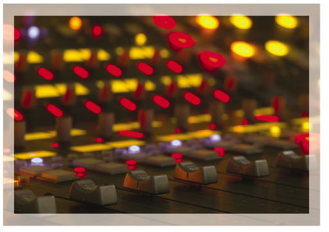
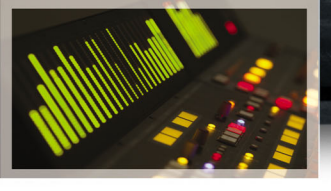
Operation Manual





WK AUDIO

www.wk-audio.de

PC VERSION

Hardware developed and manufactured by

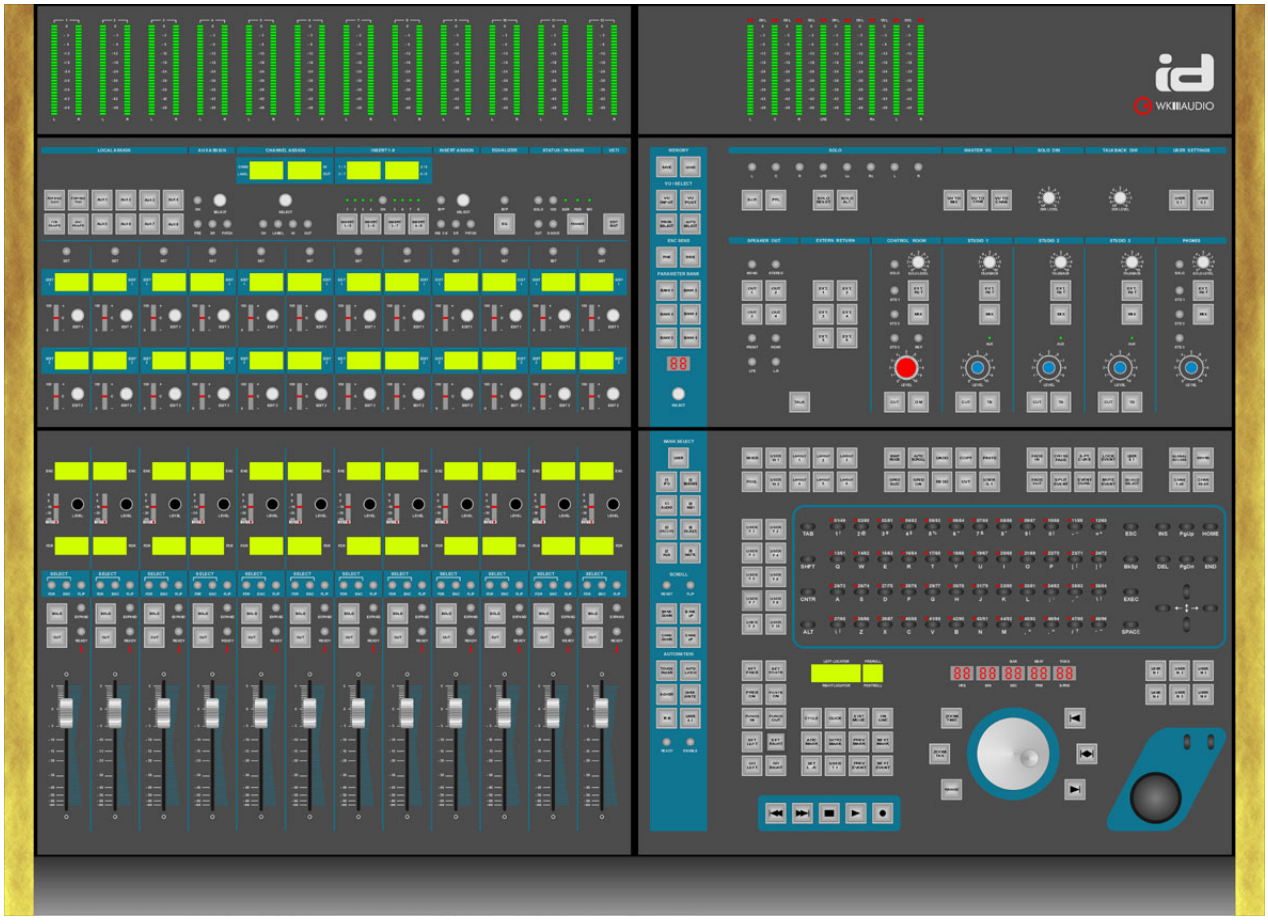
WK AUDIO

Osnabrücker Str.1
49328 MELLE-BUER
Federal Republic of Germany

Phone: + (0)5427-1691
FAX: + (0)5427-6416

Email: info@wk-audio.de

WK-Audio ID Operation Manual
by d.popow@musicandtext.com
Preface by Martin Stahl



Safety First!

Packing List

- WK-Audio ID – Basic unit
- Mains cable
- USB standard cable
- Installer-CD-ROM, contents:
  - Nuendo version 2.1
  - Driver installation software
  - WK-Audio ID Operation manual
  - ReadMe file

System Requirements

To be able to use your WK-Audio ID, you will need the following:

- PC with a processor that runs at 1.5 GHz or faster, a free USB port (type 1 or better) and at least 1 Gigabyte of free RAM space.
- Windows XP.
- Nuendo software version 2.1 or later.
- WK-Audio ID Driver software.

Safety Warning

NOTE:
Mains electricity is dangerous and can kill.

Within the WK-Audio ID, mains voltage is present. Do not remove any WK-Audio ID cover with mains connected! Check your mains wiring and earthing before your switch the WK-Audio ID on.

The WK-Audio ID chassis is always connected to mains earth to ensure your safety.

Do not remove the mains earth connection!

Safety Precautions

- Make sure that the 230/115V switch on the ID rear panel is set correctly before you attach the power cable to an AC outlet!

NOTE: The ID basic units with the serial numbers ID1-0310-04 to ID1-0310-20 and the optional Fader Modules with the serial numbers ID1 – 0312-01E to ID1 – 0312- 04E as well as ID1 – 0310-02E to ID1 – 0310-05E are equipped with an internal 230/115V switch. If you have one of these units, you should definitely read the extra information that is supplied with these units. It explains the steps that are necessary to change the setting of this switch.

- Be sure that the ID mains connection cable is only routed in a way that nobody can walk on or trip over it, thereby accidentally cutting mains supply.
- If you use a mains extension cable, make sure that the overall power consumption of all connected devices does not exceed its maximum capacity.
- Before cleaning the WK-Audio ID, disconnect the mains connection. Do not use chemicals, solvents and abrasives for cleaning. Use a lint-free cloth and a soft brush.
- Prevent damage by avoiding exposure to fluids, dirt, dust heat and smoke.
- Prevent external objects from falling and liquids from spilling into the appliance. Objects could fall on parts that carry voltage (live parts) or cause a short circuit, which could lead to fire or electric shock. Liquids could lead to electric shock and damage the appliance.
- Do not open the appliance as this will expose parts that carry voltage. Do not attempt to service the appliance beyond what's described in the operation manual. All other servicing should be referred to qualified service personnel.
- The appliance should never be used near water or in moist places.
- The appliance should only be used with a stand that is recommended by the supplier.
- The appliance should not be exposed to room temperatures of less than 5°Celsius (41° Fahrenheit) or more than 40° Celsius (104° Fahrenheit). Prevent
- Avoid large variations in temperature and dampness to prevent condensation which may short circuit the appliance.
- All electromechanical parts must be used in a proper fashion to ensure long-term trouble-free operation.

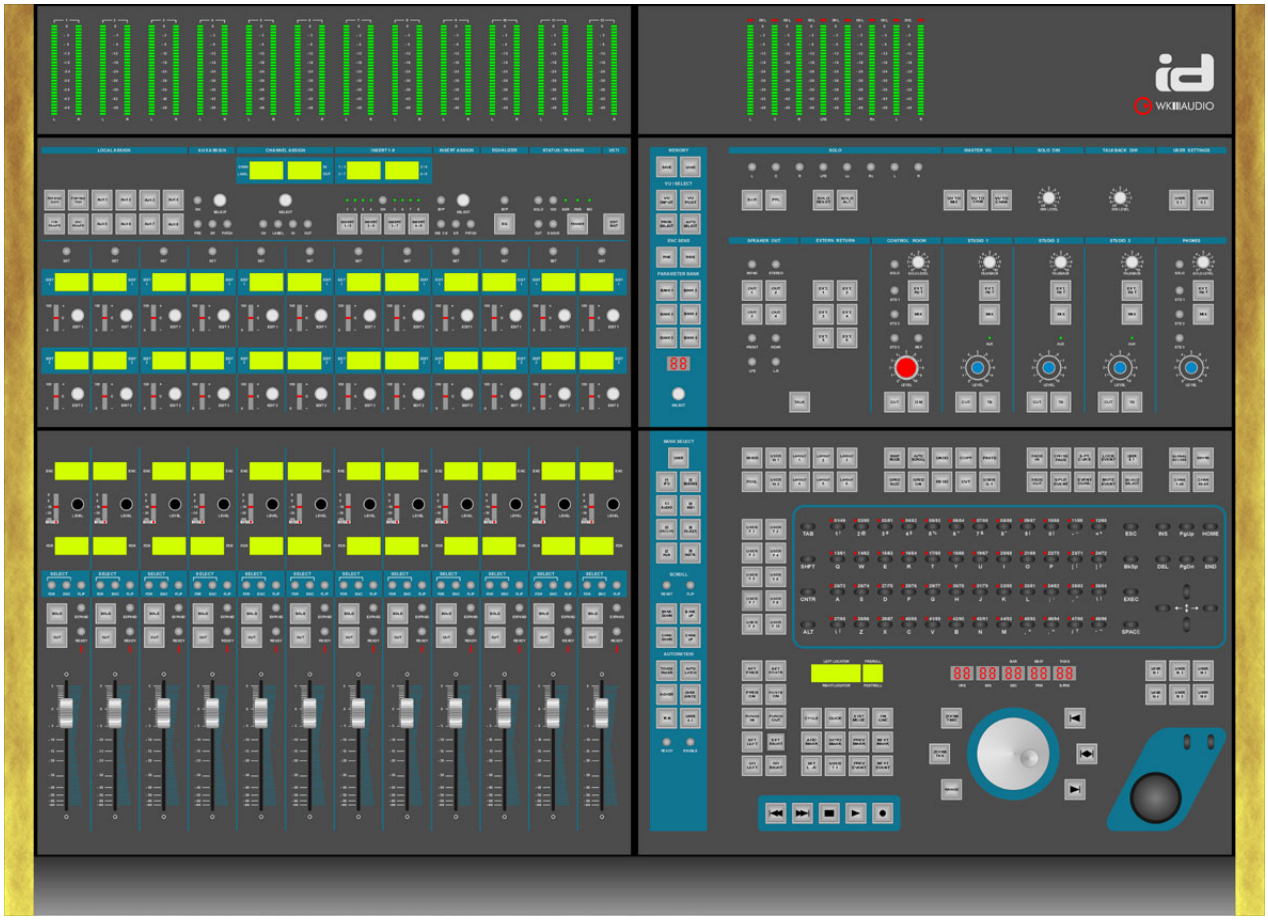


Table of Contents

Safety First! 3
Packing List 4
System Requirements 4
Safety Warning 4
Safety Precautions 4

Table of Contents 5

Foreword 7
Chapter Overview 7

Introduction 9
Chapter Overview 9
Welcome 10
ID Features 10
ID User Interface 11

Getting Started 13
Chapter Overview 13
Connecting the ID 14
The ID Driver Software 14
ID Driver Installation 14
Nuendo Settings 14
ID Control types 15
Motor Faders 15
Encoders with Key function 15
Square Function Buttons 15
Assigning User Functions 16
Round Function button 16
Potentiometers 16
Transport Controls 16
Trackball 16
ASCII Keyboard 16
Jog Wheel 16

The Edit Section 17
Chapter Overview 17
The ASCII Keyboard 18
ASCII Mode 18
Reverse Mode 19
Goto Mark Mode 19
Function buttons above the ASCII Keyboard 20
Window Function buttons 20
Grid Function buttons 20
Edit Function buttons 21
Global Function buttons 22
The Transport Controls 22
Locator/Preroll Displays 22
Function buttons in the Transport section 23
Preroll, Postroll, Punch & Locator Function Buttons 23
Cycle, Click, Edit Mode, Sync, Marker and other Function buttons 24
Timecode Display 24
The Jog Wheel 25
Jog Wheel Function buttons 25

The Fader Section 27
Chapter Overview 27
The Fader Bank 28
Fader Function buttons 28
Fader Deviation Indicators 28
Select & Flip buttons 28
Track name displays 28
The Encoders 29
General Functions 29
Scroll – Assigning Tracks/Channels 29
Bank Select – Assigning Track classes 30
The Expand function 30

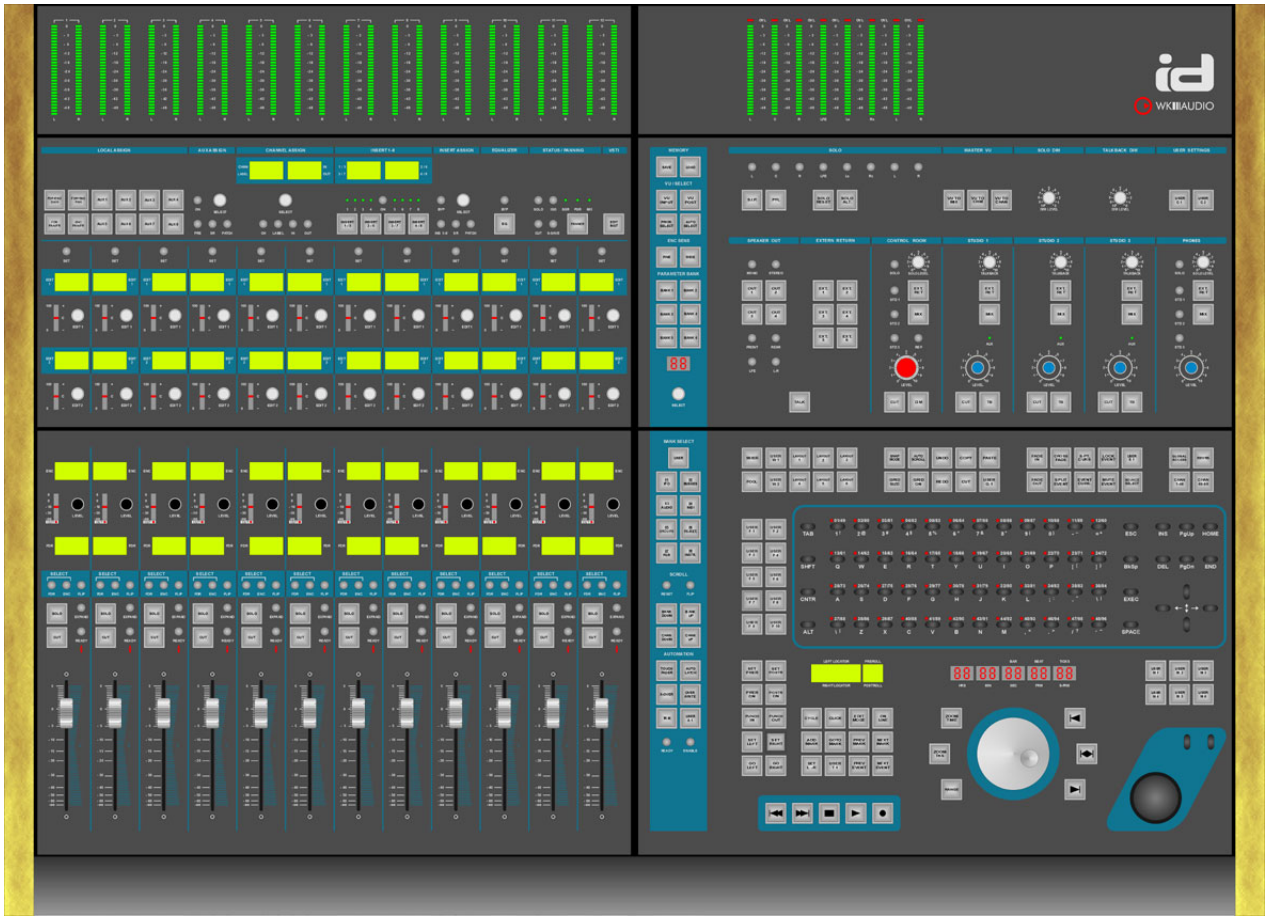
The Channel Strip Section 31
Chapter Overview 31
The Basics 32
Local Assign 32
Multi Channel view 33
Single Channel View 34
Equalizer 34
Aux Assign 34
Channel Assign 35
Insert 1-8 35
Insert Assign 36
Assigning an Insert effect to a slot 36
Removing an Insert effect from a slot 36
Status Panning 37
VSTI 37

The General Functions Strip 39
Chapter Overview 39
Memory 40
VU/Select 40
Enc Sens 40
Parameter Bank 40
Double Digit Display 40
Select Dial 40
Bank Select 41
Scroll 41
Automation 42

The Monitoring Section 43
Chapter Overview 43
Solo 44
Master VU 44
Solo Dim 44
Talkback Dim 45
User Settings 45
Talk Button 45
Speaker Out Controls 45
Extern Return 45
Control Room Controls 46
Studios 1, 2, 3 46
Phones 47

Technical Specifications 49
Dimensions 50
Connections 50
Specifications 50

Chapter 1



Foreword

Chapter Overview

This chapter contains a foreword written by Martin Stahl, Steinberg's Product Manager responsible for the WK-Audio ID.

When Steinberg introduced the first VST application, probably only few people may have realised the significance of the technology or would have foreseen its rapid market acceptance and high potential for further development.

Only a few years ago, my own studio equipment consisted of an analog 24-track tape recorder, an analog mixing desk, many 19" rack effect devices and hardware synthesizers. Such a typical analog studio was expensive, it needed a lot of space and it was quite inflexible. I often wished that I had more than one unit of certain compressor device when I wanted to apply it to yet another important channel. Not to mention the desire for Total Recall, which really wasn't up to much then.

Nowadays, my studio has changed completely: it consists of a powerful PC as the command center, three space-saving 19" TFT flat screen monitors, a high quality AD/DA converter and a surround speaker system.

Today, we smile about having been limited to the tape recorder's 24 tracks and using an additional compressor on track 57 is no problem anymore. All you have to do is open the necessary VST PlugIn a second time and there you have it. Presets that I have tailored to my needs and saved once make my life a lot easier and issues like Total Recall and complete automation have become commonplace. You simply press "Ctrl-S" on your computer keyboard and hundreds of instrument, mixer and VST PlugIn parameters are stored. Tape noise, loose cable contacts and crackling potentiometers are history – and development will of course not stop there.

We believe that an increasing number of audio productions will be created and mixed solely based on VST Workstations. There are already countless examples for this type of production. But has this development improved the sound of the final product? Then and now this still depends on the people who are involved in the production itself.

A good song is still a good song and a good sound engineer will probably create a good mix – no matter which technology he or she uses. The result therefore always depends on who uses the respective technology. And this is where we get to the aspect that became our starting point for developing the WK-Audio ID.

The development of integrated native Digital Audio Workstation systems (DAW) has fundamentally changed the way we use the tools in our studio today. Especially in mixing, many new possibilities have emerged. At the same time, some have also been lost.

Full of fascination I looked at the beautiful graphic frequency response curve display visible in the EQ PlugIn. "That looks great, it will also sound great!" . Mesmerized I stared at the third decimal place in a text field that controlled the level of a fader.

The new possibilities offered by the precise and graphically appealing user interface on the screen captured my attention in such a way that a great deal of my concentration was simply used up.

Over and over I caught myself mixing according to the graphics on screen instead of trusting my ears. But how could I? It was virtually impossible to close my eyes and at the same time move the mouse cursor in a circle in order to control the replica of a frequency dial on the screen. A mouse simply doesn't provide the same physical feedback as a dial. This becomes more evident when you try to set a high pass and a low pass filter simultaneously. It is simply impossible as there is only one mouse available. Now imagine you want to do that with your eyes closed… Here, the software world is clearly less user-friendly than the hardware world.

Therefore, what was needed to rediscover mixing with your ears instead of with your eyes was a hardware tool that looks and feels like the good old analog mixing desk. This hardware solution would of course have to offer the possibility to use all those fantastic new functions that were not available on the old analog desk. It would thus have to be a custom-made Controller for digital VST-DAWs.

In the past, a few attempts have been made to create such a device. But these DAW Controllers carried the burden of too many compromises – as many that it was always necessary to fall back on using the computer keyboard and the mouse. There again, a great deal of the attention that should have been focused on hearing was lost to concentrating on using the Controller. In addition, you could develop a postural damage because of the less than favourable ergonomic design of the workplace.

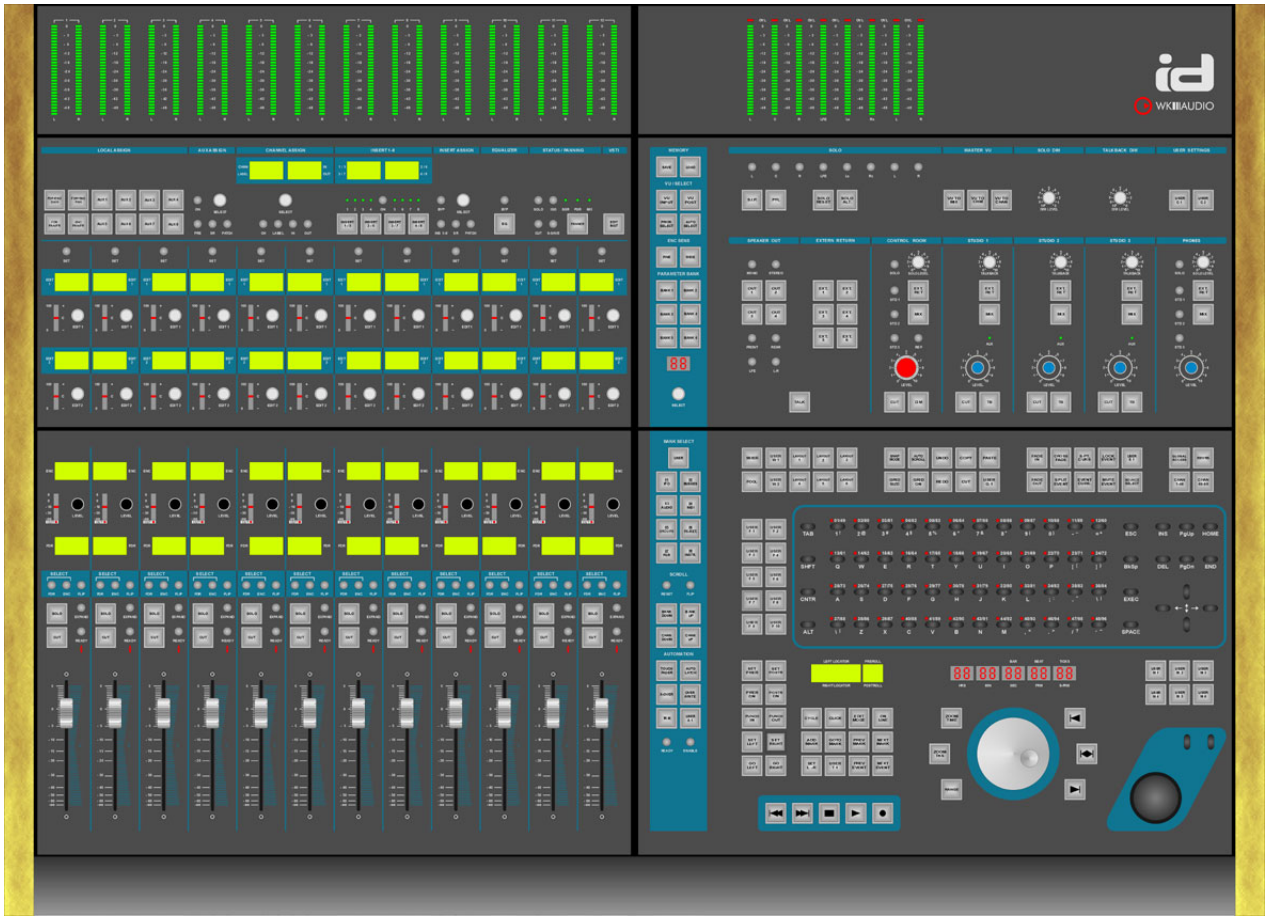
Designing the WK-Audio ID started at this point. We wanted to develop a VST Controller that seamlessly combines the advantages of an analog mixing desk and the manifold innovations provided by the VST world, so that its user's attention can be fully focused on what he or she hears during recording, editing or mixing. An Input Device that helps your creativity, that you like to touch and that is simply fun to use. This ambitious task was reached in a joint effort with WK-Audio, who developed and built this Controller together with us. This fantastic co-operation has produced a unique and unparalleled production tool. The WK-Audio ID is unique because of its innovative combination of recording, editing and mixing features with a number of remarkable operational concepts like "Dial Editing", "Reverse Operation", "Expand" or "Push Hold Detection".

But we have also thought of the future: VST software development progresses so fast that it was necessary to make the WK-Audio ID future-proof as an investment. Therefore it has great reserves to grow further with future software development. We have developed a Controller concept that many of you have wanted. And here it is – the WK-Audio ID.

Have fun reading this manual.

Martin Stahl

Chapter 2



Introduction

Chapter Overview

This chapter contains the following information:

- A few introductory words.
- A list of WK-Audio ID's basic features
- A short overview of the ID's user interface sections with cross references to parts in this manual where you can find detailed information on the respective section.

Welcome

Thank you for choosing the WK-Audio ID!
This Digital Audio Workstation Controller is made of premium hardware components. It integrates perfectly with the Steinberg Nuendo software and lets you seamlessly control all major functions the software has to offer. It will help you focus your attention where it belongs: on the audio you are recording, editing or mixing.

The basic unit alone features a large amount of direct hardware controls. You can step through and assign the available individual Nuendo channels or channel banks to the available hardware motor faders and Encoder dials.

Using the optionally available Fader Modules, you can extend your direct control and access up to 120 channels at once.

The WK-Audio ID adheres to the latest standards in hardware control surfaces. It also features many unique functions not to be found anywhere else.

An Edit section with a jog dial, its built-in multifunctional ASCII keyboard, its direct PlugIn access and the advanced channel selection features really make the WK-Audio ID superior.

Functions like Expand, Global Access and the reverse view intelligence will set new standards in terms of workflow and usability.

The WK-Audio ID and Nuendo were developed in parallel always ensuring optimal cooperation between soft- and hardware.

All controls on the hardware user interface have been put in their respective positions with an ergonomic benefit in mind. They were chosen to best reflect and/or give you better access to the existing Nuendo software features.

We are sure that, once you have quickly mastered its handling, it will greatly enhance your workflow, thereby helping you to reduce cost and gain flexibility.

We hope that you have fun using the WK-Audio ID!

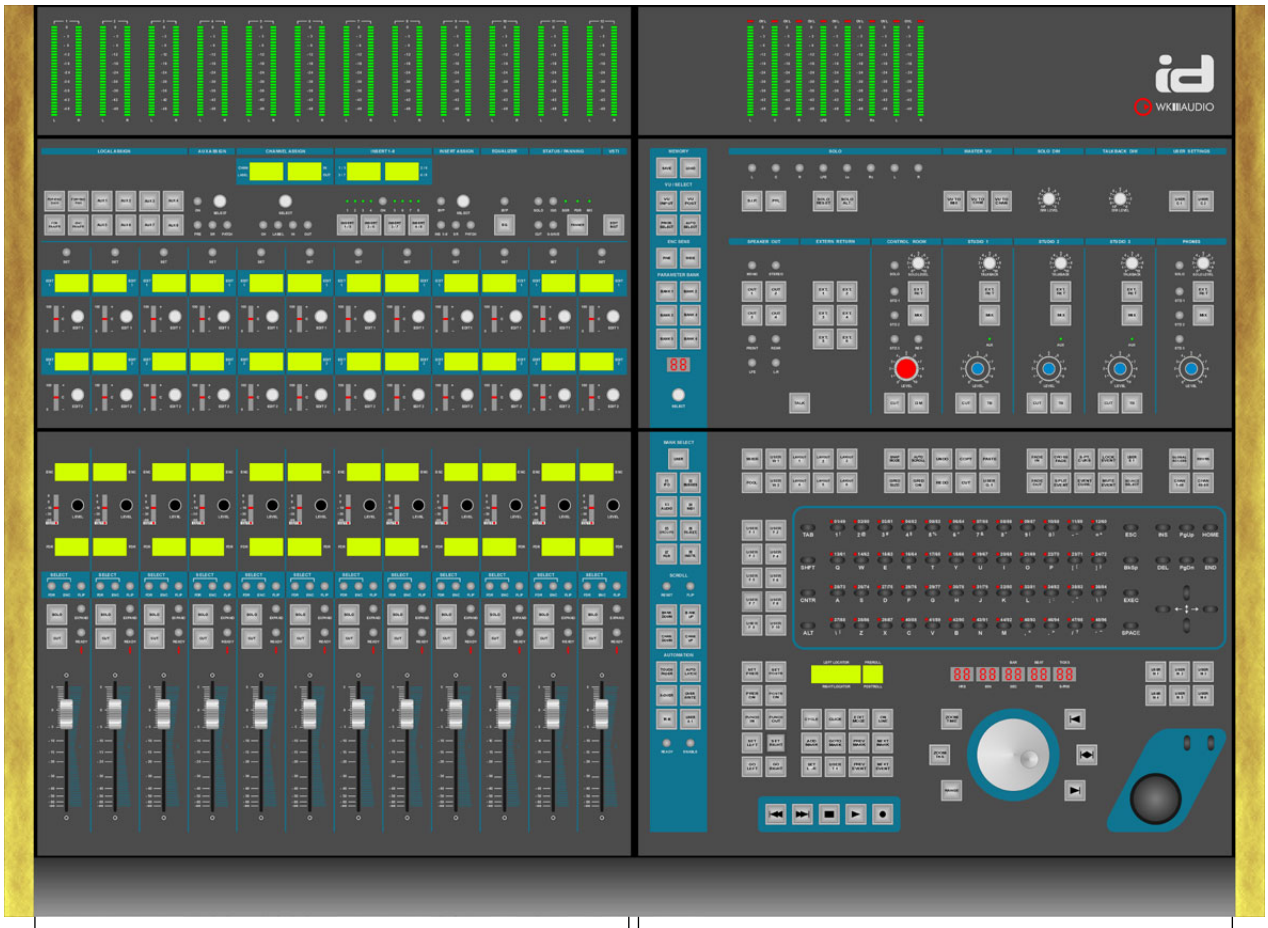
ID Features

The basic WK-Audio ID version features:

- Direct and far-reaching control of the Nuendo audio recording software application from one central point. Functions that are not yet accessible as well as new software functions will be supported by future Nuendo versions.
- 24 channels in direct access, switchable.
- 40 rotary push/pull Encoders in the basic version.
- 12 control room potentiometers
- 380 backlit keys, framed (10.000.000 key cycles)
- More than 50 large displays for instant feedback.
- ASCII keyboard
- Trackball, protected against dust and water.
- Jog dial for easy editing.
- Channel Matrix.
- Direct PlugIn parameter access. Load, edit and apply VST instruments and effects directly from the Controller.
- Reverse intelligence – The keys on the ASCII keyboard can be used as On/Off switches for the last selected function type on up to 96 channels.
- Talkback microphone and headphone preamp.
- Digital control room remote
- 32 channel VU meter bridge (24 channel meters and 8 Master section meters). Each meter has 30 segments.
- 1 USB connector per unit.
- Non-reflecting surface.
- Chassis material: Aluminum and steel.
- Metal support stand.
- Expandable with up to four additional Fader Modules to provide a maximum number of 120 directly accessible channels. Each additional Fader Module is basically a copy of the left half of the basic WK-Audio ID version. It provides 12 large touch-sensitive motor faders, 39 Encoder dials, 52 displays and a great number of different keys.
- Other custom options:
  Fader Modules, Joystick, custom modification of electronic components, hardware and design, e.g. built-in analog preamps, different front covers, other LED colours, different leather for padded arm rest., Meter Bridge removal, Wooden side panels: Genuine mahogany etc.

ID User Interface

Here's a brief overview of the ID user interface sections with cross-references to the respective manual chapters.



Fader Module

The basic ID version includes one Fader Module as shown above. You can add four more for direct access to 120 channels. Each Fader Module has the following sub-sections (top to bottom):

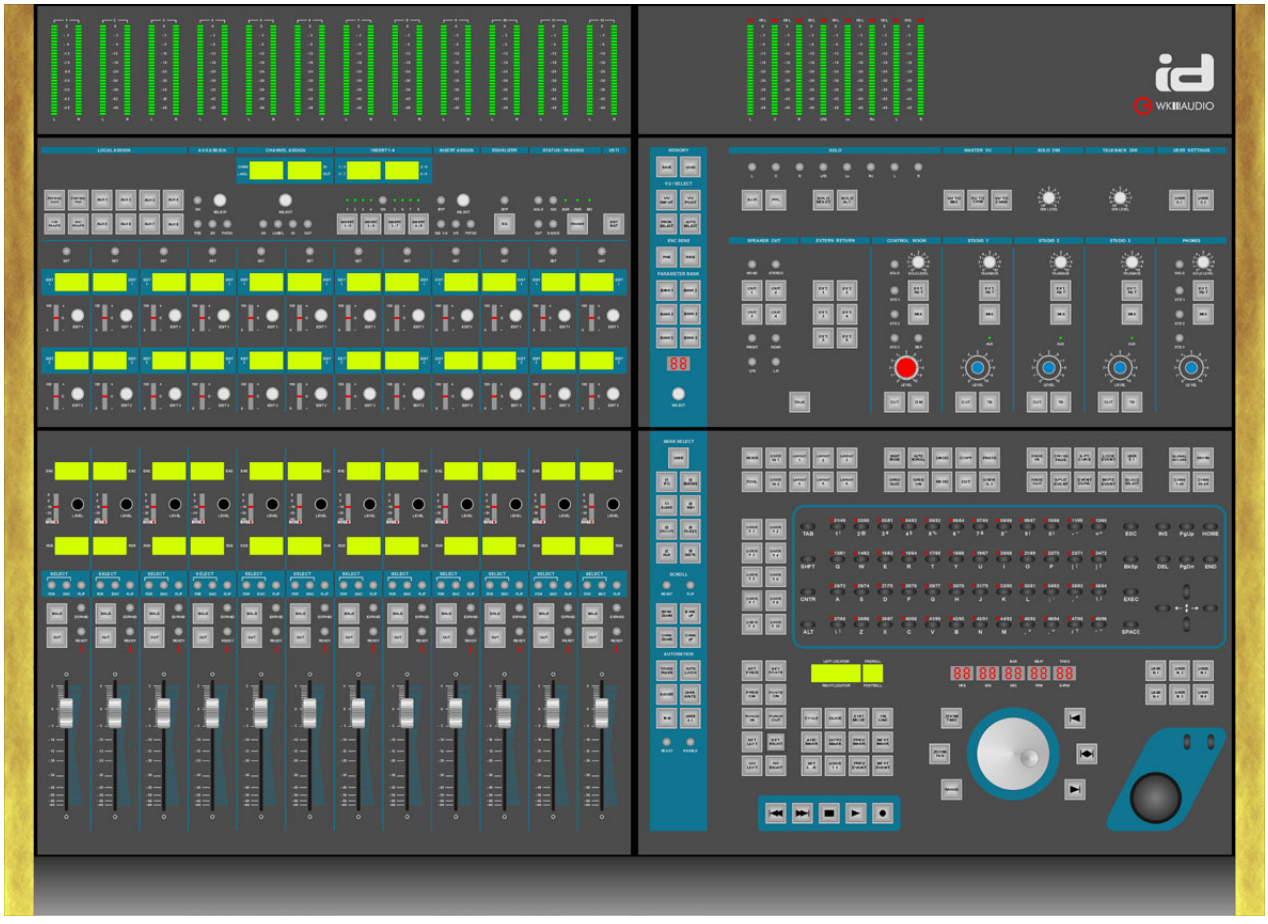
- Channel meter bridge
  This shows the levels of the channels that are currently assigned to the 24 hardware level controls of each Fader Module.
- Channel strip section
  This is used to set Aux Send level and parameters, Fader and Encoder gain and pan as well as channel in/out routing for the selected channel. The Channel strip section also lets select, activate and edit insert effects and VST instruments and it provides you with controls for complete EQ editing. See page 6-31.
- Fader section
  Here you can manually control the channel levels. See page 5-27.

Master Module

The Master Module has the following sub-sections (top to bottom):

- Master meter bridge
  Lets you control the output bus(ses) and the level(s) of the channel(s) currently selected on the Fader Module.
- Monitoring section
  Here you can select Solo modes and make other settings related to monitoring. Details on page 8-43.
- Edit section
  This features an ASCII keyboard with three powerful modes, a Trackball, a Jog wheel, many function buttons and the Transport controls. See page 4-17.
- General Functions strip
  This is the vertical blue strip on the left side of the Master Module. It provides many general functions like Fader assignment, Nuendo project handling etc. Find its full description on page 7-39. Its elements are also described in context in other section chapters.

Chapter 3



Getting Started

Chapter Overview

This chapter contains the following information:

- A description of the ID driver software installation process.
- What you must do to connect the ID to the “rest of the world”.
- A description of the necessary settings that you must make in Nuendo.
- Basic information about the various types of control available on the ID.

Connecting the ID

Connecting the ID is a simple and straightforward process. Do this:

1. Use the included mains cable to connect the ID to a suitable and working mains socket.
2. Switch off your computer.
3. Using the included standard USB cable, connect the USB bus on the ID to a USB bus on your computer.
4. If you wish, connect the balanced monophonic L/R headphone inputs on the ID rear panel to an appropriate sound source.
   The signal will reappear on the two stereo phone jacks located at the ID front side.

   That's all there is to connecting! Next, you must install the driver software.

The ID Driver Software

The ID driver software that you have received with ID must be installed on the computer that you use to run Nuendo.

It is the link that interconnects the Nuendo software and the ID hardware. It also allows you to completely remote control the computer from the ID's ASCII keyboard.

The driver software is compatible with Windows XP®.

Driver software for Mac OS should be available in the near future.

We recommend that you always use the latest ID software driver version. This is available on the Steinberg and WK-Audio web sites. (**www.steinberg.de** or **www.wk-audio.de**)

ID Driver Installation

To install the driver software, proceed as follows:

1. Make sure the ID is properly connected to the USB bus on your computer.
2. Switch on the ID, then switch on your computer and let it boot up.
   The automatic hardware recognition of your computer's operating system will detect the ID as a new USB device and ask you for the driver software.
3. Insert the Driver CD into your CD-ROM drive and follow the instructions displayed on your computer screen.
   The necessary driver software – a Firmware Loader and the actual Time Base driver – will now be installed during two separate installation processes.

NOTE: You can safely ignore alert messages like "Digital signature not found", "Do not install driver", "Driver not certified".
Simply continue with the installation.

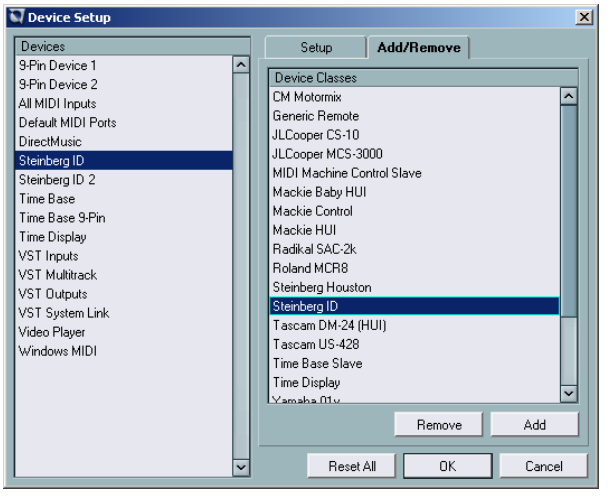
---

4. Restart your computer when the installation procedures have been completed.

Nuendo Settings

To allow Nuendo to recognize the ID and establish communication with it, you must make the following settings in Nuendo:

1. Open the Device menu and select "Device Setup…".
   The Device Setup dialog appears
2. Open the "Add/Remove" tab and select the ID in the list to the right. Then click the Add button.
   The ID has now been added to the Devices list on the left side of the dialog.



3. Select it there. Then select the MIDI in- and outputs you want to use on the respective pop-up menus.
4. If you wish and know what you are doing at this point, you can now also freely assign any Nuendo function to any of the available ID User Function buttons. If you are not sure yet, leave that for now, read on and find the information on page 3-16.

NOTE: To keep things simple, you may first want to use the Nuendo project template file and the Nuendo Preferences file that come on the ID Driver CD-ROM. You can later always create and save your own changed settings.

ID Control types

This section contains basic information about the various types of control available on the ID.

Motor Faders

Each ID Fader module holds 12 touch-sensitive 100 mm motor faders.

- Moving a fader handle upwards increases the audio level of the respective channel, moving it downwards decreases it.

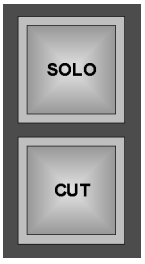
Encoders with Key function

In its Fader section, ID provides a great number of rotary dials called Encoders. The Level and Edit Encoders are examples for this.

Encoders can be used in several ways:

- To increase a level or a parameter value, turn the Encoder clockwise, to decrease it turn counterclockwise.
- To switch to a parameter or overcome a safety precaution, press the Encoder as if it were a button.

Square Function Buttons



Square Function buttons will light up when you activate a function by pressing its button.

The square Function buttons on the ID come in two flavours:

Fixed Function buttons

Each of these buttons is used to activate/deactivate one predefined function.

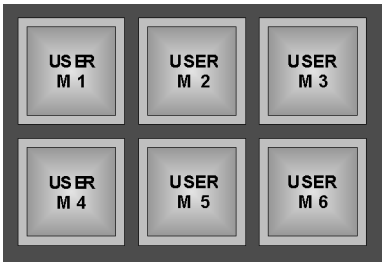
Fixed Function buttons are equipped with two modes:

- If you press the button very briefly, the corresponding function (e.g. Solo) will be activated. If you briefly press the button again at a later time, the function will be deactivated.
- Pressing a Fixed Function button for longer than 250 milliseconds will activate the corresponding function only for as long as you press the button. As soon as you let go of the button, the function will be disabled at once. We call this Push Hold Detection.

  This is handy in many different mixing and editing situations, e.g. when editing with the Jog Wheel and its related Fixed Function buttons or when trying out, what it would be like to mute a channel at a certain point.

User Function buttons

Single and groups of User Function buttons have been positioned in various places on the ID user interface. You can freely assign any Nuendo function to any of these buttons.



User Function buttons

This is where you find them:

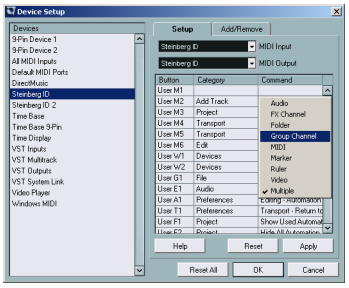
No. of buttons	Default Names	Position
6	User M	Above the trackball.
1	User T	Above the transport controls.
1	User A	In the Automation controls group that you can find at the bottom of the blue General functions strip.
2	User C	Under User Settings at the top right of the Monitoring section.
2	User W	In the Edit section, above the top left corner of the ASCII keyboard.
1	User G	In the Edit section, in the second group of ten buttons above the ASCII keyboard.
1	User E	In the Edit section, in the third group of ten buttons above the ASCII keyboard.
10	User F	To the left of the ASCII keyboard.

NOTE: Once you have assigned Nuendo functions to these buttons, you can of course create your own name tags for them. Simply print them on transparent overhead foil using a laser printer.

NOTE: User Function buttons do not provide Push Hold Detection or Bounce Repeat, as it could lead to confusing results.

Assigning User Functions

User Function buttons are described on the previous page.

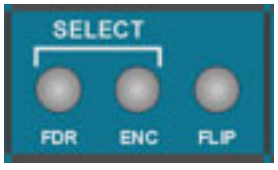


Proceed as follows to assign the desired functions to the ID User Function buttons:

1. Select “Device Setup…” on Nuendo’s Devices menu.
2. In the appearing Devices Setup dialog, select the ID
   If it’s not available, select the ADD/Remove tab to add it to the list, then select it.
3. Open the Setup tab and assign the desired functions to the ID User Function buttons. To do this, open the local pop-up menus by clicking in a column next to the User Function button you want to assign a function to.

Round Function button

These can be found all over the ID user interface. Pressing one of these buttons lets you either activate/deactivate a function or toggle between two switch states. Round function button are equipped with Push Hold Detection, see page 3-15.



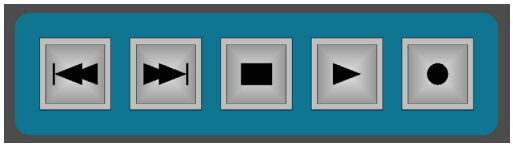
Round Function buttons

Potentiometers

ID’s potentiometers are all located in the Monitoring section. They are rotary dials that have a start and an end point and are used to set volume levels.

- To increase a level, turn the potentiometer clockwise, to decrease it turn counterclockwise.

Transport Controls

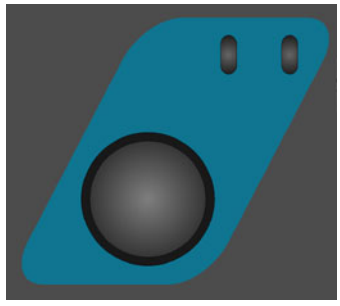


These buttons let you remote-control the Nuendo transport controls. The transport controls do not provide Push Hold Detection.

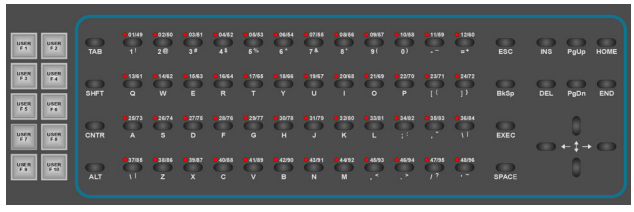
Trackball

The Trackball is a convenient mouse replacement.

- Roll the ball to move the cursor on the Nuendo screen and use the buttons as left and right mouse buttons.

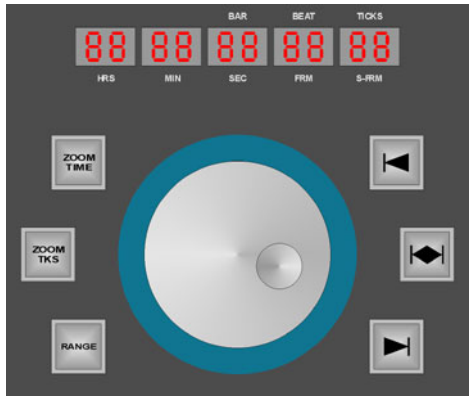


ASCII Keyboard



This is an ASCII keyboard, similar to your computer keyboard. It has unusual keys and additional modes that help to improve your workflow. These are described in the Edit Section chapter.

Jog Wheel

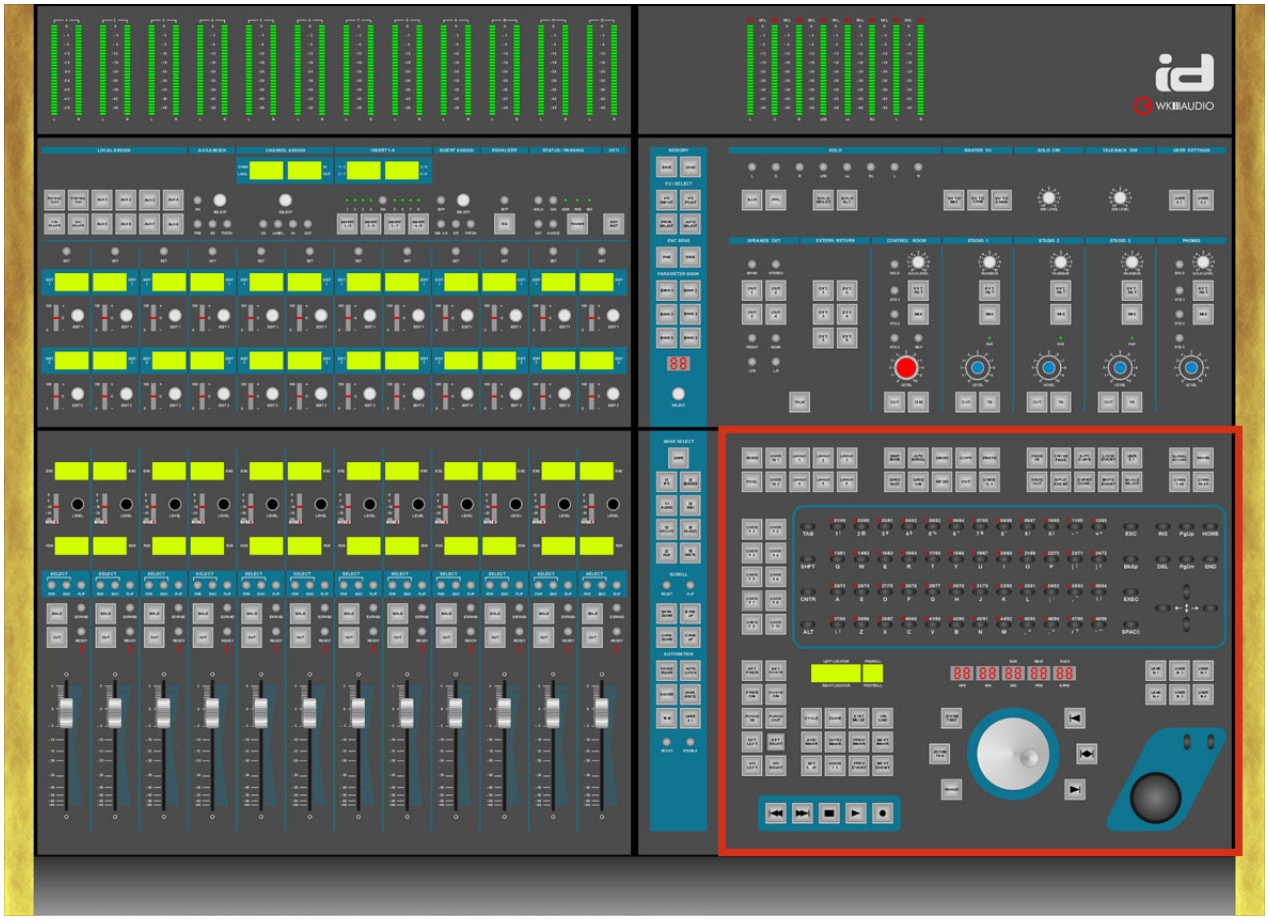


This is a heavy-weighted, high-resolution Jog wheel with additional function keys for quick positioning and editing in Nuendo. This is also described in the Edit Section chapter.

What’s next?

The following chapters describe the individual ID sections. Please read them carefully. The time that you invest here is well-spent.

Chapter 4



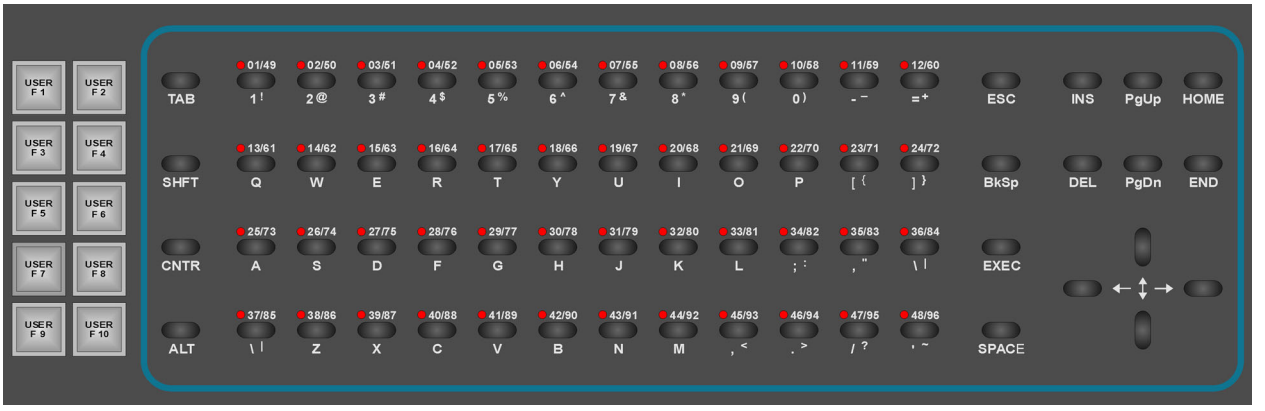
The Edit Section

Chapter Overview

This chapter contains the following information:

- A description of the ASCII keyboard and its three modes.
- A description of all other elements in the Edit section.

The ASCII Keyboard



The ASCII keyboard on the ID more or less looks like your usual computer keyboard. As its main task is usability in a studio environment and not typing letters, its keys have been optimized and differ in shape from an ordinary keyboard.

The function buttons located to its left or any other ID function buttons may be used as its function keys.

NOTE:
You can freely assign any Nuendo function to any function button on the ID, see page 3-15.

The Trackball is used as a mouse replacement.

- Roll the ball to move the cursor on the Nuendo screen and use the buttons as left and right mouse buttons.

The ID ASCII keyboard has three operation modes: ASCII, Reverse and Goto Mark.

Reverse and Goto Mark mode offer additional options.

NOTE:
The ASCII functionality is not available in Reverse and Goto Mark modes.

ASCII Mode

ASCII mode is the default mode of the keyboard.

In this mode, the keyboard works like any other computer keyboard.

Same as on a usual ASCII keyboard – and differing from the other buttons on the ID – the keyboard keys will repeat their signal for as long as you press them. This is called Bounce Repeat.

If you use a Windows computer, bounce (repeat) time can be set under Control Panels/Keyboard Properties.

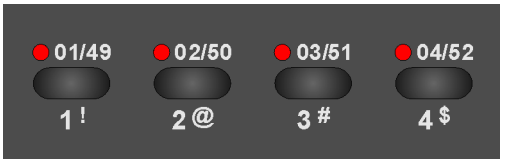
When you scrub-play, you should thus use the keyboard keys instead of the User function buttons as the latter do not provide bounce repeat.

NOTE:
The ID keyboard always uses an English/US keyboard layout, even when you have selected another layout for the connected computer. If you have, some key commands may not work properly. We therefore recommend that you use the English/US keyboard layout on your computer.

Reverse Mode

In Reverse mode, the keys on the ASCII keyboard become a matrix of On/Off switches for the last selected function type.

The LEDs above each key represent the On/Off status of the current function for each of the channels.



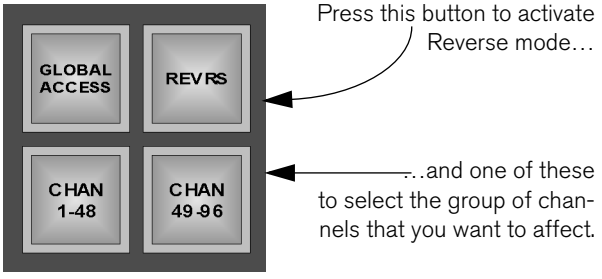
The individual keys on the keyboard represent the channels 1-48 or 49-96.

You get complete overview and can therefore quickly activate or deactivate the same function type – e.g. Record Ready, Solo etc. – for many channels.

The shape of the keyboard keys helps you to increase setting speed. You can simply run your finger over the keys of several adjacent channels in one go.

Proceed as follows to activate Reverse mode:

1. Press the REVRS button, located above the top right of the ASCII keyboard.



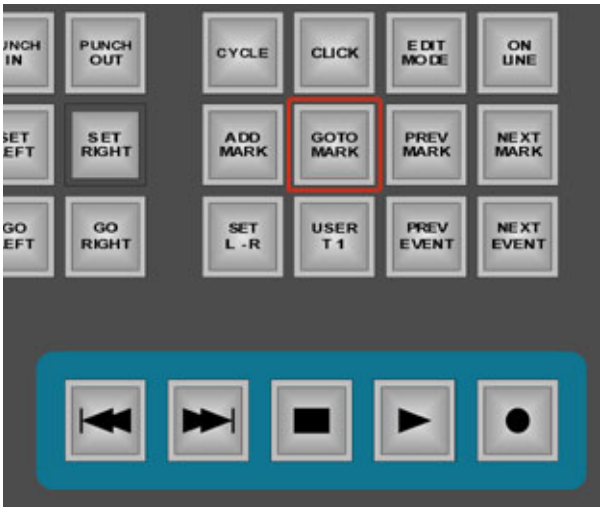
2. Activate the CHAN 1-48 or the CHAN 49-96 function button (located below the REVRS button) to get access to the respective channels.
3. On the Fader module, use (and thereby select the desired function. This must be done for at least one channel.
   Now you can use the keys on the keyboard to activate or deactivate the selected function for other channels. The LEDs above each key provide optical feedback.
4. If you select another function on the Fader module, the LEDs will reflect its current status on all channels and you can start to change that.

Goto Mark Mode

In this mode, you can use the keys on the ASCII keyboard to select Markers that you may have set in Nuendo. You can directly jump to up to 96 Markers.

Proceed as follows to activate and use Goto Mark mode:

1. Press the GOTO MARK button, located in the button group above the ID transport controls.
   This activates Goto Marker mode.



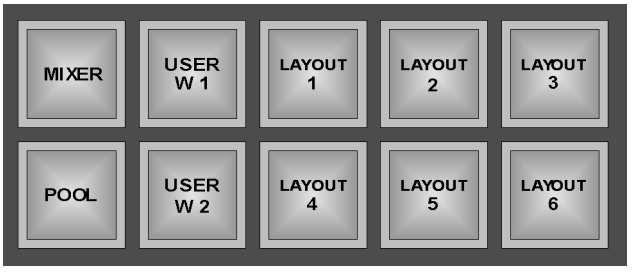
> **NOTE:**
> If Reverse mode was active before, it will automatically be deactivated.

2. Select the CHAN 1-48 or the CHAN 49-96 function button to be able to jump to Markers 1-48 or 49-96, respectively.
3. Press a key on the keyboard to jump to the desired Marker in Nuendo.
4. To disable Goto Marker mode, simply press the GOTO MARK button again.

Function buttons above the ASCII Keyboard

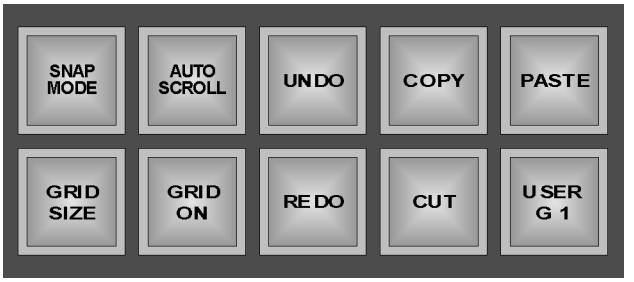
This section describes all Fixed Function buttons above the ASCII keyboard, starting with the MIXER button in the first group of ten above its left upper corner and ending with the CHAN 49-96 button in the group of four buttons, located above its right upper corner.

Window Function buttons



Button	Description
MIXER	Lets you open or close Nuendo's Mixer window. If Nuendo is not yet running, you can press this button to boot it.
USER W 1	USER W 1 and 2 are user-definable Function buttons. Read "Assigning User Functions" on page 3-16 for more information.
LAYOUT 1	LAYOUT buttons 1 through 6 let you open different Nuendo Window Layouts
POOL	Opens the Nuendo Pool window

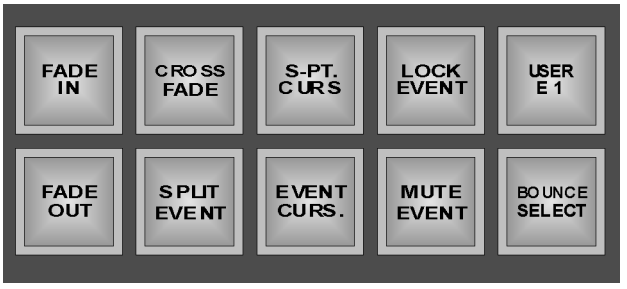
Grid Function buttons



Button	Description
SNAP MODE	Press this several times to step through the available Snap modes.
AUTO SCROLL	Lets you switch Nuendo's Autoscroll function On or Off.
UNDO	Remote-controls Nuendo's Undo function.
COPY	Remote-controls Nuendo's Copy function.
PASTE	Remote-controls Nuendo's Paste function.
GRID SIZE	Press this several times to step through the available Grid size values.
GRID ON	Activates or deactivates Snap to Grid.
REDO	Remote-controls Nuendo's Redo function.
CUT	Remote-controls Nuendo's Cut function.

Button	Description
	USER G 1 is a user-definable Function button. Read “Assigning User Functions” on page 3-16 for more information.

Edit Function buttons



Button	Description
	Press this to create a Fade in for one or several currently selected Events. The Fade in starts at the Event start and ends at the current Project Cursor position.
	Creates a Crossfade between the selected Event(s) and its/their neighbour Event(s). If the Events overlap, the Crossfade gets the same length as the overlap. If you process Events adjacent to another and they possess enough “hidden” audio, the crossfade will get the Default fade length set in the Crossfade Editor . If they don’t, no crossfade happens.
	S-PT CURS stands for “Snap point to Cursor” and that’s what you do here: Pressing this button will create a Snap point at the current Project Cursor position. This function is applied to the currently selected Event(s).
	Locks the current Event. Select which parameters you want locked on the Editing tab of Nuendo’s Preferences dialog
	USER E 1 is a user-definable Function button. Read “Assigning User Functions” on page 3-16 for more information.

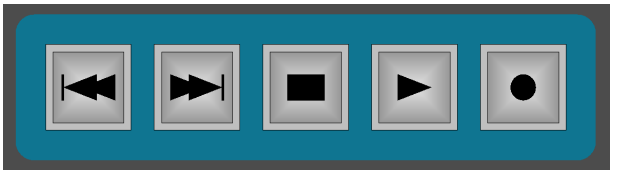
Button	Description
	Press this to create a Fade out for one or several Events. The Fade out starts at the current Project Cursor position and ends at the Event end.
	Pressing this will split the Event at the current Project Cursor position.
	Pressing this positions the start of – if available – the Snap point of the selected Event at the current Project Cursor position.
	Mutes the currently selected Event.
	This button does exactly the same as the Bounce Selection function on Nuendo’s Audio menu. It lets you create a new audio file based on one or several Events that you have edited. If you don’t know this function, we recommend that you look up the Nuendo manual.

Global Function buttons

Button	Description
GLOBAL ACCESS	Use this to activate Global Access mode. If this is active, you can carry out an operation in one go for all Tracks, e.g. set Aux Send level for all mixer channels. This is available for a number of Nuendo functions. Please find a list at the bottom of this column.
REVRS	This lets you activate or deactivate the ASCII keyboard's Reverse mode. This is described on page 4-19 in this chapter.
CHAN 1-48	This button is used to assign channels 1-48 to the keys of the ASCII keyboard in Reverse and Goto Mark modes. Please look up page 4-19 in this chapter
CHAN 49-96	This button is used to assign channels 1-48 to the keys of the ASCII keyboard in Reverse and Goto Mark modes. Please look up page 4-19 in this chapter

Global Access functions	
EQ band 1 On	EQ band 2 On
EQ band 3 On	EQ band 4 On
EQ bypass,	Sends bypass,
Sends slot 1 On	Sends slot 2 On
Sends slot 3 On	Sends slot 4 On
Sends slot 5 On	Sends slot 6 On
Sends slot 7 On	Sends slot 8 On
Sends slot 1 pre/post	Sends slot 2 pre/post
Sends slot 3 pre/post	Sends slot 4 pre/post
Sends slot 5 pre/post	Sends slot 6 pre/post
Sends slot 7 pre/post	Sends slot 8 pre/post

The Transport Controls

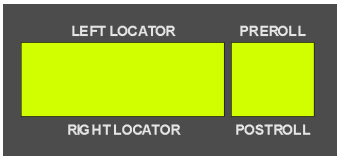


The ID Transport controls are the twins of Nuendo's transport controls.

Button	Description
	Rewind, Zero
	Fast Forward, Project end
	Stop
	Start
	Record To make a Track record ready, use the Ready buttons in the Fader section, see page 5-28.

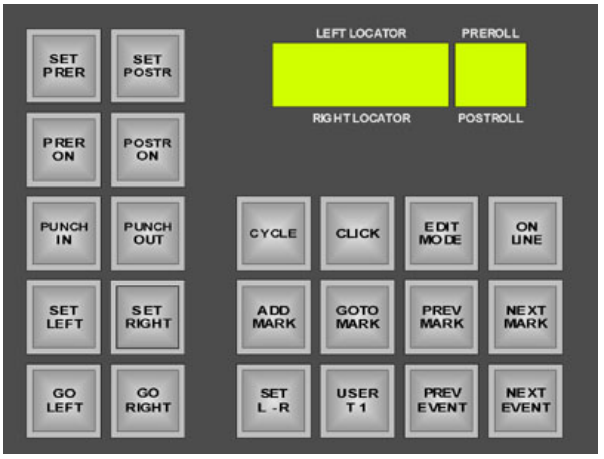
NOTE: You can make special Wind Speed settings on the Transport tab of Nuendo's Preferences dialog.

Locator/Preroll Displays



These backlit displays below the left lower corner of the ASCII keyboard show the current Left and Right Locator settings as well as the currently set Pre/Post roll times. You can make these settings using the corresponding Function buttons to the left of the displays.

Function buttons in the Transport section



These two blocks of buttons above the Transport controls are used to make Transport and Marker related settings.

Preroll, Postroll, Punch & Locator Function Buttons

Button	Description
SET PRER	Press this button one or several times to set the desired preroll time. The value type used here (sample rates, seconds, frames etc) depends on what's used in the Project.
SET POSTR	Press this button one or several times to set the desired postroll time. The value type used here (sample rates, seconds, frames etc) depends on what's used in the Project.
PRER ON	This lets you activate or deactivate preroll.
POSTR ON	This lets you activate or deactivate postroll.
PUNCH IN	Use this to activate or deactivate automatic Punch in.
PUNCH OUT	Use this to activate or deactivate automatic Punch out.
SET LEFT	If you activate this Function button, you can set the left Locator position to the current Project Cursor position.
SET RIGHT	If you activate this Function button, you can set the right Locator position to the current Project Cursor position.
GO LEFT	Press this to move the Project Cursor onto the position of the left Locator.
GO RIGHT	Press this to move the Project Cursor onto the position of the right Locator.

Cycle, Click, Edit Mode, Sync, Marker and other Function buttons

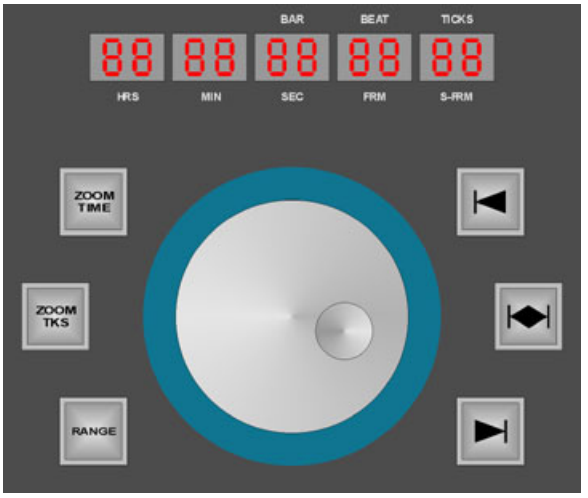
Button	Description
	Use this to activate or deactivate the Cycle function. For this to work as expected, the Locators should be set to useful positions.
	Sets Click to On or Off. Use Metronome Setup on Nuendo's Transport menu to make the desired metronome settings.
	Press this button to activate or deactivate Edit mode in Nuendo. This is useful if you work with audio and video in conjunction
	Press this button to activate or deactivate external synchronization.
	Press this to add a new Marker at the current Project Cursor position.
	Pressing this button activates or deactivates the Goto Mark mode of the ASCII keyboard. you can then use its keys to directly jump to Markers. Read more on page 4-19.
	Press this button to let the Project Cursor jump to the previous Marker.
	Press this button to let the Project Cursor jump to the next Marker.
	If you press this Function button, the Locators are set onto the start and end position of the currently selected Event.
	USER T 1 is a user-definable Function button. Read "Assigning User Functions" on page 3-16 for more information.

Button	Description
	Pressing this lets you select the previous Event on the selected Track.
	Pressing this lets you select the next Event on the selected Track.

Timecode Display

This display shows the current Nuendo Project Cursor position in hours/minutes/seconds/frames/sub-frames or ticks/samples, depending on what you currently do in Nuendo.

The Jog Wheel



The Jog wheel and its related controls

The Jog wheel on the ID is heavy-weighted and high-resolution (4000 values per turn of the wheel).

It has two basic functions:

- You can use it to position the Project Cursor in Nuendo. The step width is automatically set to the step width set for the edited Nuendo function (e.g. bars/beats, timecode, samples etc).
- You can use the Jog wheel to select and edit Events in Nuendo.

NOTE: For this to work, the "Auto-select Events under Cursor" function on the Editing tab of Nuendo's Preferences dialog must be active and at least one Nuendo Track must be selected, as Auto-select always points to the selected Track(s).

Selecting Nuendo Tracks using the ID

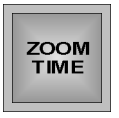
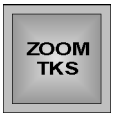
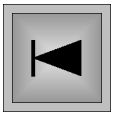
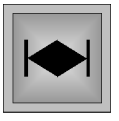
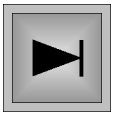
On the ID, several methods for selecting Nuendo Tracks are available:

- Press the FDR or ENC button in the blue SELECT field above the respective ID fader.
  To select several Tracks, simultaneously hold down the CNTR key on ID's ASCII keyboard. (which must be in ASCII mode, see page 4-18).
  To deselect already selected Tracks, hold down the SHFT key.
- Use the Arrow Up Down buttons on ID's ASCII keyboard.
- If the ASCII keyboard is in Reverse mode, you can select one Track at a time by directly pressing the desired key on the keyboard.

Jog Wheel Function buttons

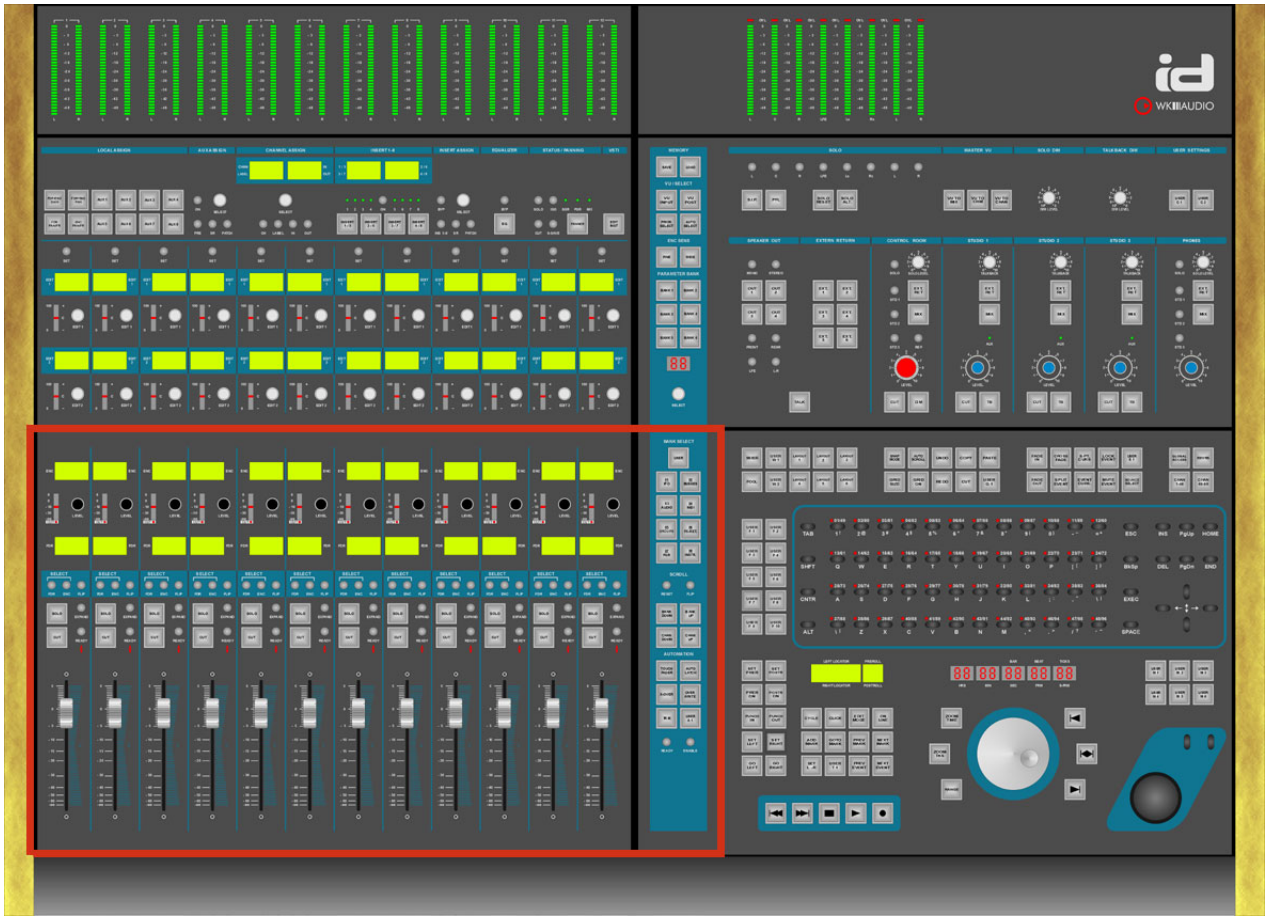
Six Function buttons are grouped around the Jog wheel. These are used to activate or deactivate the Jog wheel positioning and editing modes.

Here are the options that you get when you activate one of the buttons to the left or right of the Jog wheel:

Button	Description
	You can press ZOOM TIME and turn the Jog wheel clockwise to horizontally magnify Tracks/Events. Turn the wheel counterclockwise to zoom out again.
	You can press ZOOM TKS and turn the Jog wheel clockwise for vertical magnification of all Tracks. Turn the wheel counterclockwise to zoom out again.
	If you press RANGE, the resolution of the Jog wheel is automatically set to sample steps in all grids (based on the sample rate used).
	This button is called NUDGE EVENT START. When it is active, you can use the Jog wheel to change the playback start within Events and thus resize them. The step width of this function depends on the grid settings in Nuendo. You can set it by pressing the GRID SIZE button, located in the second button group above the ASCII keyboard. Find more information about GRID SIZE on page 4-20.
	This is called MOVE EVENT. If you activate it, you can use the Jog wheel to move the current time position of the selected Event(s). Here too, the GRID SIZE setting defines the step width.
	This button is called NUDGE EVENT END. When it is active, you can use the Jog wheel to resize the end of an Event. The step width of this function depends on the grid settings in Nuendo. Use the GRID SIZE button to change it according to your wishes.

NOTE: Using Push Hold Detection on these buttons will greatly enhance your work flow efficiency.

Chapter 5



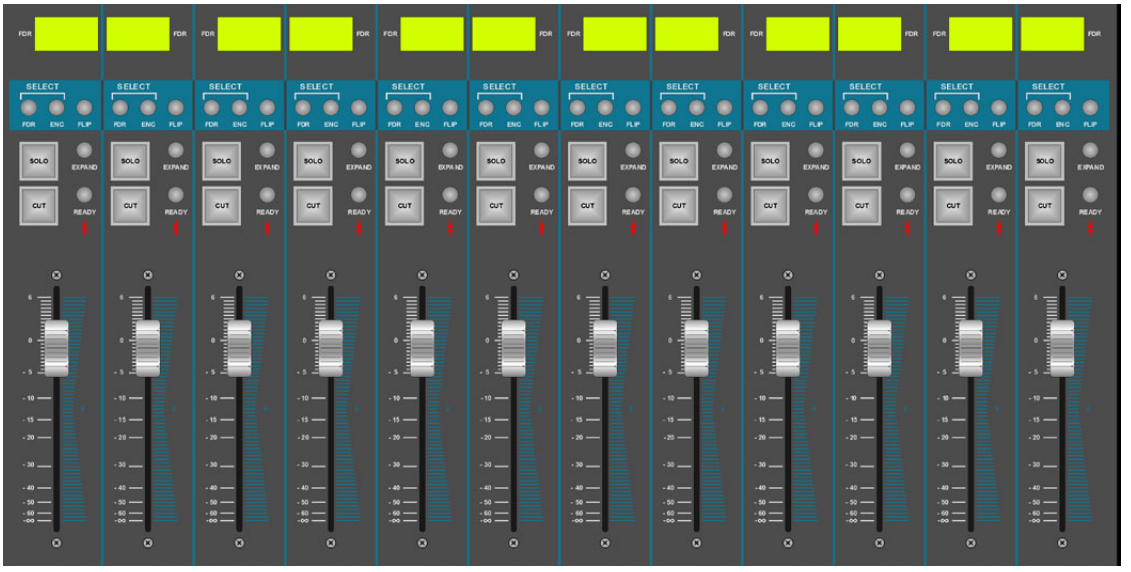
The Fader Section

Chapter Overview

This chapter describes…

- The channel level controls: Faders and Level Encoders.
- All other elements in the Fader section, like Solo, Cut, Expand etc. and how to assign Tracks/Channels to Faders and Level Encoders.
- A description of those functions on the General functions strip that have an effect on Faders and Level Encoders. The General functions strip is the blue vertical strip between the Master and the Fader Module.

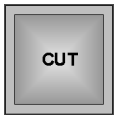
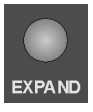
The Fader Bank



Each Fader Module has twelve 100 mm touch-sensitive motor faders, each with a number of Function buttons, a Fader Deviation Indicator LED and a backlit Track name display. The Faders always reflect the current settings.

Fader Function buttons

Each Fader strip has the following Function buttons:

Button	Description
	Pressing this button will mute all Tracks that are not soloed. This is a solo-in-place function.
	If you press Cut, the corresponding Track will be muted.
	If you press EXPAND on a Fader strip, all incoming connections to the corresponding channel are analyzed automatically and lined up on the ID faders for level editing. Read more on page 5-30.
	This lets you activate or deactivate record-ready status for the respective Track.

NOTE: It is a good idea and very handy to use the ASCII keyboard's Reverse mode to get complete overview of the current status of each of these buttons on all Tracks. Please read more on page 4-19.

Fader Deviation Indicators

These two LEDs indicate whether the Fader has been moved from its original position as well as the direction into which it has been moved. If you let go of the Fader handle, the new Fader position becomes the new starting point.

With an automation mode active, see page 7-42, this will only work as expected, if an automation breakpoint is available in the following timecode. It may therefore happen, that one of the two LEDs is still lit, although you have let go of the fader after writing automation data with it. You can change this by simply touching the fader once again.

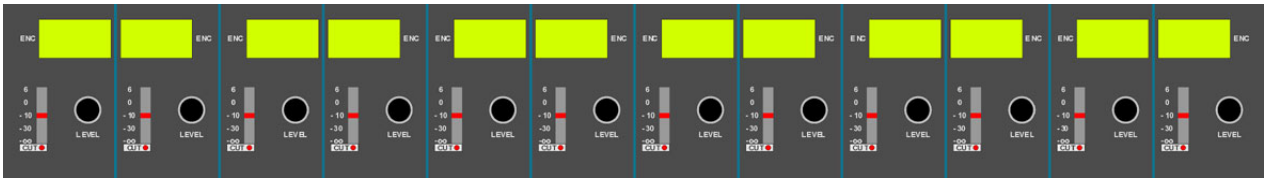
Select & Flip buttons

The FDR and ENC buttons let you select the Channels (Tracks) assigned to the Fader and to the Level Encoder. Using the FLIP button, you can individually swap a Channel between Fader and Level Encoder. You can also flip the complete Fader bank, see page 5-29

Track name displays

Above the Select buttons, there is one Track name display for each Fader. It reflects the Track's name in Nuendo.

The Encoders



Each Fader Module has twelve Level Encoders. a Cut function that you can activate by pressing the Encoder, a Cut status LED, a 10-segment indicator that reflects the Encoder setting and a backlit Track name display.

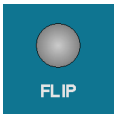
Everything that was said about the Select and Flip buttons on the previous page applies here, too.

General Functions

The vertical blue strip on the left side of the Master Module provides you with a variety of functions that enhance the functionality of the adjacent ID sections.

The functions that concern Faders and Level Encoders are located in its lower half and will be described next.

Scroll – Assigning Tracks/Channels

Button	Description
	This is the “super version” of the individual FLIP buttons on each Fader strip. Pressing this button on the General Functions strip will swap all Tracks/Channels assigned to all Faders with those assigned to the Level Encoders and vice versa.
	Use this button on the General Functions strip to restore your original Track/Channel assignment setup.
	Press this button to assign the previous bank of twelve Tracks/Channels to the level controls. Example: Tracks 13-24 are assigned to the twelve Faders. Then you press this button. Now Tracks 1-12 will be assigned to the Faders.
	Press this button to assign the next bank of twelve Tracks/Channels to the level controls.
	Press CHAN DOWN to assign the previous Track/Channel to a level control.
	Press CHAN UP to assign the next Track/Channel to a level control.

Bank Select – Assigning Track classes

Each of these buttons can be used to automatically line up all Tracks of the respective channel class(es) on the ID Faders and Level Encoders. You may e.g. only wish to see and directly edit all Audio or all MIDI Tracks, all Inputs, all Send busses or Returns. You can also assign them altogether. The scrolling options, mentioned on the previous page, apply.

Button	Description
USER	This may be used by functions available in a later Nuendo version.
01 IPO	If you only want to see and control the input channels, press this button. Then use the ID faders and Level Encoders to change their levels.
02 BUSSES	Press this button to see and control the output busses.
03 AUDIO	Pressing this button lets you see and control the Audio playback channels.
04 MIDI	Activating this lets you see and control the MIDI track volumes.
05 GROUPS	Use this button to assign the Audio Groups to the ID faders and Level Encoders.
06 FX-RET.	If you press this button, the Effect Return channel levels become visible and can be controlled via the ID faders and Level Encoders.
07 FGR	If this is activated, all Tracks/channels and channel classes are arranged and assigned to the ID faders/Level Encoders in exactly the same way as in the Nuendo Mixer windows.
08 INSTR.	Press this button to see and control the output busses of your currently used VST Instruments.

The Expand function

The Expand function is an extremely useful tool during the mixing process.

Say, pressing the 05 GROUPS Function button (described on this page), you have layered all Group Tracks across the ID Faders. But now you want to know, which channels are routed to a specific group.

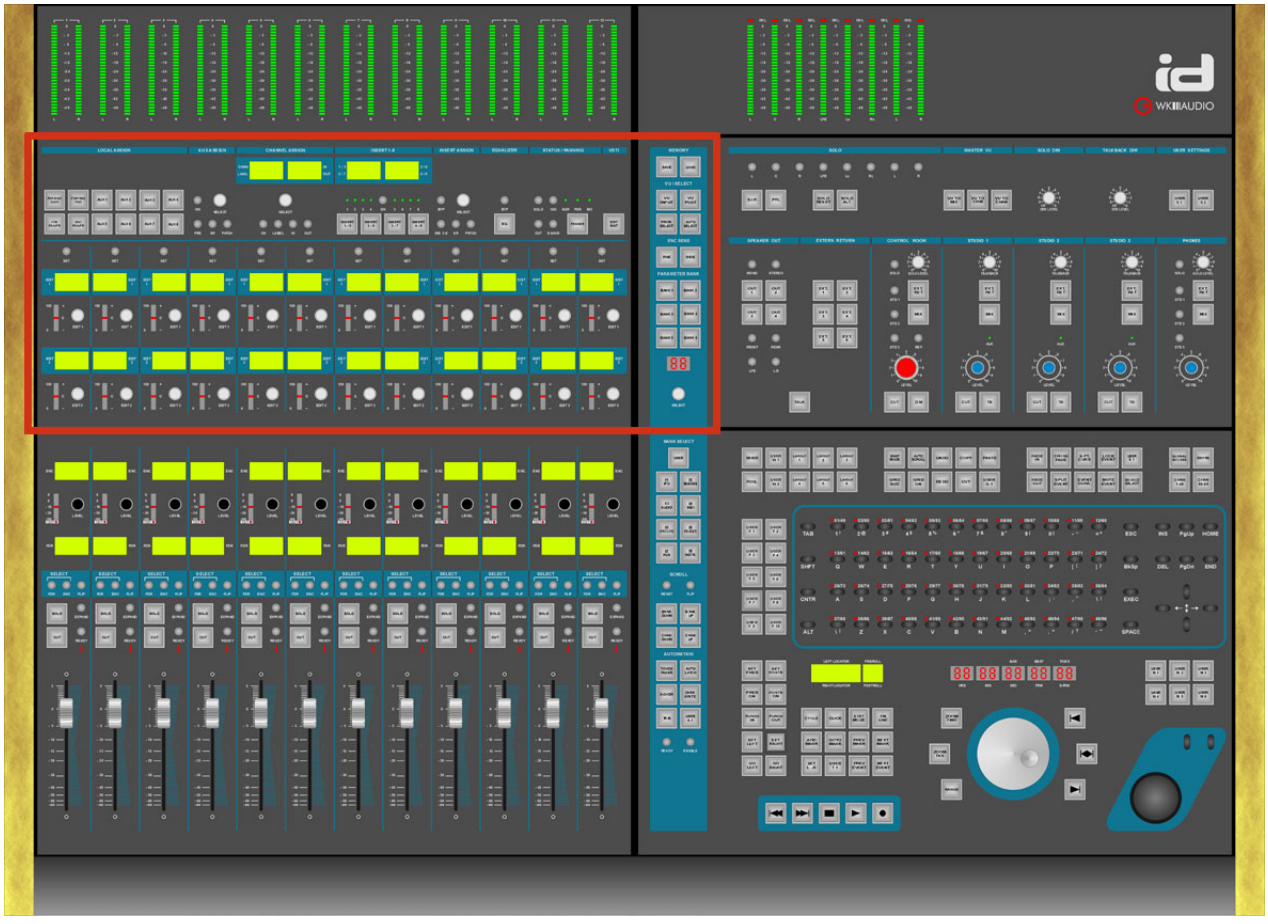
If you press the EXPAND button, all incoming connections to Tracks are analyzed and immediately lined up on adjacent ID faders so that you can edit them directly. Expand thus arranges all sending channels next to an Effect return channel or all feeding channels next to a Group channel.

NOTE: Expand is not available for the Track classes MIDI, VST Instruments and Input.

Here's what happens when you press EXPAND for the different Track classes:

Track class	This happens
Audio	The respective Audio channel gets the left-most Fader. Its input channel is put next to it.
Group	The actual Group channel gets the left-most Fader where the EXPAND button lights up. Simultaneously, the individual Group channels are opened and lined up on the adjacent ID Faders, where you can edit them. You can hide them again by pressing the illuminated EXPAND button on the left-most Fader strip.
FX Channel Returns	The corresponding Return is moved to the left-most Fader and all Tracks that send a signal to this effect via their Aux Sends are arranged next to it.
Output busses	All channels that are routed to this bus are lined up.

Chapter 6



The Channel Strip Section

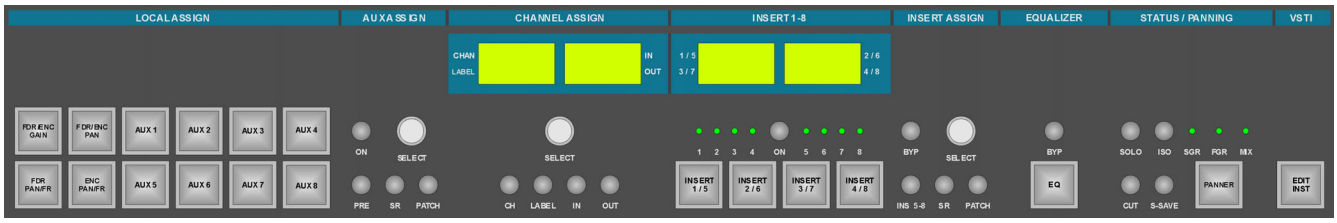
Chapter Overview

This chapter informs you:

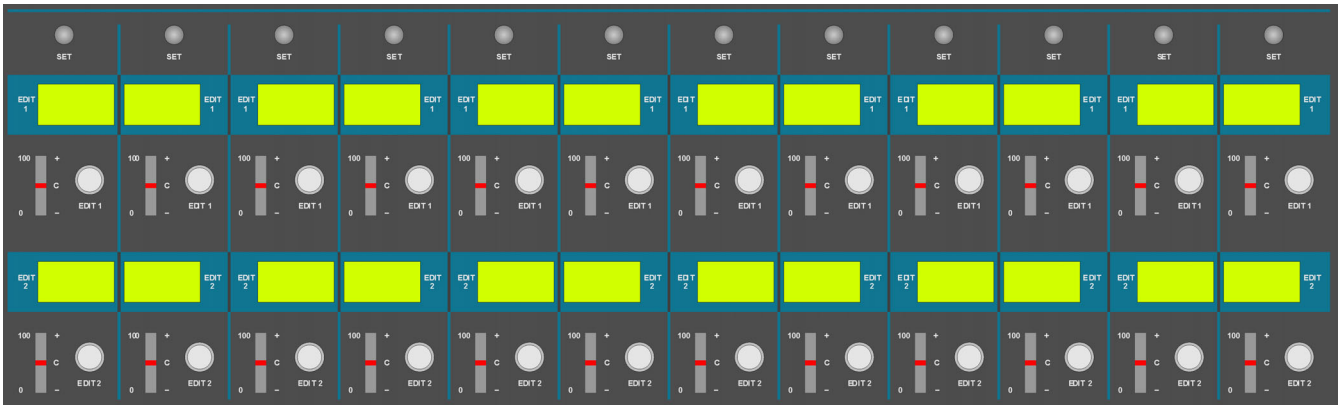
- How you can use the elements in the Channel Strip section to set Aux Send level and parameters, Fader and Level Encoder gain and pan as well as channel in/out routing for the selected channel.
- What you must do to select, activate and edit insert effects and VST instruments.
- About using the EQ.
- About functions on the General functions strip that have an effect on Channel Strip section controls. The General functions strip is the blue vertical strip between the Master and the Fader Module.

The Basics

What you activate or select in the upper part of the Channel Strip section…

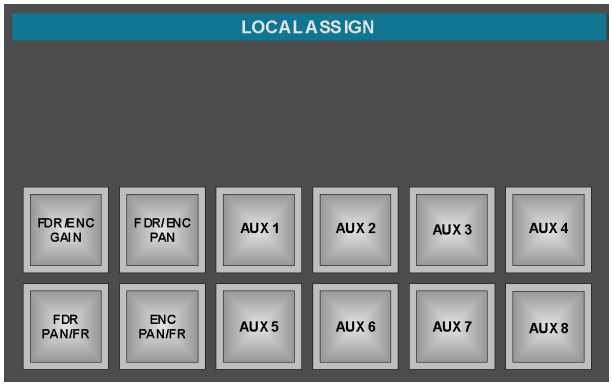


…affects what you can see and do in its lower part.



Let´s start at the top left…

Local Assign



The Local Assign block has twelve parameter buttons. If you activate one of these buttons, the Edit displays in the lower part of the Channel strip section show the different settings on all channels for this particular parameter.

We call this a Multi Channel view.

Using the EDIT dials, you can change the respective parameter setting for each channel. The display above each dial gives you optical feedback.

If a parameter has more than one display page, you can use the red-capped Select dial in the blue General functions strip to select the other pages.

In Multi Channel view, the Edit displays and dials are arranged in a similar fashion as the Faders and Level Encoders in the Fader section. The upper row refers to the channels that have been assigned to the Level Encoders. The lower row refers to the channels that are currently controlled by the Faders.

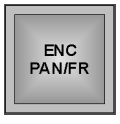
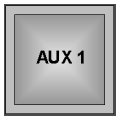
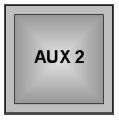
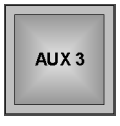
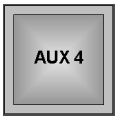
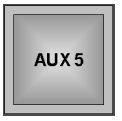
If none of the twelve buttons in the Local Assign block is active, the displays in the lower part show what we call a Single Channel view.

That is, a number of different parameters of one channel only (the currently selected channel) is shown and can be edited in the lower part of the Channel strip section.

In Single Channel view, each Edit display and dial is used to control a different parameter.

Multi Channel view

The following parameters can be displayed and edited in Multi Channel view:

Button	Description
	Fader/Level Encoder gain control, +/-48.2 dB. NOTE: Be careful when you use the gain controls, as rough handling can result in big jumps in level!
	Fader/Level Encoder panorama Page 1: Pan left/right Page 2: Pan front/rear
	Fader pan and front/rear In this mode, both the upper and the lower Edit Encoders refer to the Faders only (not to the Level Encoders!) The upper row of Edit Encoders control left/right pan, the lower controls front/rear position. Especially useful in a surround mix as you don't have to switch.
	Encoder pan and front/rear In this mode, both the upper and the lower Edit Encoders refer to the Level Encoders only (not to the Faders!) The upper row of Edit Encoders control left/right pan, the lower controls front/rear position. Especially useful in a surround mix as you don't have to switch.
	Page 1 : Aux Send level Page 2 : Aux Send On/Off Page 3 : Aux Send Pre/Post Page 4 : Aux Send destination Page 5 : Aux Send bypass On/Off
	Same as above
	Same as above
	Same as above
	Same as above
	Same as above
	Same as above
	Same as above

NOTE: All On/Off functions may be switched by either turning the Edit dial or by pressing it.

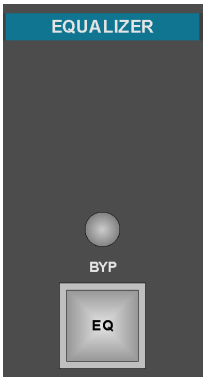
Single Channel View

In this mode, the Edit dials and displays are used as follows:

Edit Encoders/displays left to right	Description
First eight in top row	Aux Send level 1-8. Press the Edit Encoders to set the corresponding Aux Send to On or Off.
Lower row Encoders 1 and 2	Pan left/right and Pan front/rear.
Lower row Encoder 3	unused
Lower row Encoder 4	Channel/Track gain (not Aux gain!)
Lower row Encoder 5	Phase Reverse On/Off. Off = natural phase, On = phase is reversed. You can either turn or press the Encoder.
Lower row Encoder 6	unused
Lower row Encoders 7 and 8	Surround pan for the selected Aux Send (which can be selected using the SET button located directly above the corresponding Aux Send display).
Last four in top and bottom rows	4-band parametric EQ. High band with additional high shelf and low pass settings. Low band with additional high pass and low shelf settings. There are two options to switch each band On/ Off: By pressing the lower Edit Encoder. By pressing the SET button above the respective band. The button will light up. You can also switch between the parameters frequency and Quality (Q) by pressing the upper Edit Encoder.

NOTE: If you continuously hold down the Edit Encoder while you make a Q factor setting, the display will automatically switch back to frequency as soon as you let go of the Encoder.

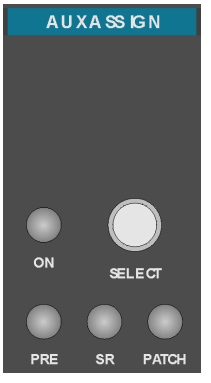
Equalizer



If you activate the EQ button, all EQ parameters of a single channel are distributed onto the first eight displays and Edit Encoders where you can change all parameter values.

You can use the BYP button to bypass the Equalizer.

Aux Assign



The controls can be used to activate Aux Sends for the selected channel and make pre/ post settings for them.

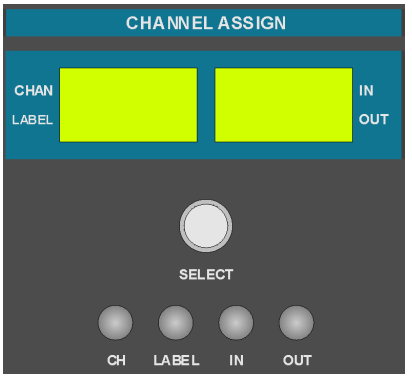
Pressing SR lets you see all available Surround panning parameters in the displays.

The controls Select and Patch will be used by functions available in later Nuendo versions.

To patch (route) an Aux Send to a destination, you can use page 4 in Multi Channel view. How you can get there is described in the bottom left of page 6-32.

- Select an Aux Send by pressing its SET button.
- Activate it by pressing the ON button in the Aux Assign block. If desired, press SR.
- The PRE button lets you toggle between pre and post fader settings. If the button is lit, pre fader is active. if it isn't it's post fader.

Channel Assign

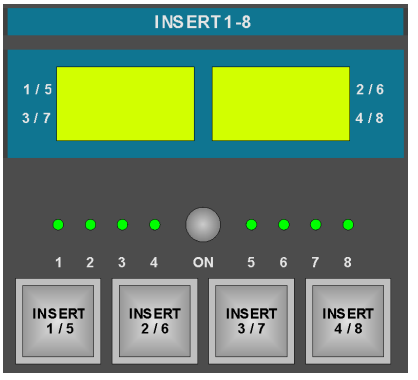


This block contains two 2-line displays, a SELECT rotary dial and four buttons. The settings that you make here apply to the currently selected channel. The settings are shown in the displays.

- To set a parameter, press one of the buttons. It will light up in red and you can select the desired setting.

Button	Description
CH	Channel – Lets you select a channel or Track with the SELECT dial.
LABEL	Channel/Track name ASCII input – Not used at the time when this was written. Will be used by functions available in a later Nuendo version.
IN	Input routing, lets you select an input source with the SELECT dial.
OUT	Output routing to Groups or one of the busses. Use the dial.

Insert 1-8



The elements in this block can be used to display which Insert effects are currently resident in which slots and to select an Insert effect for editing with the controls and displays in the Channel Strip section.

The two displays in this block show which Insert effects are resident in the first or second four Insert effect slots per channel.

- To display to the second group of four slots, use the INS 5-8 button in the Insert Assign block, described below.

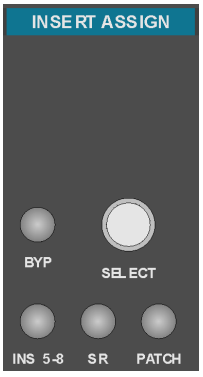
  The eight small LEDs indicate which Insert slots are actually used.
- To select an Insert effect for full display and editing with the Channel Strip controls, press one of the square INSERT x/x buttons. To be able to select from the second group of four effects, use the INS 5-8 button in the Insert Assign block.

NOTE: The Insert slots 1 to 6 are pre fader, slots 7 and 8 are post fader.

- The ON button lets you switch the currently selected Insert effect On or Off. If you switch it Off, its LED will go out.

NOTE: Same as in Nuendo, switching an effect Off doesn't remove it from its slot. Assigning and removing effects to/from slots is done in the Insert Assign block, described below.

Insert Assign



The controls in this block are used to assign or remove Insert effects to/from the available eight slots.

Here you can also activate an effect bypass for each slot and select the second group of four effects for display and editing with the Channel Strip controls as described above in the Insert 1-8 section.

NOTE: To be able to assign an Insert effect to a slot or remove it from there, you must first activate the PATCH button!

Assigning an Insert effect to a slot

Proceed as follows:

1. Activate the PATCH button so that it lights up in red.
2. Select the desired Effects slot by pressing the corresponding INSERT x/x button in the INSERT 1-8 block. It will light up in red.
   If necessary, use the INS 5-8 button to switch to the second group of four slots.
3. Select an effect by turning the SELECT dial clockwise.
   Nuendo will actually load the PlugIn ca. one second after you have stopped to turn the dial.
4. Press PATCH again to get out of Insert Assign mode.

Removing an Insert effect from a slot

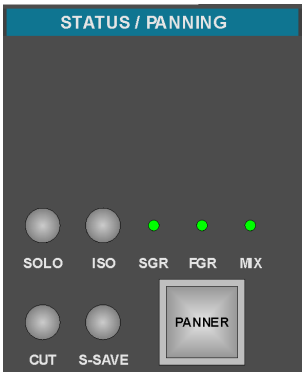
Do this:

1. Activate the PATCH button so that it lights up in red.
2. Select the desired Effects slot by pressing the corresponding INSERT x/x button in the INSERT 1-8 block. It will light up in red.
   If necessary, use the INS 5-8 button to switch to the second group of four slots.
3. To remove the effect in the selected slot, turn the SELECT dial counterclockwise and let go of the dial.
   Nuendo will actually remove the PlugIn ca. one second after you have stopped to turn the dial.
4. Press PATCH again to get out of Insert Assign mode.

The other buttons in the Insert Assign block

Button	Description
BYP	Activate this to activate Bypass for the currently selected effect, i.e. when this is active, the original signal will not be routed through the effect.
INS 5-8	Nuendo provides you with 8 Insert effect slots of which four can be made visible in the INSERT 1-8 block. Use this button to display the second group of four slots.
SR	This will be used in connection with future Nuendo versions.
PATCH	As a precautionary measure, this button must be activated for you to be able to assign or remove an Insert effect to/from one of the slots.

Status Panning



In this block, there is one more instance of the SOLO and CUT buttons, available separately for each Track/channel in the Fader section (see page 5-28).

This SOLO and CUT button can be used to solo or mute the Track/channel that is currently selected for editing. The intention behind this is to help you to focus your attention on your editing instead having to search for the respective buttons in the Fader section.

Button	Description
SOLO	Activate this to set the currently selected Track/channel to solo.
Cut	Activate this to mute the currently selected Track/channel.
ISO	Activate this button to isolate the selected Track/channel from Automation Read. As a result, you will hear the Track/channel without automation.
S-SAVE	Solo Save – If you activate this, the selected Track/channel will not be muted if you solo other Tracks/channels. Use can for example use this to prevent that a Click track is being muted when you solo other Tracks/channels.
Panner	When you activate this square button, all panorama parameters are displayed and can be edited easily using the displays and controls in the Channel Strip section. This is especially useful for Surround panning.

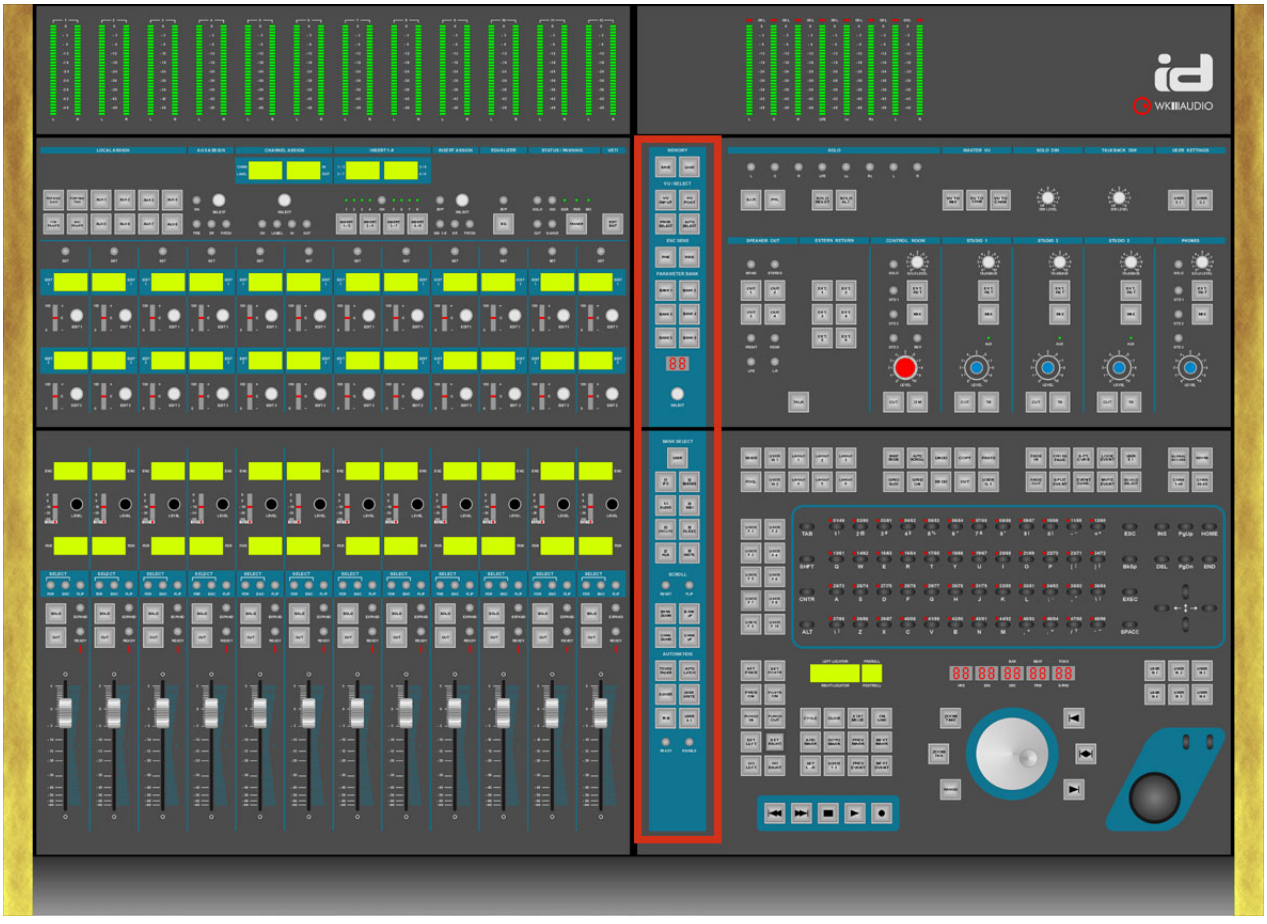
VSTI

By activating the EDIT INST button, you can distribute the parameters of a currently resident VST instrument onto the displays in the Channel Strip function and easily edit them with the respective dials.

1. Load a VST instrument using the ID ASCII keyboard as usual.
2. Press the 08 INSTR button in the Bank Select block of the General Functions strip.
   All currently resident VST instruments are assigned to the Faders in the Fader section.
3. Select the new VST instrument by pressing the FDR button in the blue SELECT area above its fader.
   Now the parameters are distributed onto the displays and dials in the Channel Strip section, where you can edit them.

NOTE: If a VST instrument has more parameters than can be made visible and edited using the available displays and dials, use the red-capped SELECT dial in the General Functions strip to switch to the other parameter pages. The double digit numeric display above the SELECT dial indicates the currently visible page.

Chapter 7



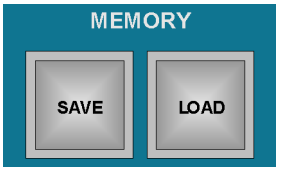
The General Functions Strip

Chapter Overview

This chapter describes…

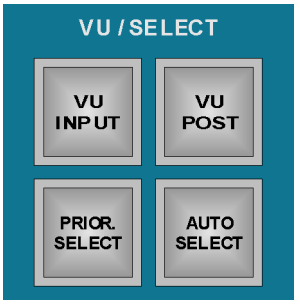
- All functions on the General functions strip from top to bottom.

Memory



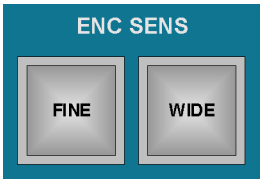
- Press the SAVE button to store the current Nuendo project file onto disk.
- Press the LOAD button to load a Nuendo project from disk.

VU/Select



- If you activate the VU INPUT button, the input signal will be displayed on the VU meters.
- If you activate the VU POST button, the signal is displayed post fader on the VU meters.
- PRIOR SELECT and AUTO SELECT are currently not used. They will be used by a later Nuendo version.

Enc Sens

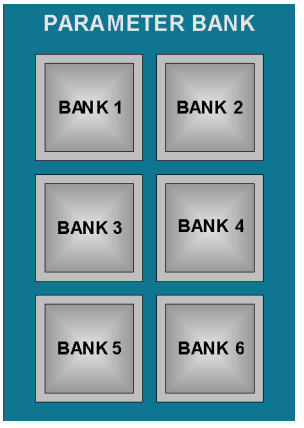


By activating one of these buttons, you can set the Encoder dial sensitivity.

Button	Description
FINE	Lets you step through the available value range in small steps. You must turn the dial several times to reach the other end of the range.
WIDE	Lets you step through the available value range in bigger steps. You must only turn the dial once to reach the other end of the range.

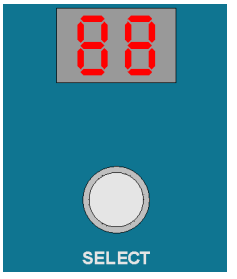
NOTE: These two buttons alternate, i.e. only one will be active at a time.

Parameter Bank



These controls will be used in conjunction with a later Nuendo version.

Double Digit Display



If a VST instrument has more parameters than can be made visible and edited using the available displays and dials in the Channel Strip section, you can use the red-capped SELECT dial in the General Functions strip to switch to the other parameter pages.

The double digit numeric display above the SELECT dial indicates the currently visible page.

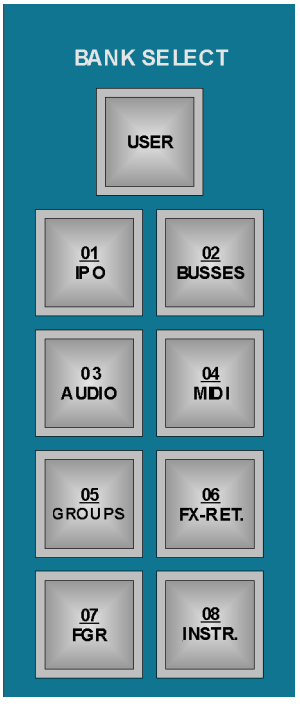
Select Dial

This red-capped rotary dial lets you select the following items:

- Additional parameter pages in a Channel Strip Multi Channel view.
- Additional VST instrument parameters in the Channel Strip.
- VST PlugIns

Please find a more detailed description in the respective chapter.

Bank Select



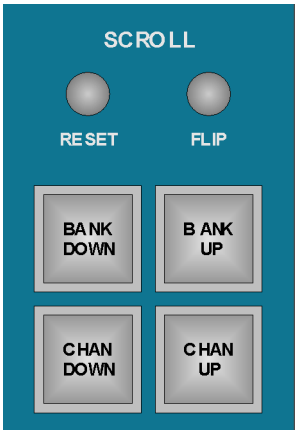
Each of these buttons can be used to automatically line up all Tracks of the respective channel class on the ID Faders and Level Encoders.

You may e.g. wish to map all Audio or all MIDI Tracks, all Inputs, Effect Send busses or Returns to the Faders/dials for direct editing.

You can even map them altogether.

Button	Description
USER	This may be used by functions available in a later Nuendo version.
01 IPO	If you only want to see and control the input channels, press this button. Then use the ID faders and Level Encoders to change their levels.
02 BUSSES	Press this button to see and control the output busses.
03 AUDIO	Pressing this button lets you see and control the Audio playback channels.
04 MIDI	Activating this lets you see and control the MIDI track volumes.
05 GROUPS	Use this button to assign the Audio Groups to the ID faders and Level Encoders.
06 FX-RET.	If you press this button, the Effect Return channel levels become visible and can be controlled via the ID faders and Level Encoders.
07 FGR	If this is activated, all Tracks/channels and channel classes are arranged and assigned to the ID faders/Level Encoders in exactly the same way as in the Nuendo Mixer windows.
08 INSTR.	Press this button to see and control the output busses of your currently used VST Instruments.

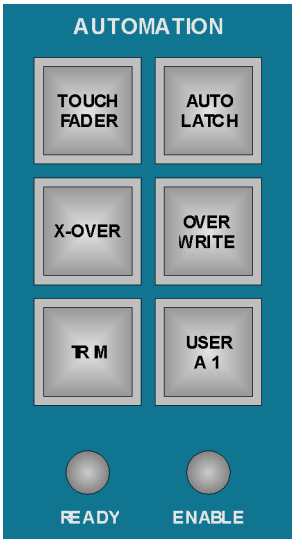
Scroll



Button	Description
FLIP	This is the “super version” of the individual FLIP buttons on each Fader strip. Pressing this button on the General Functions strip will swap all Tracks/Channels assigned to all Faders with those assigned to the Level Encoders and vice versa.
RESET	Use this button on the General Functions strip to restore your original Track/Channel assignment setup.

Button	Description
	Press this button to assign the previous bank of twelve Tracks/Channels to the level controls. Example: Tracks 13-24 are assigned to the twelve Faders. Then you press this button. Now Tracks 1-12 will be assigned to the Faders.
	Press this button to assign the next bank of twelve Tracks/Channels to the level controls.
	Press CHAN DOWN to assign the previous Track/Channel to a level control.
	Press CHAN UP to assign the next Track/Channel to a level control.

Automation



USER A1 is a user-assignable button. These are described on page 3-16.

By pressing one of the first five square Function buttons in this block, you can activate an automation mode.

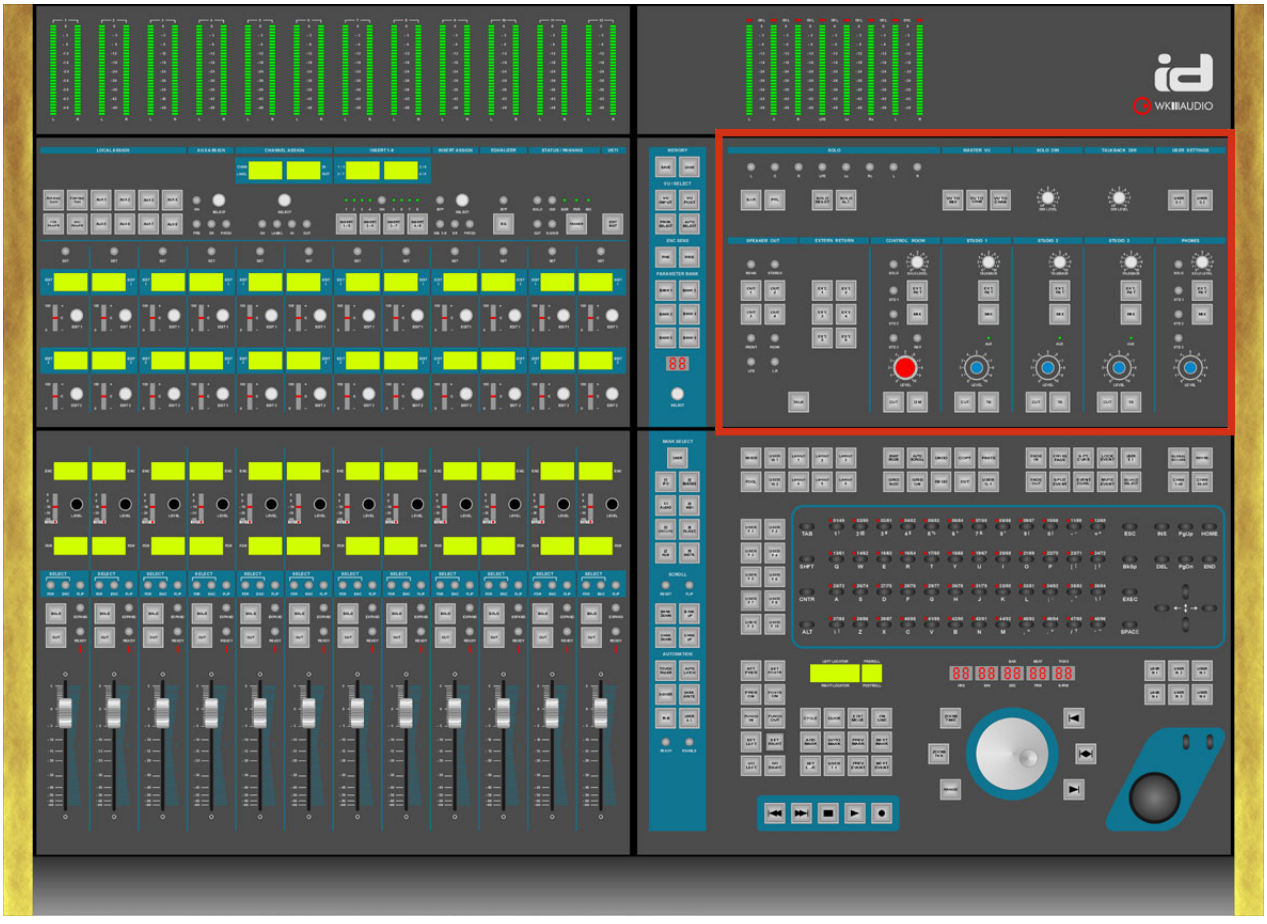
- Select the desired automation mode and use it on one or several Tracks/channels by pressing their READY button.
- Then press the READY button in the AUTOMATION block.

Now the READY button on a Track/channel sets it to to automation ready status instead of to record ready status, as usual.

NOTE: Although Recording and automation should generally be two separate processes, it might happen in rare cases that a Track/channel is still set to Record Ready when you activate Automation by pressing the READY button in the AUTOMATION block.
Please note that the READY button on the respective Track/channel will now show the current AUTOMATION READY status, although RECORD READY mode is still active.
If in doubt, deactivate AUTOMATION READY, then either record or set RECORD READY to OFF. Then activate AUTOMATION READY again.

The ENABLE button does currently not provide any functionality. This will be changed by a later Nuendo version.

Chapter 8



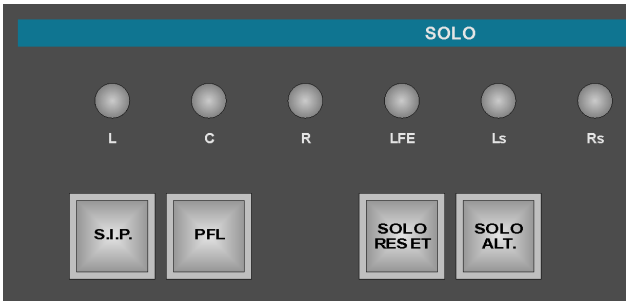
The Monitoring Section

Chapter Overview

This chapter describes…

- All available control room and monitoring functions.

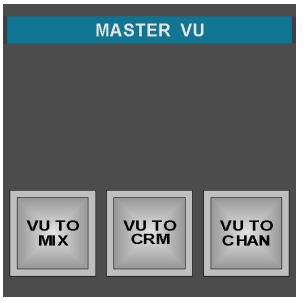
Solo



Two functions are currently available in this function block:

Button	Description
	Solo in place. This is currently always active.
	PFL/AFL, not yet implemented. This will be available in a future Nuendo version.
	Press this to reset all Solo settings except for the Solo Save settings (see page 6-37.)
	Not yet implemented. This will be available in a future Nuendo version.
The Surround Solo buttons at the top of this section will be available in a future Nuendo version.	

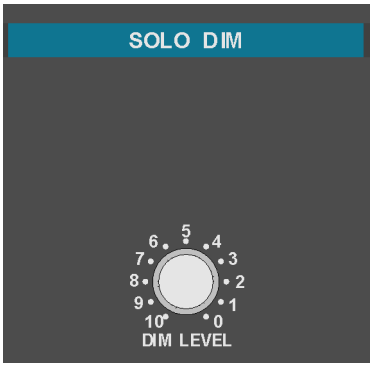
Master VU



Here you can determine what's shown in the Master section part of the VU Meter Bridge.

Button	Description
	This always shows the level of the first output bus.
	This button has not yet been assigned. It will be in a future Nuendo version.
	This displays the level(s) of the selected Track(s)/channel(s) in the Master section part of the VU Meter Bridge.

Solo Dim

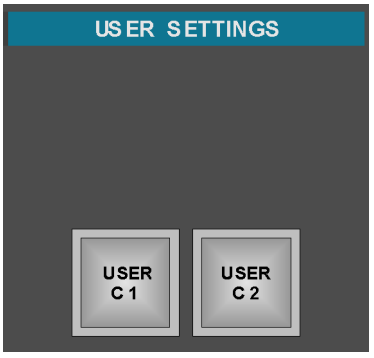


This potentiometer is not yet used. It will be in a future Nuendo version.

Talkback Dim

This potentiometer is not yet used. It will be in a future Nuendo version.

User Settings



These two User Function buttons are not yet used. They will be accessible in a future Nuendo version.

Talk Button

This button will be used in connection with a future Nuendo version.

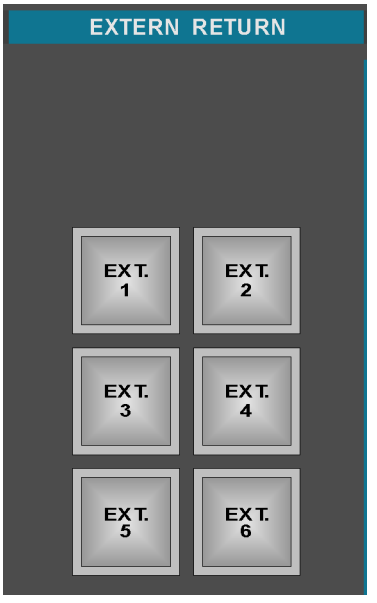
NOTE: The Talkback and Headphone amps in ID are set to a fixed level. Please use Nuendo to control the levels you actually need.

A symmetric Talkback signal is output via a 6.3 mm phone jack on the ID rear panel.

Speaker Out Controls

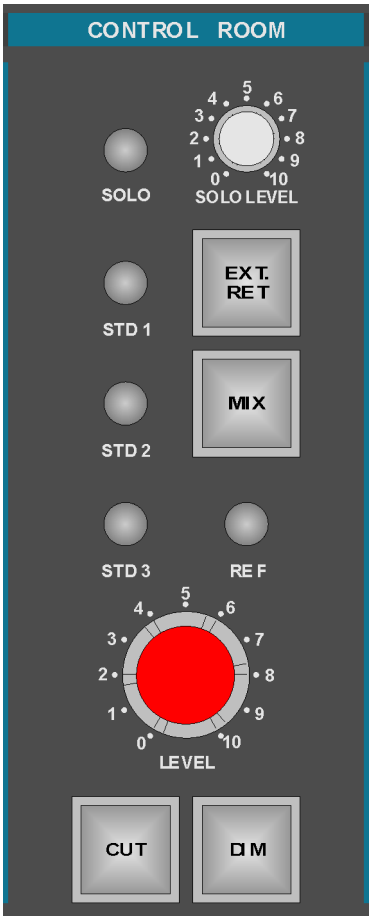
These controls are not yet used. They will be accessible in a future Nuendo version.

Extern Return



These Function buttons are not yet used. They will be accessible in a future Nuendo version.

Control Room Controls

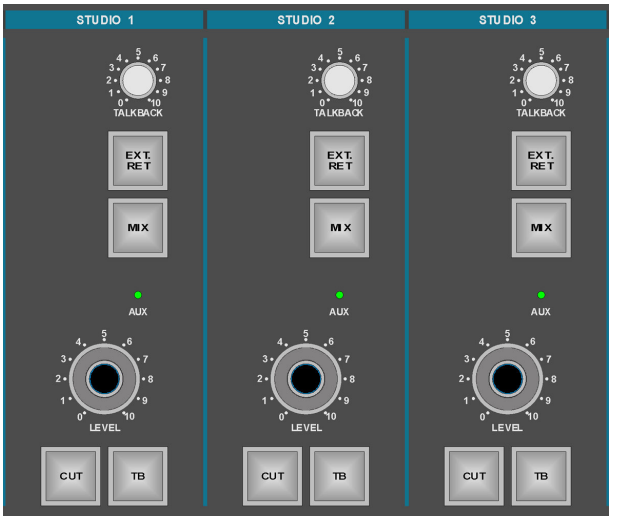


Currently, only the red-capped Volume potentiometer for output bus 1 can be used.

All other functions in this block will be made available by future Nuendo versions.

NOTE: All ID LEVEL dials in the Monitoring section are potentiometers not rotary dials! Therefore, extreme jumps in volume may occur when you change the LEVEL settings in this section.
We urgently recommend that you turn these dials down after loading a project and prior to starting playback.
We also urgently recommend that you set the power amps that drive your studio monitors to a level so that the maximum Nuendo level can not damage the speakers!

Studios 1, 2, 3

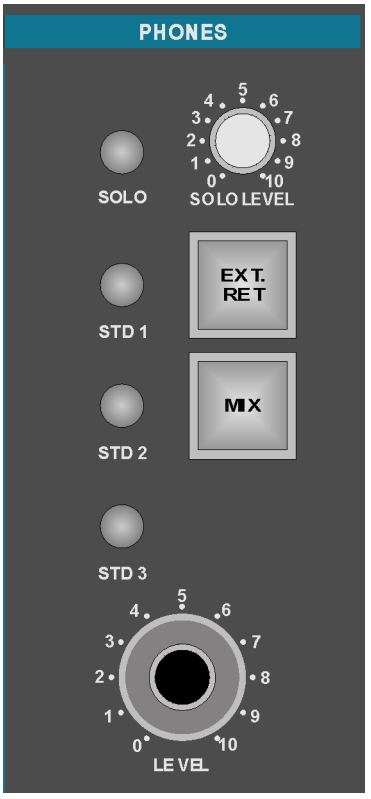


Currently, only the black-capped Volume potentiometers for output bus 1, 2, 3 can be used.

All other functions in this block will be made available by future Nuendo versions.

NOTE: All ID LEVEL dials in the Monitoring section are potentiometers not rotary dials! Therefore, extreme jumps in volume may occur when you change the LEVEL settings in this section.
We urgently recommend that you turn these dials down after loading a project and prior to starting playback.
We also urgently recommend that you set the power amps that drive your studio monitors to a level so that the maximum Nuendo level can not damage the speakers!

Phones

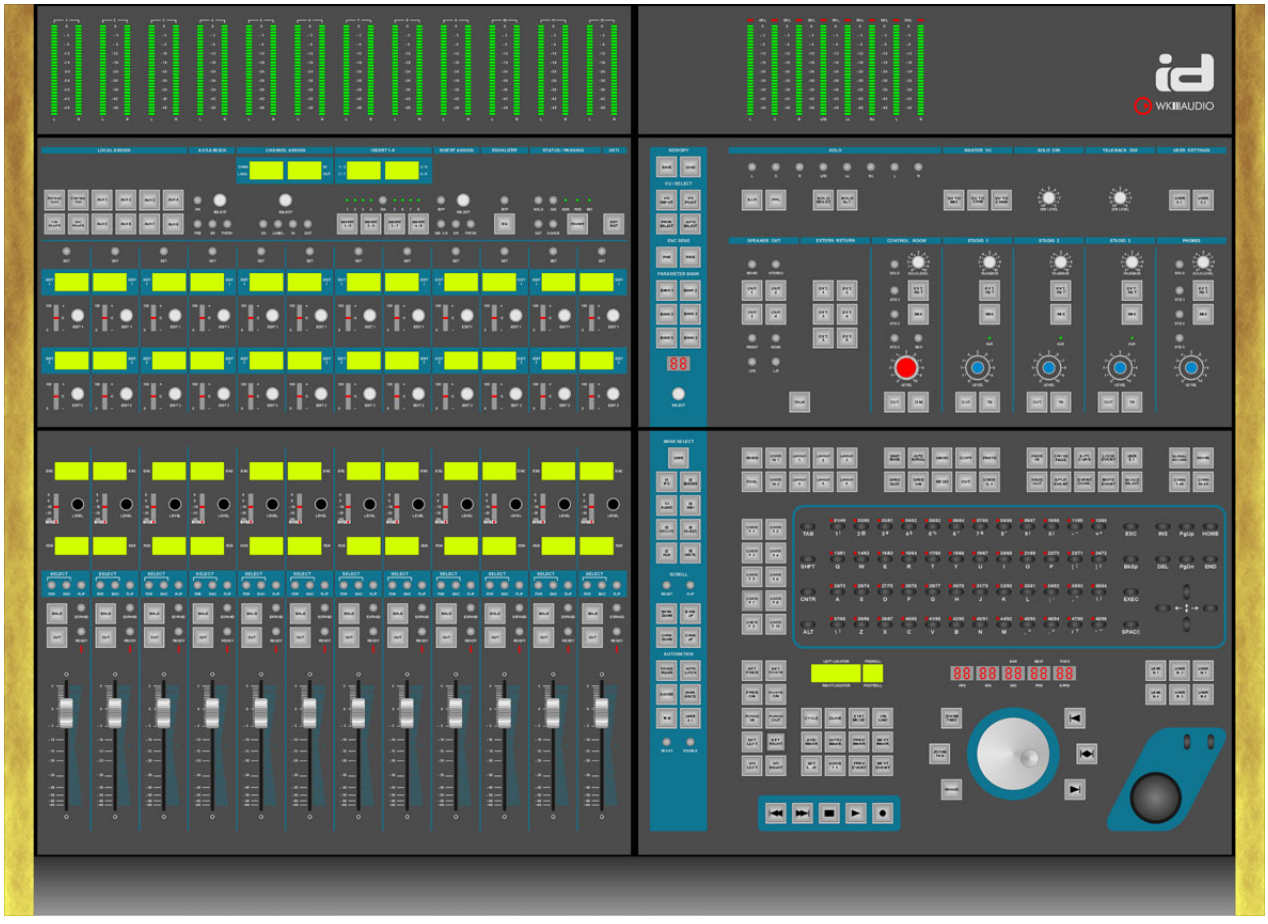


Currently, only the black-capped Volume potentiometer for output bus 4 can be used.

All other functions in this block will be made available by future Nuendo versions.

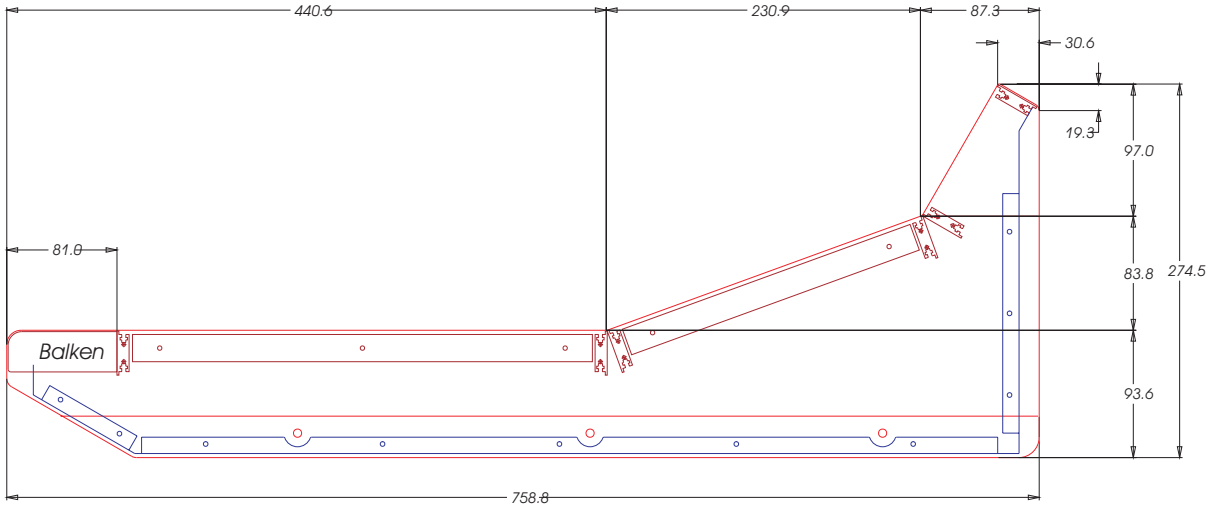
NOTE: All ID LEVEL dials in the Monitoring section are potentiometers not rotary dials! Therefore, extreme jumps in volume may occur when you change the LEVEL settings in this section.
We urgently recommend that you turn these dials down after loading a project and prior to starting playback.
We also urgently recommend that you set the power amps that drive your studio monitors to a level so that the maximum Nuendo level can not damage the speakers!

Chapter 9



Technical Specifications

Dimensions



Base unit without side panels:

Width: 1015 mm

Depth: 762 mm

Hight at fader block: 94 mm

Hight at meter bridge: 276 mm

Find more information in the illustration above.

Connections

1 USB, 1 power chord

Specifications

12 Motor Faders, 12bit resolution, touch-sensitive

12 potentiometers in Monitoring section.

40 Encoders with key function, 64 positions with fine tuning option

380 Keys, backlit, framed, 10.000.000 key cycles

53 Displays in basic ID version, 760 characters total, 104 lines of 7 characters, 2 lines of 10 characters, 2 lines of 5 characters

12 7-segment LED displays

LEDs: 1705 pieces (red, green, yellow, blue)

30-segment meter bridge: 24 for channels, 8 for Master

Heavy-weighted, high-resolution Jog wheel; 4000 steps per revolution.

ASCII keyboard (English layout)

Industry standard trackball according to IP65, protected against dust and water, 50 mm

9 Processor boards

Steel housing (no interspersion)

Padded arm rests

Non-reflecting surface

Can be extended with up to 4 fader packs

Optional: Wooden side panels: real mahogany

Optional: Slot for joystick

Hardware: Made in Germany

Power supply: integrated 120 Watts with 50% overhead.