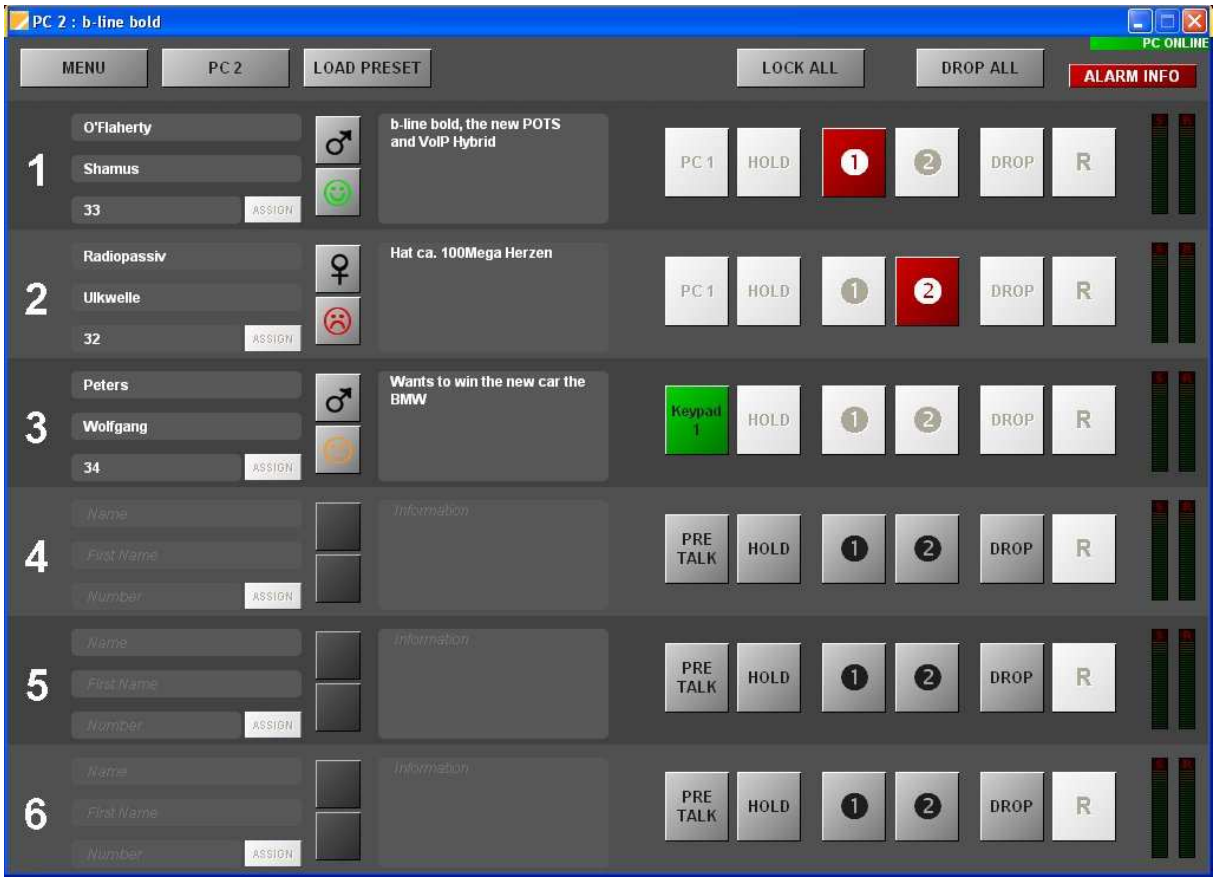
PC1

The operator of PC1 switched the first caller to ON AIR 1, the second caller to ON AIR 2 and the third caller to PRE TALK.



PC2

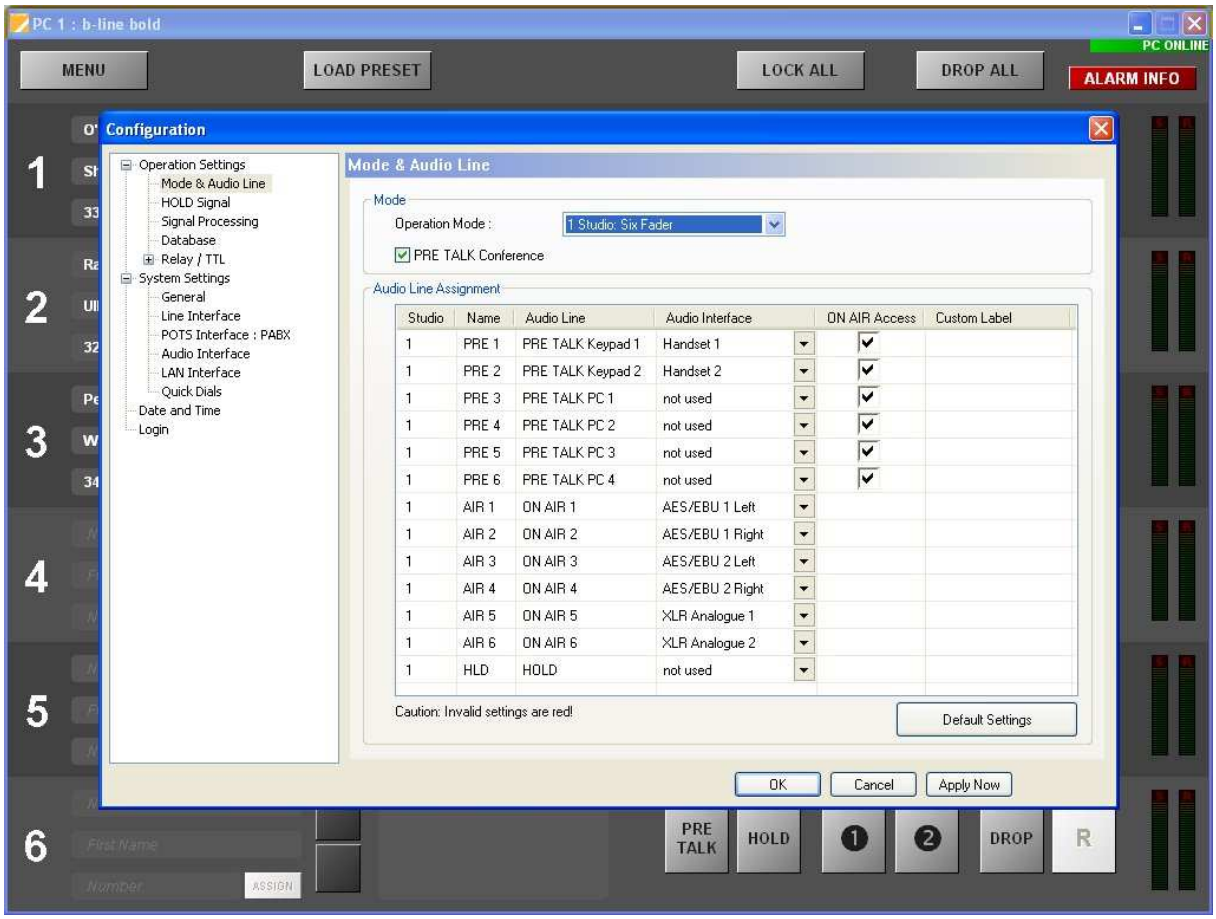
The operator is getting indicated that the first 3 caller lines are operated by PC1 and are switched to ON AIR 1 and ON AIR 2 and PRE TALK . PC2 can not switch the caller because all unused buttons of caller 1 to 3 are displayed in white colour



6.1.5 Configuration: 1 Studio Six Fader

In the “Mode & Audio line” panel Handset 1 and Handset 2 can be adjusted to 2 x PRETALK locations and all other Audio interfaces can be adjusted to the six ON AIR Audio lines (ONAIR 1 to ONAIR 6). As HOLD signal the ON AIR1 signal or an internal stored HOLD Signal can be selected.

- PRE1: PRE TALK Keypad1: PRE TALK Audio interface controlled by Keypad 1: Handset 1
- PRE2: PRE TALK Keypad2: PRE TALK Audio interface controlled by Keypad 2: Handset 2
- PRE3: PRE TALK PC1: not used: PC1 only configuration and control
- PRE4: PRE TALK PC2: not used: PC2 only configuration and control
- PRE5: PRE TALK PC3: not used: PC3 only configuration and control
- PRE6: PRETALK PC4: not used: PC4 only configuration and control
- AIR1: ON AIR1: Caller 1 Audio interface, e.g. AES/EBU 1 Left
- AIR2: ON AIR2: Caller 2 Audio interface, e.g. AES/EBU 1 Right
- AIR3: ON AIR3: Caller 3 Audio interface, e.g. AES/EBU 2 Left
- AIR4: ON AIR4: Caller 4 Audio interface, e.g. AES/EBU 2 Right
- AIR5: ON AIR5: Caller 5 Audio interface, e.g. XLR Analogue 1
- AIR6: ON AIR6: Caller 6 Audio interface, e.g. XLR Analogue 2



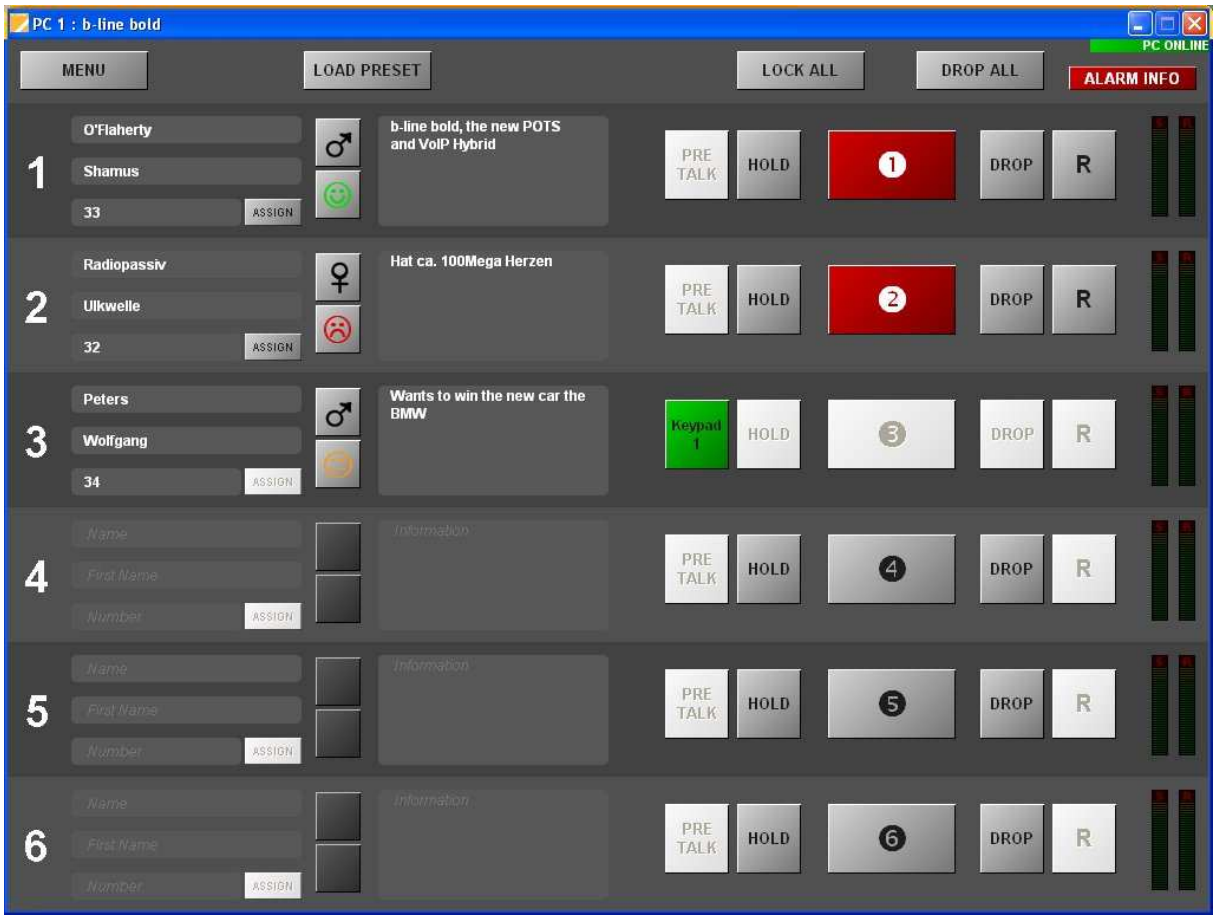
6.1.6 Main Panel PC1 to PC4: 1 Studio Six Fader

In total 4 PCs can control the B-LINE BOLD hybrid. In this chapter only 2 PCs are operating the hybrid. In the Main panel of each PC screen the actual switching status of the caller lines are displayed. It will be indicted which control unit (PC or keypad) switched the caller into the PRE TALK Mode and which callers are ON AIR and which callers are in the HOLD status. Also it is displayed which control unit switched the caller in the ON AIR status. All other PCs show white buttons for PRE TALK, HOLD and DROP.

Remark:
Any control unit can get access to the B-LINE BOLD if the Caller line is in the HOLD status.

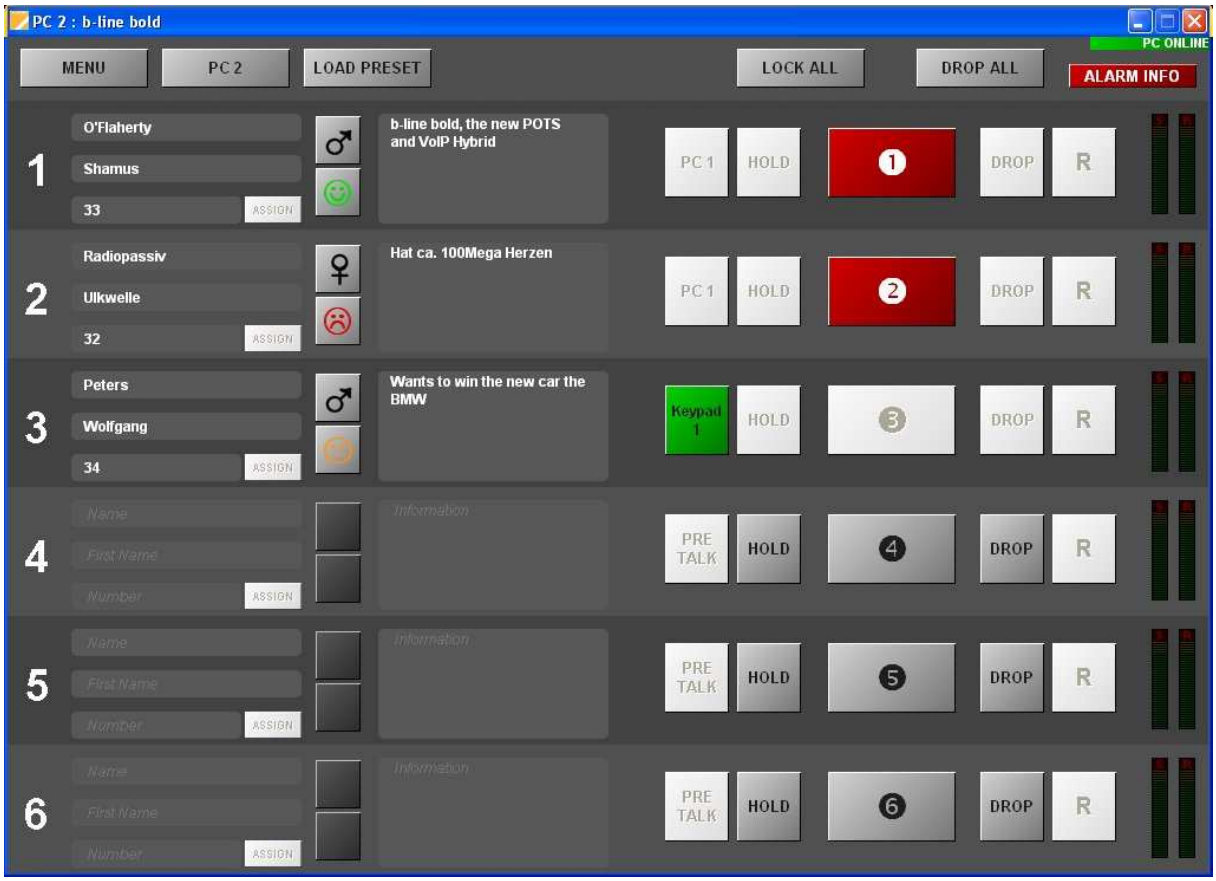
PC1

The operator of PC1 switched the first caller in the ON AIR 1 status and the second caller in the ON AIR 2 status. Caller 3 was switched by Keypad 1 in the PRE TALK status.



PC2

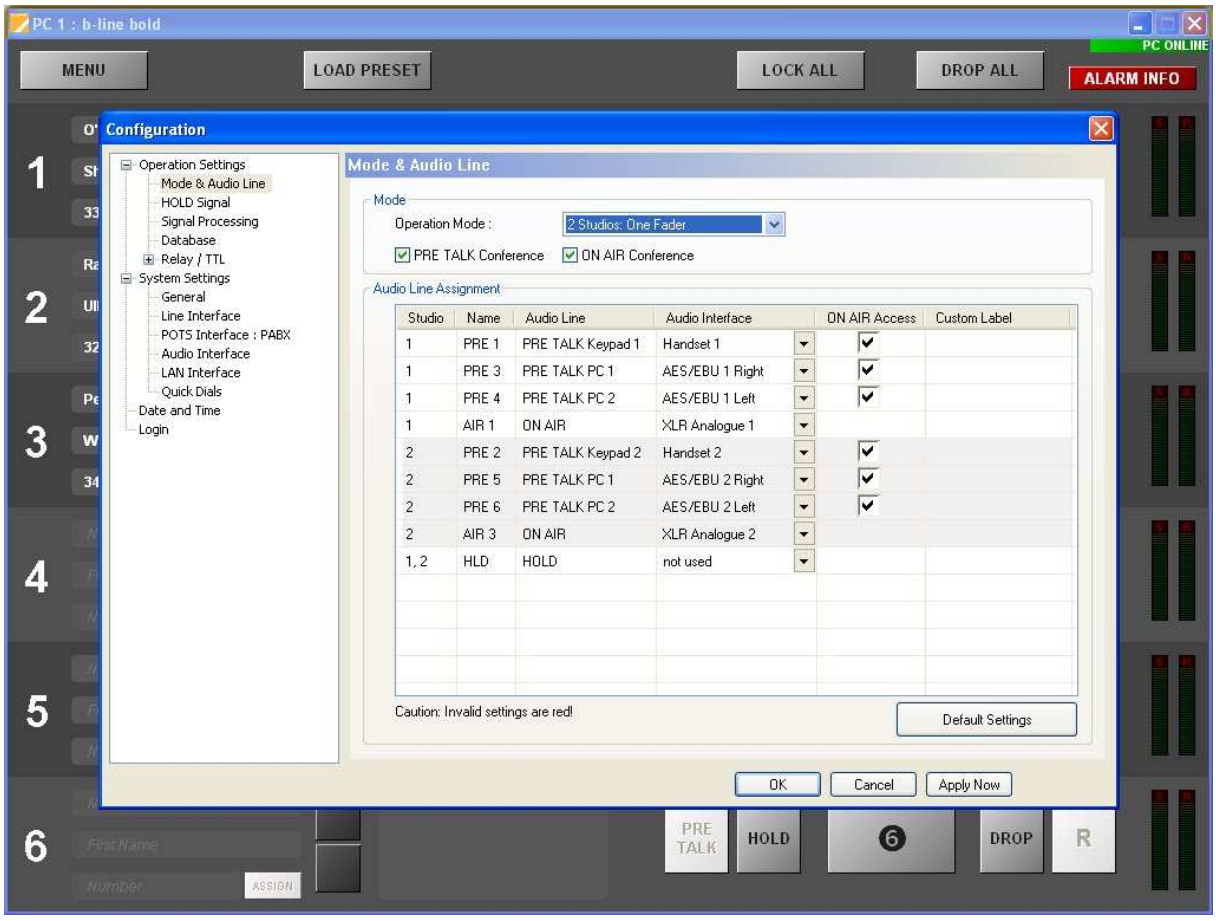
The operator is getting indicated the ON AIR1 and ON AIR 2 status of the first two callers and the PRE TALK status of caller 3 used by Keypad 1 operator. PC2 can not switch the caller because all unused buttons of caller 1 to 3 are displayed in white colour



6.1.7 Configuration: 2 Studios One Fader

In the “Mode & Audio line” panel all Audio lines can be adjusted to the 2 Studios. For each studio 3 x PRETALK Audio interfaces and one ON AIR Audio line to the mixing console can be configured. As HOLD signal the ON AIR signal of studio 1 or an internal stored HOLD Signal can be selected.

- Studio 1: PRE1: PRE TALK Keypad1: PRE TALK Audio interface controlled by Keypad 1
- Studio 1: PRE3: PRE TALK PC1: PRE TALK Audio interface controlled by PC1
- Studio 1: PRE4: PRE TALK PC2: PRE TALK Audio interface controlled by PC2
- Studio 1: AIR1: ON AIR: ON AIR Audio interface for the connection to the mixing console of studio 1
- Studio 2: PRE2: PRE TALK Keypad2: PRE TALK Audio interface controlled by Keypad 2
- Studio 2: PRE5: PRE TALK PC1: PRE TALK Audio interface controlled by PC1
- Studio 2: PRE6: PRE TALK PC2: PRE TALK Audio interface controlled by PC4
- Studio 2: AIR3: ON AIR: ON AIR Audio interface for the connection to the mixing console of studio 2
- HLD: HOLD: Audio input for an external HOLD source.



6.1.8 Main Panel PC1 and PC2: 2 Studios One Fader

B-LINE BOLD can support two Studios. The Audio interfaces must be configured separately for each studio. B-LINE BOLD can be operated by 2 PCs and 1 Keypad from each studio. In the Main panel of each PC screen the actual switching status of the caller lines are displayed. It will be indicated which control unit (PC or keypad) switched the caller into the PRE TALK Mode and which callers are ON AIR and which callers are in the HOLD status. Also it is displayed which control unit switched the caller in the ON AIR status. All other PCs show white buttons for PRE TALK, HOLD and DROP.

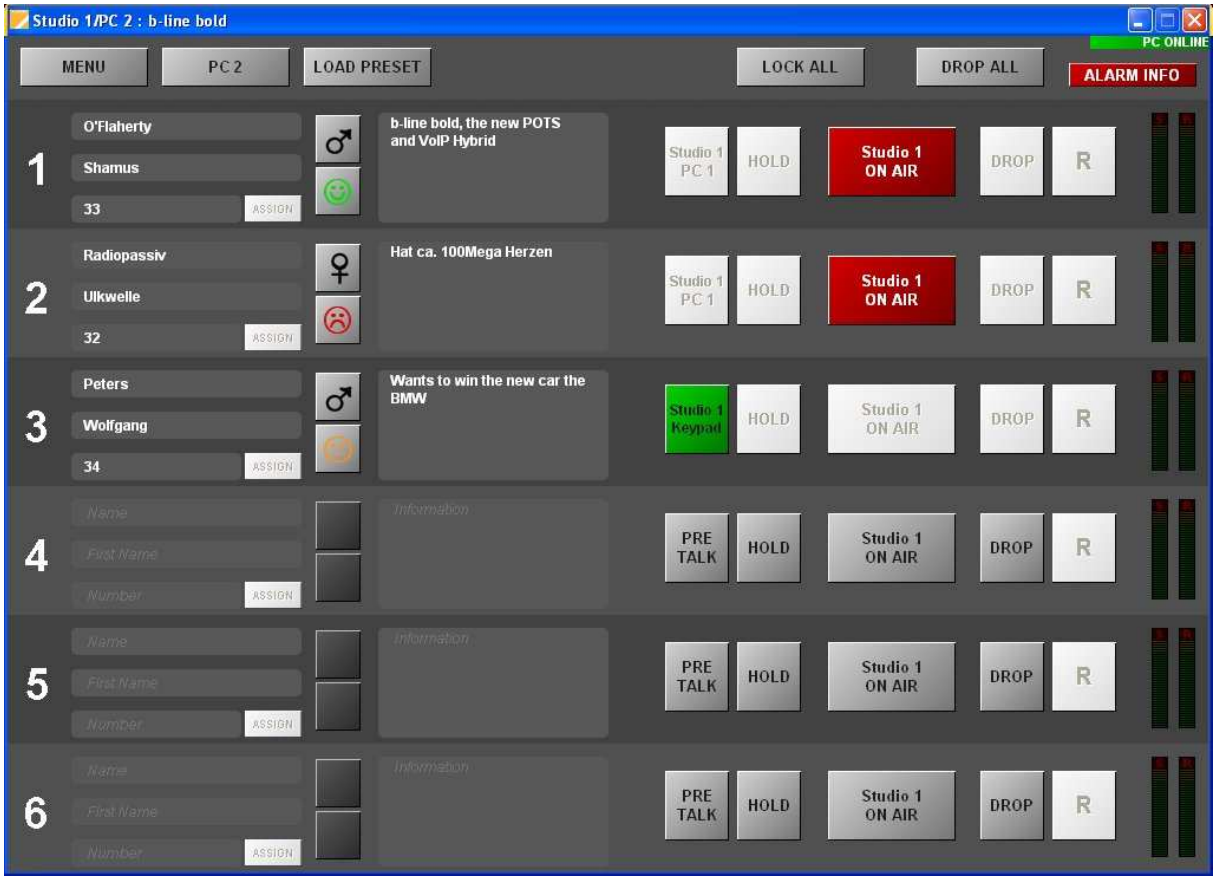
Remark:
Any control unit can get access to the B-LINE BOLD if the Caller line is in the HOLD status.

PC1 Studio 1

The operator of PC1 in Studio 1 switched the first two callers in the ON AIR status. The red ON AIR button indicates “Studio 1 ON AIR”. Caller 3 is in the PRE TALK status switched by Keypad 1. In the title bar the studio number and PC number are displayed.

PC2 Studio 1 or PC1 Studio 2 or PC2 Studio 2

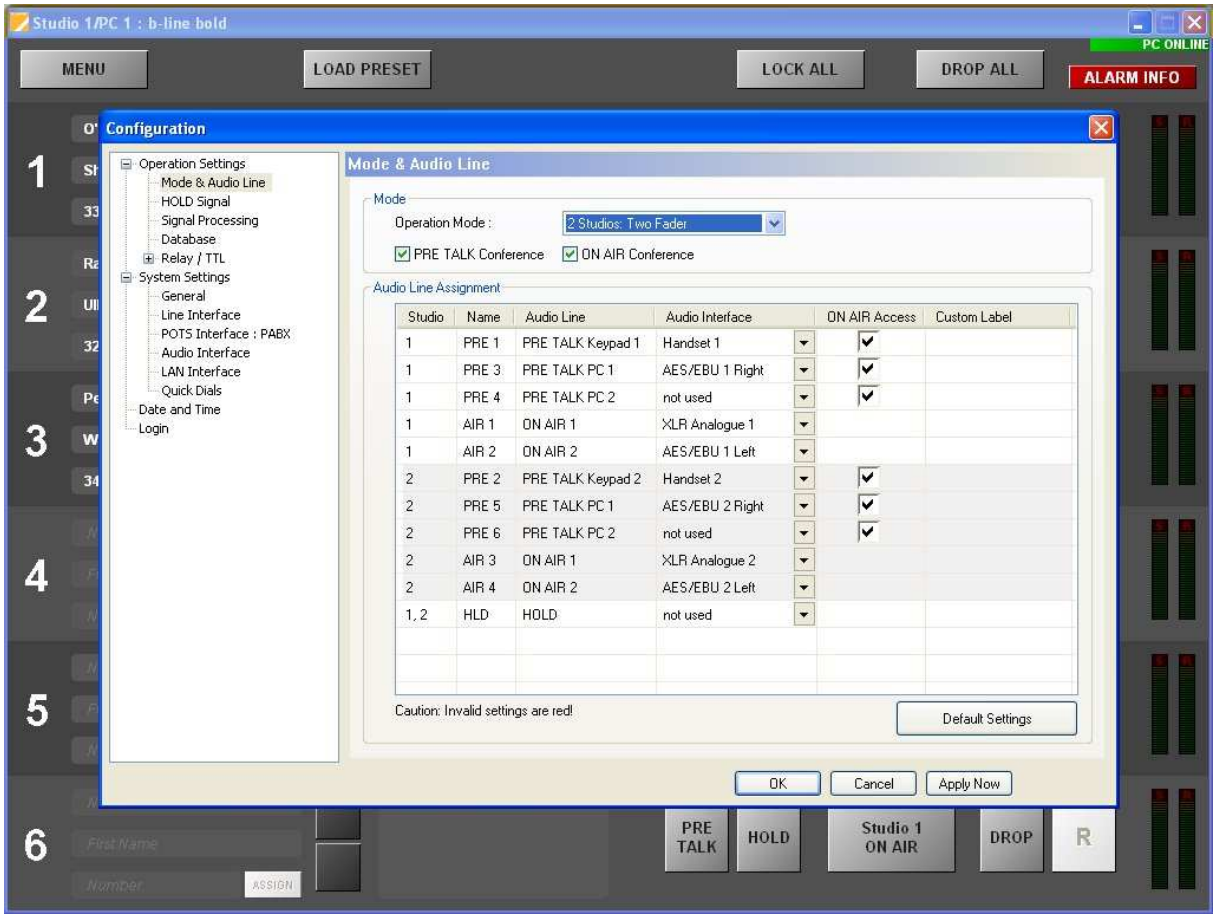
The operators of PC2 in Studio 1 and PC1 and PC2 in Studio 2 are getting indicated that the first two callers are switched by PC1 to the ON AIR Audio line of Studio 1. The active PC number is displayed in the white PRE TALK button. Caller 3 is switched to the PRE TALK interface of Keypad 1. Studio 1/ PC2, Studio 2/PC1 and PC2 can not switch the caller because all unused buttons of caller 1 to 3 are displayed in white colour. In the title bar the studio number and PC number are displayed.



6.1.9 Configuration: 2 Studios Two Fader

In the “Mode & Audio line” panel all Audio lines can be adjusted to the 2 Studios. For each studio 2 x PRETALK Audio interfaces and two ON AIR Audio lines to the mixing console can be configured. As HOLD signal the ON AIR 1 signal of studio 1 or an internal stored HOLD Signal can be selected.

- Studio 1: PRE1: PRE TALK Keypad1: PRE TALK Audio interface controlled by Keypad 1
- Studio 1: PRE3: PRE TALK PC1: PRE TALK Audio interface controlled by PC1
- Studio 1: PRE4: PRE TALK PC2: can not be used
- Studio 1: AIR1: ON AIR1: ON AIR1 Audio interface for the connection to the mixing console of studio 1
- Studio 1: AIR2: ON AIR2: ON AIR2 Audio interface for the connection to the mixing console of studio 1
- Studio 2: PRE2: PRE TALK Keypad2: PRE TALK Audio interface controlled by Keypad 2
- Studio 2: PRE5: PRE TALK PC1: PRE TALK Audio interface controlled by PC1
- Studio 2: PRE6: PRE TALK PC2: can not be used
- Studio 2: AIR3: ON AIR1: ON AIR1 Audio interface for the connection to the mixing console of studio 2
- Studio 2: AIR4: ON AIR2: ON AIR2 Audio interface for the connection to the mixing console of studio 2
- HLD: HOLD: Audio input for an external HOLD source.



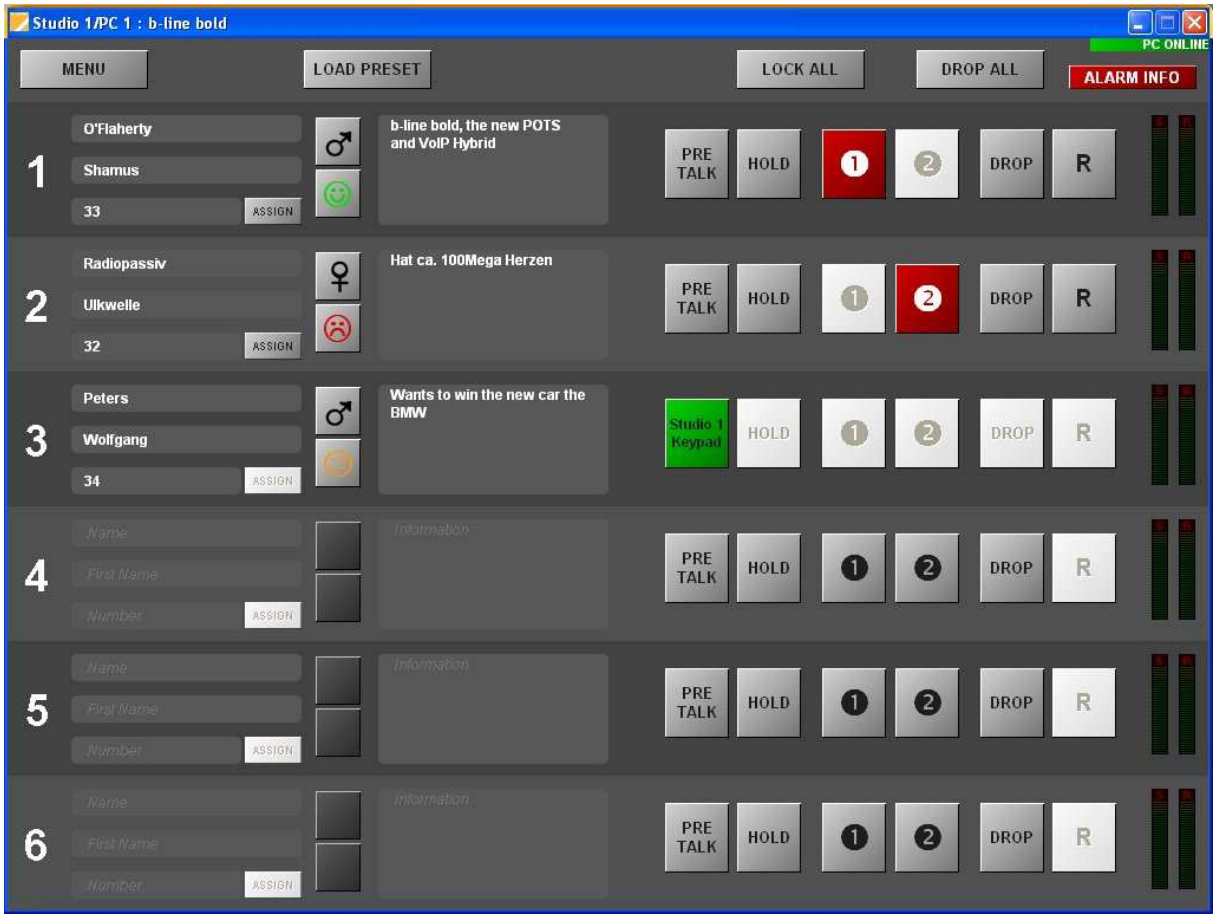
6.1.10 Main Panel PC1 to PC4: 2 Studios Two Fader

B-LINE BOLD can support two Studios. The Audio interfaces must be configured separately for each studio. B-LINE BOLD can be operated by 2 PCs and 1 Keypad from each studio. In the Main panel of each PC screen the actual switching status of the caller lines are displayed. It will be indicated which control unit (PC or keypad) switched the caller into the PRE TALK Mode and which callers are ON AIR and which callers are in the HOLD status. Also it is displayed which control unit switched the caller in the ON AIR status. All other PCs show white buttons for PRE TALK, HOLD and DROP.

Remark:
Any control unit can get access to the B-LINE BOLD if the Caller line is in the HOLD status.

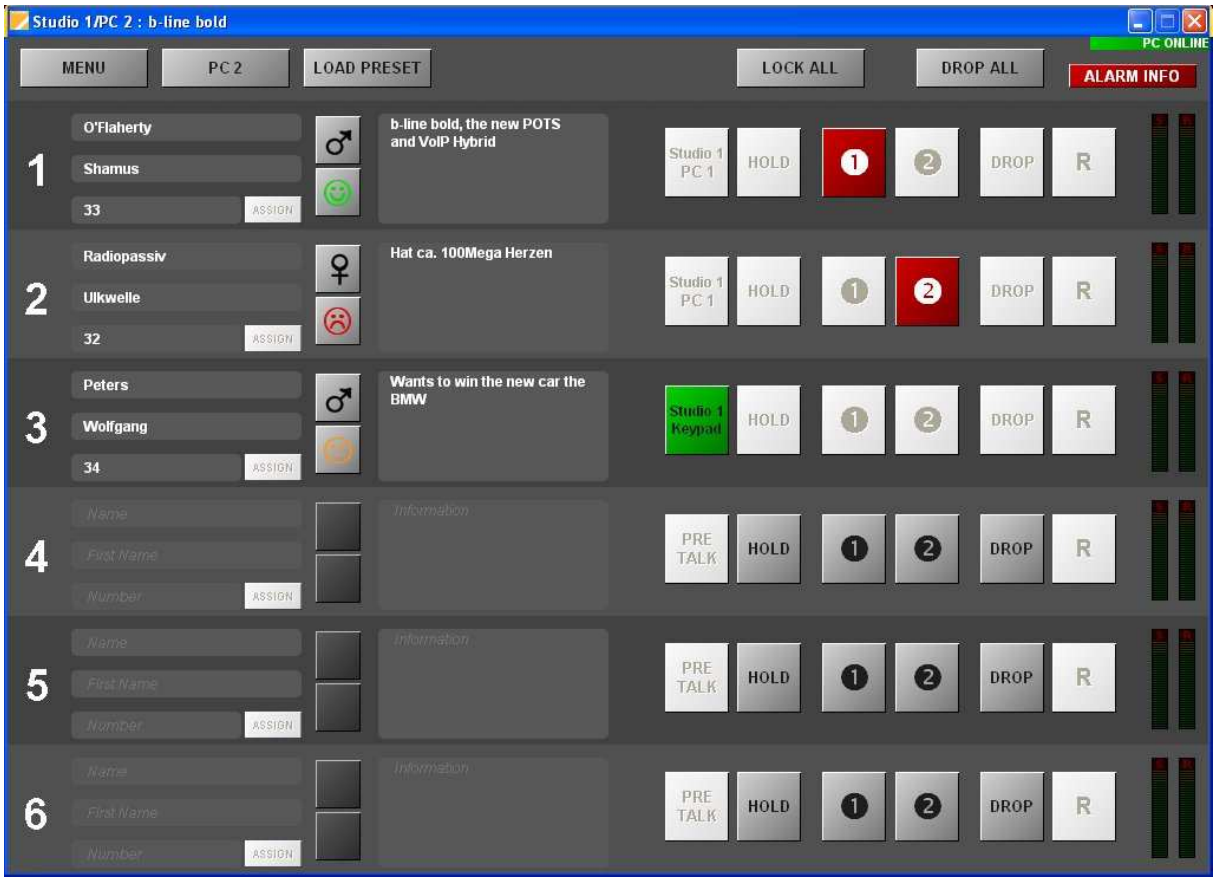
PC1 Studio 1

The operator of PC1 in Studio 1 switched the first caller in the ON AIR1 and the second caller in the ON AIR 2 status. The red ON AIR button indicates “Studio 1 ON AIR”. Caller 3 is in the PRE TALK status switched by Keypad 1. Studio 1/ PC1 can not switch the caller 3 because all unused buttons of caller 3 are displayed in white colour In the title bar the studio number and PC number are displayed.



PC2

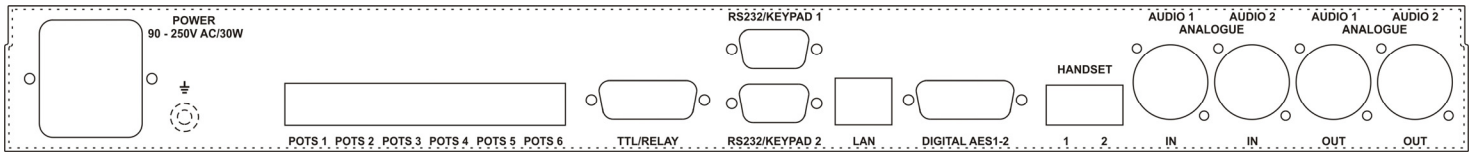
The operators of PC2 in Studio 1 and PC1 and PC2 in Studio 2 are getting indicated that the first two callers are switched by PC1 to the ON AIR1 and ON AIR2 Audio lines of Studio 1. The active PC number is displayed in the white PRE TALK button. Caller 3 is switched to the PRE TALK interface of Keypad 1. Studio 1/ PC2, Studio 2/PC1 and PC2 can not switch the caller because all unused buttons of caller 1 to 3 are displayed in white colour. In the title bar the studio number and PC number are displayed.



7 OPERATION WITH EXTERNAL KEYPAD

B-LINE BOLD provides two RS232 interfaces for the connection of two external Keypads to control B-LINE BOLD.

- RS232/KEYPAD 1 interface
- RS232/KEYPAD 2 interface



The keypad provides all control functions of the B-LINE BOLD software without screening information.

NOTE:

If the PRETALK interfaces for the Keypad control and for the B-LINE BOLD software control are different the PRETALK function can only be switched by the specific control unit. Only if the caller is on HOLD all control units can get access.

8 I N T E R F A C E S

The connectors for the interfaces are at the rear side of the unit.

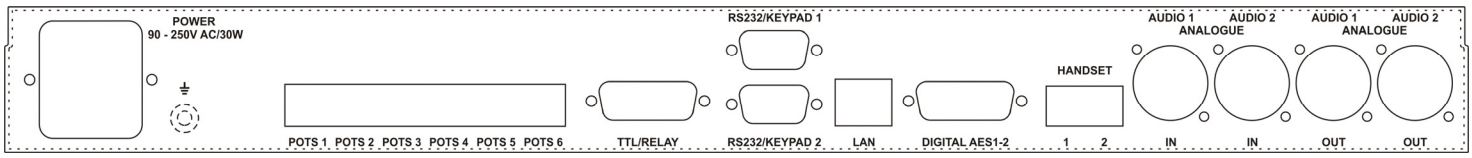
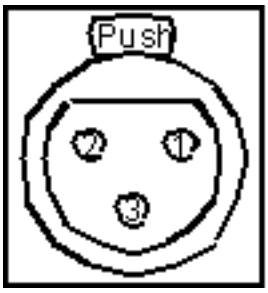


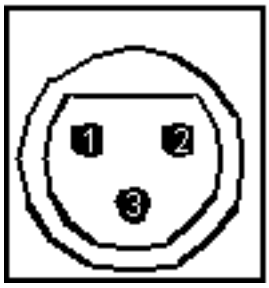
Figure 4: Rear view of B-LINE BOLD

8.1 Analogue Audio Interfaces

B-LINE BOLD provides two Audio (Audio1, Audio2) inputs and outputs.
For the inputs XRL sockets and for the outputs XLR connectors are available.
The pin assignments of the sockets and connectors are shown in TABLE 7.1.



Audio In: XLR socket



Audio Out: XLR connector

TABLE 7.1: Audio In/Out		
Pin	**Signal**	**Description**
1	**GND**	**Ground**
2	**A**	**+**
3	**B**	**-**

8.2 Handset Interfaces

Two Handset interfaces are available at the rear side of the B-LINE BOLD. A handset or a headset can be connected. The pin assignments of the connectors are shown in TABLES 7.2.

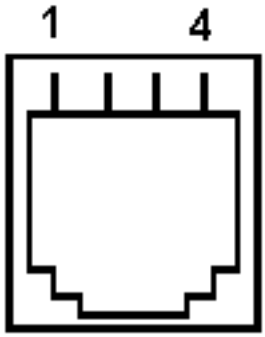


TABLE 7.2: HANDSET INTERFACE		
Pin	**Signal**	**Description**
1	**Tx+**	**Transmit +**
2	**Tx-**	**Transmit -**
3	**Rx+**	**Receive +**
4	**Rx-**	**Receive -**

8.3 Digital AES/EBU Audio Interfaces

B-LINE BOLD provides four digital Audio inputs and outputs available on two physical AES/EBU interfaces.
A 15-pin Sub-D socket provides the digital AES/EBU interfaces. As an option an adapter cable with XLR and BNC connectors can be provided. The pin assignments of the 15-pin Sub-D socket is shown in TABLE 7.3.

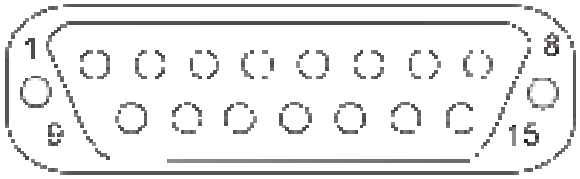


TABLE 7.3: Digital Audio Interface AES/EBU 1 - 2									
	15-pin Sub-D socket								
Pin	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9 …15**
Signal	**AES 1 IN/P**	**AES 1 IN/N**	**AES 2 IN/P**	**AES 2 IN/N**	**AES 1 OUT/P**	**AES 1 OUT/N**	**AES 2 OUT/P**	**AES 2 OUT/N**	**GND**

8.4 LAN Interface

The LAN interface can be used as a control interface. For the LAN interface a RJ 45 socket is used. The pin assignment of the socket is shown in TABLE 7.4.

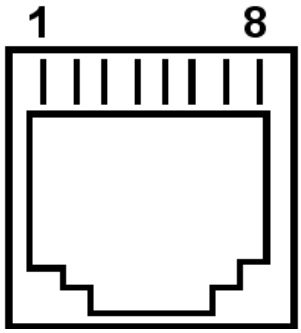


TABLE 7.4: LAN INTERFACE		
Pin	**Signal**	**Description**
1	**Tx+**	**Transmit +**
2	**Tx-**	**Transmit -**
3	**Rx+**	**Receive +**
4		
5		
6	**Rx-**	**Receive -**
7		
8		

8.5 RS232/Keypad Interfaces

The RS232/Keypad interfaces 1 and 2 are developed for the connection of MAGIC TH2 Keypads to operate the B-LINE BOLD Telephone Hybrid. Both interfaces have the same functionality and can be used at the same time to operate the B-LINE BOLD. For each interface a separate 9-pin Sub-D socket is available. The pin assignments of the two 9-pin Sub-D sockets are shown in TABLES 7.5.1 and 7.5.2.

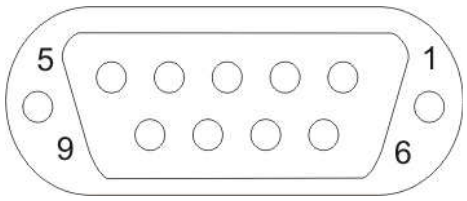


TABLE 7.5.1: RS232/Keypad 1 Interface									
Pin	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Function	**nc**	**TxD1**	**RxD1**	**nc**	**GND**	**nc**	**nc**	**nc**	**nc**

TABLE 7.5.2: RS232/Keypad 2 Interface									
Pin	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Function	**nc**	**TxD2**	**RxD2**	**nc**	**GND**	**nc**	**nc**	**nc**	**nc**

8.6 TTL/Relay Interfaces

The TTL/Relay interface is realised as a 15plug connector socket. It provides 6 TTL inputs or outputs and 4 Relay outputs. The pin assignment of the plug connector socket is shown in TABLE 7.6.

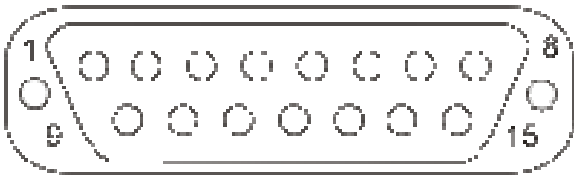


TABLE 7.6: TTL/RELAY														
Pin 1	**Pin 2**	**Pin 3**	**Pin 4**	**Pin 5**	**Pin 6**	**Pin 7**	**Pin 8**	**Pin 9**	**Pin 10**	**Pin 11**	**Pin 12**	**Pin 13**	**Pin 14**	**Pin 15**
Relay 3/A	**Relay 3/B**	**Relay 4/A**	**Relay 4/B**	**GND**	**Relay 1/A**	**Relay 1/B**	**Relay 2/A**	**TTL1**	**TTL2**	**TTL3**	**TTL 4**	**TTL 5**	**TTL 6**	**Relay 2/B**

8.7 POTS Line Interfaces

B-LINE BOLD provides 6 x POTS interfaces using RJ11 connectors. Pin assignment is shown in TABLE 7.7.

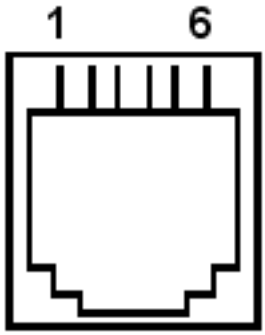


TABLE 7.7: POTS LINE INTERFACE		
Pin	**Signal**	**Description**
1		
2		
3	**TIP**	**Transmit/Receive +**
4	**RING**	**Transmit/Receive -**
5		
6		

9 TROUBLE SHOOTING

If the system indicates a fault please make the following checks to get the system running or locate the fault .

Fault	Possible reason
• After putting the system into operation the display does not light up after approximately 1 second.	⇒ Please check whether the power switch is in position “on” or mains voltage is absent.
• The system is in operation but Windows application software cannot recognise the system via RS232.	⇒ Is the RS232/2 interface connected with the PC via a 1:1 cable? ⇒ Is the RS232/2 interface configured as an RS.232 PC interface ? ⇒ Is the correct COM Port of the PC selected (see chapter 5.5.1)? ⇒ Is the correct Baud rate selected (38400 Bd, see Chapter 5.5.1)?
• The system is in operation but Windows application software cannot recognise the system via LAN.	⇒ Is the IP address of B-LINE BOLD used in the Control panel of the PC correct? ⇒ Are Sub Net Mask, Default Gateway and Ctrl. Port PC correct?