

# AURATUS XL

**Stage Tec** Entwicklungsgesellschaft für professionelle Audiotechnik mbH

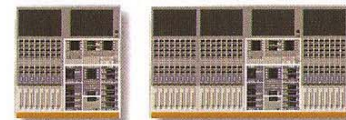
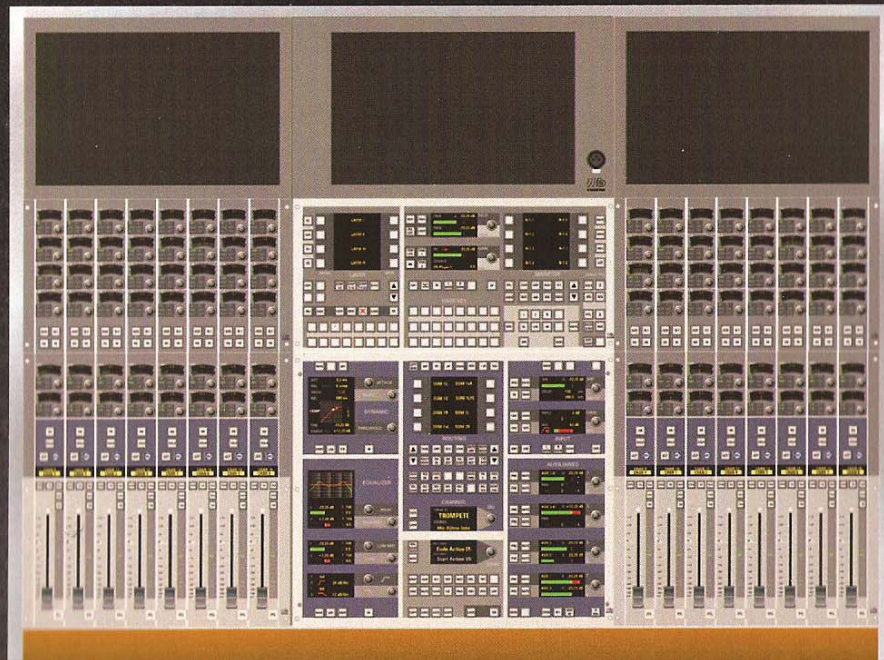
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# AURATUS

QUICK GUIDE



*This Quick Start document is part of the AURATUS owner's manual. All legal notices, precautions, operation and storage condition indications, trademark and copyright notices, etc., mentioned there therefore also apply to the present document.*



- |    |                              |    |                                   |
|----|------------------------------|----|-----------------------------------|
| 7  | Signal flow   Overall system | 39 | Auxiliaries                       |
| 15 | Signal flow   Monitoring     | 41 | Working with stereo pairs         |
| 17 | Brightness                   | 43 | Insert loops & direct outs        |
| 19 | Operation levels   Layers    | 45 | Pan                               |
| 21 | Channel selection   Select   | 47 | Fader, Mute, Solo & PFL           |
| 23 | Inputs and outputs   Routing | 49 | Solo and PFL modes                |
| 25 | Bus routing   Routing        | 51 | Screen indications & metering     |
| 27 | Input sensitivity   Gain     | 53 | Busses & bus channels             |
| 29 | NEXUS Input Parameters       | 55 | Monitoring   Selecting the source |
| 31 | Signal delay   Delay         | 57 | Monitor parameters                |
| 33 | Equalizers & Filters         | 59 | Talk & Talkback                   |
| 35 | Dynamics processing          | 61 | Control groups                    |
| 37 | Dynamics parameters          | 63 | Snapshot automation               |



*The TFT screens provide status indications for the associated audio channels.*

*The central TFT screen always displays the bus and monitor levels as well as control information.*

AURATUS

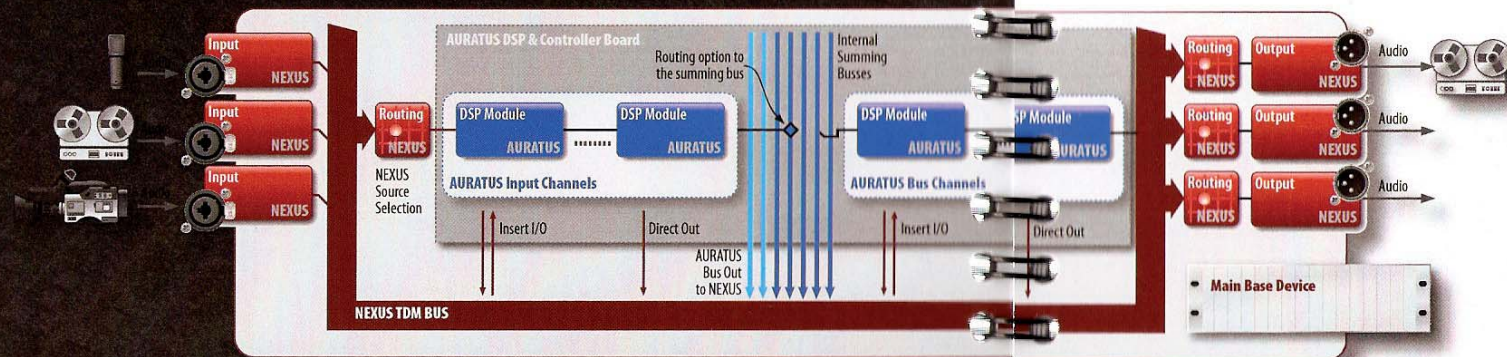
*The channel strips are divided over fader, multi-purpose and TFT modules. They can be freely assigned to the desired audio channels—even bus and summing channels.*

*The central console section comprises the monitor module with monitoring and global functions and the channel module below it, which can be assigned to the desired audio channel.*





# Signal flow | Overall system



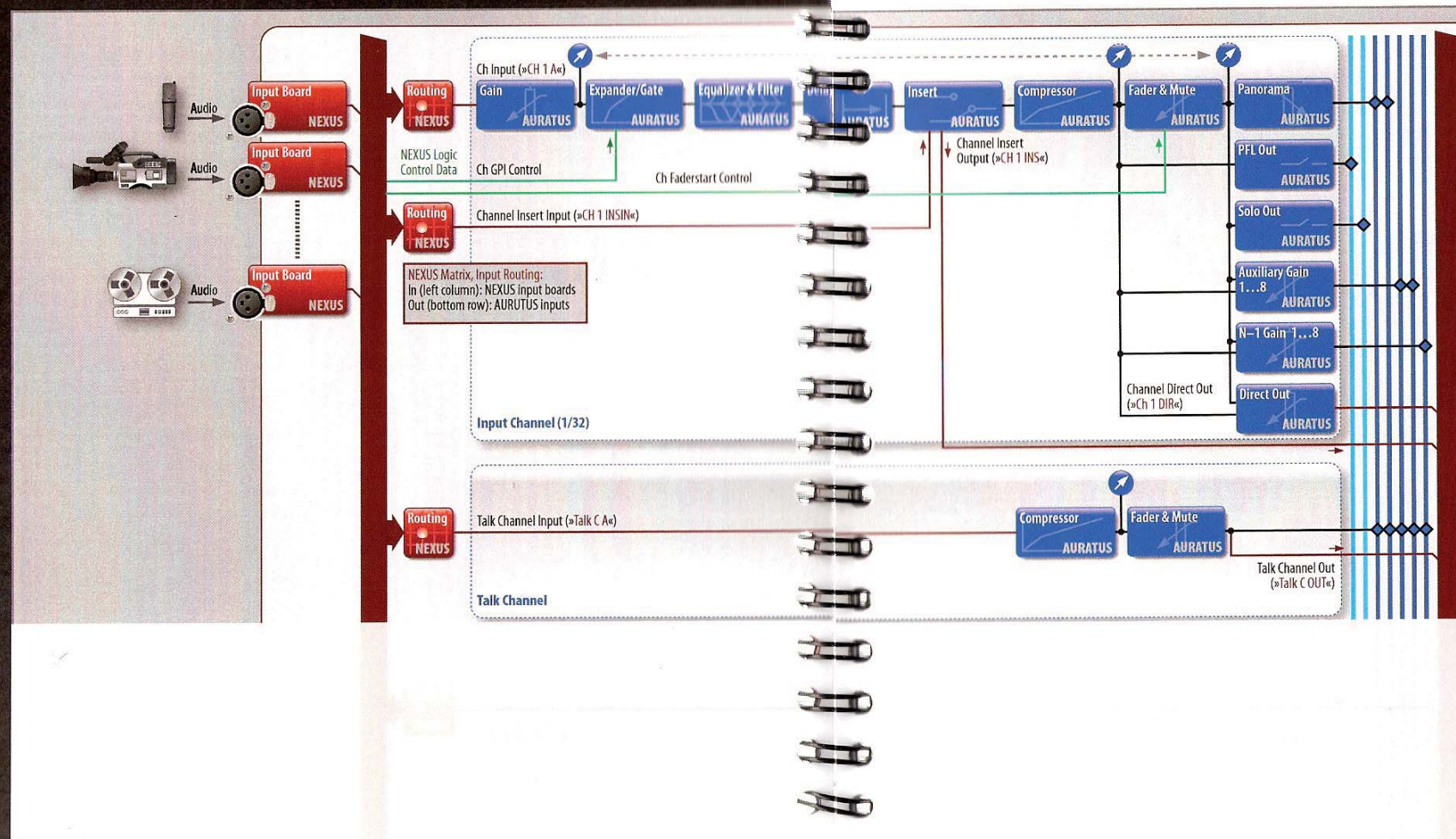
control software. The illustration shows an overall view. The NEXUS components are shown in red (both in the manuals and in all graphics), while the mixer components appear in blue. The large, red frame represents the NEXUS base station. The darker area in the middle represents the AURATUS mixing card that carries the various audio channels and the console's summing busses. The light gray frames each represent one input and one bus channel. The console and the card's required control technology are not shown here.

Additional NEXUS base stations can be used to expand the number of inputs and outputs. Base stations are linked to one another using optical cables. The latter transmit both audio and control data.

The following pages show an excerpt from the overall block diagram with all main mixer channel types and their routing options ...

AURATUS is completely dependent on NEXUS: the AURATUS controller and DSP card installed in a NEXUS base station reads the audio data available on the NEXUS bus and transmits the console's output signals to that same bus. All of the system's input and output sockets are supplied by NEXUS and can be routed to your liking using the NEXUS





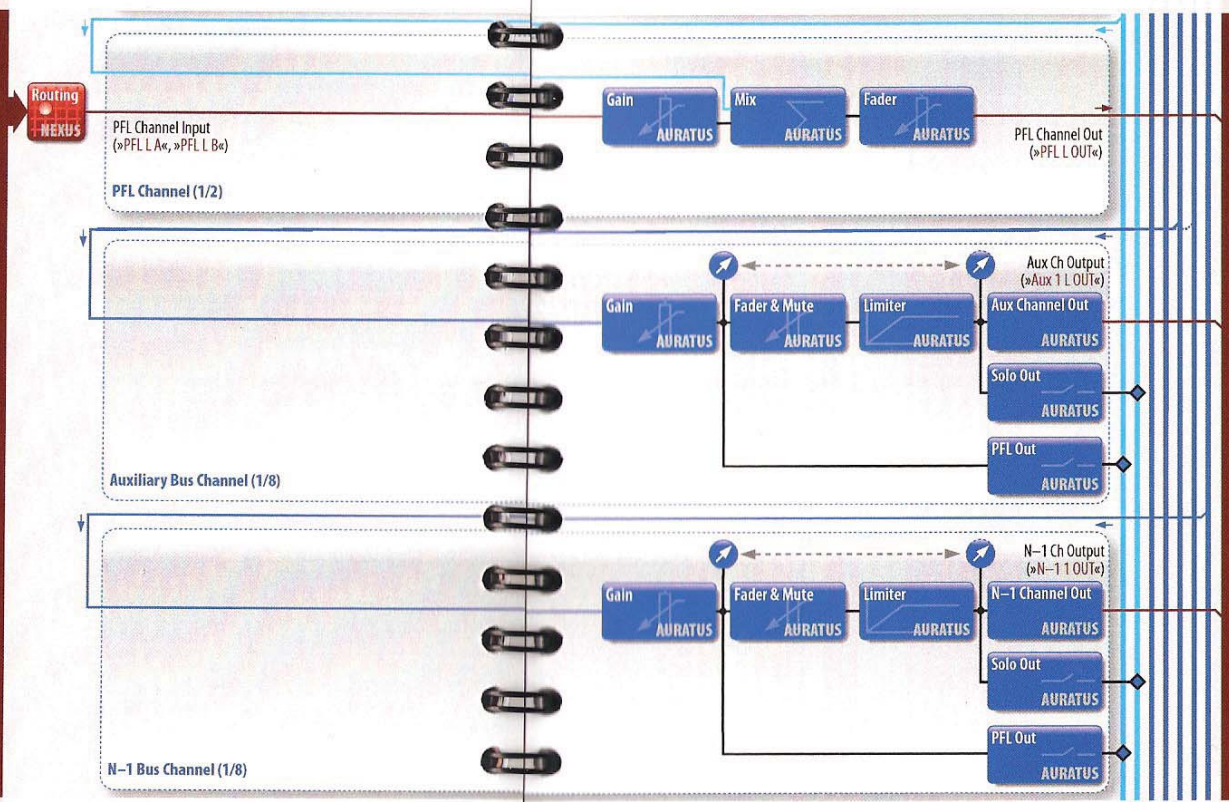
After connecting the external signal sources to the NEXUS base station, you can use the matrix windows of the NEXUS software to assign them to the desired mixer channels.

**Input channels:** These channels can be routed to summing busses, or you can route them to the desired NEXUS output.

The insert loop's input and output are also managed by NEXUS.

**Talk:** Even the Talk channel sources its signal from the NEXUS system. In most instances, this will be a microphone connected to a microphone converter. The channel's output can be routed to the mixer busses and/or one of NEXUS outputs

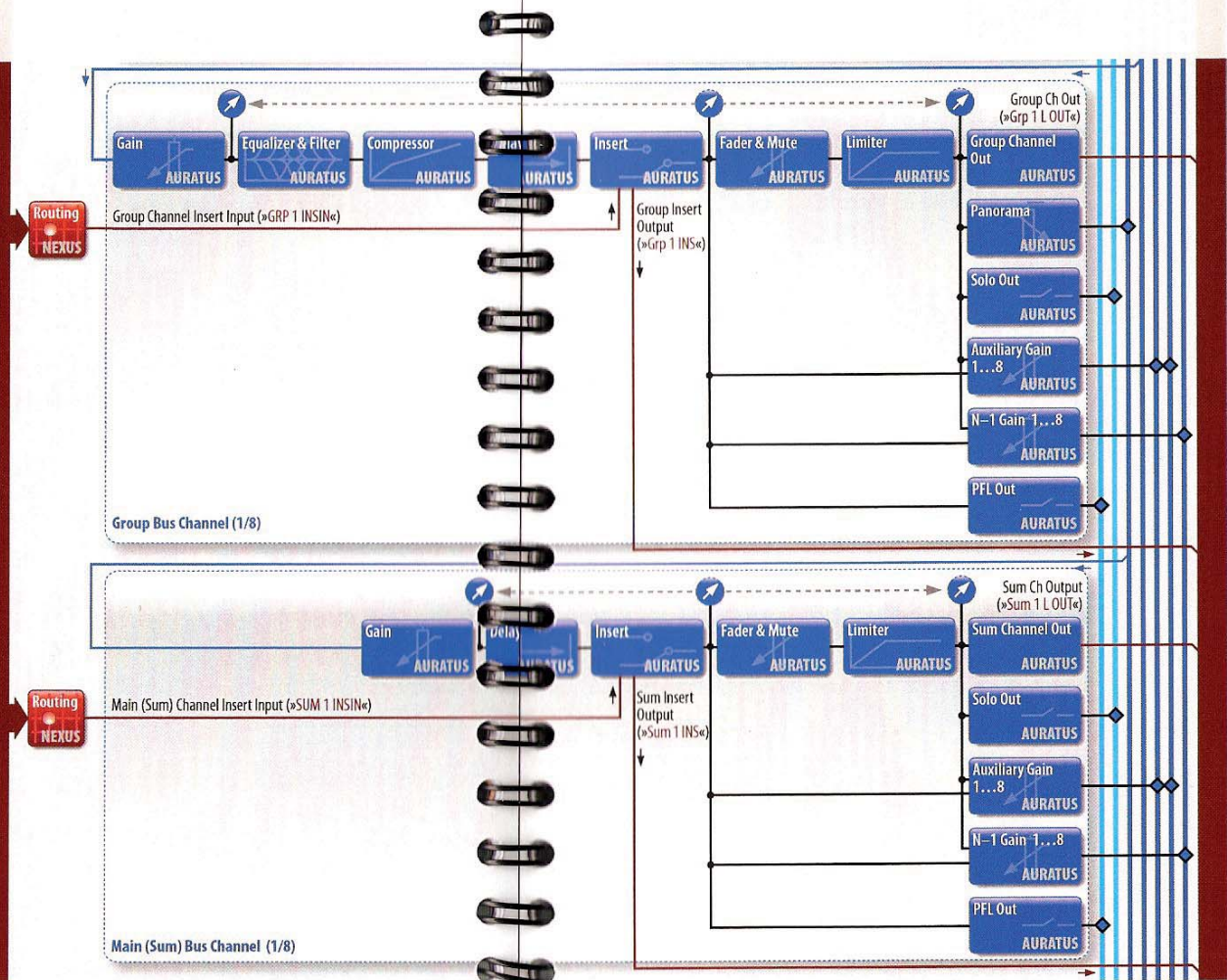




*Bus output: Its output can be selected and routed on the NEXUS system and is automatically routed to the monitor bus when PFL is pressed (this can be changed).*

*Auxiliary busses: The AUX and N-1 bus channels have a similar structure: they receive their signals from the AUX or N-1 busses. Their output signals can be transmitted to external devices via NEXUS.*

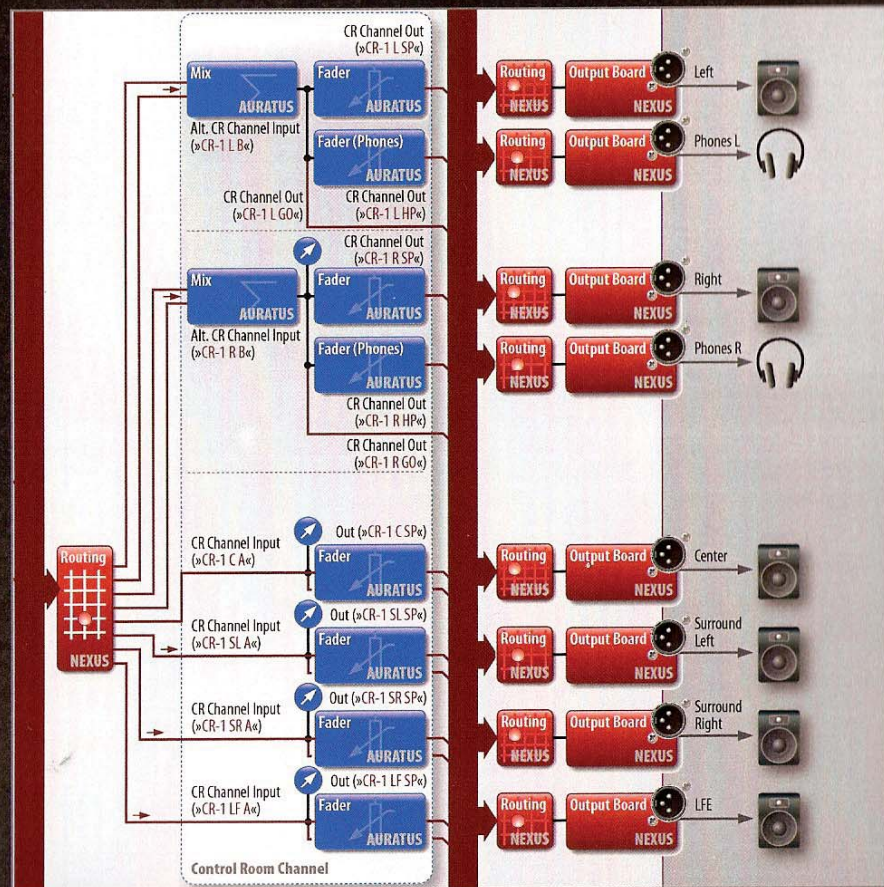




*Group busses: the group bus channels provide ample processing possibilities. They are used to combine, or pre-mix, the input channels and are connected to the group busses. The outputs of these channels can be connected to other mixing busses—like the Master bus, for instance—or directly to outputs on a base station.*

*Summing busses: the Main Channel receives its signals from the summing busses, which, in turn, source their signals from the input and/or group bus channels. Its output can feed the on-air line, the PA, power amps or the mastering machine—all via NEXUS.*

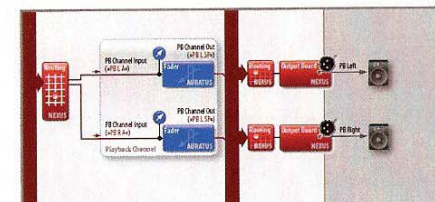




## Signal flow | Monitoring

Left: the channel is used for monitoring purposes. Its input can be routed to NEXUS or AURATUS signals simply by pressing the appropriate key. When the Solo or PFL bus function is selected, the Solo or PFL bus signals are also transmitted to the CR channel. All of the CR channel's outputs can be selected inside the NEXUS system and routed to the NEXUS outputs to which the monitor speakers or headphones are connected.

An additional stereo monitor channel ("PB Channel") can be used to monitor external signal sources.







*The brightness setting can be changed after pressing the [LIGHT] key in the monitor module's "TALK" section.*

## Brightness

*The displays' and TFT screens' brightness can be set either automatically or manually.*

### Setting the brightness

- › This setting can be made in the monitor module's "TALK" section: press the LIGHT key to assign the brightness parameters to this section.
- › Press the encoder to switch between sensor-controlled and manual brightness setting modes. When the automatic brightness setting is selected, the "AUTOLIGHT" message appears in the display.

### Manual setting

- › In manual mode, the "TALK" encoder's upper half can be used to set the brightness.
- › The lower encoder half ("TBCK") allows you to specify a brightness offset so as to adapt the TFT screens' brightness to that of the other displays.



# Operation levels | Layers

[LAYER] and [SEL] keys on regular channel strips



"LAYER" section of the channel module. The keypads to the left and right of the display allow you to select layers.



Audio channels can be assigned via the channel module's "CHANNEL" section.



Audio channels can be assigned to the console's channels strips in any way you please. To this end, the console provides several layers that can be switched and selected instantly as and when necessary.

## Switching layers

- › Use the monitor module's "LAYER" section to define a virtual "Front" (left key column) and "Back" layer (right key column).
  - › Pressing the [LAYER] key (the one with the layer graphic on a channel strip) assigns the channel strips to the "Front" or "Back" layer.
- Tip: The monitor module's [LAY] key can be used to reset individual assignments of all channels to the "Front" layer.*

## Assigning audio channels to channel strips and layers

- › Press the [EDIT] key in the monitor module's "LAYER" section.
- › Use the display/keypad section to select the desired layer.
- › Press the [SEL] key of the channel strip to which you want to assign an audio channel.
- › Now use the "SEL" encoder in the channel module's "CHANNEL" section to select an audio channel (lower encoder half: channel type; upper half: channel).





*The [SEL] keys of the regular channel strips are used to assign the desired audio channel to the channel module.*



*The encoders in the "CHANNEL" section can also be used to make assignments.*

## Channel selection | Select

*The channel module provides access to audio parameters not available on the channel strips. This module can be assigned to any audio channel, or used alongside the channel strips.*

### Using the channel module and a channel strip in parallel

› Press the [SEL] key of the desired channel strip to assign its audio channel to the channel module.

### Assignment using the fader backs

- › Activate the corresponding function by pressing the [SEL TCH] key in the channel module's "CHANNEL" section.
- › Touching a fader will assign the audio channel it controls to the channel module.
- › Press the [SEL TCH] key again to leave this mode.

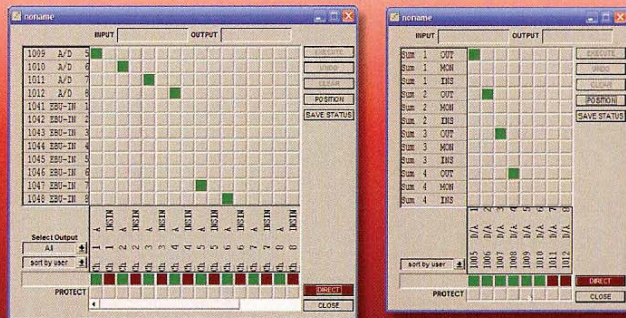
### Selecting an audio channel via the channel module

The channel module's "CHANNEL" section even allows you to select channels that have not been assigned to any channel strip.:

- › Start by selecting the channel type (input, group channels, etc.) with the lower encoder half.
- › Next, use the upper encoder half to select the desired audio channel. (This selection is activated right away. The channel whose name appears in the display is the one assigned to the module.)



# Inputs and outputs | Routing



*NEXUS inputs and outputs can be assigned to the internal mixing resources using the NEXUS operation software. You can assign NEXUS inputs to console inputs (left illustration) and console outputs to NEXUS output cards.*

*AURATUS uses the NEXUS system's inputs and outputs, which can be assigned to the desired mixing resources via the NEXUS operation software.*

## Assigning console inputs

› The console's inputs are displayed in the NEXUS matrix window (see the columns in the lower window section). NEXUS input cards (in the left part of the window) can be assigned to console inputs by establishing patch connections.

## Routing console outputs

› The same system is used to route the console's outputs to output sockets on NEXUS: in the NEXUS matrix windows, the console outputs are displayed in the left half of the window, while the NEXUS output cards appears in the lower part of the window.

## View filters

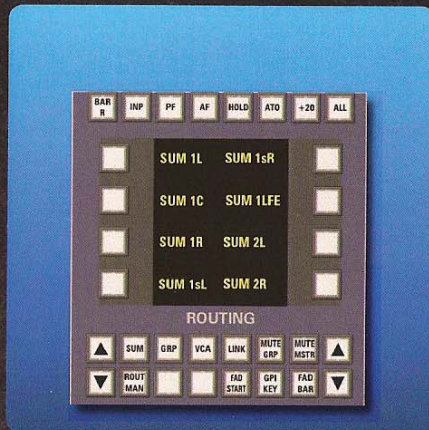
› The resources shown in the matrix windows can be restricted to certain types via the "Select Input" and "Select Output" lists.

## Internal console routings

› All routings of mixer channels to internal summing busses (groups, sums, N-1) are performed on the console itself rather than in the NEXUS matrix windows..



## Bus routing | Routing



Mixer channels can be routed to the console's internal busses via the channel module's "ROUTING" section. The arrow keys allow you to view the remaining busses. When a connection is established, the corresponding key lights.

When you activate Pan mode, the channel is always routed to several individual busses that make up a multichannel bus.



The [PAN IN] key (in the right part of the channel module's "CHANNEL" section) allows you to specify whether the channel in question should be routed directly to the desired bus or distributed over the member busses that make up a multichannel bus in accordance with the Pan setting.

Mixer channels can be routed to the desired internal summing busses using the channel module's "ROUTING" section. AUX sends are routed automatically to the corresponding busses when a channel's send level is increased.

### Routing a mixer channel to a bus

Routings are established in the channel module's "ROUTING" section. All routing settings apply to the audio channel currently assigned to the channel module:

- › Press the [GRP] or [SUM] key to specify whether the currently selected channel should be assigned to a group or summing bus.
- › Now press the keys of the desired individual busses in the display/keypad section. Keys to whose busses the channel is assigned light.

### Pan mode

The explanation above assumes that the channel is routed directly to one or several busses, bypassing the Pan setting. When you activate Pan mode, the channel is always routed to several member busses that make up a multichannel bus. (The multichannel formats are fixed for each bus type.) The level of the channel signal transmitted to the various member busses depends on the Pan setting.

- › To switch between these two modes—direct routing or Pan-controlled routing—press the [PAN IN] key in the channel module's "CHANNEL" section. This setting can be made for each channel individually.





*The console's internal gain as well as the gain parameters of connected microphone converters can be set using the channel strips' "GAIN" encoders.*



*The channel module's "INPUT" section also provides access to the gain functions. This section furthermore allows you to set additional AURATUS and NEXUS input parameters.*

## Input sensitivity | Gain

*The input channels' input sensitivity (gain) can be set for each channel separately. As this gain or attenuation is computed by the audio processor, this gain control is available for any signal received via any input socket on the NEXUS station. The only exception in this respect is the gain control on microphone inputs, which is assigned to a separate encoder that controls the assigned NEXUS A/D converter.*

### Setting the gain via the channel strips

› Each channel strip is fitted with a "GAIN" encoder. The upper encoder half allows you to boost or attenuate the mixer channel's input gain, while the lower half is used to control the head amp inside the NEXUS base station (if available).

### Setting the gain via the channel module

› The channel module's "INPUT" section is assigned to the selected channel's input parameters: the "GAIN" encoder (upper half) is used to set the mixer channel's input sensitivity, while the "MIC" encoder half controls the microphone converter.

### Phase shifting

› The [180°] key allows you to shift the signal phase. This phase shift is performed by the mixer channel and can therefore be applied to any source.

### Selecting the source

› In the case of stereo channel pairs, both stereo partners can be assigned to the left source by pressing the [L BOTH] key, or to the right source by pressing the [R BOTH] key. The [SWAP] key allows you to swap sources.





*The keys in the channel module's "INPUT" section can be used to control certain NEXUS input parameters from the console.*

## NEXUS Input Parameters

*Some parameters of NEXUS input cards that have been assigned to mixer channels can be controlled from the channel module's "INPUT" section. The setting ranges depend on the card type and the available parameters.*

### Controlling the low-cut filter

- › The high-pass filters built into the XMD and XMC microphone converters inside NEXUS can be controlled from the channel module's "INPUT" section. Press the encoder, then use its lower half to set the filter's cut-off frequency.
- › Pressing the [CUT] key activates the filter.

### Activating phantom power

- › Phantom power for microphones connected to an XMD, XMC or XER-M card can be switched with the [48V] key.

### Activating sample rate converters

- › The sampling rate converters provided by digital NEXUS cards can be activated using the [SRC] key.

### Routing the oscillator

- › Use the [GEN] key to assign the global NEXUS signal generator to the NEXUS input that feeds the desired channel. (The generator's waveform, frequency and level need to be set via the NEXUS operation software.)





*The signal delay for a given audio channel can be set with the "DELAY" controls in the channel module's "INPUT" section.*

## Signal delay | Delay

*All input, group and summing channels provide a delay processor. The processor's settings can be displayed in milliseconds, frames or meters.*

### Setting the delay time

The signal delay parameter can only be set from the central channel module's "INPUT" > "DELAY" section:

- › Press the [IN] key to switch on the delay processor for the channel in question.
- › The "DELAY" encoder (lower half) allows you to set the delay time.
- › If necessary, press the encoder to change the display format (units).





When the [EQ] key is activated, the equalizer can be set using the channel strip's four concentric encoders.



The channel module's "EQUALIZER" section is fitted with detailed displays. It also allows you to adjust the high- and low-pass filters. The [LIN] key can be used to reset the current setting. The [MEM] function allows you to switch to alternate EQ settings simply by pressing this key.

## Equalizers & Filters

All input and group channels are fitted with a four-band parametric equalizer. Each filter band has a frequency, gain (boost/cut) and "Q" (bandwidth/quality) parameter. Moreover, all channels contain an adjustable high-pass (Low-Cut) and low-pass filter (Hi-Cut) with an adjustable slope.

### Setting the EQ using the channel strip controls

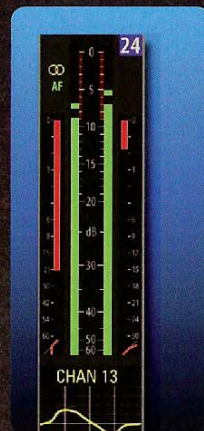
- › Pressing the [IN] key activates the equalizer.
- › Press the desired channel strip's [EQ] key to assign the four concentric encoders to the channel's equalizer.
- › Each concentric encoder controls one frequency band: the upper encoder halves allow you to cut or boost the selected frequency, while the lower halves are used to set the center frequency. After pressing an encoder, its lower half can be used to set the "Q" value. (Note: The high- and low-pass filters can only be adjusted from the channel module.)
- › The resulting amplitude curve is displayed on the TFT screen.

### Setting the EQ from the channel module

The channel module's "EQUALIZER" section allows you to set the selected channel's equalizer as well as its high- and low-pass filters.

- › The four topmost encoders are assigned to the equalizer bands, while the two remaining encoders control the high-pass and the low-pass filters respectively.
- › The equalizer encoders work the same as their namesakes on a channel strip (see above).
- › The frequency of the high- or low-pass filter can be adjusted using the upper encoder half. The slope can be set with the lower encoder half.





The bars to the left and right of the channel meters show the gain reduction induced by the dynamics processors (expander or compressor).



The channel module's "DYNAMIC" section can also be used to set the selected channel's dynamics processors. Remember to press the [COMP], [LIM] or [E/G] key before using the encoders for setting changes.

## Dynamics processing

All AURATUS input channels are fitted with dynamics processors. These dynamics processors can be set individually and are located in different places along the signal path. The bus channels are fitted with limiters that control the dynamic range of the output signals.

### Adjusting the dynamics processors

These parameters can only be adjusted from the central channel module's "DYNAMIC" section:

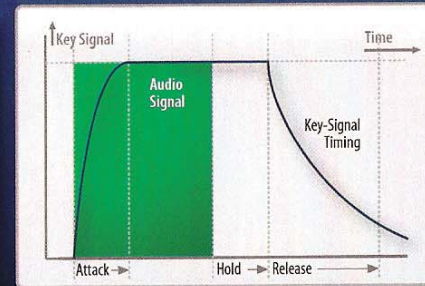
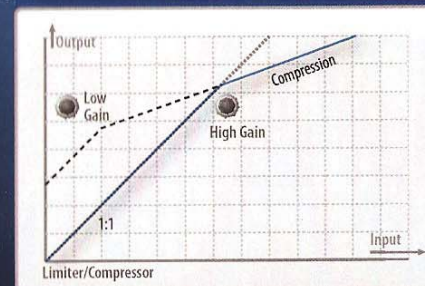
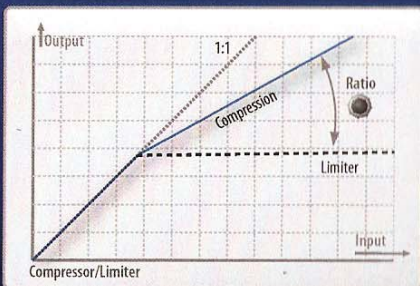
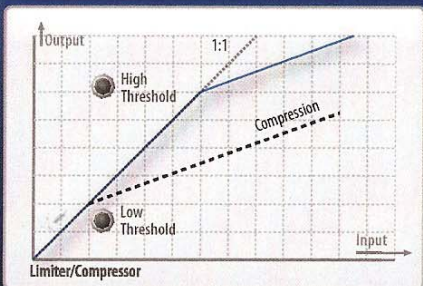
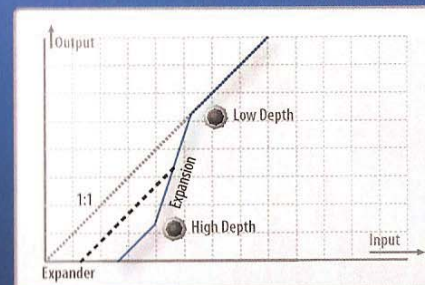
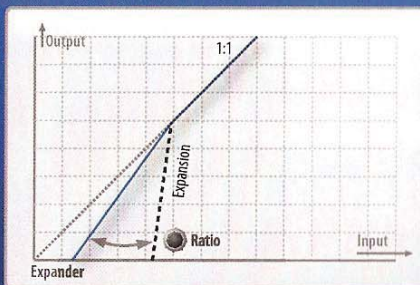
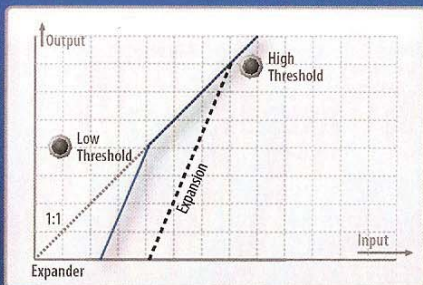
- › This section can be used to control the compressor, the expander or the (summing) limiter. You therefore need to press the [COMP], [E/G] or [LIM] key to select the processor you want to adjust.
- › Pressing the [IN] key inserts the dynamics processor into the signal path.
- › The "ATTACK" encoder (upper half) allows you to adjust the attack time, while the lower encoder half is used to set the delay value.
- › The compression ratio can be set with the "RATIO" encoder (upper half). The release time is adjusted with the lower encoder half.
- › The level at which the dynamics processor kicks in can be set using the "THRESHOLD" encoder (upper half). The lower encoder half allows you to set the dynamics processor's output gain (called "Range"). After pressing the encoder, the lower half allows you to set the compressor's or limiter's "Reference Gain". In the case of an expander, this alternate function is assigned to the "Depth" parameter.





The illustrations below show what the various dynamics parameters do.

# Dynamics parameters



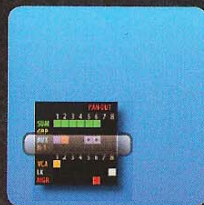
Function of the Threshold parameter in the case of an expander (above) or limiter/compressor (below)

Ratio parameter for an expander/gate (above) or limiter/compressor (below)

Depth parameter for an expander/gate (above), and Reference Gain parameter for a limiter/compressor (below)

Changes over time can be adjusted using the Attack, Hold and Release parameters.





When the [AUX] key is activated, the AUX Send levels can be set using the channel strip's concentric encoders. As an encoder is turned towards the right, the TFT screen displays a field that informs you that the associated routing has been established.

The channel module's "AUXILIARIES" section provides intuitive access to the AUX Sends. This section is also used to control the N-1 Sends, the downmix channel and the AUX busses.



## Auxiliaries

The AURATUS mixing system provides eight full-time AUX busses. Dedicated encoders allow you to set the send levels of all required input, bus and summing channels for the signals transmitted to these busses. AUX Sends 1~4 are configured as stereo pairs, while AUX Sends 5~8 are single-channel.

### Routing channel signals to the AUX bus

When the [AUX] key is active, four encoders can be used to set AUX Send levels:

- › The topmost concentric encoders allow you to set the send levels to the stereo AUX busses (1/2 and 3/4). The upper encoder halves are used to set the (stereo) Send level, while the lower halves are assigned to the Pan parameter.
- › Busses 5~8 are monaural. The assigned encoders allow you to set the Send levels (upper halves: AUX Gain 5 or 7; lower halves: AUX Gain 6 or 8).

### Setting the AUX levels via the channel module

- › The channel module can also be used to set the AUX Send levels for the selected channel. The [SEND], [N-1] and [D MIX] keys must be off when you need to adjust the AUX Send levels!
- › The encoder assignments are the same as on the various channel strips.
- › Press the [MUTE] key to switch off the corresponding Send signal. (For stereo pairs, this key affects both channels.)
- › The source position inside the selected channel (Pre or Post fader) can be selected with the [PRE] key. (If the [PRE] key lights, the Send signal is sourced before the fader.)



To pair two adjacent\* channels, press the [STER] key in the channel module's "CHANNEL" section.



## Working with stereo pairs

*Adjacent channels can be combined to stereo pairs, in which case setting changes performed for one channel are automatically reflected by the other. This functionality has the additional advantage that you can assign just one channel of a stereo pair to a channel strip on one layer and the other to a different layer—or no channel strip at all.*

### Linking channels

Adjacent\* channels can be linked to stereo pairs from the central channel module's "CHANNEL" section:

- › Assign the channel module to one of the desired channels.
- › Press the [STER] key in the "CHANNEL" section.

All settings of the currently selected channel are copied to the partner channel, and all function groups (including the control signals and dynamics processors) are linked to each other. Subsequent adjustments therefore affect both channels of the pair in question.

### Temporarily defeating channel pairing

Even after pairing two channels, you can still adjust the parameters of only one member channel. (This only works if both channels are currently assigned to physical channel strips.)

- › Touch the control assigned to the parameter you want to adjust on BOTH channel strips while changing the setting on the channel strip of the channel you need to adjust.
- › When you release these controls, the pairing function is reinstated. (As this function relies on the encoders' touch sensitivity, it is only available for parameters that can be adjusted using encoders.)

*\* Adjacent channels: The STER function always affects numeric audio channel pairs (1/2, 3/4, etc.). Consequently, if you select audio channel 4 and then press the [STER] key, the pair will include channels 3 and 4. Selecting channel 3 and activating the pairing function has the same effect.*





Pressing the [INS IN] key activates the insert loop.

The "DIR" keys in the channel module's "INPUT" section allow you to control the direct out functionality.



## Insert loops & direct outs

All input, group and summing channels provide an insertion loop whose input and output can be accessed via the NEXUS system.

All input channels also provide a direct out path, allowing you to transmit their signals directly to external devices. These direct outs are also displayed as NEXUS resources in the matrix windows.

### Activating insert loops

› Pressing the [INS IN] key in the channel module's "CHANNEL" section allows you to activate the insert loop (and divert the channel signal), in which case the key lights.

*Tip:* Even while this key is switched off, the channel's signal is still transmitted to the insert loop's output, which can therefore be used as alternate direct output.

### Using the direct outs

The direct out functionality can be controlled from the channel module's "INPUT" section.

- › Use the "DIR" encoder (upper half) to set the level.
- › The source position (Pre or Post fader) can be selected with the [PRE] key.
- › Press the [MUTE] key to mute the direct out signal.





*Pan encoder on a channel strip. After pressing the encoder, its lower half can be used to set the LFE level.*



*The Pan control function can be activated by pressing the channel module's [PAN IN] key. Phantom center mode (only available for multichannel formats) can be activated with the [PH C] key.*

## Pan

*Audio channels can be assigned to multichannel busses either directly or via the Pan control function, in which case the Pan setting specifies the channel's level for the various bus members. AURATUS supports simultaneous use of several multichannel formats and therefore automatically computes the Pan settings for each bus type.*

### Activating Pan control

› Audio channels can be routed to the desired mixer channels (see above). Pressing the [PAN IN] key in the channel module's "CHANNEL" section inserts the Pan control into the signal path.

### Setting the Pan

The Pan parameter can only be set on the channel strips:

- › When Pan is active, the concentric "PAN" encoder specifies the degree to which the channel signal is transmitted to the various member busses. The upper encoder half allows you to set the left/right pan position, while the lower half is assigned to the front/back position. (Stereo busses ignore the front/back setting.)
- › When you press an encoder, its lower half is used to set the LFE level.

### Phantom center

- › Only for multichannel busses: The Pan setting usually affects all individual member busses. Pressing the [PH C] key in the channel module's "CHANNEL" section allows you to specify whether the center-channel signal should be transmitted to the corresponding bus or rather via the left and right front busses.



# Fader, Mute, Solo & PFL

The lower part of each channel strip contains the faders, several status indicators and the keys that control the Mute, Solo and PFL functions.

## Faders

› The motorized faders allow you to set the audio signal's levels between "Off" and "+15dB". The touch sensitive fader backs are scanned by certain functions for channel selection.

## Muting

› Pressing a [MUTE] key will switch off the assigned audio channel (this switch is located behind the fader).

## PFL FUNCTION

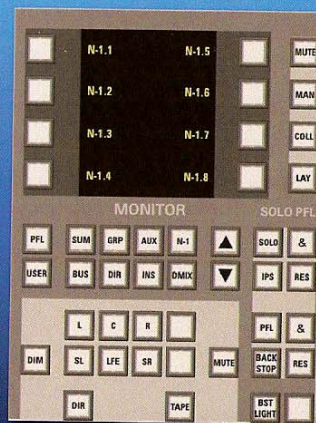
› AURATUS contains a stereo PFL bus to which you can assign the audio signals of all required channels by pressing the required [PFL] keys. The PFL bus signal can be transmitted to the main monitor bus and/or to NEXUS outputs.

## Solo function

› Pressing the [SOLO] key assigns the channel in question to the multi-channel Solo bus. The channel's stereo placement is therefore preserved on the stereo bus. The bus signal is automatically routed to the main monitor bus when a [SOLO] key is pressed. It can also be routed to the desired NEXUS bus.

Frequently used functions, like Mute, Solo and PFL are assigned to dedicated keys.





*The Solo and PFL modes can be selected in the monitor module's "SOLO PFL" section.*

*Pressing the [RES] keys allows you to reset all Solo or PFL assignments currently in effect.*

## Solo and PFL modes

*The Solo and PFL functions can be used in various modes:*

*Latest or Mix. The Solo functionality furthermore provides an Inplace Solo mode.*

### 'Latest' mode

› Pressing the [SOLO] or [PFL] key in the monitor module's "SOLO PFL" section activates 'Latest' mode. In this mode, only one channel can be routed to the corresponding bus at any one time. Consequently, each time you press another channel's [SOLO] or [PFL] key, the previously assigned channel is removed from and the current channel is assigned to the bus in question.

### 'Mix' mode

› To be able to assign several channels to the Solo or PFL bus, you need to activate the corresponding [&] key.

### 'Inplace Solo' mode

› In addition to the Mix and Latest Solo modes whose signal(s) is/are transmitted to a separate bus, AURATUS provides an "Inplace Solo" mode where signals are soloed by muting all other channels. This mode, which can be selected with the [IPS] key, is only available for input channels.

› Inplace Solo mode can also be used in Mix mode by pressing the upper [&] key.

*Note: By its very nature, this mode is "destructive"—channels muted by the IPS function are also removed from the mix!*



For channels combined to stereo pairs, the yellow stereo message is displayed. The bars of the "left" channel strip indicate the levels of the paired channels: The left bar refers to the left channel, and the right bar shows the right channel's level.



The number of the channel strip (not the audio channel) appears in the upper right corner. This field is displayed in blue for the currently selected channel.

Two high-resolution bars can be routed to various metering points to indicate audio levels between "-60" and "0dBFS". The name of the selected metering point appears in the upper left corner ("INP", "PF" or "AF").

The headroom provided by (and adjusted on) the NEXUS system is indicated by means of the scale's red background section at the top. Levels in excess of 0dBFS are also detected and flagged with a red bar above the level scale bar.

Two additional bar graphs (to the left and right of the level meter) are provided to monitor the dynamic processors' operation. They show the gain reduction levels induced by the expander and compressor (or limiter).

Below the level bars you will find the channel name and the amplitude curve resulting from the EQ and filter settings currently in effect. A gray, hardly visible curve means that the equalizer in question is off.



The busses (sums, groups, AUX, N-1) are displayed in the bottom section: When you assign an audio channel to a given bus, the corresponding field lights. (A dark dot in an AUX field means that the channel's signal is sourced pre-fader.) The remaining fields are used to indicate whether the channel is assigned to a VCA, Link, or Mute group.

## Screen indications & metering

The TFT screens above the channel strips are divided in such a way as to correspond exactly to the channel strips they apply to. The screen sections are part of the associated channel strips. Therefore, if you assign a different audio channel to a channel strip, the screen section of that channel strip displays the settings of the newly selected audio channel.



### Metering modes

The following settings are available for the currently selected channel. Use the channel module's "ROUTING" section to select the desired setting:

- › The [LEFT BAR] key allows you to select either the left or right bar graph for the adjustments you are about to make.
- › The [INP], [PF] and [AF] keys allow you to select the metering point.
- › If you want peak levels to be held (and indicated by means of an additional segment), press the [HOLD] key.
- › Press the [ATO] key if the peak level indications should be reset at regular intervals.
- › The meters' sensitivity can be increased by 20dB simply by pressing the [+20] key.
- › All adjustments described here only affect the currently selected channel. You can, however, press the [ALL] key to specify that setting changes should be adopted by all channels of the same type (all input channels, for instance).

When you touch an encoder, a field with the assigned parameters and their settings pops up in the screen's bottom section.

FCT	AUX 7-8
GAIN	-22.25dB
GAIN	0dB
KEY	PF AF



# Busses & bus channels

*The mixer busses are connected to audio channels which can be used for further processing. Both the busses and the outputs of the bus channels they are connected to can be routed to NEXUS outputs. Some bus channels can be routed to other busses. See the first block diagram for the channel structure and the routing options.*

## Controlling bus channels

The bus channels can either be assigned to the desired channel strips or adjusted with the controls in the channel module. These controls work in the same way as for input channels.

## Central TFT screen

The screen at the console's center displays global information (upper part) as well as the levels of all busses. The screen is divided into several sections where the two (or eight) signals of the following busses are displayed (from left to right): monitor channel, sums, groups, AUX busses, and N-1 busses.

The level meters show the console's output signals. All bus channel level indications are sourced post-fader. Only the monitor channel's level indication is sourced before the encoder.

## Controlling AUX bus channels

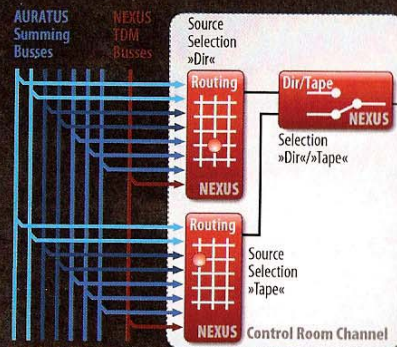
The AUX bus channels can be assigned to the desired channel strips and/or operated from the channel module's "AUXILIARIES" section (after pressing the [SEND] key):

- The eight encoders allow you to set the summing (master) levels of each AUX bus channel individually.
- The [MUTE] keys are used to mute bus channel signals you don't need.





Block diagram: Two monitor sources can be selected (one for pre-, one for post-head monitoring).



The monitor module's "MONITOR" section allows you to select the desired sources. From bottom to top: pre-/post-head switching, bus or channel type selection and bus or channel selection.

## Monitoring | Selecting the source

One dedicated multi-channel (5.1) bus with assignable inputs and outputs is available for monitoring purposes. The sources to be monitored can be selected on the console itself (or via the NEXUS system). The Solo bus is automatically routed to this monitor channel each time a [SOLO] key is pressed. The same priority system can be selected for the PFL function.

In addition, the console provides a stereo Playback channel, which could be used to monitor external signal sources.

### Selecting separate monitor sources for pre- and post-head listening

The sources for the pre- (the console's signal) and post-head (the recorder's signal) busses can be selected individually, allowing you to alternate between two sources simply by pressing the [DIR] or [TAPE] key:

- › Press the [DIR] or [TAPE] key in the monitor module's "MONITOR" section.
- › Select the bus you wish to monitor by pressing the [SUM], [GRP], [AUX], [N-1] or [PFL] key.
- › Press the [BUS] key to monitor the unprocessed bus signal. If you don't, the output signal of the connected bus channel is used.
- › Use the display/keypad section to select the busses you want to monitor.
- › Repeat this procedure to select another signal source for the other input ("Dir", "Tape"). Alternating between the [DIR] and [TAPE] keys allows you select different signal sources.

*Tip:* You can also monitor the mixer channels' direct outs and insert outputs. To do so, press the [DIR] (upper keypad) or [INS] key without selecting a bus, then select the desired channel in the display/keypad section. To monitor the insert loop signal of a bus or summing channel, also press the [GRP] or [SUM] key.





# Talk & Talkback

AURATUS provides a so-called "Talk" channel for communication purposes. This channel includes a compressor and a level parameter and is usually used to transmit the signal of the console's built-in microphone. The channel's output can be assigned to mix busses simply by pressing a key. The Talk channel's input and output are also available in the NEXUS matrix windows.

## Setting levels

- › Use the monitor module's "TALK" encoder (upper half) to set the level. *Note: The channel's input needs to be routed to the desired source (via the NEXUS window)! The output is also available in the NEXUS system and could be used for external talkback systems.*

## Talking into busses

- › Hold down the [BUS] key in the "TALK" section to route the talkback signal to the previously selected mixing busses. (This connection remains only active while you are holding down the key.)
- › In most instances, the Talk channel is routed to all AUX busses. Here is how you can change this assignment:
  - › Briefly press the [BUS] key (it flashes).
  - › Use the "MONITOR" section to select the desired bus type ([GRP], [SUM], [AUX] or [N-1] key), then specify the member busses via the display/keypad section.
  - › Press the [BUS] key again to leave this mode.

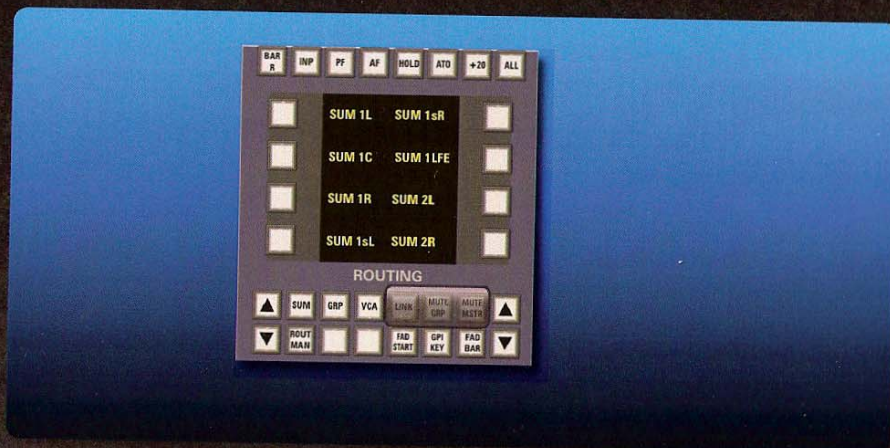
## Talkback

The PFL channel's additional input can be used as Talkback return (there is indeed no dedicated channel for a talkback microphone set up in the studio).



## Control groups

See above for details about stereo pairing. The VCA groups, which rely on one "Master" channel (used for control), are discussed in the AURATUS owner's manual.



Mute groups can be set up ([MUTE GRP] key) and selected ([MUTE MSTR] key) in the channel module's "ROUTING" section.

The channels you want to group can be assigned to the Link groups using the [LINK] keys. Linked channels always adopt the setting changes performed on one of the members' channel strips.

Audio channels can be assigned to several control groups for simplified operation. This allows you to use a Master key to mute/unmute all channels of a given mute group, or to adjust the settings of all linked channels simply by operating one control. In the latter case, the desired setting changes can be performed on any channel of the Link group.

### Assigning audio channels to mute groups

- › Press the [MUTE GRP] key in the channel module's "ROUTING" section. The mute groups are now displayed in the display/keypad section.
- › Press the key of the group to which you want to assign the currently selected channel (the key lights).
- › To leave this mode, press the [MUTE GRP] key again.

### Using Mute groups

- › Press the [MUTE MSTR] key of the same section. The display/keypad section now lists the Mute groups.
- › Press the key of the group whose channels you want to mute in one go.

### Assigning channels to a Link group

- › Press the [LINK] key in the "ROUTING" section. The display/keypad section now lists the Link groups (left side) and the available functions (right).
- › Press a key in the left column to assign the currently selected channel to the corresponding group.
- › Use the keys to the right of the display to select the parameter groups to which the Link should apply.
- › Press the [LINK] key again to leave this mode.

*Note: Setting offsets are preserved when a channel is assigned to a group. Individual changes are supported for parameters assigned to touch-sensitive controls (see the stereo pair section above).*





Static automation can be controlled from the channel module's "SNAP" section. The keypad in the middle ([ROUT], [AUX]...) allows you to restrict the function groups to be saved. The associated display lists the last snapshot you loaded and the name of the next memory.

## Snapshot automation

*AURATUS provides static automation and therefore allows you to save the audio parameters of all processing channels and to recall them when necessary.*

*You can either store all settings ("Full Snapshot") or just the settings of one or several parameter groups ("Partial Snapshot").*

*Snapshots can be saved and recalled in the central channel module's "SNAP" section.*

### Recalling snapshots

- › Press the [LOAD] key in the "SNAP" section. The display now shows the names of the last Snapshot you loaded ("LAST SNAP") and of the following memory ("NEXT SNAP").
- › Use the encoder to select the Snapshot you want to load ("NEXT SNAP").
- › Press the [OK] key.

### Storing snapshots – Full Snapshot

- › Press the [SAVE] key.
- › Press the [OK] key to save the current settings to the first empty memory, or use the encoder to select the memory you wish to overwrite, then press the [OK] key.

### Saving partial Snapshots

- › Press the [SAVE] key.
- › Use the encoder to select a memory.
- › Press the keys in the middle of this section ([ROUT], [AUX], [N-1] ...) to specify the parameter groups whose settings you want to include in the Snapshot.
- › Press the [OK] key.

*Tip: This mode is switched off when the selected settings are saved. Press the [LOCK] key to remain in save mode.*