



# Manual 4.0



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# 1 BRIEF DESCRIPTION

VIP*digital* is a powerful digital voice processor.

Its advanced Sharc DSP technology and its algorithms especially optimized for speech give you more power than any other mic processor you've encountered. It lets you tailor your talent's voice with an unprecedented arsenal of processing tools, then mates it perfectly with your station's on-air audio processing.

Reference class microphone amplifier, subsonic filter, phase rotator, de-esser, 4-band parametric EQ, expander, AGC, compressor, limiter, reverb and delay -

VIP*digital* offers all these tools in a compact 19" format on only 1 HU.

Set all audio parameters conveniently in the VIP*remote* Windows software (included in the scope of delivery) and save these as audio presets to a SmartCard or in the non-volatile memory of your VIP*digital*.

From the control room to the newsroom – from the recording studio to the editing desk – each speaker has always his personal VIP*digital* presets with him and may use his/her settings on each working place equipped with VIP*digital* by simply inserting the SmartCard.

SmartCard stops the nonsense of using a more or less suitable setting for everyone. Each combination of voice, microphone and studio environment requires individual settings to achieve an optimum result.



Connect VIP*digital* to your PC. VIP*remote* will then function like a "remote control" for your VIP*digital*. You will have a differentiated and convenient access to all audio editing parameters. The settings made here will be transmitted immediately, i.e. can be heard at once.

A set of 100 presets can be saved as Internal Presets to your VIP*digital*. They are available without any PC. Reload them to your PC for further modification at any time.

Store up to 3 presets as individual settings for one speaker to the SmartCard.

For convenient backup on your PC, choose from 3 different file formats: Single Preset file, SmartCard Preset file (3 presets and holder name) or Internal Preset file (100 presets).

Create as many preset files as you need. If required, you may take the factory settings as a starting point for your settings.

Also, use the Windows software, VIP*con*, included in the scope of delivery, to define basic system configurations for your VIP*digital*. Among other things, you may define the control inputs and the control outputs here for a perfect integration of VIP*digital* into your studio environment. VIP*con* provides a password protection and thus allows the rejection of access rights.

VIP*digital* is the name for a most sophisticated, yet practical approach.

Other features in a few keywords:

- The analog input provides 2 switchable input connectors. Connect different microphones or one microphone and one headset. The respective source selection is stored in the preset and will be performed when the SmartCard is inserted or a preset is selected
- Multiple analog and digital outputs
- Additional direct analog output (post input stage, e.g. selection for telephone hybrid)
- Digital AES/EBU input with SRC, also suitable for a synchronization with the house clock
- Latency less than 1.5 ms (and is thus included in the best of its class)

## 2 PRIOR TO BEGINNING

### 2.1 Conventions used in the manual

#### 2.1.1 Using the screen

This manual was prepared, using Adobe Acrobat.

To be able to use this manual, you must have Acrobat Reader 5.x or higher installed on your computer. Acrobat Reader is contained on the supplied CD-ROM. Follow the installation instructions from Adobe to install the Acrobat Reader. If you are not familiar with the use of Acrobat reader, use the integrated Adobe Online Help.

We recommend the screen use of this manual. The file name is:

[VIPd\\_manual.pdf](#)

Double click on the file symbol on your Windows PC to open the manual.

**Note:** You may open this manual from the *VIPdigital* programs *VIPcon* and *VIPremote* by a help call ([HELP](#)), provided the [VIPd\\_manual.pdf](#) file exists in the installation and/or program folder. This will be the case after an execution of the normal installation routine.

Activate the navigation window and the bookmark view in Acrobat Reader.

The left screen margin shows the table of contents and provides an overview of the entire document. Clicking on the plus (+) and/or minus (-) character allows you to decide how many sub-ordinated headline levels are to be displayed.

Using a mouse click on the headline directly calls the appropriate text. The part of the table of contents associated with the text which can just be viewed on the screen is highlighted. Thus, you may safely navigate through the document.

Furthermore, the text contains numerous *links*. A link appears in blue color and is underscored. Moving the mouse pointer over a link changes the pointer signal to a pointing hand (hand with an extended forefinger). Now, click on the link to directly call the part of the text and/or the headline to which the link refers to.

For quick navigation, Acrobat Reader provides convenient tools for paging, jumping backwards/forwards, toggling between the different view options etc.

Some links refer to our website ([www.yellowtec.com](http://www.yellowtec.com)). If your PC system is equipped appropriately, you may establish an Internet connection to our website by clicking on one of these links.

#### 2.1.2 Printout

If you prefer working with paper to working with the screen, you may print out the PDF manual. The page layout is designed for the DIN A4 paper format. The detailed table of contents appears at the start of the printout so that you are safely guided through the document even in the hardcopy version.

If a printout is not made in colour, the links can be identified only by their underscores. Except for links, underscores are normally only used for special information such as Note: and/or Important: so that the links can also be identified in a black/white printout.

## 2.2 Unpacking

VIP*digital* is delivered in a carton. Unpack the carton carefully. Remember the environment and dispose of the parts of foamed material and the cartons separately.

## 2.3 Scope of delivery

The VIP*digital* scope of delivery includes:

1. VIP*digital*, 19"/1HU unit
2. Serial interconnecting cable to the computer (RS232)
3. Mains cable (not for all countries)
4. YELLOWTEC CD-ROM with software and documentation
5. YELLOWTEC SmartCard® (1 piece)
6. "Getting Started" brochure

Check whether the scope of delivery is complete. Please contact your dealer directly in the case of questions.



## 2.4 Safety instructions

1. Before installation or operation of equipment read all safety instructions warnings and operating instructions.
2. Heed all warnings on the equipment.
3. Follow the operating instructions.
4. The equipment may only be used for the purpose described in the operation instructions.
5. Keep operating instructions for future reference.
6. Never use the equipment in the immediate vicinity of water. Ensure that water or damp cannot get into the equipment.
7. Only install or fit the equipment in accordance with the manufacturers recommendations.
8. Ensure adequate ventilation when installing.
9. Never install or fit the equipment in the immediate vicinity of sources of heat such as boilers, heating units and other equipment which generates heat. (Including amplifiers and other electronic equipment.)
10. When connecting to a power supply ensure that it is the correct voltage and only use cables as specified by the manufacturer in the operating instructions, or, as shown on the connector panel of the equipment.
11. Only connect the equipment to a legally approved, earthed, mains power supply.
12. Position the power cable or cord in such a way that it cannot be walked upon or come into contact with any object or thing that could damage the cable or cord. Attention should be given to the point where the cable is attached to the equipment, and, where the cable connects to the approved supply.
13. Ensure that foreign objects and liquids cannot get into the equipment.
14. Only clean the equipment as recommended by the manufacturer.
15. Disconnect the power cable or cord from the power supply if the equipment will be out of use for a prolonged period.
16. In any situation where an incident occurs which could render the equipment unsafe, for example
  - damage to the power cable or cord
  - entry of foreign objects or liquids (including water) into the equipment
  - the equipment has been dropped or the casing has been damaged in any way
  - any apparent change in performancehave the equipment checked immediately by a person technically qualified to make such checks.
17. Never carry out any work on the equipment other than as specified in the operating manual.

## 3 Getting started with VIPdigital

### 3.1 Electrical connection

Connect *VIPdigital* to your local power supply. *VIPdigital* is equipped with a switched-mode power supply unit and can be operated on 90 to 240 V AC without any transfer.

**Always follow the local safety regulations! Also, read the safety information below!**

### 3.2 Activation

Switch on the power supply of the unit, using the power switch on the back panel. The *Function Display* briefly shows *VIPdigital*, followed by the version identification of the firmware loaded. Your *VIPdigital* is now ready for operation.

**Please note that *VIPdigital* can only be deenergized by the power switch on the rear side of the unit! Disconnect the mains plug before opening the housing in each case!**

### 3.3 Using internal presets

*VIPdigital* has a non-volatile memory which stores up to 100 Presets.

If no SmartCard has been inserted, one of the three *Preset Recall* memories is active. This is signalled by the corresponding LED above the (black) *Preset Recall* buttons.

First of all, make yourself familiar with the preset functions. Press the [Preset Recall](#) buttons to select the three available presets directly. The active preset is shown by a LED above the respective button.

The upper line of the display shows *Internal Preset* and the *number* of the selected presets; its name appears in the lower line.

There is a capacity of storing 100 presets in the unit. Use the to define which of them should be accessible via the three buttons on the front panel.

**Note:** As a default the first 3 [Presets](#) are assigned to the 3 [Preset Recall buttons](#). You can define a different assignation using the green [Enter button](#). User defined [Preset](#) to [Preset Recall](#) button assignment is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off.

### 3.4 Using SmartCard

**Note:** There are no presets stored on the YELLOWTEC SmartCard which is supplied with the unit. Refer to Chapter [VIPremote – THE REMOTE SOFTWARE](#) for learning how to save data to your SmartCard.

Inserting a new SmartCard or a SmartCard with non-valid data (e.g. data from the previous version) causes an error message on the *VIPdigital* display: **WRONG CARD** or **FAULTY CARD**.

*If valid data have been stored on your SmartCard:*

Insert a YELLOWTEC SmartCard into the [card slot](#). Please make sure that the gray double arrow of the card is on the top, pointing to the front to the unit (the chip is upside down).



Once the card has been inserted, the LED of the previous selected preset button will blink to indicate that the SmartCard has been detected, but none of its presets were loaded. At this time, the current preset is still active.

The three [Preset Recall](#) buttons allow an access to the three presets stored on the SmartCard. Select one of the three card presets. The display now shows the name of the card holder in the upper line and the name of the preset below.

Once the SmartCard has been removed, the LED of the preset loaded last will blink again to indicate a new access to the internal preset. At this time, the preset loaded last by the SmartCard will be active. Press one of the three buttons to load an internal preset.

Note: Use the [VIPcon configuration software](#) to configure *VIPdigital* for an alternative option of SmartCard reading: Then a SmartCard preset will be activated as soon as the Card is inserted. As another option SmartCard reading may be disabled.

## 3.5 The Enter button

The green [Enter button](#) switches the unit temporarily to the [Enter mode](#). Here, different global system options of your *VIPdigital* which are independent of the preset loaded may be set. Among others, this includes the upper [level indicator](#), an assignment of the three presets which can be loaded immediately on the front panel as well as the display contrast.

Keeping the [Enter](#) button pressed causes *VIPdigital* to show the [Enter mode](#) by a fast blinking of the LED above the key. If no other entries are made, the mode will be terminated after some seconds and *VIPdigital* will again be in the normal operating mode. Refer to the chapter Unit Description for more details, reading the topic [The Enter Mode](#).

## 3.6 First audio connections

If you not only wish to view, but also wish to listen for a short test how the presets are functioning, you may apply an analog signal with line level (CD player, mixer output etc., preferably speech) to [Analog Input 1](#).

In first line, *VIPdigital* is a processor for microphone signals. However, the internal presets have been configured with a gain of 0 dB in the delivery state for reasons of safety to avoid feedback and unintentional loud levels during the first setup. In addition, the phantom power is deactivated in the default presets.

Of course, you may adapt the gain to your individual needs later at any time, using the [VIPremote](#) Windows software.

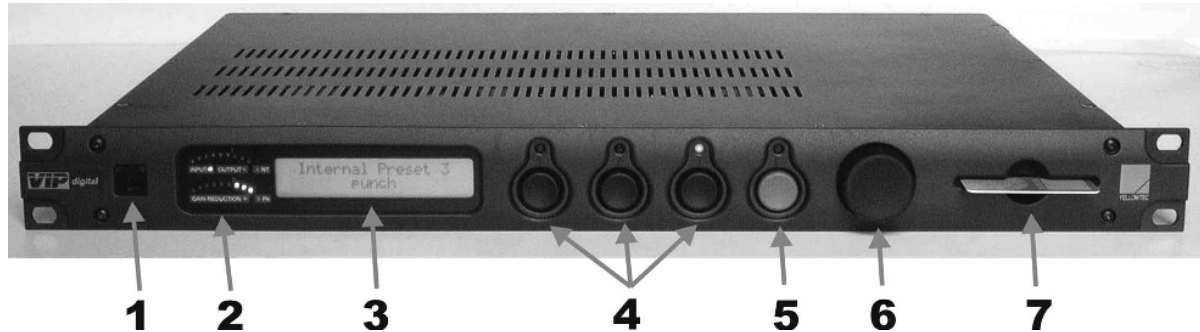
The following is the recommended procedure for a short test setup:

- 1) Connect the analog line source to the XLR [Analog Input 1](#) on the back panel of the unit.
- 2) Connect the [Analog Left Out/Right Out](#) analog outputs to the line inputs of a mixer or a monitor unit.
- 3) Alternately press the [Preset Recall](#) buttons 1, 2 and 3 and note the differences in sound.

Note that the audio level of your test signal is relevant. The settings of some audio modules e.g. compressor and expander are related to the input level. You can check the input level tendency on the upper LED-segment level indicator on the frontpanel of the unit.

## 4 UNIT DESCRIPTION

### 4.1 Front panel



#### 4.1.1 Remote Control RJ12 (1)

This socket is a serial RS232 interface in the RJ12 connector format which can alternately be used for the RS232 interface on the back panel.

It is offered to connect a VIP *digital* installed in the rack to your PC. Thus, you will always have a quick access to permanently installed units, using a laptop for example.

Contact your dealer for an adapter on a 9-pin D-sub connector as an accessory to connect PCs with the traditional serial interface sockets.

All functions are identical with the [Remote Control D-Sub](#) connector on the back panel.

Refer to [PinOut Table](#) in the chapter TECHNICAL DRAWINGS/DESCRIPTIONS for an assignment of the connector.



#### 4.1.2 Level Indicators (2)

Two bent LED instruments each with 9 segments can be found here.

The upper instrument optionally indicates the input or output level of the processor. The [Meter Mode](#) menu item can be used in the Enter mode for a transfer; the current type of display (input or output) is shown by 2 LEDs below the instrument. There is a reference-level mark in between the 6. and 7. segment (level tendency meter).

The lower LED instrument shows the level reduction performed by the dynamic functions of the processor in relation to the input level. The 0 dB position of this instrument is on the right side (all LEDs off).

On the right side of the two LED instruments there are two other individual LEDs:

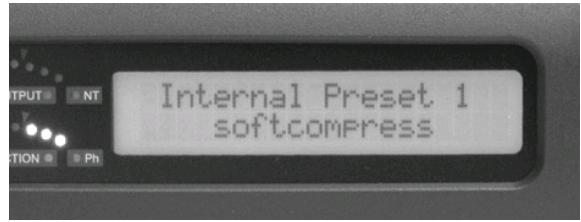
- *NT* (network technology) will light up when the unit is controlled in real time by your PC via the VIPremote software.
- *Ph* will light up when the phantom power of the selected input is activated.



### 4.1.3 Function Display (3)

This display is designed to show the active preset as well as the different menu options in the [Enter Mode](#).

If one of the internal presets is active, the upper line of the display will show *Internal Preset* followed by its number and the lower line will show its name. When a SmartCard is inserted in the [Card Slot](#), the upper display line will show the name of the card holder, while the name of the internal presets still active can be viewed in the lower line. At the same time, the LED of the active Preset button will blink. If one of the presets on the SmartCard is loaded by pressing a [Preset Recall button](#), the lower line of the display will show the name of the SmartCard preset now activated.



Note: Use the [VIPcon configuration software](#) to configure *VIPdigital* for an alternative option of SmartCard reading: Then a SmartCard preset will be activated as soon as the Card is inserted.

If the [Enter Mode](#) is activated by pressing the green Enter key, the display is used for guiding the user through the different options of this mode.

### 4.1.4 Preset Recall (4)

These three buttons are designed to select the active preset. If no SmartCard is inserted, the buttons are used to load three pre-defined presets. Which of the three presets of the *VIPdigital* these are, can be defined freely, using the [Assign Preset](#) menu item in the Enter mode (green button).

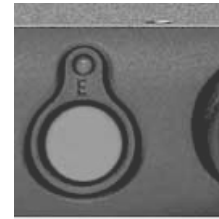
If a SmartCard is inserted, use the [Preset Recall](#) buttons to directly select the three presets stored on the card.

A red LED exists above each of the three buttons to indicate that the respective preset is active. If a SmartCard is inserted or removed, the LED of the preset loaded last will blink. In this way the processor indicates that the current preset is still active, but the new storage medium (internal memory or SmartCard) is read out when the Preset Recall button is pressed next.



#### 4.1.5 Enter (5)

The Enter button activates the [Enter Mode](#) for configuring different processor functions independently of the presets. Pressing the button causes the display to show *select ACTION* in its upper line and *ESCAPE* below it. At the same time, the LED of the Enter button will blink. If no other entry is made, the mode will be terminated after a few seconds, and *VIPdigital* returns to the normal operating mode. Turning the Selector button on the right side of the Enter button selects the different menu options of the Enter mode. Refer to the section [Enter Mode](#) for detailed information.



#### 4.1.6 Selector (6)

The Selector is a rotary transducer used for selecting and setting the menu options in the [Enter Mode](#). It has an additional pressing function which is identical to the function of the Enter key. Therefore, you may also call the Enter mode by pressing the Selector and select menu items there in the same way. (Refer to the [Enter Mode](#)).



#### 4.1.7 Card Slot (7)

The card slot is exclusively designed for an acceptance of the SmartCard provided for *VIPdigital*. Do not use no other storage media. Please note that the gray double arrow of the card points upwards as shown in the figure on the right side, and points to the front to the unit (the chip is on the bottom).

**Note:** There are no presets stored on the YELLOWTEC SmartCard which is supplied with the unit. Refer to Chapter [VIPremote – THE REMOTE SOFTWARE](#) for learning how to save data to your SmartCard.

Inserting a new SmartCard or a SmartCard with non-valid data (e.g. data from the previous version) will cause an error message on the *VIPdigital* display: **WRONG CARD** or **FAULTY CARD**.

When a SmartCard with valid data is inserted in the [Card Slot](#), the upper display line will show the name of the card holder, while the name of the internal preset still active can be viewed in the lower line. At the same time, the LED of the Exit Preset button will blink. If one of the presets on the Smart Card is loaded by pressing the [Preset Recall button](#), the lower line of the display will show the name of the display will show the name of the card preset now activated.

**Note:** Use the [VIPcon configuration software](#) to configure *VIPdigital* for an alternative option of SmartCard reading: Then a SmartCard preset will be activated as soon as the Card in inserted. As another option you can disable SmartCard reading.



## 4.2 The Enter Mode

Optionally, the Enter mode is activated with the green [Enter key](#) or by pressing the rotary [Selector](#) button arranged on its right side. In this mode different processor functions which are independent of the preset selection may be configured and can be accessed via a menu system (see below).

Pressing the button causes the display to show *select ACTION* in its upper line and *ESCAPE* below it. At the same time, the LED of the Enter key will blink. Turning the Selector button calls the different menu options in the Enter mode. Having selected the desired menu item, you may activate it by pressing Enter again or using the Selector. Now, the selected parameter may be edited by turning the Selector.

Note: If *VIPdigital*, after an activation of the Enter mode, does not register an entry for approximately 5 seconds, the Enter mode is exited automatically and the unit is returned to the normal operating mode.

### 4.2.1 Assign Preset

In the default state the first three [internal Presets](#) stored in *VIPdigital* can be directly selected on the front panel, using the [Preset Recall buttons](#) 1, 2 and 3.

This function can be used to change the selection.

- 1) Remove a possibly inserted SmartCard and press the Preset Recall button to which a new preset is to be assigned.
- 2) Press the green Enter key or the Selector button to change to the Enter mode. The display shows the *select ACTION* and *ESCAPE* below it.
- 3) Turn the Selector clockwise to call the *ASSIGN PRESET* menu item.
- 4) Acknowledge the selection by pressing the Enter key or the Selector.
- 5) Turn the Selector to select the preset which is to be assigned to the Preset Recall button selected in 1). The corresponding LED will blink.
- 6) Acknowledge the assignment by pressing the newly defined Preset Recall button. The LED will now light continuously. The upper line shows the number of the newly assigned preset, the lower line its name.
- 7) Exit the Enter mode by changing to the *ESCAPE* menu item and pressing the Enter key or simply wait until the Enter mode is exited automatically.

Note: This function may be disabled as a part of the *VIPdigital* configuration. Refer to [VIPcon – The Configuration Software](#).

Note: An Assign Preset setting is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off. After this time *VIPdigital* will return to the default setting.

### 4.2.2 Meter Mode

This menu item allows the upper [Level Indicator](#) to toggle between the display of the input and output level independent from the setting loaded by the [VIPcon configuration software](#). Proceed as follows:

- 1) Press the green Enter button or the Selector button to change to the Enter mode. The display shows the *select ACTION* message and *ESCAPE* below it.
- 2) Turn the Selector clockwise until the *METER MODE* menu item is called.
- 3) Acknowledge the selection by pressing the Enter key or the Selector.
- 4) Switch over the level instrument by turning the Selector between *Input Meter* and *Output Meter*. The appropriate status LED below Level Indicator will light up.
- 5) Wait for some seconds until the Enter mode is exited, or press *ENTER* to change to a higher level in the menu system to select another menu item.

Note: A Meter Mode setting is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off. After this time *VIPdigital* will return to the setting loaded by [VIPcon](#).

### 4.2.3 State

This menu item is exclusively designed to display the valid scan rate (44.1 or 48 kHz). Entries are not possible here. Proceed as follows:

- 1) Press the green Enter button or the Selector button to change to the Enter mode. The display shows the *select ACTION* message and *ESCAPE* below it.
- 2) Turn the Selector clockwise until the *STATE* menu item is called.
- 3) Acknowledge the selection by pressing the Enter key or the Selector. Read the displayed scan rate.
- 4) Wait for some seconds until the Enter mode is exited automatically, or press ENTER to change to a higher level in the menu system to select another menu item.

### 4.2.4 Contrast

This option is designed for setting the display contrast. The control range is 0 to 100 %. Proceed as follows:

- 1) Press the green Enter button or the Selector button to change to the Enter mode. The display shows the *select ACTION* message and *ESCAPE* below it.
- 2) Turn the Selector clockwise until the *CONTRAST* menu item is called.
- 3) Acknowledge the selection by pressing the Enter button or the Selector. Turn the Selector until the display has a contrast which is convenient for you. View the display in a view angle which is also relevant in later applications.
- 4) Wait for some seconds until the Enter mode is exited automatically, or press ENTER to change to a higher level in the menu system to select another menu item.

Note: A contrast setting is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off. After this time *VIPdigital* will return to the default setting (100%).

### 4.2.5 Escape

This option is designed to exit the Enter mode. Turn the Selector to select a menu item and press the Enter key or the Selector. The Enter mode is exited, and the LED above the Enter key extinguishes.



## 4.3 Back panel



### 4.3.1 Power supply

(A)

On the left side of the back panel there is an inlet connector for non-heating apparatus for the power supply and a power switch. Connect your *VIPdigital* to your local power supply. The unit is equipped with a switched-mode power supply and can be operated on 90-240V AC 50-60Hz without any transfer.

**Always follow the local safety regulations! Also, read the safety information below!**

**Please note that *VIPdigital* is only deenergized via the power switch on the rear side of the unit! Disconnect the mains plug prior to opening the housing in each case!**

### 4.3.2 Audio connections

*VIPdigital* is a digital signal processor with a mono-input and stereo-outputs. The selection of the active input (*Analog In 1*, *Analog In 2*, *Digital L* or *Digital R*) is a parameter of the selected preset, created with the *VIPremote* software.

Adapting *VIPdigital* input and output reference levels to the studio environment can be set within the [VIPcon](#) configuration software using the [Input Levels](#) and [Output Levels](#) options.

Additional gain settings of the analog and digital signal inputs incl. microphone pre-amplification can be performed in real time, using the [Input Module](#) of the *VIPremote* software.

All signal outputs can be used simultaneously.

Refer to the chapter [Technical Drawings/ Descriptions](#), sections [Technical Data](#) and [PinOut Table](#) for details on the audio connections.

#### 4.3.2.1 Analog In 1 and 2

(Con 3 / Con 4)

The two electronically balanced analog inputs in the XLR format are suitable for a connection of both microphones and high-level line signal sources. The gain of the inputs and the switching of phantom power for microphone operation are controlled in real time by the [Input Module](#) of the *VIPremote* software. These settings are part of the selected preset.

The reference level of the input can be set using the [Input Levels](#) control within the *VIPcon* configuration software.

#### 4.3.2.2 Analog Left Out and Right Out

(Con 5 / Con 6)

These two electronically balanced analog outputs in the XLR format provide the stereo-output signals of the processor at line level. The reference of the analog outputs can be set using the [Output Levels](#) control within the *VIPcon* configuration software.

Note: *VIPdigital* is a one-channel design. Only the [Reverb Module](#) in *VIPremote* produces a stereo signal. In all other cases audio signal of left and right channel are identical.

#### 4.3.2.3 Analog Hybrid-Out

(Con 7)

This electronically balanced analog output in the XLR format provides the audio signal tapped after the [Input Module](#) of *VIPremote*. The reference level of this output can be set, using the [Output Levels](#) control within the *VIPcon* configuration software.

The hybrid output transmits the “dry” input signal of the processor after a source selection and a level adaptation, but **before** the subsequent “effect” signal processing with EQ, compressor and other modules. This is designed to make an uncompressed and unprocessed signal available for a connected telephone hybrid.

#### 4.3.2.4 Digital AES/EBU-Sync/In

(Con 8)

This digital input corresponds to the AES/EBU standard and can be used as an audio signal input as well as an external synchronization input. Since *VIPdigital* exclusively processes a single-channel input signal, please decide on which of the two signals (L or R) of the two-channel AES/EBU input is to be processed. Use the input select options of the [Input Module](#) within the *VIPremote* software.

The reference level i.e. headroom setting for this input can be set using the [Input Levels](#) control within the *VIPcon* configuration software.

The [Synchronisation](#) option within the *VIPcon* configuration software allows a definition as whether *VIPdigital* is to be synchronized internally or to be synchronized externally via the digital signal (AES/EBU audio signal or AES/EBU blank frame) applied to this socket. Since the digital input is equipped with a sample rate converter, the processor may be internally synchronized even if digital audio signals are processed.

#### 4.3.2.5 Digital AES/EBU-Out

(Con 9)

This digital output complies with the AES/EBU standard and provides the stereo-output signals of the processor. The reference level of the digital outputs can be set, using the [Output Levels](#) control within the *VIPcon* configuration software.

The reference level i.e. headroom setting for this output can be set using the [Output Levels](#) control within the *VIPcon* configuration software.

Note: *VIPdigital* is a one-channel design. Only the [Reverb Module](#) in *VIPremote* produces a real stereo signal. In all other cases audio signal of left and right channel are identical.

## 4.3.3 Remote Control

### 4.3.3.1 Remote Control D-Sub

(Con 1)

This serial interface is a 9-pin D-sub connector (DB9). This socket can alternately be used for the [Remote Control RJ-12](#) connector on the front panel.

Use this port for connecting your Windows PC. Refer to the [Connection to the computer](#) for details. Refer to the chapter Technical Drawings/ Descriptions, [Pin Out Table](#), for the pin assignment.

### 4.3.3.2 Control-Out/In

(Con 2)

This control interface is designed as a 15-pin D-sub connector (DB15) and includes trigger outputs and inputs (GPOs and GPIs) for external control tasks. Refer to the following chapter for more details and to the chapter [Technical Drawings/ Descriptions, Pin Out Table](#), for the pin assignment.

### 4.3.3.3 Technical data Control-Out/In (GPO/GPI)

**GPO : The outputs** are of the OPEN COLLECTOR type.

If the output is active, it will establish a low impedance connection to 0V. In the non-active state it has a high resistance.

Connect only loads whose current is limited to a maximum of 50mA and whose voltage is within the range of 0V...30V.

For simple control application VIP *digital* can provide the 5V and 12V auxiliary voltages which can be used for such purposes with restrictions.

IMPORTANT: A maximum of 100mA may be taken from the auxiliary voltages. Do not use these auxiliary voltages to control loads which might cause electrical interferences return to the unit. The same applies for the cables connected to these ports.

DO NOT TRANSMIT THE AUXILIARY VOLTAGES OVER LONG CABLE WAYS. IMPROPER HANDLING OF THE AUXILIARY VOLTAGES OR A SHORT CIRCUIT MAY RESULT IN FUNCTIONAL FAULTS OR DAMAGE TO YOUR VIP *digital*.

**GPI: The inputs** are C-MOS compatible.

If the input is to be activated, a connection must be established to 0V, or a voltage less than +1V must be applied.

If the input remains open or a voltage +3.5V...+12V is applied, the input will not be active.

IMPORTANT: Only voltages within the range of 0V...+12V (absolute maximum +15V) may be applied.

NON-COMPLIANCE WITH THE ADMISSIBLE INPUT VOLTAGE MAY RESULT IN FUNCTIONAL FAULTS AND DAMAGE TO YOUR VIP *digital*.

Note: Refer to the [GPI/GPO Circuit Examples](#) in the chapter TECHNICAL DRAWINGS/ DESCRIPTIONS for connection examples.

## 5 SOFTWARE INSTALLATION

For the installation of the software package for *VIPdigital* a PC running Windows 95 or higher is required.

We recommend to delete or relocate short cuts which belong to the older version(s) of the *VIPdigital* software. This can avoid the unintentional use of an older program version instead of the current version.

### 5.1 Installation from the CD-ROM

Insert the supplied CD-ROM into the CD drive of your PC and start the **SETUP.EXE** installation routine. The software will guide you through the installation process conveniently.

All required data is copied to your computer. Parameters of your computer will not be modified.



### 5.2 Installation from a ZIP-file

If you receive the *VIPdigital* software as a ZIP file (e.g. as a download from our website <http://www.yellowtec.com/>), you can open the ZIP file using the software *WinZip* (which should be installed on your Windows PC as a part of Windows). Normally *WinZip* is started by double clicking a ZIP file.

*WinZip* will extract all files into a new folder. Find the **SETUP.EXE** file in this folder.

A double click on **SETUP.EXE** starts the installation program, which will lead you automatically through the installation process. If required a new folder and new short cuts will be created during the installation process.

The update of your Windows PC is finished when **SETUP.EXE** is completed.

### 5.3 Info: The main software components of *VIPdigital*

Application	file name	location	function
<i>VIPcon</i>	VIPcon.exe	Windows PC	enter and transfer basic configuration/ perform firmware updates
<i>VIPremote</i>	VIPremote.exe	Windows PC	remote control of sound parameters/ create sound presets
VIP Firmware	VIPfirmw402.vup (*402* stands for version number 4.02, may differ when using other versions)	19" Unit	19" Unit firmware, DSP program file

Application	... creates ...	file type	file name ending
<i>VIPcon</i>	configuration file	<i>VIPdigital</i> Configuration file	.DVP
<i>VIPremote</i>	internal preset file	<i>VIPdigital</i> Presets (100 presets)	.VIP
<i>VIPremote</i>	SmartCard preset file	<i>VIPdigital</i> Presets (3 presets)	.VSM
<i>VIPremote</i>	preset file	<i>VIPdigital</i> Single Preset	.VPR

Only by using all 3 components of the current program version (*VIPcon*, *VIPremote* and VIP Firmware) the whole functional range of *VIPdigital* can be achieved.

## 6 CONNECT VIPdigital TO THE COMPUTER

### 6.1 Installing the connection

To use the two *VIPcon* and *VIPremote* applications included in the *VIPdigital* scope of delivery, a serial connection must be established between your *VIPdigital* and your PC.

To establish a connection to your PC, use a standard serial cable (in the scope of delivery). Connect a free serial port on your PC to the [RS232 socket](#) on the back panel of the unit.

Alternatively, you may use the serial interface on the front panel [Remote Control RJ12](#) of *VIPdigital* - e.g. for a temporary connection to a laptop if *VIPdigital* is installed in a 19" rack. As an accessory your dealer can offer an adapter on a 9-pin D-sub connector to allow PCs with traditional serial interface sockets to be connected.

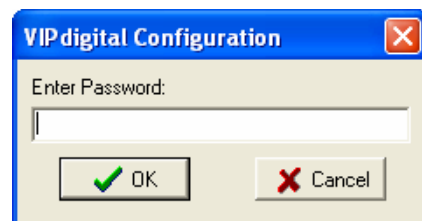
If your PC is not equipped with a serial port (as a number of laptop computers are) but provides a free USB port you may as well use a common USB to serial converter.



### 6.2 Standard Application Start-up Procedure

1. Install the serial connection
2. If you were working with *VIPremote* or *VIPcon* before in off-line mode, exit both applications
3. Start *VIPcon* or *VIPremote*

4. *VIPcon* only (skip for *VIPremote*)  
*VIPcon* provides password protection.  
In the upcoming dialog window enter your password or the default password `dvp` and click "OK".  
More information about *VIPcon* password protection see Chapter *VIPcon* - The Configuration Software, section [Password Protection](#)

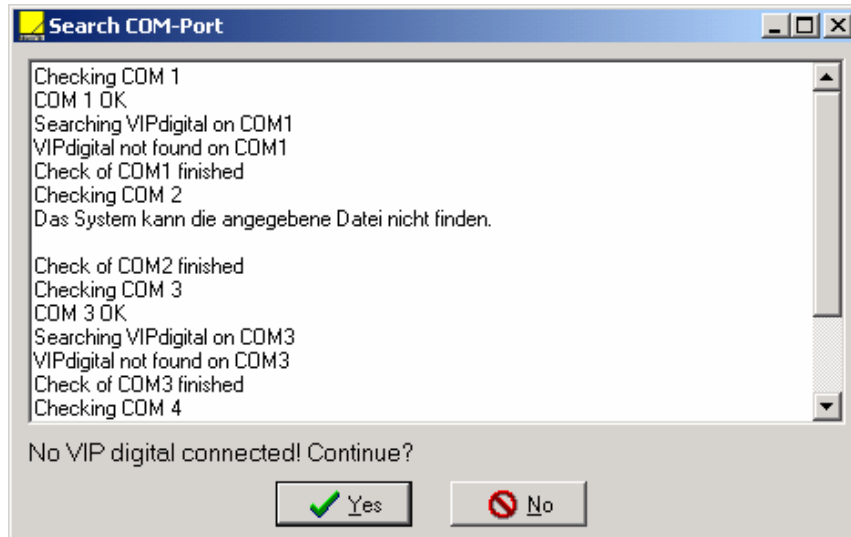


5. That's all! *VIPcon* or *VIPremote* application window comes up. Now it is your turn to ...
  - Create Configuration setups with *VIPcon*
  - Update the firmware of your *VIPdigital* with *VIPcon*
  - Control the sound settings of your *VIPdigital* with *VIPremote* in realtime
  - Create sound presets with *VIPremote* and save them to your *VIPdigital*, SmartCard or your PC

Refer to the chapters [VIPcon – THE CONFIGURATION SOFTWARE](#), [VIPremote – THE REMOTE SOFTWARE](#) or [UPDATING VIPdigital](#) for explicit descriptions.

## 6.3 Troubleshooting

If *VIPremote* or *VIPcon* cannot connect to your *VIPdigital*, the following window appears:



Note 1: Text may differ depending on your PC operating system

Note 2: When you now prompt the “YES” button, the application you started will open in off-line mode

Click “NO” to proceed for on-line operation:

- Check whether the serial connection has been installed properly
- Check whether the power of your *VIPdigital* is switched on
- As both *VIP* applications scan the COM ports at start-up only, consider to first install the serial connection and then start the application.
- Check whether the COM ports of your PC are available or whether they are used by other applications or are reserved/deactivated.
- *VIPremote* and *VIPcon* can be active at the same time in off-line mode but they may collide in on-line mode, i.e. when they try to connect to the same *VIPdigital*. Exit both applications and start the one you want to work with again.
- The standard start-up routine scans serial ports COM1 ... COM4 on your PC. If your *VIPdigital* is connected to a higher port number, proceed like described in the following section [Assigning COM Ports](#).
- If you are using a USB to serial converter to connect to your *VIPdigital*, check whether the driver application of your converter emulates a COM port with a number higher than 4. If so, proceed like described in the following section [Assigning COM Ports](#).

Restart your *VIP* application.

## 6.4 Assigning COM Ports

If your *VIPdigital* is connected to a higher port number than COM4, or if you want your VIP application to connect to a dedicated COM port, perform the following steps:

(# stands for any COM port number available on your PC)

1. Exit *VIPremote/VIPcon*
2. In Windows Explorer, open the VIP program folder
3. Create a short-cut of *VIPremote.exe* and/or *VIPcon.exe*
4. With a mouse click (right button) open the properties window of the short cut(s)
5. There is an entry called "target". Without changing any character of the entry, add the following characters to the end: " -com #". Make sure that there is one space character in front of the dash and another one in front of the #.
6. Click "Apply", then click "OK".
7. Not required, but recommended: Rename the short-cut e.g. *VIPremote\_COM#/VIPcon\_COM#*
8. Double clicking the short-cut will start *VIPremote/VIPcon* in such way that only COM# port is scanned for a connected *VIPdigital*.

## 6.5 Connecting several *VIPdigital* to your PC

A precondition for this mode of operation is that you are familiar with the previous section [Assigning Com Ports](#).

In the following we give an example to operate 3 *VIPdigital* with 3 *VIPremote* application windows:

- Create 3 short-cuts according to the procedure described in the previous section. Edit the target entries in such way, that the first one refers to COM1, the second one to COM2 and the third one to COM3. Rename them *VIPremote\_COM1* / *VIPremote\_COM2* / *VIPremote\_COM3*.
- Connect 3 *VIPdigital* to COM ports 1 ...3 of your PC.
- Double click on short-cut *VIPremote\_COM1*. A *VIPremote* application window will open which is related to COM1 and the *VIPdigital* connected to it.
- Double click on short-cut *VIPremote\_COM2*. Another *VIPremote* application window will open which is related to COM2 and the *VIPdigital* connected to it.
- Double click on short-cut *VIPremote\_COM3*. One more *VIPremote* application window will open which is related to COM3 and the *VIPdigital* connected to it.
- Now 3 *VIPremote* application windows are controlling 3 *VIPdigital* at the same time. Only one can be edited at a time. Click on a window to activate it.

Starting from this example ...

- vary the number of connected *VIPdigital*
- use different COM port numbers
- **use *VIPcon* the same way!**

There is not a particular limit in number of application windows allowed to be open at the same time, but always reassure yourself by tests on your specific PC workstation if operation is accurate.

## 7 VIPcon - THE CONFIGURATION SOFTWARE

This chapter gives you a detailed description of the functional range of *VIPcon*.

At this point we assume

- you have performed the software installation  
(Chapter [SOFTWARE INSTALLATION](#))
- you have connected your *VIPdigital* to your PC  
(Chapter [CONNECT VIPdigital TO THE COMPUTER](#))

### 7.1 Start and end of program

*VIPcon* and *VIPremote* can be active at the same time in off-line mode but they may collide in on-line mode, i.e. when they try to connect to the same *VIPdigital*. If applicable exit *VIPremote* now.

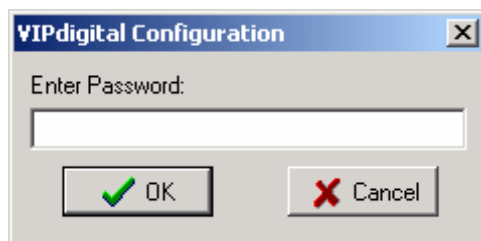
Start *VIPcon* via the Windows Start Menu program entries. If you wish *VIPcon* to be started via the Windows Explorer: the name of the program file is "VIPcon.EXE" (the default installation path is C:\Program files\Yellowtec\VIPdigital ...).

*VIPcon* will start with standard entries. You may modify the entries to create a configuration according to your requirements.

### 7.2 Password protection

*VIPcon* provides password protection.

During each start of a program you are prompted to enter a password.



**Note:** The password is **dvp** in the state of delivery.

Refer to the chapter [Change Password](#) for further information on the Password topic.

To exit *VIPcon*, click on the X symbol in the upper right corner or select the Exit option in the file menu.



## 7.3 Online operation

At this point we assume, that a data link in between your PC and your *VIPdigital* is established and working. If not, or if you have any further questions concerning this subject, please go back to Chapter [CONNECT \*VIPdigital\* to your COMPUTER](#).

*VIPcon* is designed for configuring your *VIPdigital*. First of all, perform the basic settings and transfer them to *VIPdigital*.

**Note:** Your settings will not be transferred until the [Save to Unit](#) command is selected.

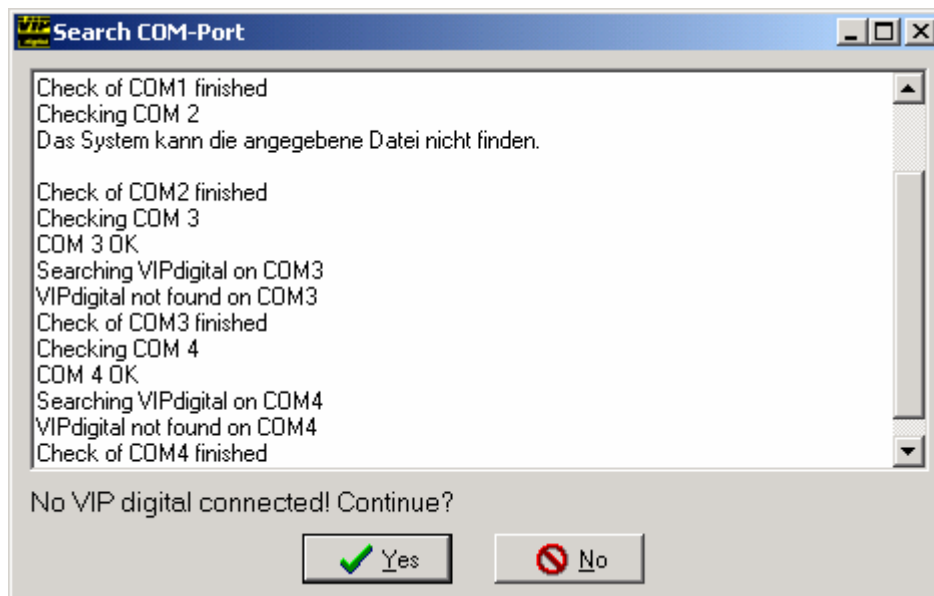
*VIPdigital* will store your settings in its non-volatile memory.

Conversely, you may also load the configuration stored in your *VIPdigital* to *VIPcon* for checking and editing. (Refer to: [Load from Unit](#))

## 7.4 Offline operation

Also, you may work with *VIPcon* offline, i.e. without any *VIPdigital* processor connected.

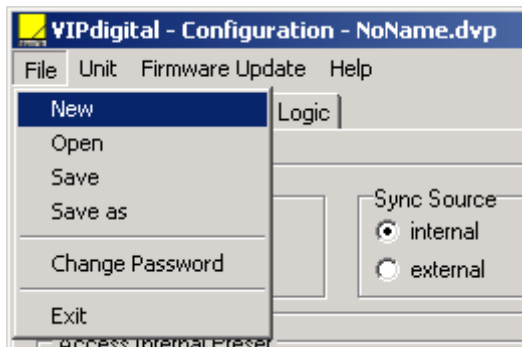
During the start of program *VIPcon* will search for a connected *VIPdigital* on the serial interfaces of your PC. If no *VIPdigital* is found, the following dialog will appear (the text contents may vary depending on the PC).



Clicking on the YES button starts *VIPcon* offline. In offline operation mode you may load configuration files (\*.dvp) already stored in your PC, edit them and store them again.

In addition, this operating mode is useful for a familiarisation or for demonstration purposes.

## 7.5 Menu: File



### 7.5.1 Sub-menu: New

To create a new configuration file, select [New](#).

If a configuration has already been opened, this will be closed by the program. When creating a new configuration you will find standard entries which can then be modified according to your requirements.

Note: Since the current configuration is closed when [New](#) is selected, do not forget to save the modifications before (> [Save](#); > [Save as](#))!

### 7.5.2 Sub-menu: Open

Opens an existing configuration file in the [dvp](#) format (\*.dvp). The normal Windows dialog will appear for finding the file.

### 7.5.3 Sub-menu: Save

Saves the current configuration.

If this configuration is saved for the first time, the “Save file as...” Windows dialog window will appear. Enter a name for the configuration here and define the storage location. The \*.[dvp](#) will automatically be appended to the file name.

### 7.5.4 Sub-menu: Save as

Entering this command displays the “Save file as ...” Windows dialog window. Enter the name for the configuration here and define the storage location. The \*.[dvp](#)-Suffix will be appended to the file name automatically.

Note: Use this command to save a configuration under several names or in different memory locations.

## 7.5.5 Sub-menu: Change Password

VIPcon provides password protection.

During each start of the program you will be prompted to enter a password.

**Note:** The password is **dvp** in the state of delivery.

Use the [Change Password](#) dialogue to change the password.



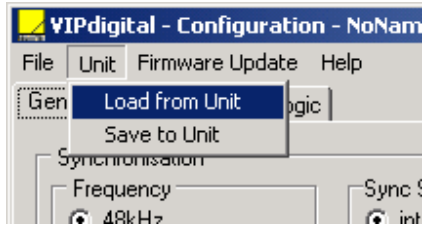
Once you have entered your new password, you must acknowledge it by a repeated entry.

If you wish to use VIPcon without any password, leave the two entry lines in the [Change Password](#) window empty. A password will no longer be requested from the next program start.

## 7.5.6 Sub-menu: Exit

Exits the VIPcon configuration software. Remember to save modifications before an exit.

## 7.6 Menu: Unit



**Note:** The functions in this menu refer to the data exchange between *VIPdigital* and your PC. If the configuration software could not find a connection to a *VIPdigital* during the start, these functions will not be available and the menu shows gray color.

If required, establish a connection between *VIPdigital* and the PC and restart the configuration software (the serial ports of your PC are only scanned during the start of the software).

For details connecting a *VIPdigital*, refer to Chapter [CONNECT \*VIPdigital\* to your COMPUTER](#)

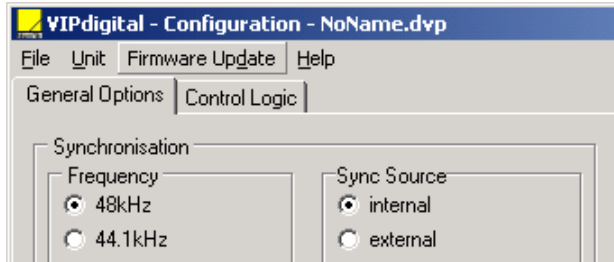
### 7.6.1 Sub-menu: Save to Unit

This command transfers the parameters set in your configuration software to *VIPdigital*. Your configuration is saved to the internal non-volatile memory of *VIPdigital*. Data stored there before will be overwritten.

### 7.6.2 Sub-menu: Load from Unit

Loads a configuration stored in the internal non-volatile memory of *VIPdigital* to the configuration software. The configuration may be edited here and reloaded, if required. Or, save a configuration as a file in the PC.

## 7.7 Menu: Firmware Update



This option allows a replacement of the operating software (firmware) of *VIPdigital* by a more current version.

**Note 1:** The function in this menu refers to the data exchange between *VIPdigital* and the PC. If the configuration software could not find a connection to *VIPdigital* during the start, these functions will not be available and the menu will show gray color.

For details connecting a *VIPdigital*, refer to Chapter [CONNECT \*VIPdigital\* to your COMPUTER](#)

**Note 2:** Refer to the [chapter Technical Drawings/ Descriptions](#) under [Update \*VIPdigital\*](#) for detailed update instructions.

**We strongly recommend a firmware update only after you have read these update instructions completely.**

In addition, take a look at our homepage under <http://www.yellowtec.com> from time to time as to whether or not an update is available for *VIPdigital*.

Select [Firmware Update](#).

The following warning window appears on the PC screen:



Note: A transmission of unsuitable or faulty data or interruptions during the data transmission to the base unit may corrupt the function of *VIPdigital* permanently. In this case the unit can only be commissioned by the manufacturer.

Enter the **file name** (see below) of the new firmware to be transferred into the text line, e.g. *VIPfirmw401.vup* (this designation is an example only).

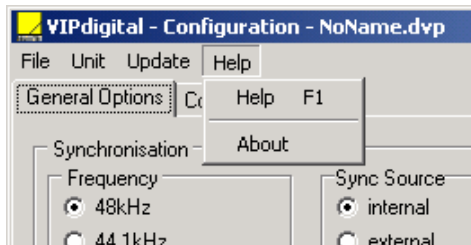
If the firmware is in the same folder as the active configuration software, the entry of the file name will suffice. If the firmware is not in the same folder as the active configuration software, enter the complete path, e.g.. *C:\Yellowtec\VIPdigital\VIPfirmw401.vup* (an example only)

Click on the **YES** button if you are sure that your entries are correct.

The progress of transmission is shown (window: Processing...) Never interrupt this process.

After successful transmission both Processing window and Update window close automatically.

## 7.8 Menu: Help



### 7.8.1 Sub-menu: Help F1

Selecting this sub-menu opens the online manual with Acrobat Reader. Instead, the key F1 may be pressed.

Refer to the chapter Prior to Beginning / Manual Conventions / [Screen Use](#) for detailed information.

### 7.8.2 Sub-menu: About

Calls the Info window, displaying the software and firmware version numbers.

Software: Configuration software ...

Firmware: *VIPdigital* software ...

Only the first digits with a period after the first digit are important (e.g. 4.01).

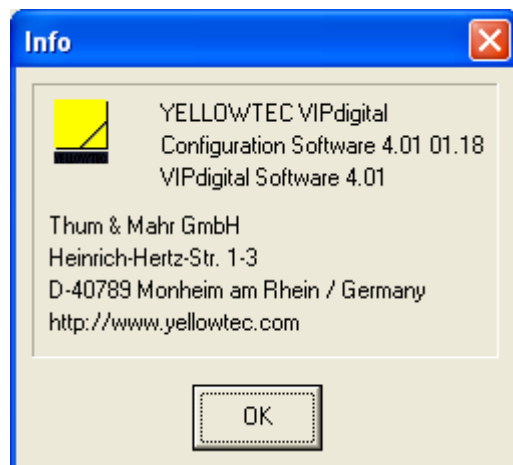
IMPORTANT: This information is only updated during the start of the configuration software.

To check the version number after a firmware update, exit the configuration software. Restart the configuration software and open the Info window.

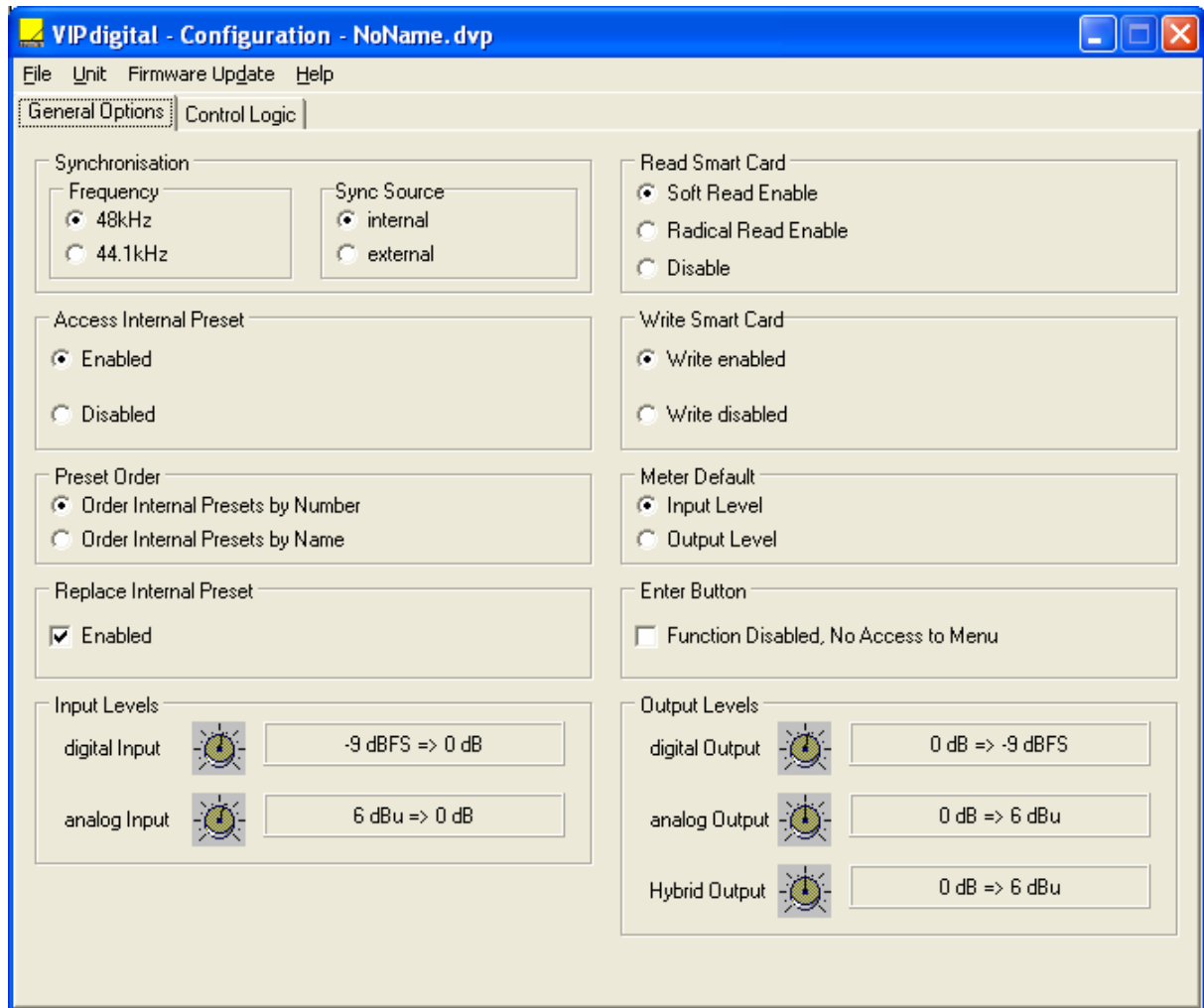
In addition, you can also find our contact and web address as well as the exact product designation there.

The figure on the right side shows the display for version 4.01 (example).

Contact your dealer or Yellowtec for the current version.



## 7.9 Window: General Options



### 7.9.1 Range: Synchronization

Set the internal clock frequency of *VIPdigital* here.

Note 1: *VIPdigital* has a Sample Rate Converter (SRC) on the digital input.

Note 2: An external (house) clock can also be used for a synchronization.

#### 7.9.1.1 Field: Frequency

*48 kHz:* pre-selects 48 kHz for the internal clock oscillator

*44,1 kHz:* pre-selects 44,1 kHz for the internal clock oscillator

#### 7.9.1.2 Field: Sync Source

*Internal:* selects the internal clock oscillator for synchronizing *VIPdigital*.

*External:* selects the external clock for synchronizing *VIPdigital*. The clock signal is generated from the AES/EBU signal (or empty frame) which is applied to the digital input.

## 7.9.2 Range: Access Internal Preset

VIPdigital stores 100 *Internal Presets*. 3 of these presets are enabled for a direct selection via the *Preset Recall buttons*. As a default preset no. 1/2/3 refer to the buttons 1/2/3.

Define here whether the assignment of the 3 enabled presets can be modified on VIPdigital (offline, without PC).

Refer to the chapter Unit Description / Enter mode / [Assign Preset](#)

*enabled*

A modification to the preset selection on VIPdigital is possible.

*disabled*

A modification to the preset selection on VIPdigital is not possible.

Note: An Assign Preset setting which has been performed on the VIPdigital unit is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off. After this time VIPdigital will return to the default setting.

## 7.9.3 Range: Preset Order

The Assign Preset function can be used in the Enter mode to assign 100 *internal presets* of VIPdigital to the Preset Recall buttons. [Preset Order](#) defines the sequence in which the presets are to appear in the display when the Selector is turned.

*Order Internal Presets by number*

Internal presets are sorted by a *preset number*

*Order Internal Presets by name*

Internal presets are sorted by a *preset name*

## 7.9.4 Range: Replace Internal Preset

The VIPremote software allows the 100 *internal presets* of your VIPdigital to be overwritten with new data by clicking on the *SAVE TO VIP* button.

Activate the *Enabled* checkbox to enable overwriting.

If the checkbox is not activated, the [Save to VIP](#) command is disabled in VIPremote.



## 7.9.5 Range: Read SmartCard

Select among the 3 SmartCard Read options:

### *Soft Read Enable*

When your SmartCard is inserted, *VIPdigital* will not accept a preset until one of the Preset Recall buttons is pressed.

### *Radical Read Enable*

When the SmartCard is inserted, *VIPdigital* will accept the preset immediately. The preset number (1, 2 or 3) active prior to insertion will be accepted.

### *Disable*

The data of an inserted SmartCard is ignored.

## 7.9.6 Range: Write SmartCard

### *Write enabled*

Presets can be saved to the SmartCard (*Save to SmartCard* command/button enabled in the *VIPremote* software)

### *Write disabled*

Presets cannot be saved to the SmartCard (*Save to SmartCard* command/button disabled in the *VIPremote* software.)

## 7.9.7 Range: Meter Default

### *Input Level*

After an activation the Level Indicator will show the input level.

### *Output Level*

After an activation the Level Indicator will show the output level.

Note: The Level Indicator shows the selections, using LEDs. The Level Indicator can be switched off during operation at any time, using the [Meter Mode](#) menu item in the Enter menu of your *VIPdigital*. The Enter menu allows also switching between Input Level and Output Level.

Note: A Meter Mode setting performed on your *VIPdigital* is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off. After this time *VIPdigital* will return to the selection set in *VIPcon*.

## 7.9.8 Range: Enter Button

Checkbox: *Function Disabled, No Access to Menu*

Click on this checkbox to disable the Enter button.

Now, only the 3 internal presets or your *SmartCard* presets can be selected on *VIPdigital*.

All other controls are disabled.

## 7.9.9 Range: Input Levels

Adapt the VIP *digital* audio input levels to your studio environment here.

“0dB” identifies the internal reference level of VIP *digital* which relates to the reference mark of the level tendency meter on the frontpanel of the unit.

Your setting should relate to the reference level of the incoming signal.

*Digital Input*     Setting range -20dBFS ... 0dBFS

*Analog Input*     Setting range -6dBu ... +15dBu

Example digital range: Your incoming signal is set for 12dB headroom. Set *Digital Input* to -12dBFS.

Example analog range: Your incoming signal provides a reference level of +4dBu. Set *Analog Input* to +4dBu.

To modify the value, use the mouse to click on the respective controller symbol and control the desired value in 1 dB increments, using the Cursor Up or Cursor Down key.

Alternately, you may click on the controller symbol and move the mouse to the left and right side while the left mouse button is kept pressed.

## 7.9.10 Range: Output Levels

Adapt the VIP *digital* audio output levels to your studio environment here.

“0dB” identifies the internal reference level of VIP *digital* which relates to the reference mark of the level tendency meter on the frontpanel of the unit.

Your setting should relate to the reference level of the required outgoing signal.

*Digital Output*                     Unit dBFS                     Setting range -20dBFS ... 0dBFS

*Analog Output*                     Unit dBu                     Setting range -6dBu ... +18dBu

*Hybrid Output*                     Unit dBu                     Setting range -6dBu ... +18dBu

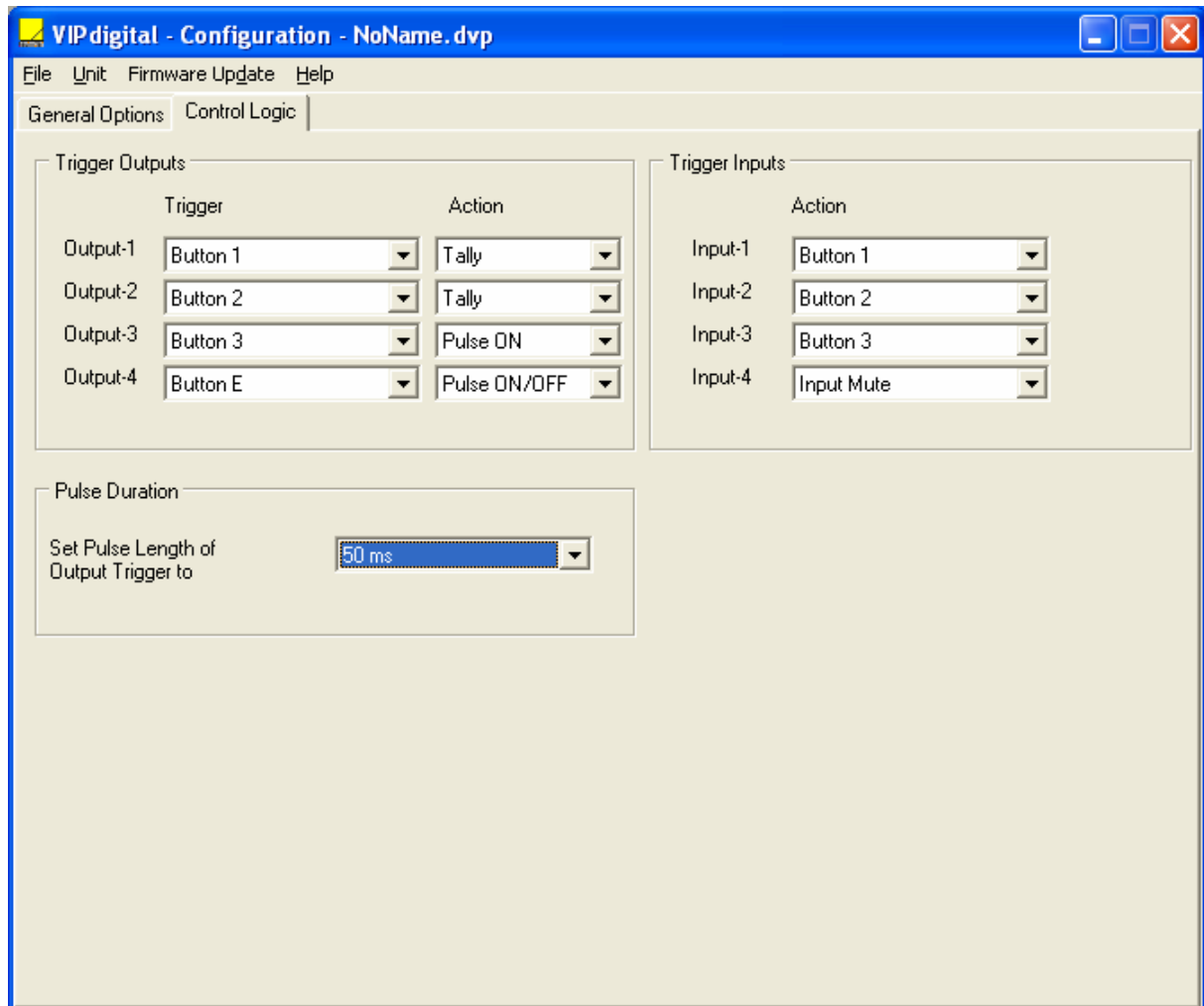
Example digital range: Your following studio equipment is set for 12dB headroom. Set *Digital Output* to -12dBFS.

Example analog range: Your following studio equipment works at a reference level of +4dBu. Set *Analog Output* resp. *Hybrid Output* to +4dBu.

To modify the value, use the mouse to click on the respective controller symbol and control the desired value in 1 dB increments, using the Cursor Up or Cursor Down key.

Alternately, you may click on the controller symbol and move the mouse to the left and right side while the left mouse button is kept pressed.

## 7.10 Window: Control Logic



### 7.10.1 Range: Trigger Outputs

VIPdigital provides 4 trigger outputs (GPOs).

These trigger outputs allow a transmission of commands to other units or to select signal lamps, relays, opto-couplers, etc.

Select one of the functions available in the [Trigger](#) pulldown menu for each output.

A number of logic combinations with external applications result.

Refer to the [Trigger Output Functions](#) below for the functions available.

Use the [Action](#) pulldown menu to select the signal shape (e.g. Pulse or Tally) suitable for your application. Refer to the [Trigger Output Actions](#) below for the signal shapes available.

Refer to [Control-Out/In](#) in the chapter Equipment Description / Backpanel, providing the technical data. Refer to the chapter Technical Drawings / Descriptions for detailed connection drawings under [GPI/GPO Circuit examples](#).

### 7.10.1.1 Trigger Output Functions

List of the functions in the *Trigger* pulldown menu:

*Disable*

No function on this output

*Button 1*

Activates the trigger output when Preset 1 is selected

*Button 2*

Activates the trigger output when Preset 2 is selected

*Button 3*

Activates the trigger output when Preset 3 is selected

*Button E*

Activates the trigger output when the *Enter* mode is activated

*Ready*

Activates the control output shortly after readiness of operation is achieved.

Note: Trigger outputs are generated each time a change in preset selection takes place or enter mode is activated. If for example button 1 is pressed repeatedly, this will not generate repeated trigger output actions.

### 7.10.1.2 Trigger Output Actions

List of the signal form in the *Action* pulldown menu:

*Tally*

The control signal is active during the entire function duration

*Pulse On*

Activating the function generates a pulse. The pulse duration can be set in Pulse Duration.

*Pulse Off*

Terminating the function generates a pulse. The pulse duration can be set in Pulse Duration.

*Pulse On/Off*

Activating and terminating this function generates a pulse. The pulse duration can be set in Pulse Duration.

## 7.10.2 Range: Pulse Duration

For the Pulse Trigger Output signal wave the *Pulse* duration can be set in the *Pulse Duration* pulldown menu. Available pulse durations are

- 50 ms
- 100 ms
- 1000 ms

### 7.10.3 Range: Trigger Inputs

VIP *digital* provides 4 trigger inputs (GPIs).

The trigger inputs allow commands from other units to be received to initiate actions and/or functions in VIP *digital*. Thus, functions of your VIP *digital* can be “controlled remotely”.

Select a function available in the *Action* pulldown menu for each input.

A number of logic combinations with external applications results.

Refer to the [Trigger Input Actions](#) list below for the functions available.

Refer to: [Control-Out/In](#) in the chapter Equipment Description / Backpanel, providing the technical data among others. Refer to the chapter Technical Drawings / Descriptions for detailed connection drawings under [GPI/GPO Circuit examples](#).

#### 7.10.3.1 Trigger Input Actions

List of the actions and/or functions in the *Action* pulldown menu:

*Disabled*

A control signal on this input is ignored

*Button 1*

Activates in VIP *digital* the same control command as if the *Preset Recall 1* button was pressed

*Button 2*

Activates in VIP *digital* the same control command as if the *Preset Recall 2* button was pressed

*Button 3*

Activates in VIP *digital* the same control command as if the *Preset Recall 3* button was pressed

*Button E*

Activates in VIP *digital* the same control command as if the *Enter* key was pressed

*Input Mute*

Performs an audio mute in the VIP *digital* audio signal chain after the Input module. Use this *Trigger Input* to connect a cough button.

## 8 VIPremote - THE REMOTE SOFTWARE

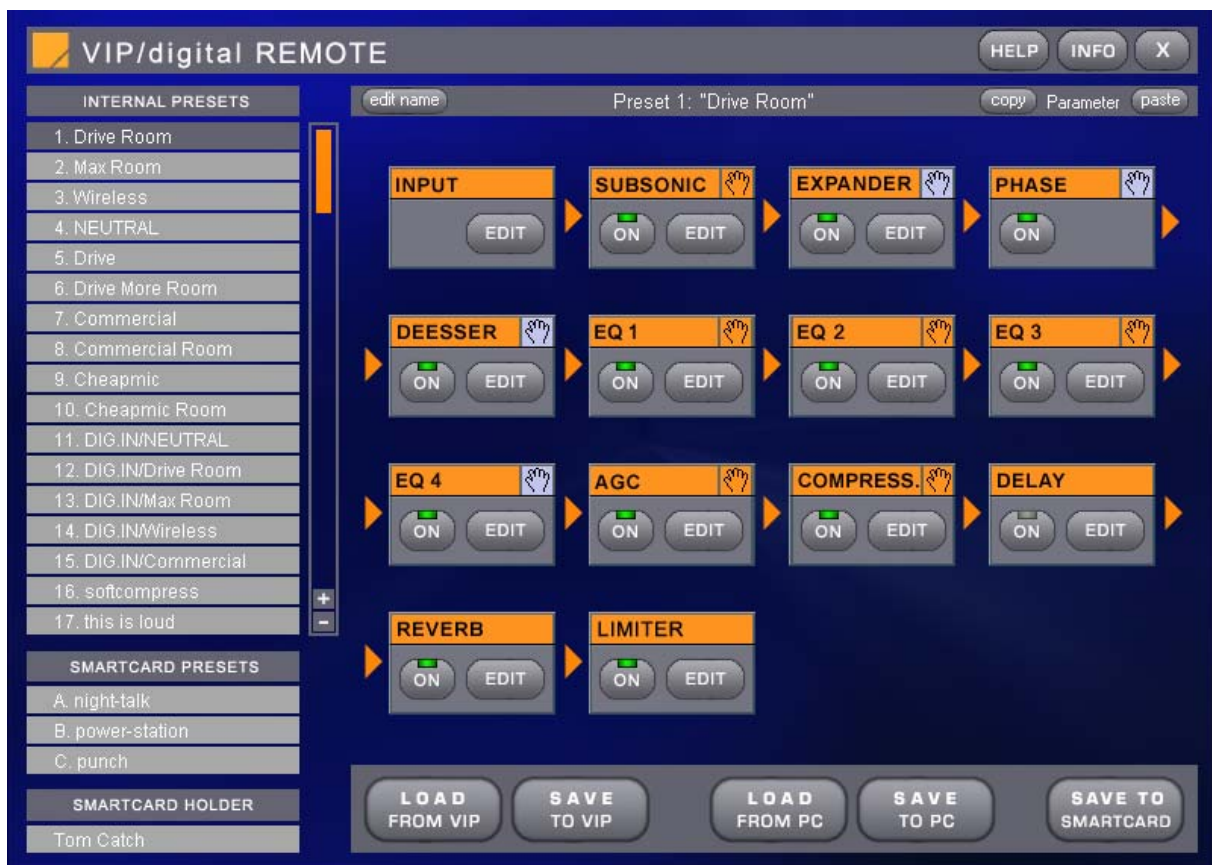
This chapter gives you a detailed description of the functional range of *VIPremote*.

At this point we assume

- you have performed the software installation  
(Chapter [SOFTWARE INSTALLATION](#))
- you have connected your *VIPdigital* to your PC  
(Chapter [CONNECT VIPdigital TO THE COMPUTER](#))
- you are familiar with *VIPcon* and your *VIPdigital* is configured to match your studio environment  
(Chapter [VIPcon – THE CONFIGURATION SOFTWARE](#))

### 8.1 General

While *VIPcon* is responsible for the basic system configuration of your *VIPdigital*, *VIPremote* allows a control of the audio parameters in real time. Thus, *VIPremote* is the actual user interface of your processor. The modifications made here are immediately performed by the unit so that the sound effects of your settings can be heard on the signal output. In addition, *VIPremote* manages the presets stored in your *VIPdigital*, on SmartCard or in the PC.



## 8.1.1 Start and end of program

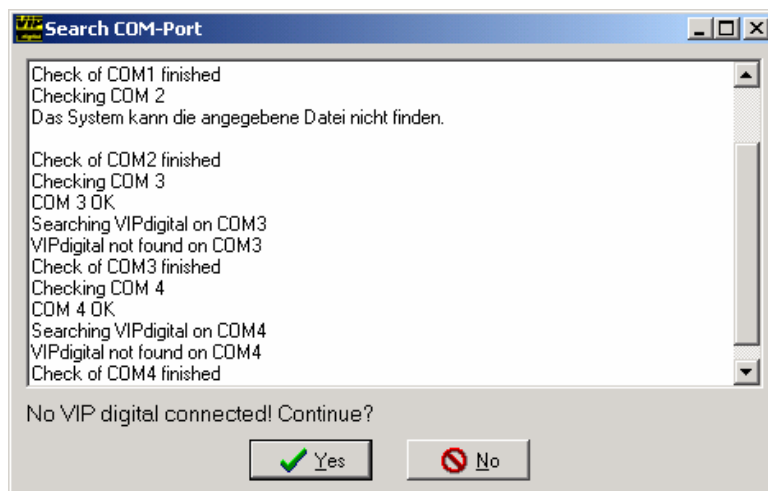
Start *VIPremote* via the Windows Start Menu program entries. If you wish *VIPcon* to be started via the Windows Explorer: the name of the program file is "VIPremote.EXE" (the default installation path is C:\Program files\Yellowtec\VIPdigital ...).

Note: In Offline mode *VIPremote* and *VIPcon* can be active at the same time. In Online-mode they will collide when they try to connect to the same *VIPdigital*. If you have worked with *VIPcon* before, exit this program first.

## 8.1.2 Offline mode

During start-up *VIPremote* scans the serial ports of your PC for a connected *VIPdigital*. If no unit is found, the following dialog will appear:

(The text contents may vary depending on your PC)



Click on the YES button to start *VIPremote* offline. In the Offline mode, for example, you may create, edit and save preset files.

In addition, this mode is suitable for a familiarization or for demonstration purposes.

If you intend to connect to a *VIPdigital* unit, refer to chapter [CONNECT VIPdigital TO THE COMPUTER](#), section [Troubleshooting](#).

Note: Be aware that *VIPremote* only scans the serial ports during start-up. The connecting in between your *VIPdigital* and your PC has to be established **before** program start.

## 8.1.3 Online mode

In Online mode you can save presets to your *VIPdigital* and to SmartCard. Or you can load presets from *VIPdigital* and SmartCard into *VIPremote*, edit them and save them to your PC.

As soon as you click on a preset in the [Internal Presets](#) list or the [SmartCard Presets](#) list, your *VIPdigital* switches to [Remote Control](#) operation. *VIPremote* then functions as a remote control for your *VIPdigital*.

The *VIPdigital* operator controls are deactivated, and your *VIPdigital* display shows *Remote Control*. In addition, the status LED *NT* lights up in the [Level Indicator Field](#).

## 8.1.4 Start-Up Mode

*new in version 4.0!*



The left-hand area contains elements for the preset administration. The preset lists are “empty”, i.e. settings and designations are neutral.

The buttons in the lower section of the program window are designed to transmit presets between the PC and the processor and save or load presets to the hard disk of your PC. As a start, you may load default presets (default.vip / default.vsm / default.vpr) by clicking on the [LOAD FROM PC](#) button (refer to [Loading from the PC](#)).

The right-hand larger area of the program window is deactivated. It contains a total of 14 [Audio Processing Modules](#) for sound editing and an adaptation of the input signal. Modules are hidden in Start-up mode.

### Features of start-up mode

- presets can be loaded from your *VIPdigital* / SmartCard / PC without affecting audio performance
- presets can be saved to your *VIPdigital* / SmartCard /PC without affecting audio performance
- only after a click on a preset from the [Internal Preset](#) list or the [SmartCard Preset](#) list the Audio Processing Module will be activated (and fully visible) and *VIPdigital* switches to [Remote Control](#) operation.
- the new start-up mode allows you smoothly to take over [Remote Control](#) of your *VIPdigital*

Example: After starting the application, click on [LOAD FROM VIP](#). All presets, Internal Presets and SmartCard Presets (if SmartCard is inserted) are loaded from the unit without affecting *VIPdigital* audio performance. After loading, *VIPremote* displays in bold letters the one preset, which was selected on *VIPdigital* at the time the download started (Internal or SmartCard preset). For a soft



“takeover”, click on this very preset thus taking over Remote Control. Modify your settings, save them to *VIPdigital* or to SmartCard. Exit *VIPremote* when your modifications are done. *VIPdigital* returns to stand-alone operation (to the preset displayed in bold letters, which was active before).

Note: All functions are described more detailed in the following.

### 8.1.5 Help call

Click on the **HELP** button or press **F1** if information is required.

The Online Manual is then started automatically with Acrobat Reader. Activate the Bookmark View to navigate conveniently through the document, using the table of contents.

Refer to the chapter Prior to Beginning / Manual Conventions / [Use of the Screen](#) for detailed information.

### 8.1.6 Info window

Click on the **INFO** button to call the current version numbers of the software and firmware;

- **VIP Remote Software x.xx** (the first three digits with a period behind the first digit are important).
- **VIP digital Software x.xx** (firmware in *VIPdigital 19"* unit) is only displayed if a unit is connected; otherwise, the display shows 0.00 or the last value.
- **VIP.INI Version x.xx** (file without user data and user access, only for service).

Refer to the chapter [Update VIPdigital](#) and to the chapter Technical Drawings / Descriptions under [Software Components of VIPdigital](#) for detailed information.

### 8.1.7 Exit *VIPremote*

Click on the X symbol in the upper right-hand corner of the program window

## 8.2 Audio Processing Module

### 8.2.1 Basic information

VIP*digital* provides 14 audio processing modules for processing your audio signals. The sequence of the individual modules represents the signal path from the input on the left upper corner to the Limiter module in the bottom line.

Use the shift hand symbol to click once on the orange lettered bar of a module and move it to another position, keeping the mouse button pressed. Release the mouse button. The module is set to its new position.



Thus, it is easy to modify the sequence of the module and design the characteristics of sound editing even more exactly. The shift hands of the modules which are no longer in their original position are highlighted.

The sequence of the modules in the state of delivery is not a random one. This sequence yields the best results for most applications.

**Note:** When default settings from older program versions are loaded, it may occur that a deviating sequence is signalled. This is no error. The default settings have been modified meanwhile.

Only the INPUT module on the input and the DELAY, REVERB and LIMITER modules on the output have a fixed position. The shift hand symbol is therefore missing on these modules.

As an expert user you will perform deviating settings for your special cases.

The modules are equipped with the ON and EDIT buttons (exceptions: INPUT module only EDIT and PHASE module only ON). The ON button switches ON or OFF the function of a module. The ON-state is identified by a symbolized green illuminated display. Thus, you can see at a glance whether and which modules are active.

Clicking on the EDIT button opens the setting window of the respective module where the individual parameters may be edited. The functions of the different modules are described below in detail.

Numerous setting windows contain virtual “rotary controllers” with an adjacent number field which are used for entering parameters. Click the mouse on a rotary controller and move the mouse while the button is pressed to the left or right side to reduce or increase the set value. The mouse pointer will change to a plus-minus symbol.

**All settings performed here will be transferred to VIP*digital* immediately and can be heard at once. Thus, the VIP*remote* software is the actual user interface to your VIP*digital*.**

Exit a module setting window by clicking on the X button in the right upper corner.

## 8.2.2 Module: Input



### 8.2.2.1 Input source

Use the four buttons on the left side to select the desired input source.

MIC1	Analog input 1
MIC2	Analog input 2
DIG. L	AES/EBU input, left signal
DIG. R	AES/EBU input, right signal

### 8.2.2.2 Input Gain

The pre-amplification of the selected input is set, using the two ANALOG GAIN and DIGITAL GAIN controllers.

Analog Gain	Analog Gain controls the gain of the analog microphone amplifier before an A/D conversion. The settable control range is 0 to +54 dB in 6 dB increments. A setting of 0 dB corresponds to the level set for the analog inputs in the <a href="#">Input Levels</a> range of the VIPcon configuration software. For low-level microphone signals higher values are normally required for analog gain (>30 dB), while signals with a line level often do not require an analog pre-amplification (0 dB). This parameter has naturally no influence on digital input signals.
Digital Gain	Digital Gain controls the input gain on digital level. The control range is -20 to +20 dBFS in 1 dB increments. Control is performed in the digital section of the processor. Therefore, this parameter affects both analog and digital input signals.

To match the analog and digital pre-amplification with your input signal, monitor the processor input level, using the upper [Level Indicators](#) on the VIPdigital front panel. Check whether this instrument is switched to Input; otherwise change it to Input, using the appropriate [Menu option](#) in the Enter Mode.

**Note:** Both gain controllers are active for analog input signals (refer to [Digital Gain](#)).

Please note that the correct setting of the analog **and** digital pre-amplification is crucial for an optimum signal quality in the case of analog sources.

If the Analog Gain controller is set too high and the level is subsequently attenuated with Digital Gain, you may hear a distorted signal because of the overdriven analog input although the level display show no overdriving.

Conversely, you may obtain a noisy input signal if Analog Gain is set very low and the required gain is subsequently made with the Digital Gain controller. As a thumb rule, the Digital Gain controller should be left in its position 0 dB, and Analog Gain should be used to set a well modulated input signal. It is not until then that Digital Gain can be used to make possible required adjustments.

The position of the input module in the first place of the signal path is not variable.

### 8.2.2.3 Phantom Power

To supply a connected condenser microphone, Phantom Power (48V) can be applied to both analog inputs. To do so, click on the [Phantom Power](#) button.

**Note:** Before activating the 48V Phantom Power, check whether the connected microphone is designed for this mode. If a signal source with line level is added, no Phantom Power must be applied to the input normally.

**WARNING:** In the case of a mismatch/misadjustment your microphone or other signal source may be damaged.

### 8.2.3 Module: Subsonic



This is a tool for attenuating low-frequency noise and interferences efficiently.

The Subsonic filter is a powerful adjustable high-pass filter with a slope of 18dB/ octave.

The control range for the corner frequency (-3 dB point) is 30 to 200 Hz.

The filter always operates on a maximum attenuation below the corner frequency; thus, gain setting is not available.

In particular in the editing of speech, the Subsonic filter is an important tool for the elimination of interferences. It can be caused by the speaker (e.g. so-called “plops” during the pronunciation of the consonant “P”) or they enter the microphone from the speaker environment (e.g. as subsonic noise or parasitic noise from an air conditioning system).

However, the Subsonic filter can also excellently be used for a creative sound editing, e.g. in interaction with a low-frequency gain setting in one of the EQ-modules.

### 8.2.4 Module: Phase

This function is a special type within the Audio Processing module since its effect cannot be heard immediately, but has a more technical background.

The function improves the input level range of an A/D converter or digital processing stages following this module.

If you are not sure whether or not to activate this function, you should leave the module deactivated.

**Technical background:** The Phase module generates an effect known in the broadcast range as a “phase rotation” which is to prevent a clipping by asymmetric signal amplitudes. Just the human voice can provide an unsymmetrical signal amplitude in many cases. This may e.g. reduce the input level range of a converter so that early distortions may occur. To counteract this effect, the phase module sets an all-pass filter into the signal path to stabilize a signal symmetrically. From a technical point of view, the DC-portion is taken from the signal.

In effect, a signal can be leveled higher without being distorted, i.e. the Phase module enhances the “loudness” of the signal.

The Phase function has no parameters which can be edited, and thus no special setting window. It can only be switched on and off.

**Note:** The Phase module does **not** include a Phase Reverse function, i.e. a reversal of the polarity of the audio signal as known from the input stage of audio-mixing desks.

## 8.2.5 Module: De-esser



**Application: Suppression of noisy hissing sounds.** The De-esser is a compressor especially configured for a reduction of “S”- or sibilant sounds. This compressor operates on frequency selections. This means that only certain parts of the frequency spectrum initiate control activities in the input signal and the other signal components pass the module unchanged. This module is an important tool for editing speech. For example, it is used to set an especially “present” sound character of a voice with an equalizer used at the same time without losing control of sibilant sounds.

**Theoretical background:** Psycho-acoustics introduced the term of “sharpness” (S) as a measure for the portion of high frequency and complex signal components within an audio signal. The more high-frequency signal portions referred to the power contained are within a signal, the sharper it will be received by people. A sinusoidal sound with a frequency of 1 kHz is perceived as a reference for a sharpness of  $S = 1$ . Higher tones and complex sound such as sibilant sounds have a sharpness of  $S > 1$ .

**Technical implementation:** The De-esser contained in *VIPdigital* analyzes the sharpness of the input signal, using a special algorithm. At the same time the spectrum is analyzed, and filter parameters such as filter center frequency, attenuation and bandwidth are evaluated. The filter operates as a function of the input signal within the frequency range of 2 kHz and 10 kHz so that no manual adjustment of the center frequency is required by the user. This type of adaptive filtering makes sure, that only these frequencies are attenuated, which are over-represented in the frequency band. The second reason for the neutrality of sound is that its control parameters are rather depending on the spectrum-analysis than on the level-amplitude of the audio signal. The sharpness is largely independent of the amplitude.

**Basic setting:** Start your settings with a basic setting of 1.2 for the Sharpness Threshold and 2:1 for ratio. Now determine the optimum values for the three parameters by hearing tests.

Operator controls:

Sharpness Threshold	This is the threshold for the psycho-acoustic sharpness parameter. If the sharpness of the input signal exceeds the value set here, the De-esser will be activated and reduce the sharpness of the output signal as a function of the values for Ratio and Bandwidth (see below). The setting range of the parameter is between 0.8 and 1.8. Values of 1.0 or lower values result in a strongly attenuated sound of speech signals. However, only a few and particularly sharp hissing sounds will be detected in the maximum position.
Ratio	The higher the set ratio, the higher the attenuation of the adaptive filter. The setting range of the parameter is between 1:1 and 4:1. The De-esser is deactivated in its 1:1 position.
Bandwidth	This parameter controls the bandwidth of the adaptive filter. The higher the set value, the broader will be the frequency range attenuated by the filter.

If you are not sure whether or not to activate this function, switch off the module.

## 8.2.6 Module: Equalizer

(four identical modules independent of each other)



VIP *digital* provides four completely parametric equalizer modules which can be set and be arranged in the signal path independently of each other. The modules numbered EQ 1... EQ 4 have identical parameters and can thus be used within the entire audio spectrum.

Parametric equalizers are surely the most important tools for processing audio signals, allowing specific frequency ranges in the spectrum to be boosted or cut. Thus they can be used for a technically motivated correction of quality defects or for a creative approach, modeling sound characteristics.

Optionally, each module can be configured as a bell equalizer (**Bell**) or as a shelving equalizer in the upper (**High Shelv**) or lower (**Low Shelv**) frequency range.

Bell	Boost or cut a defined frequency range within the signal spectrum, define the center frequency of this range with the <i>Freq.</i> setting – you will not influence the signal above or below this range.
High Shelv	Boost or cut the frequency range above the set frequency ( <i>Freq.</i> ). You may use this EQ type like a specially convenient treble controller.
Low Shelv	Boost or cut the frequency range below the set frequency ( <i>Freq.</i> ). You may use this EQ type as a particularly convenient bass controller.
Gain	Set the value for boost or cut. The control range is –12 dB to +12 dB.
Freq.	This parameter determines the center- or corner-frequency of the filter.
Quality	This parameter defines the so-called filter quality, i.e. the reverse bandwidth of the filter. The higher the set value, the narrower the operating range of the filter in the signal spectrum. Quality can only be set in the Bell mode; the parameter is not available in the High Shelv and Low Shelv modes-  Basically, working with a Bell characteristic you will choose a narrow band to suppress noise or resonance (high quality value). For emphasizing, i.e. boosting a frequency range a broader filter setting (low-quality value) is preferred in common applications.

## 8.2.7 Module: Expander



In practice, expanders are mostly used for suppressing interferences (background noise, tape noise) in modulation pauses.

Signals whose level is higher than the value set with *Threshold* are not influenced. These are the signal portions you want to keep.

If the signal level is below the *Threshold* value, it will be attenuated. These are the signal portions (e.g. background noise) that you want to remove.

The *Threshold* setting is therefore most important. The use of an expander requires an exact knowledge of the technical context since parts of the useful signal are possibly “suppressed” if it is set improperly.

If you are not sure whether or not to activate this function, switch off this module.

Functions and settings in detail:

Ratio	The ratio parameter defines the expansion ratio of the module. A ratio setting of 1:2 means that if a signal level is 1 dB below Threshold level, it will be attenuated by 2 dB. The higher the set value, the more the signal will be attenuated by the expander. The ratio setting range is 1:1 to 1:3.0.
Threshold	This parameter controls the threshold of the expander. Above the level value defined by Threshold the expander will operate as a 1:1 gain stage. Below the threshold the expansion ratio set with the Ratio parameter is applied to the signals. The threshold setting range is –60 dB to 0 dB.
Output Gain	This controller can be used to increase the output gain of the expander independently of the input level. The gain setting range is 0 dB to +20 dB.
Attack	This controller controls the response time of the expander. The smaller the time constant set here, the faster the expander will respond to a signal overriding the threshold (“Opening-time”). For the slow position of the controller (left stop) the attack side is approximately 12 ms; for the fast position (right stop) it is approximately 0.4 ms. These are guide values, they vary depending on the dynamic and spectral characteristic of the input signal.
Release	This controller controls the closing time of the expander. The higher the time constant set here, the slower will be the attenuation of the signal after falling below the threshold. For the slow position of the controller (left stop) the release time is approximately 2.048 ms; for the fast position (right stop) it is approximately 16 ms. These are guide values, they vary depending on the dynamic and spectral characteristic of the input signal. Short release times are critical. If you are not yet familiar with the handling of an expander, use medium to extended times first.

**Note:** The expander is a dynamic tool with the reverse effect of a [Compressor](#). Its application is especially recommended if a compressor is used at the same time.

A [Compressor](#) (or the [AGC function](#)) may often emphasize parasitic noise in signal intervals.

To avoid this, arrange an expander before the compressor (and/or [AGC Module](#)) in the signal path. Adjust the threshold to a value higher than the parasitic noise and lower than the useful signals.

## 8.2.8 Module: AGC



AGC (Automatic Gain Control) is designed for an automatic and subtle gain readjustment if the signal level varies.

As opposed to the compressor which responds quickly to short-term level modifications, the AGC will only become active if the signal level is above or below the set target level over an extended time.

The use of AGC can be of great benefit for many applications, but always make sure to exactly know the functionality and carefully set the parameters. AGC has substantial impact on the audio signal.

Always consider carefully whether or not you need this function.

**Functions in detail:** The control amplifier used for the AGC function references to the adjustable *Target Level*. Gain is increased when the signal level is lower than target level. On the other hand, the signal is attenuated when the signal level is higher than target level.

If the signal falls below *Freeze Threshold* (adjustable -20dB ... -40dB), AGC *Freeze* function freezes gain to the current value. Signals below freeze threshold are supposed to be signal gaps or background noise. Freezing the current gain value prevents unintentional high levels or overdriving when the "normal" signal is applied again.

Basically, the AGC function uses very slow time constants to ensure an subtle adaptation of the level. The *Control Velocity* parameter controls the time constants used for the gain changes. The value is expressed in dB per second.

*Maximum Gain* can be set from 5dB ... 30dB. This gives you perfect control on the maximum impact the AGC module can have on your audio signal.

Target Level	setting range -20 dB to +20 dB
Freeze Threshold	setting range -40 dB to -20 dB
Control Velocity	setting range 0.3 dB/s to 1.5 dB/s
Maximum Gain	setting range 5dB ... 30dB

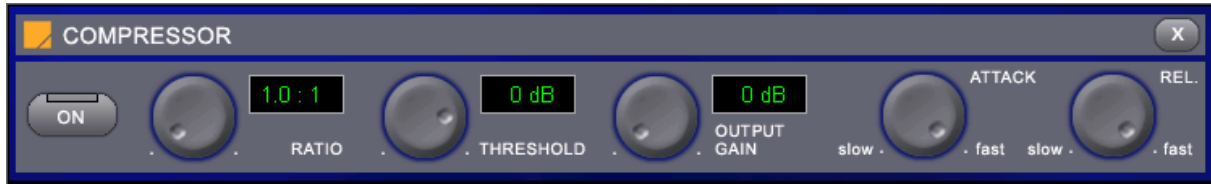
**Note:** During speech intervals the level is far below the *Target Level*, i.e. the AGC would increase gain normally. The *Freeze* function prevents an unintentional increase of gain in signal gaps.

But, if the speaker microphone receives loud background noise in speech intervals, the *Freeze* function will probably not be able to distinguish between background noise and a low speech pass. Always set *Freeze Threshold* carefully. If set too low, gain might be increased and bring up background noises during a speech interval. If set too high, a low speech pass will not be increased in gain.

Under these conditions make a test as to whether or not the use of the AGC function is practicable, or use the *Expander Module* **before** the AGC module for a suppression of background noise.



## 8.2.9 Module: Compressor



**Application:** The Compressor is one of the most important tools to give audio signals more loudness, especially with regard to voice processing for broadcast applications.

The Compressor reduces the dynamic range within the upper level range. Signal peaks will be reduced. Thus, the basic gain can be set higher without overdriving the circuitry.

**Note:** Keep in mind that at the end of the chain there is a [limiter module](#) available to provide perfect overmodulation protection. Use the compressor mainly to create your sound.

A compressed signal is perceived as essentially “louder” than an uncompressed signal.

**Function:** In particular for the processing of speech, the compressor is an important dynamic tool, changing the gain dynamically as a function of the input signal level and reducing the output gain as soon as the input signal exceeds the threshold value defined by Threshold. Below the threshold the compressor functions as a 1:1 amplifier stage.

In addition, the output gain can be increased with the controller output gain independently. This compensates the level losses occurring during the compression. The result is a louder output level for low input levels which will not be too loud for higher input levels – i.e. a reduced dynamic range as compared with the original signal.

Ratio	The ratio parameter defines the compression ratio of the module. A ratio setting of 2.0:1 means that the output signal of the compressor is only increased by 1 dB for an input level (above the set threshold) increased by 2 dB. The higher the set value, the more the reduction of the gain above the threshold of the compressor. The ratio setting range is 1:1 to 1:10.
Threshold	This parameter controls the threshold of the compressor. Below the level value defined by Threshold the compressor will function as a 1:1 gain stage. Above the threshold the compression ratio set by the ratio parameter will be applied to the signal. The threshold setting range is -50 dB to +10 dB.
Output Gain	This controller can be used to set the output gain of the compressor independently of the input level. The setting range is from 0 dB to +20 dB.
Attack	This controller defines the response of the compressor. The smaller the time constant set here, the faster will be the response of the compressor to a signal exceeding the threshold. For the slow position of the controller (left stop) the attack time is approximately 12 ms; for the fast position (right stop) it is approximately 0.4 ms. These are guide values, they vary depending on the dynamic and spectral characteristic of the input signal.
Release	When, after a loud sequence, the input level drops below the threshold, the compressor applies the time constant set here to fall back to the 1:1 gain functionality. This parameter has great impact on the sound of the processed audio signal. Carefully adapt the value to your application (if you are not sure, begin with medium values). For the slow position of the controller (left stop) the release time is approximately 2.048 ms; for the fast position (right stop) it is approximately 16 ms. These are guide values, they vary depending on the dynamic and spectral characteristic of the input signal.

**Note:** Under unfavorable conditions, the use of a compressor might bring up noise to an audible level. If for example, a certain amount of background noise is present in the audio signal, it will be more audible after output gain has been increased. This effect can be reduced efficiently by using an [Expander](#) before the Compressor module.

## 8.2.10 Module: Delay

The Delay module inserts an adjustable signal delay into the signal path. As opposed to numerous digital effect processors, the delay is not used for a “sound” processing, but exclusively as a technically oriented tool for a compensation of delay times – such as for picture-related audio post-processing for a synchronization to the picture. In particular, the module **cannot** be used for **echo effects and the like**. Instead, use the [Reverb Module](#) for handling effects of the signal.

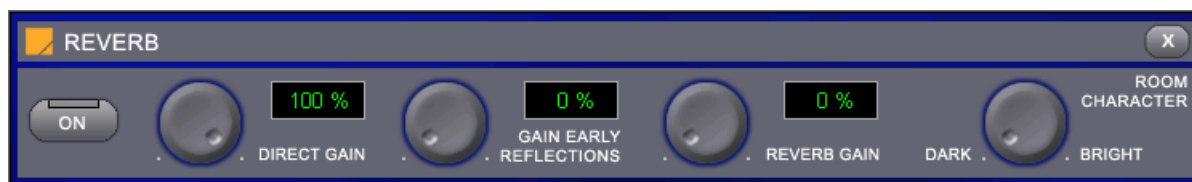
The setting range for the delay time is 0 to 100 ms.

Please note that *VIP digital* inserts an additional transit time for digital signal processing into the signal path as other digital signal processors do. However, this is extremely low for this processor, using approximately 1.5 ms. This transit time which always exists independently of the Delay module must be added to the delay time set in the Delay module if the entire signal transit time is to be determined.

The position of the Delay module (i.e. in front of the Reverb module) is not variable as opposed to most of the other components.



## 8.2.11 Module: Reverb



The VIP*digital* Reverb module allows the application of room simulations to the speaker signal. The effects which can be implemented by this module, for example, can be used for the production of jingles or in post-production to position the speaker in different acoustic environments. Or just enhance the sound by adding a minimal amount of this effect.

However, this module is not to replace sophisticated and dedicated reverberations processors which naturally offer significantly more parameters for a generation of effects. The focus is here on an effect which can be set quickly and without extensive background knowledge within the area of short spatial simulations.

The portions of so-called early reflections of the simulated room, i.e. the echo from the walls arriving before the actual reverberation can be controlled independently of their reverb effect.

**Direct Gain** This parameter controls the portion of the unprocessed original signal on the output signal. The lower this value is set, the more dominating will be the added effect. Please note that realistic room situation also requires a certain portion of the original signal. Otherwise, the effect will sound unnaturally and delayed.

**Gain Early Reflections** This parameter controls the portion of the *Early Reflections* of the simulated room (see above). The higher this value is set, the better the early reflections can be heard as a type of a very short echo in the output signal.

**Reverb Gain** This parameter controls the portion of the reverb effect. The higher this value is set, the louder the reverberation generated by the module can be heard in the output signal.

**Room Character** This parameter allows to influence the generated room simulation by controlling the high frequency range. The higher the set value, the brighter and "fresher" the generated effect will sound.

The Reverb module provides a stereo output. Therefore, it is the last but one module (before the Limiter) in the signal path and its position is not variable as opposed to most of the other modules.

## 8.2.12 Module: Limiter



A high quality, straight forward limiter rounds off the range of VIP *digital* sound processing modules. The classical “brickwall” type provides perfect protection against overmodulation by just setting the [Limiter Level](#). The advanced VIP software algorithms stand for a maximum of sound quality.

Basic “attack-“ and “release”-time algorithms are automatically adapted to the audio signal, but the over all [Release](#) constant can be adjusted, thus providing a very effective tool to define the sound characteristic of the module.

Level	Limit Level, setting range -5dB ... +20dBu
Release	Release Constant, setting range 3dB/sec ... 20dB/sec

For processing speech a medium setting around 10dB/s is a good choice to start with. The faster the setting, the more exact is the peak limiting but the higher is the danger of background noise coming up in signal gaps (“pumping”). Take your time to find the optimum for your application.

If you are rather looking for a sound effect than a protective limiting, we recommend to use the [compressor module](#). Or combine compressor and limiter and have a lot more control parameters available.

## 8.3 Preset management

### 8.3.1 Overview

VIPremote application window



## 8.3.2 Setting presets

After a restart of *VIPremote* start-up mode is active (refer to [Start-Up Mode](#)). An “empty” [Internal Preset](#) list is displayed (neutral names and values). Use the bar on the right side of the list to scroll through all positions, or use the +/- buttons.

SmartCard Presets A ... C are displayed without names.

Click on a preset to exit start-up mode.

### 8.3.2.1 Renaming presets

The numbering or prefix (1.– 100./A ... C) cannot be changed, while the name can be edited.

To do so, activate a preset by clicking on it in the list. The text entry line above the Audio Processing modules displays the name of this preset, and the settings stored in this preset are transferred to *VIPdigital*.

Open the text entry line above the Audio Processing modules by clicking on the [Edit Name](#) button or by a double click with the mouse button directly on the text entry line. As a test, enter the name “Test1” for the preset. Close the entry by pressing the Return button or click the mouse button on any position outside the text entry fields.

All modifications made now to the parameters of the Audio Processing modules are managed under “Test1” by *VIPremote*.

Exit “Test1” by activating another preset. Now, you can “give contents” to the next preset and name it as desired.

### 8.3.2.2 Copying parameters between presets

The *VIPremote* Copy&Paste function is a very effective tool:

Use the settings of a preset as a basis for a new preset. Proceed as follows:

Activate the preset whose settings are to be copied. To do so, click on it with the left mouse button. Now, click on the [Copy \(Parameter\)](#) button in the upper right section.

Activate the preset whose settings are to be copied and then click on the [Paste](#) button. Together with the settings the name which can then be modified as desired was also copied.

Note 1: The [Paste](#) button will only show the [Paste](#) lettering if a preset was loaded before with the [Copy](#) command.

Note 2: You may also access the [Copy Parameters](#) and [Paste Parameters](#) commands if you click on a preset in the list and activate the right mouse button.

### 8.3.3 Saving and loading presets

VIP*digital* presets can be saved in 3 different formats on your PC:

*.VIP	Internal preset file	VIP <i>digital</i> Presets (100 presets)
*.VSM	SmartCard preset file	SmartCard Presets (3 presets and holder name)
*.VPR	Single preset file	Single Preset (currently selected preset)

In former versions only the \*.VIP format was available. In VIP*digital* 4.0 the range of formats is extended in order to improve preset management and backup.

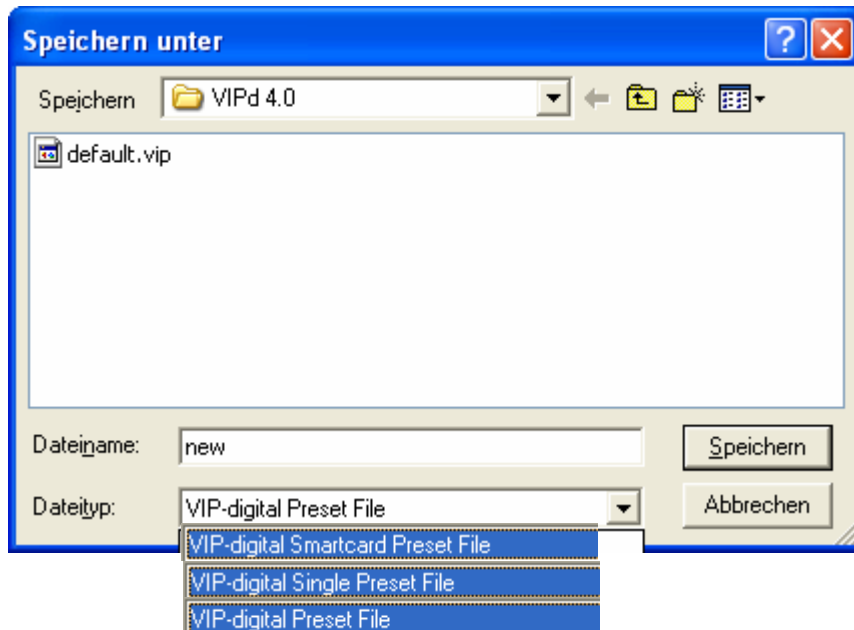
#### 8.3.3.1 Saving to PC

In case you intend to save a single preset file, select this preset now (in the VIP*remote* application window). It may be one of the Internal Preset List or one of the SmartCard Presets.

You can save SmartCard Files or Internal Preset Files without considering which preset is selected.

Click on the *SAVE TO PC* button.

Choose the appropriate file type from the list. Enter the file name and the memory location in the common Windows dialog.



VIP*remote* will automatically append “.VIP”, “.VSM” or “.VPR” to the filename.

In case you save a single preset file, it contains the settings of the currently selected preset.

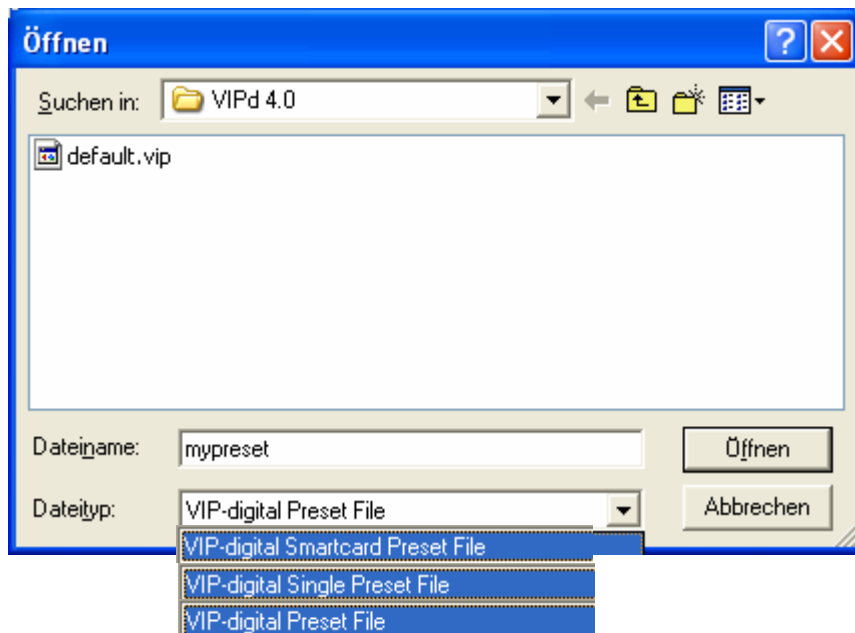
### 8.3.3.2 Loading from the PC

In case you intend to load a single preset file, first (in the *VIPremote* application window) select the preset, that shall be substituted. It may be one of the Internal Preset List or one of the SmartCard Presets.

You can load SmartCard Files or Internal Preset Files without considering which preset is selected.

Click on the *LOAD FROM PC* button.

As a default, *VIPremote* opens the VIP program folder in the common Windows dialog. If your file is in another folder, search the memory location using the common Windows dialog.



Choose the appropriate file type from the list. According to common Windows standards, all files of that type are displayed. Choose the one you want to open.

Depending on the file type you loaded, the presets will appear in the Internal Preset list or in the SmartCard list. If you loaded a single preset file, only the one that was selected before loading will be substituted.



### 8.3.3.3 Saving to VIPdigital

Click on the *SAVE TO VIP* button.

All presets from the Internal Preset list are transferred to the processor. The transfer to *VIPdigital* will take some time, the progress is displayed by a red bar in the upper window section. Do not interrupt this process.

Preset saving is controlled by transfer protocol/checksum. As soon as faulty data are detected by *VIPdigital*, it will interrupt the transmission and a warning will be displayed in *VIPremote*. As there are no valid preset data in *VIPdigital*, some or all presets will substituted by defaults. *VIPdigital* identifies faulty presets on the front panel display as **BYPASS** (all values off or neutral).

In this case repeat the *SAVE TO VIP* function. If errors are displayed repeatedly, check your data link in between your PC and *VIPdigital* (refer to [CONNECT VIPdigital TO THE COMPUTER](#)).

**Note:** After the transfer of a complete preset set to *VIPdigital* the first three presets are applied to the [Preset Recall buttons](#) and can thus be selected directly on the processor. Therefore it makes sense to assign universally usable standard presets which are always accessible as "Default" to the first three memory locations of a set – even without SmartCard. Of course, the [Assign Preset](#) can be used in the Enter mode to assign other presets stored in the processor to the three Preset Recall buttons – unless an access to this presets has been disabled with the [Enable Internal Presets](#) functions in the *VIPcon* software for reasons of safety.

An Assign Preset setting performed on the *VIPdigital* unit is stored in a cap-buffered RAM for approx. 24 hrs. after the unit has been switched off. After this time *VIPdigital* will return to the default setting.

### 8.3.3.4 Saving to SmartCard

Insert a SmartCard into the card slot of your *VIPdigital*.

**Note:** In case you use a new SmartCard or a SmartCard with non-valid data (e.g. data from the previous version) an error message will appear on the *VIPdigital* display: **WRONG CARD** or **FAULTY CARD**. In this case, you cannot read data from, but you can save data to SmartCard.

Click on the [SAVE TO SMARTCARD](#) button.

Saving presets to a SmartCard will take some time. The progress of the write process is displayed by a red bar in the upper window section.

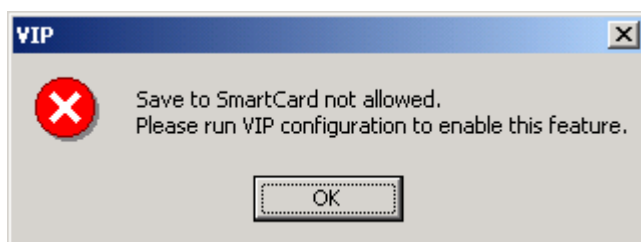
Preset saving is controlled by transfer protocol/checksum. As soon as a faulty transmission is detected, transmission will be interrupted and a warning will be displayed in *VIPremote*.

In this case repeat the [SAVE TO SMARTCARD](#) function. If errors are displayed repeatedly, check your data link in between your PC and *VIPdigital* (refer to [CONNECT VIPdigital TO THE COMPUTER](#)).

Checksum data are stored on SmartCard. In normal operation, each time a SmartCard is inserted, faulty data can be detected. In this case *VIPdigital* will substitute preset data by default values (Audio Processing modules off or neutral values) and the *VIPdigital* display will show **BYPASS**.

**Note 1:** If a SmartCard causes errors like described above, extract the SmartCard and check whether it is damaged or contaminated. If possible, adjust the SmartCard and reinsert it. If it still doesn't work, try another SmartCard on your *VIPdigital*. If this one works, you should substitute the former.

**Note 2:** *VIPcon* allows the prevention of writing data to SmartCards. If your *VIPdigital* has been configured correspondingly, the following warning window will appear:



To save your settings to a SmartCard, the Write function must be enabled in the *VIPcon* software first. Refer to [Write SmartCard](#).

### 8.3.3.5 Loading from VIP*digital*

Click on the *LOAD FROM VIP* button.

The presets stored in VIP*digital* are transferred to the VIP*remote* software on the PC. The transfer takes some time, and the progress is displayed by a red bar in the upper window section.

The presets appear in the [Internal Presets](#) list in VIP*remote*.

Preset loading is controlled by transfer protocol/checksum. When faulty data are detected by VIP*remote*, a warning will be displayed after the load process has been finished (or in case, it has been interrupted completely, after a time-out).

In this case repeat the *LOAD FROM VIP* function. If errors are displayed repeatedly, check your data link in between your PC and VIP*digital* (refer to [CONNECT VIPdigital TO THE COMPUTER](#)).

#### Automatic repair of faulty data

All preset data are loaded into VIP*remote*, but presets, which contain non-valid values are substituted by defaults (Audio Processing modules off or neutral values). These presets are renamed according to the default designations after a VIP*remote* start-up.

### 8.3.4 Setting SmartCard presets

After a restart of VIP*remote* the 3 SmartCard preset locations *A*, *B* and *C* as well as the text field below *SmartCard Holder* (on the left lower corner of the main page of the software) are empty.

First of all, name the SmartCard. For example, this may be the name of a holder who uses the card to ensure a quick identification of the SmartCard in the VIP*digital* later.

To do so, click on the field under *SmartCard Holder*. Here, a direct text entry with up to 20 characters is possible.

**Note:** When the SmartCard is inserted into the card slot of your VIP*digital* later, the display will show the name in the upper line (as well as the entry under *SmartCard Holder*) and will show the name of the active preset in the lower line.

3 presets may be saved to a SmartCard.

Activate the *SmartCard Preset A* field. The preset with the missing name ("" ) is shown in the text entry line above the Audio Processing modules.

Open the text entry line above the Audio Processing modules by clicking on the [Edit Name](#) button or by a double click directly on the text entry line. As a test, enter the name "SmartCard1" for the preset. Terminate the entry with the Return key or click on any position outside the text entry field.

Now, you may set your Audio Processing modules which are managed by the software under "SmartCard1".

You may proceed similarly when setting the preset locations *B* and *C*.

Use the Copy and Paste function as described for the Internal Presets the same way for SmartCard Presets ([Copying Parameters between Presets](#)). You can copy Internal Presets to SmartCard Presets and vice versa.

**Caution: Do not forget to save the data before exiting VIP*remote*. When the program is exited, there will be no special prompt for that. Otherwise, your settings will be lost. Refer to: [Saving to PC](#) and [Saving to SmartCard](#).**

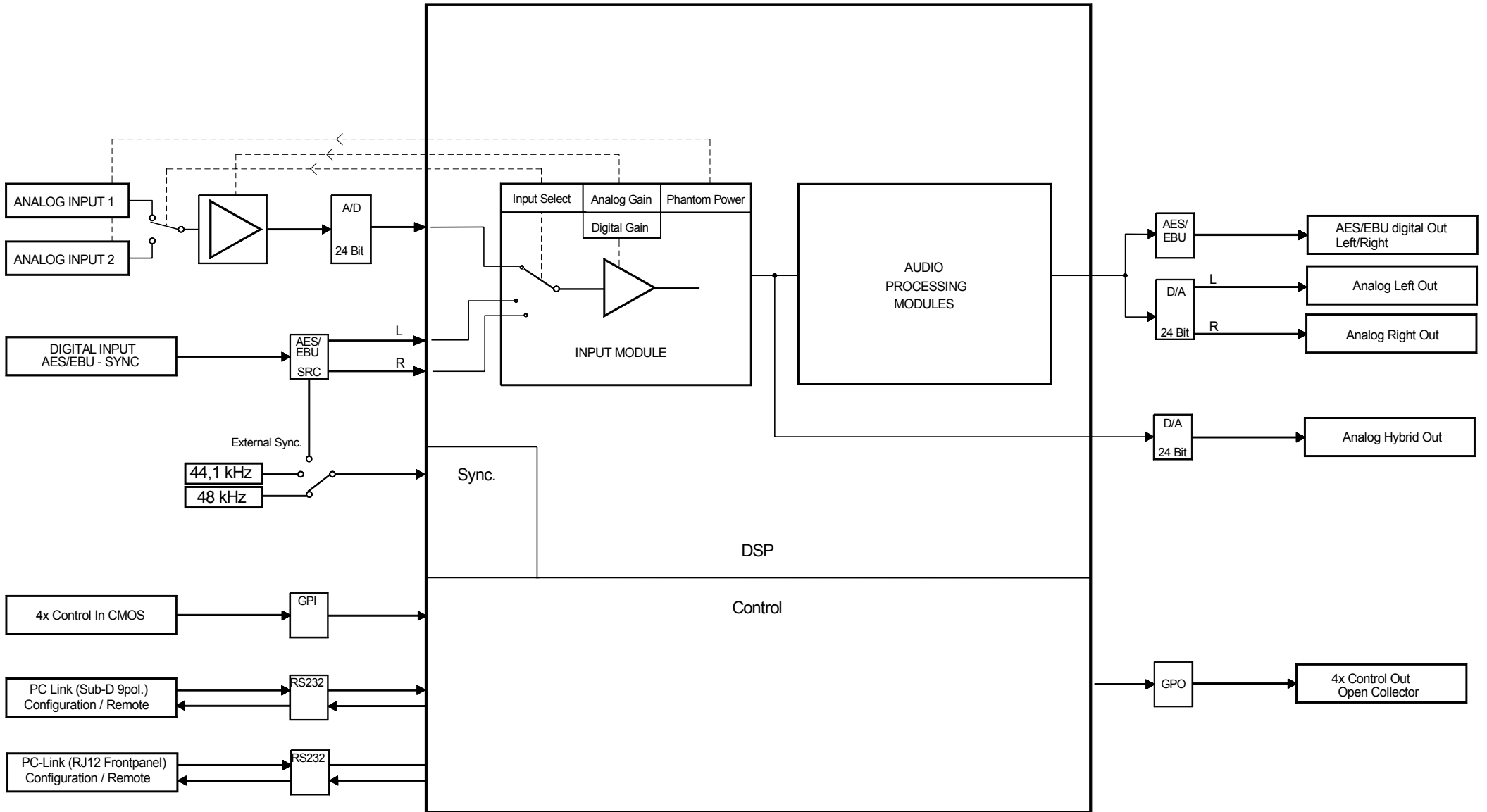
## 9 TECHNICAL DRAWINGS/DESCRIPTIONS

### 9.1 Technical Data

▶▶	<b>Analog Inputs (Two XLR Inputs) Software Configurable as 2x MIC or 2x LINE or 1x LINE + 1x MIC</b>	Selection of Input 1 or Input 2 by software toggle, 24-bit A/D, adjustable Gain 0 to 54 dB (before A/D converter), Input Impedance >6 k ohms (balanced, transformerless), 48V phantom power On/Off software switch selectable
▶▶	<b>Digital LINE Input</b>	AES/EBU, Left/Right, software switch selectable
▶▶	<b>Input Headroom</b>	+15 dBu (= 0 dBFS)
▶▶	<b>Input Reference Level</b>	+4 dbu refers to -11 dBFS in the digital domain
▶▶	<b>Common Mode Rejection</b>	-65 dB (60 dB gain @ 50Hz - 20 kHz, 150 ohms source impedance)
▶▶	<b>Digital Line Output</b>	AES/EBU
▶▶	<b>Analog Line Output</b>	24-bit D/A, max. Level +15 dBu, Output impedance <50 ohms, balanced, transformerless
▶▶	<b>Telephone Hybrid Output</b>	Mono Post Preamp (clean feed), 24-bit D/A, max. level +15 dBu, Output impedance <50 ohms, balanced, transformerless
▶▶	<b>Sync Input</b>	AES/EBU audio or empty frame
▶▶	<b>Sampling Rate</b>	44,1 kHz / 48 kHz or external sync
▶▶	<b>SmartCard</b>	ISO 4488, 8 kByte
▶▶	<b>Serial Link for Configuration Software</b>	RS232 via DB9 connector on back panel, additional port with RJ12 connector on front panel
▶▶	<b>Power Requirements</b>	90-260 Volts AC, 50/60 Hz, typical < 20 Watts
▶▶	<b>Weight</b>	3.9 kg (8.6 lbs)

Information about Control Ports Out/In (GPO/GPI) you find in Chapter Unit description/Backpanel/Remote Control [Technical data Control-Out/In \(GPO/GPI\)](#)

# Yellowtec VIPdigital



## 9.3 Pin Out Table

### Frontpanel

RJ12	RS232	
1	n/c	PC-Link
2	RX	
3	TX	
4	n/c	
5	GND	
6	n/c	

### Backplane

Con 1	RS 232	
Pin	Signal	
1	n/c	PC-Link
2	RX	
3	TX	
4	n/c	
5	GND	
6	n/c	
7	n/c	
8	n/c	
9	n/c	
Chassis	GND	

Con 2	CONTROL IN/OUT (GPI/GPO)	
Pin	Signal	
1	CMOS 1	In 1
2	CMOS 2	In 2
3	CMOS 3	In 3
4	CMOS 4	In 4
5	Open Collector 1	Out 1
6	Open Collector 2	Out 2
7	Open Collector 3	Out 3
8	Open Collector 4	Out 4
9	GND	Ground
10	n/c	
11	GND	Ground
12	V +12V	For Test Only
13	GND	Ground
14	Vcc +5V	For Test Only
15	GND	Ground
Chassis	GND	

Con 3	ANALOG-IN 1	
1	GND	In 1 / XLR3fem
2	IN +	
3	IN -	
Chassis	GND	

Con 4	ANALOG-IN 2	
1	GND	In 2 / XLR3fem
2	IN +	
3	IN -	
Chassis	GND	

Con 5	ANALOG LEFT-OUT	
1	GND	Out Left / XLR3male
2	OUT +	
3	OUT -	
Chassis	GND	

Con 6	ANALOG RIGHT-OUT	
1	GND	Out Right / XLR3male
2	OUT +	
3	OUT -	
Chassis	GND	

Con 7	ANALOG HYBRID-OUT	
1	GND	Out Hybrid / XLR3male
2	OUT +	
3	OUT -	
Chassis	GND	

Con 8	DIGITAL AES/EBU-SYNC IN	
1	GND	In AES/EBU / XLR3female
2	IN +	
3	IN -	
Chassis	GND	

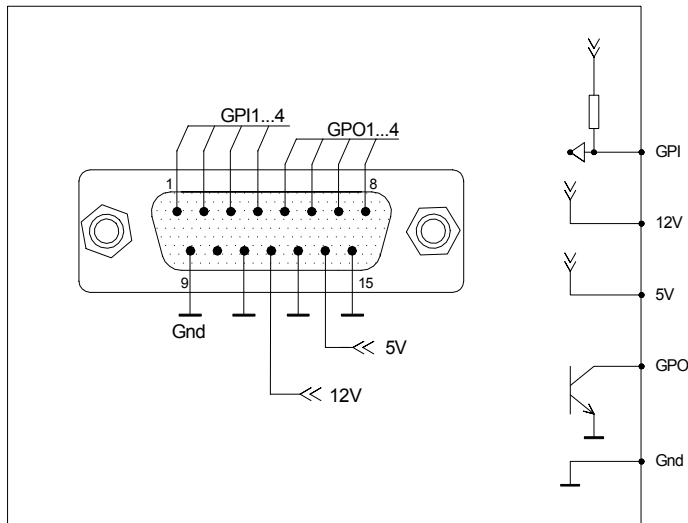
Con 9	DIGITAL AES/EBU OUT	
1	GND	Out AES/EBU / XLR3male
2	OUT +	
3	OUT -	
Chassis	GND	

## IMPORTANT

Before using the control ports specified in this drawing, read the associated chapters in the user manual. Improper use may lead to damage of your VIPdigital and/or the equipment connected to the GPIs/GPOs.

All examples imply the connection of external voltages: e.g. 5V, 12V or 24V or 0V (Ground). Provided that you consider the restrictions described in the user manual, you may as well use the auxiliary voltages or the Ground Pin of your VIPdigital.

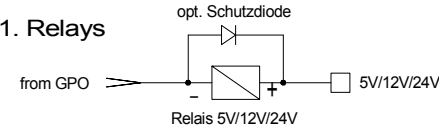
Control Input Ports: GPI 1...4  
Control Output Ports: GPO 1...4



Diese Zeichnung ist unser Eigentum. Jede Vervielfältigung oder Mitteilung ist strafbar und kann gerichtlich verfolgt werden. (Urheberrechtsgesetz, Gesetz gegen unlauteren Wettbewerb, BGB) Technische Änderungen vorbehalten.

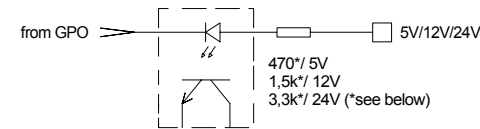
## Examples for GPO - Connections

### 1. Relays



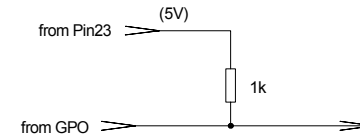
GPO active: Relais triggered

### 2. Optocouplers



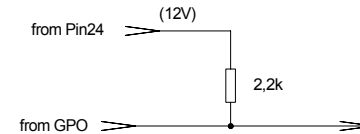
GPO active: Optocoupler triggered

### 3. TTL - Logic



GPO active: <1V  
GPO not active: >2V

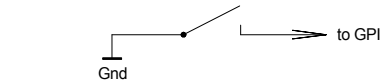
### 4. CMOS - Logic



GPO active: <1V  
GPO not active: >3,5V

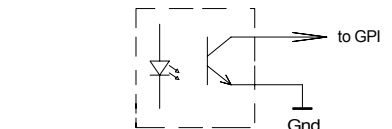
## Examples for GPI - Connections

### 1. Switches/Relays



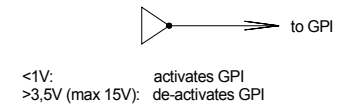
Switch on: activates GPI

### 2. Optocouplers



Optocoupler triggered: activates GPI

### 3. External Logic



<1V: activates GPI  
>3,5V (max 15V): de-activates GPI

\*The resistor-values are suitable for commonly used optocouplers. It is essential to check whether they match for the type you are using.

**THUM+MAHR**

Heinrich Hertz Str. 1-3  
D-40789 Monheim  
Tel.: 02173 / 9673-0

Connection of VIPdigital GPI and GPO

YELLOWTEC - VIPdigital

Datei: VIPd\_GPIO\_en 8

## 10 UPDATING VIP*digital* to 4.0

### 10.1 Prior to beginning

If there is a previous version of the VIP*digital* Software installed on your PC, please perform the following steps before updating the software:

- Save your configuration files (\*.DVP) and your preset files in (a) separate folder(s)
- Delete or relocate short cuts which belong to the older version(s) of the VIP*digital* software
- If there are configurations or presets stored in your VIP*digital* which have not yet been saved as files on your PC, you should do this now, prior to the update! ([LOAD FROM VIP](#))

### 10.2 Installing the new Software

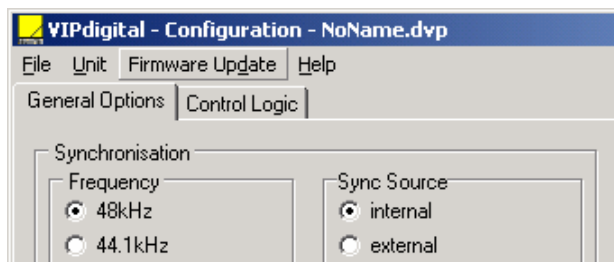
Refer to Chapter [SOFTWARE INSTALLATION](#)

### 10.3 Connect VIP*digital* to the Computer

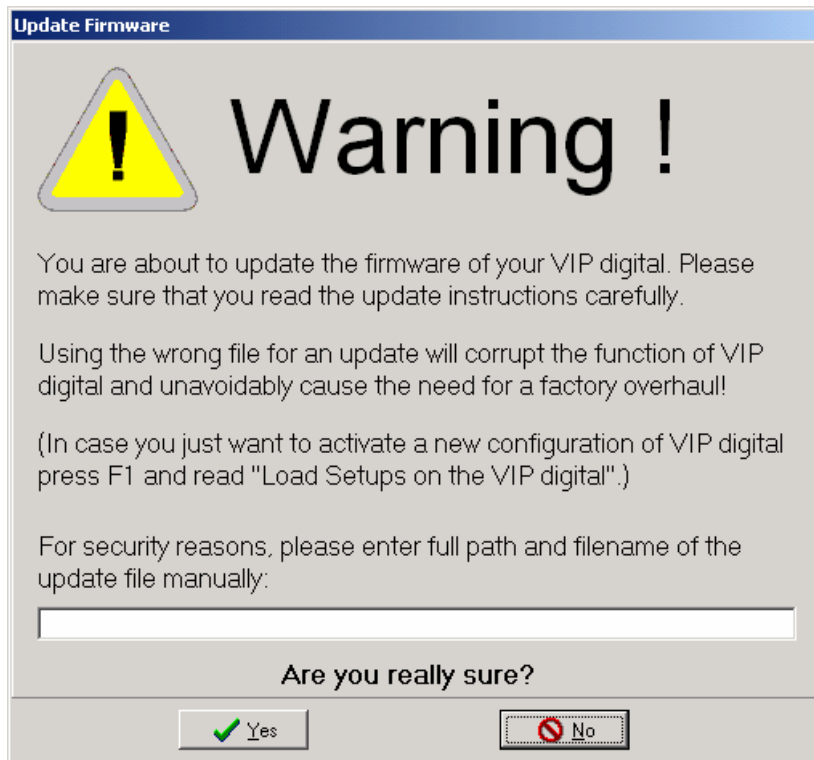
Refer to Chapter [CONNECT VIP\*digital\* TO THE COMPUTER](#)

### 10.4 Performing the firmware Update

1. Start VIP*remote*
2. Click on [LOAD FROM VIP](#). Warning appears: VIP contains no error detection checkworks
3. Click on [OK](#). Preset data are loaded into VIP*remote*. Presets are updated to the 100-preset format and provided with error detection checkworks
4. Click on [SAVE TO VIP](#). The Internal Preset file in the 4.0 format will be saved to your VIP*digital*
5. Exit VIP*remote*
6. Start VIP*con*
7. Select [LOAD FROM UNIT](#) from the [UNIT](#) menu. Current configuration is loaded from your VIP*digital* into VIP*con*
8. Select [FIRMWARE UPDATE](#)



9. The following warning window appears on the PC screen:



**Note:** A transmission of unsuitable or faulty data or interruptions during the data transmission to the base unit may corrupt the function of VIP *digital* permanently. In this case the unit can only be commissioned by the manufacturer.

Enter the [file name](#) (see below) of the new firmware to be transferred into the text line, e.g. *VIPfirmw401.vup* (this designation is an example only).

If the firmware is in the same folder as the active configuration software, the entry of the file name will suffice. If the firmware is not in the same folder as the active configuration software, enter the complete path, e.g.. *C:\Program Files\Yellowtec\VIPdigital\VIPfirmw401.vup* (an example only)

Click on the [YES](#) button if you are sure that your entries are correct.

The progress of transmission is displayed in a Processing window. Never interrupt this process. After successful transmission both Processing window and Update window close automatically.

10. Select SAVE TO UNIT from the UNIT menu. The current configuration is saved to VIP *digital* under control of the updated firmware.
11. Exit *VIPcon*



## 10.5 Updating Preset Files

When loading preset data from the previous version into VIPremote 4.0 a warning window appears (see on the right).

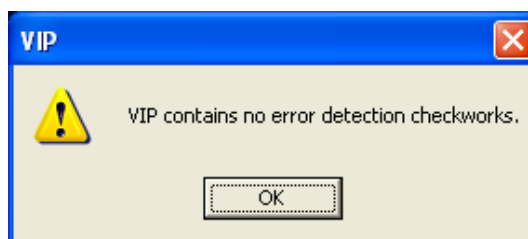
Click **OK**.

The existing presets are assigned to numbers 1-50. Another 50 presets with default names and values are appended with numbers 51-100.

Preset files in the \*.VIP format are automatically converted to the 4.0 format when **SAVE TO VIP** or **SAVE TO PC** are performed.

**Note:** Internal Preset data without error detection checkworks stored in a VIPdigital unit with firmware version 4.0 are detected as faulty data. VIPdigital substitutes all preset data with default values (Audio Processing modules off or neutral values) and the display shows **BYPASS**.

This can only happen, if the items 1.-5. of the updating procedure ([Performing the firmware Update](#), previous section) has been left out.



## 10.6 Updating SmartCards

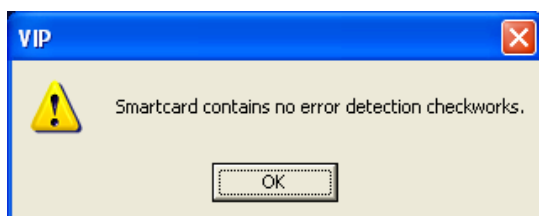
**Note 1:** Saving data to or loading data from SmartCard can be disabled in the configuration of your VIPdigital. Make sure, that these options are not selected in your VIPdigital configuration.

**Note 2:** Inserting a SmartCard with preset data from the previous version are detected as non-valid data and cause an error message on the VIPdigital display: **WRONG CARD** or **FAULTY CARD**.

After an update to version 4.0 VIPdigital does not accept SmartCards from the previous version, but you can load them into VIPremote and convert them to the new format.

### Converting procedure

1. Connect your VIPdigital to your PC
2. Start VIPremote
3. Insert your SmartCard into your VIPdigital
4. Click on **LOAD FROM VIP**. Internal Preset data and SmartCard data are loaded into VIPremote.
5. After the SmartCard data have been loaded, a warning window appears. Click on **OK**



6. Click on **SAVE TO SMARTCARD**. SmartCard data are converted automatically, provided with error detection checkworks and saved back to the SmartCard.

**Note 3:** You cannot use a SmartCard with preset data in the 4.0 format in VIPdigital with a former firmware version.

## 10.7 Compatibility

### 10.7.1 Configuration files

VIPcon configuration files of the previous version are basically compatible to the current version. But always check the settings of functions or values, that were not available in the previous version. In doubt you should create a new configuration based on the default values after VIPcon start-up.

### 10.7.2 Preset files

Preset files of version 3.0 have to be converted to the current version. You can perform this when updating your VIPdigital, but also at a later date. Existing presets are not "lost".

After an update, we recommend to check the settings of the AGC Audio Processing module in those presets where it is activated. Although the values are being converted, you should consider differences in sound. In addition, by optimizing the settings you will benefit from the improved functionality.

Preset files are not compatible to former versions.

## 10.8 Checking version numbers

We recommend to check version numbers after an update or as a part of troubleshooting. Be aware that values are only refreshed during the start-up of a program. To make sure to get the appropriate information about the current firmware of your VIPdigital after a firmware update, exit the applications and start them again.

VIPcon

Select **ABOUT** from the menu **HELP**, refer to [Menu: Help](#)

VIPremote

Click on the **INFO** button (upper right-hand area of the program window), refer to [Info window](#)

## 11 TROUBLESHOOTING

This chapter will be updated as required.

- Please note the information on our website <http://www.yellowtec.com/>
- If malfunctions are detected on your unit, please check the version numbers of the software and firmware first. The remote software, the configuration software and the firmware must be suited to each other. Refer to the chapter [Updating VIPdigital to 4.0](#) for the required information.
- Refer to the chapter Prior to Beginning / Manual Conventions for information on the online manual. During the installation the manual (Adobe Acrobat file with the identification [VIPd\\_manual.pdf](#)) is stored in the installation folder or the program folder. It is started by use of the help call ([HELP](#)) of the VIP programs.  
IMPORTANT: Do not rename this file and do not move it to another location.

## 12 MISCELLANEOUS

### 12.1 Warranty

#### Limited Warranty Duration

The duration of limited warranty for YELLOWTEC VIP*digital* is one year according to the terms and conditions of warranty of the manufacturer (see Notice Of Warranty).

#### Notice of Warranty

**The terms and conditions of the Warranty applying to the Product accompanying this Notice of Warranty are found exclusively in the Notice of Warranty. To the extent there is any inconsistency of conflict between the terms and conditions of the Notice of Warranty and the terms and conditions found anywhere else, including the Manual accompanying this Product, the terms and conditions of this Notice of Warranty are superseding and control.**

This Warranty covers „the Products“, which are defined as the various audio equipment, parts, software and accessories manufactured, sold and/or distributed by Thum + Mahr GmbH (hereinafter „T+M“).

With the exception of software-only items, the Products are warranted to be free from defects in material and workmanship for a period of one year from the date of receipt by the end-user. Software-only items are warranted to be free from defects in material and workmanship for a period of 90 days from the date of receipt by the end-user. The terms and conditions of T+M's warranty in effect at the time of shipment shall apply. In order to invoke this Warranty, notice of a warranty claim must be received by T+M within the above-stated warranty period and warranty coverage must be authorized by T+M. Notice of a warranty claim may be made orally by telephoning (++49-2173-967300) or in writing sent by facsimile (++49-2173-967400) to or by e-mail (support@yellowtec.com). If T+M authorizes the performance of warranty service and if T+M will be performing the warranty service, the defective Product must be delivered, shipping prepaid, to: T+M, Heinrich-Hertz-Str. 1-3, D-40789 Monheim, Germany. If T+M authorizes the performance of warranty service and if it authorizes another entity to perform that warranty service, the Product must be delivered, shipping prepaid, to that entity, whose address will be provided by T+M. T+M (or its designee) at its option will either repair or replace the Product and such action shall be the full extent of T+M's obligation, and buyer's sole remedy, under this Warranty. After the Product is repaired or replaced, T+M (or its designee) will return it to the party that sent the Product and T+M will pay for the cost of shipping. T+M will have no responsibility under this Warranty for any Products subject to: Acts of God, including (without limitation) lightning; improper installation or misuse, including (without limitation) the failure to use telephone and power line surge protection devices; accident; neglect or damage. T+M's dealers are not authorized to assume for T+M any additional obligations or liabilities in connection with the dealers' sale of the Products.

**EXCEPT FOR THE ABOVE-STATED WARRANTY, T+M MAKES NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE).**

**In no event will T+M, its employees, agents or authorized dealers be liable for incidental or consequential damages, or for loss, damage, or expense directly or indirectly arising from the use of any Product or the inability to use any Product either separately or in combination with other equipment or materials, or from any other cause.**

## 12.2 CE conformity declaration

EU Declaration of Conformity (EN 61000)

Product	Audio equipment for digital and analog signals (Voice Processor)
Product name	YELLOWTEC VIP <i>digital</i>
Manufacturer	THUM + MAHR GmbH Heinrich-Hertz Str. 1-3 D-40789 Monheim am Rhein Germany
Safety	EN 60950
Basic standard	EN 50081 – 1 EN 50082 – 2
Noise emission	Radio interference EN 55103-1 class B
RF Interference	EN 55103-2 class B
Immunity (EMC)	IEC 1000 – 4 – 2 IEC 1000 – 4 – 4 IEC 1000 – 4 – 5

The manufacturer declares that the unit described here is in compliance with all technical specifications mentioned and assumes operational conditions and typical equipment working environment as described in the manual.

Monheim, 30.08.2001



Peter Thum