DPS24

DIGITAL PERSONAL STUDIO

OS Version 1.6

Quick Technical Reference for operation in Live Applications

Version 1.0 (created and maintained by Simon Jenni)

Block Function Diagram for Input, Output and Mixer Section

July, 2005

Introduction

Goal of this Reference: This Quick Technical Reference serves the following purpose:

- Quick setup and operation for live applications without the need to dig into the manual.

It should be a Quick Reference to set up and do all the operations you need to do in a live application. It helps you to do quickly what you want to do in a strain live environment where you may be under pressure.

Target group: If you are gone already through the learning curve and are using your DPS24 every day, there will not be much need to use such a reference or the manual. However, if your business is something else and you use the DPS24 e.g. only once in a while to help in a musical camp or so, you will find this technical reference helpful. It helps you to do a specific and quick mixing job in a live application, without the need to dig into the manual again. And this will help you to save a lot of time.

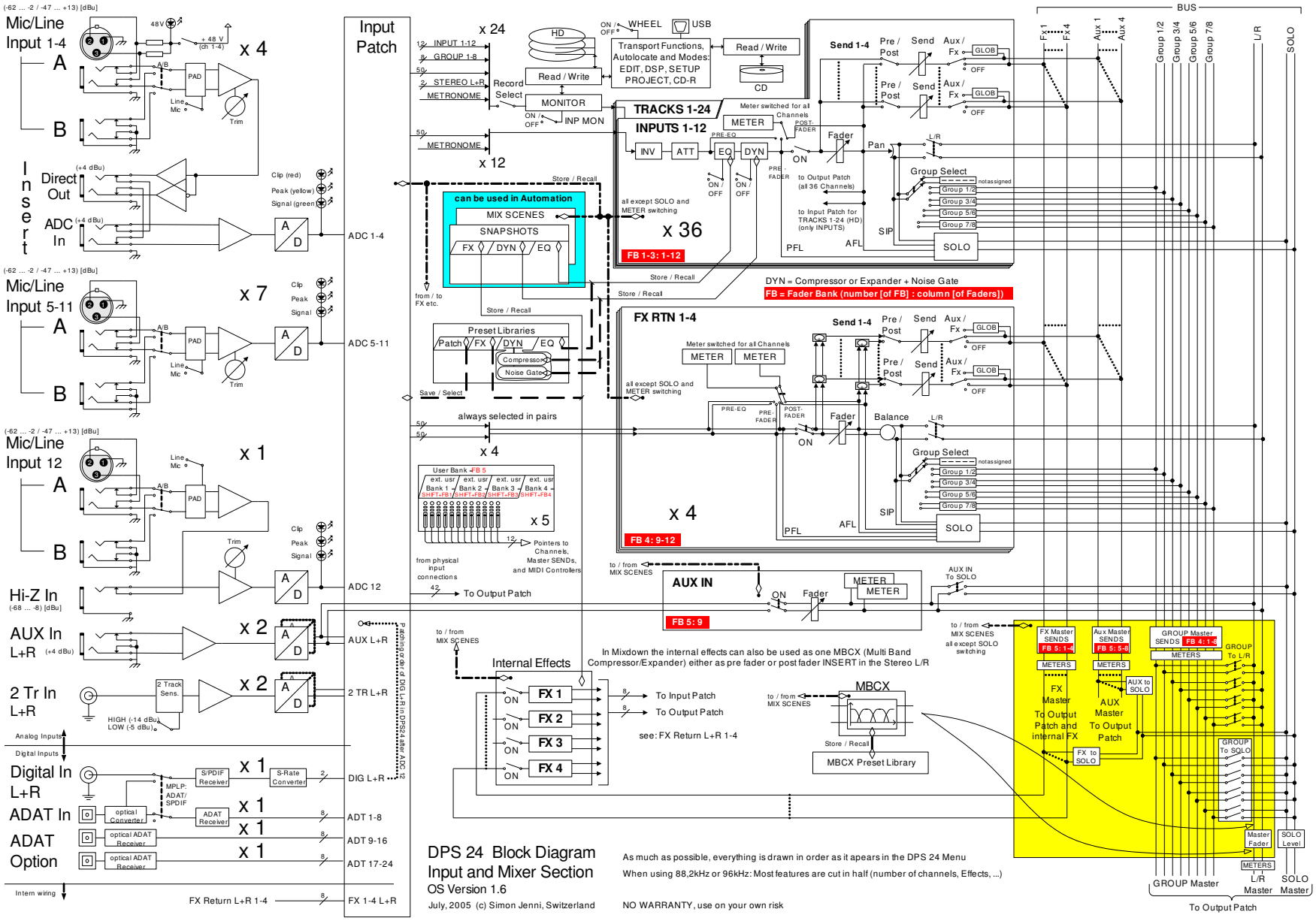
How to use it: You primarily will need the two block diagram pages of this Quick Technical Reference and should be able to set up and operate the DPS24 accurately with that alone (after set up and sound check, the Input and Mixer Section Block Diagram will be the one you need). The pages “Operating the controls” are only needed, when you don’t know any more, how to get to the control in question. For planning and set up you can use the two technical rider pages. An example of using them is also given.

As much as possible, everything in the diagrams is drawn in the order as it appears in the DPS24 menu. So you know what you have to expect as next or how far or in which direction you have to go, when patching or switching. The Fader Bank and associated column for the Channel and the different Master Busses controls is also shown. For that reason, the Fader Bank is numbered from left to right (FB1 = INP 1-12; FB2 = TRACKS 1-12; FB3 = TRACKS 13-24; FB4 = GROUP FX; FB5 = USER BANK).

Background: I did draw the Block Function Diagram mainly for me, since I am not an every day user of the DPS24 and need to have a quick overlook, what I can do with it, when using the DPS24 in a live application. Looking at the two diagrams, helps me to understand immediately what I can and should do to accurate set up the current live application, without to dig into the manual. Since the DPS24 is so intuitive to operate, I even don’t need to look up how to operate all the controls. But for every new user, I have added a quick table reference, so they are able to operate all the controls in the diagrams in a stress situation, without the need for looking them up in the manual. However, I will show only one way and not all the eventualities to operate these controls, therefore: You should read the manual at least once.

What it isn’t: It does not show all the possibilities of the DPS24 and therefore does not replace the manual. In particular it does not show you the operation in EDIT-, DSP-, PROJECT-, CD-R-, etc. Modes. These are all applications, which you will use mainly in the studio (to edit a recording, doing backups, mixing down a recording, burning a CD, etc.) and not in a live application. There (in the studio), you will have enough time to do what you want to do and can use the manual, if you don’t know, how to do it.

Have a lot of fun with your DPS24!
Greetings, Simon



DPS 24 Block Diagram
Input and Mixer Section

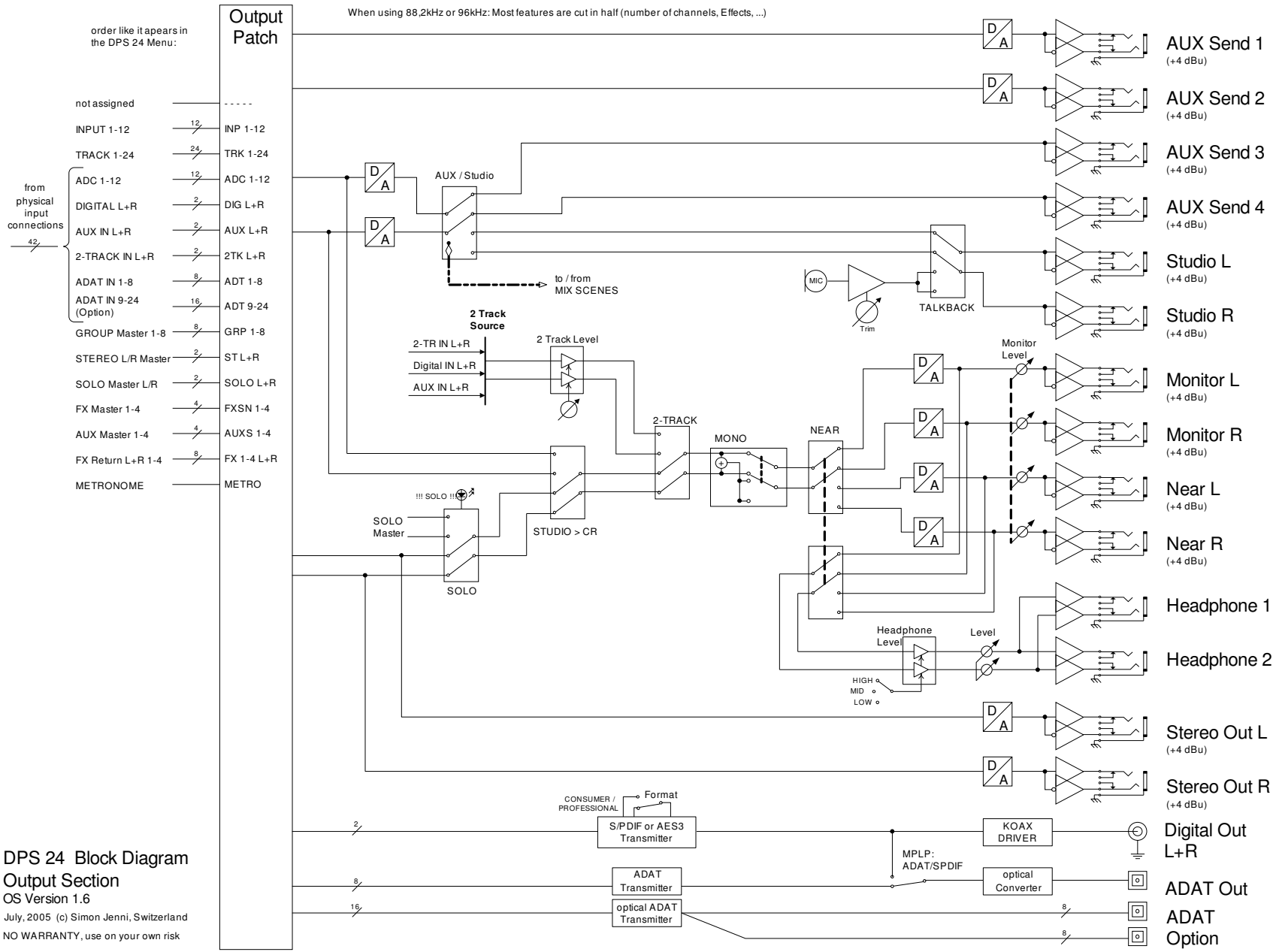
OS Version 1.6

July, 2005 (c) Simon Jenni, Switzerland

As much as possible, everything is drawn in order as it apears in the DPS 24 Menu

When using 88,2kHz or 96kHz: Most features are cut in half (number of channels, Effects, ...)

NO WARRANTY, use on your own risk



DPS 24 Block Diagram
Output Section
OS Version 1.6

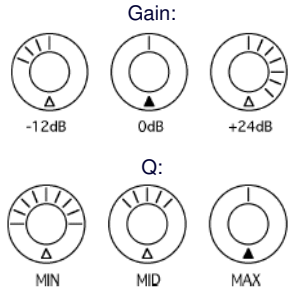
Operating the controls

Input Section:

Control	Operation
+48 V	Slide Switch (top left of ULC = Upper Left Control of the DPS24 top panel) This switches on 48V phantom power on Mic/Line Inputs 1 to 4 (e.g. for condenser microphones or active DI-boxes). Only connect balanced (symmetric) sources to the Inputs 1-4. If you connect an unbalanced source to one of these Inputs, usually Pin 3 will be shortened with Pin 1 Ground and when 48 V is switched on, there will be a current flowing through the signal path, causing some noise and may be overload the phantom power supply circuit. In the DPS24 the current is limited to about 7mA per shortened input according to the 6.8kΩ resistances used. However, remember that this will also limit the current, which can be drawn by the connected signal source (to about a maximum of 4mA where also the voltage will be dropped to 20.8V at the signal source in this maximum case). Notice: There are some condensers (not drawn in the block diagrams) to prevent load-independent DC voltage to get into the DPS24 amplifier circuit.
A/B	Button (first row of ULC)
Line/Mic	Button (second row of ULC)
Trim	Rotary Pot (ULC below Line/Mic Buttons)
2 Track Sens.	SETUP (MK=Mode Key) -> PREFS [F3] (LCD SK=Soft Key) -> AUDIO SETUP [F3/F4] (LCD SK) -> 2 Track Sens. [Q3] (LCD QL=Quick Link knob)
MPLP: ADAT/SPDIF	SETUP (MK) -> PREFS [F3] (LCD SK) -> AUDIO SETUP [F3/F4] (LCD SK) -> MPLP Connection [Q4] (LCD QL)
Input Patch	PATCH = SHIFT+MIXER (MK) -> Q5 and Q6 (LCD QL) -> use Q5 to go to the appropriate INPUT, TRACK or FX RTN Channel and then use Q6 to select the appropriate Input Source.
Indicator	**Description**
48V	LED (top left of ULC) This LED is lit when 48V phantom power is switched on.
Signal/Clip	LED (ULC below Trim-Rotary-Pot) These LEDs of the Mic/Line Inputs shows if a signal is present (green: -60dB to -3dB), the signal is at peak (yellow: -3dB) or if the signal is already clipping (red: 0dB). Avoid having the signal clipping (this will cause a lot of distortion). If a LED of the Mic/Line Inputs goes to red (or to often to red) reduce the Level with the Trim Rotary-Pot.

Mixer Section:

Control	Operation
Record Select [Indicator: This key illuminates red when armed (flashing when ready, lit when recording); in EDIT-MODE (not used in live application but used at home in preparing the mix down) this key illuminates green when selected]	Key (two rows of keys in ULC beneath Trim-Rotary-Pot) Press the keys for all the TRACKS-Channels you want to arm. The MONITOR-Block after the Record Select works like this: The Signal for all the Tracks you did arm the "Record Select" key will be passed to the TRACKS-Channel. As long as you do not record, all 24 TRACKS Channels can be used in your live mixing (plus all the 12 INPUTS Channels plus all the 4 FX RTN Stereo Channels plus the AUX IN Left and Right Channel = total of 46 Channels). You normally can record (pressing PLAY+RECORD keys together in the Transport Function) up to 16 audio sources simultaneously. If you like to record up to 24 Tracks, you need first to set "24-Trk Record" to ON (see below). However, you will not be able to playback channels 21 to 24 in this case. To be able to hear all 24 Tracks, you need to set back the 24-Track Record to OFF. The most useful design of the DPS24 in live mixing and recording lays in this: You can record audio sources (tracks) of raw (dry) signal to hard disc. This signal goes also to the TRACKS-Channels, where you can adapt it with dynamics, EQ, and so on, to your live environment requirements (you also can route some signals over the Output Patch to ADAT OUT connected with ADAT IN over Input Patch back to the INPUTS Channels and add more EQ, dynamics, etc.). At home, you still have the clean raw signals and you can adapt and mix down these signals with dynamics, EQ, and so on, to the requirements you need for CD-production. And as you know: you have to treat a signal quite different in live environment, than you would have in a HiFi home living environment. Never tried it, but this setup may work: If you want to record 24 audio sources dry, and use the same signals with treatment in your live application: Set "24-Trk Record" to ON. Arm all 24 Record Select. The inputs which go to TRACKS 21 to 24 must be patched also to four input channels. Now, you can record 24 channels dry signals to HD and use these 24 inputs in your live environment with any arbitrary signal treatment, without influencing the clean signal, which gets recorded. The 8 remaining INPUT-Channels you could use to add some more processing to some signals (routing over ADAT OUT to IN).
24-Track Record	SETUP (MK) -> PREFS [F3] (LCD SK) -> 24 Trk Record [Q5] (LCD QL) to set to ON or OFF.
INP MON [Indicator: key lit when on]	Key (LRC = Lower Right Control of the DPS24 top panel) Switch on if you want to hear the inputs for the TRACKS-Channels all the time, even during playback.
WHEEL [Indicator: key lit when on]	Key (LRC) Switch WHEEL off to avoid possible interruption in live application (you will not be able to use the wheel in the Transport Function when this switch is turned off).
INV	-> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> use Phase Invert [Q2] (LCD QL) to set ON or OFF the invert of the phase of the audio source of this channel.
ATT	-> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> use Attenuation [Q3] (LCD QL) to set the attenuation for the signal of this channel.

EQ  	Rotary Encoders (top row of LLC = Lower Left Control) -> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> Now you can use the rotary encoders to set the EQ parameters for the selected channel (as well as to set the PAN and FX/AUX Sends 1-4). Since the DPS24 has only one full parametric filter per mono channel, you will need to set up two channels for some signals to get a reasonable EQ-processing in a live application. The easiest to do this, is to connect an optical cable from ADAT OUT to ADAT IN and then cascade some channels with the Output and Input Patch together. For some Microphone connections in a live application it is essential to adapt a low cut filter into the signal path. You can use some extern equipment or misuse the low shelf filter of the DPS24 for that reason.
EQ – ON/OFF	Key (right side in last row of keys of ULC) -> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> Press EQ ON key to use (illuminated) or bypass (not illuminated) the channel EQ.
DYN	-> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> use DYN [F3] (LCD SK) to go to the dynamics channel page (and there COMP [F3] or N.GATE [F3]). -> use Q1 to Q6 (LCD QL) to set the dynamics parameters.
DYN – ON/OFF	-> in the dynamics channel page (see above) press F5 (LCD SK) to use (ON) or bypass (OFF) the channel dynamics
ON (Channel ON) [Indicator: key lit when on, flashes when solo'd]	Key (second row of keys in LLC) With these keys you can mute a channel or switch it on. The shift function of this key is to solo the channel -> see the control SOLO. -> To get to the channel you want, use the Fader bank (FB in LRC). Please see under the control Fader.
Fader	Motorized 100mm Fader (LLC) Make sure that the faders are in the channel FADERS function: None of the FX/AUX 1 to 4 should be flashing (otherwise press this key). Use the keys of the Fader bank (FB in LRC) to get to the Fader of a channel you want: - **FB1:** INP 1-12: INPUTS Channels 1 to 12 - **FB2:** TRACKS 1-12: TRACKS Channels 1 to 12 - **FB3:** TRACKS 13-24: TRACKS Channels 13 to 24 - **FB4:** GROUP FX: GROUP Master SENDS 1 to 8 and FX RTN 1 to 4 - **FB5:** USER BANK (if not changed by user): FX Master SENDS 1 to 4, Aux Master SENDS 1 to 4, AUX IN Channel, and MIDI controller 1 to 3
METER-switch	-> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> Use Meter [Q4] (LCD QL) to set the meter switch to PRE-EQ, PRE-FADE, or POST-FADE for all channels.

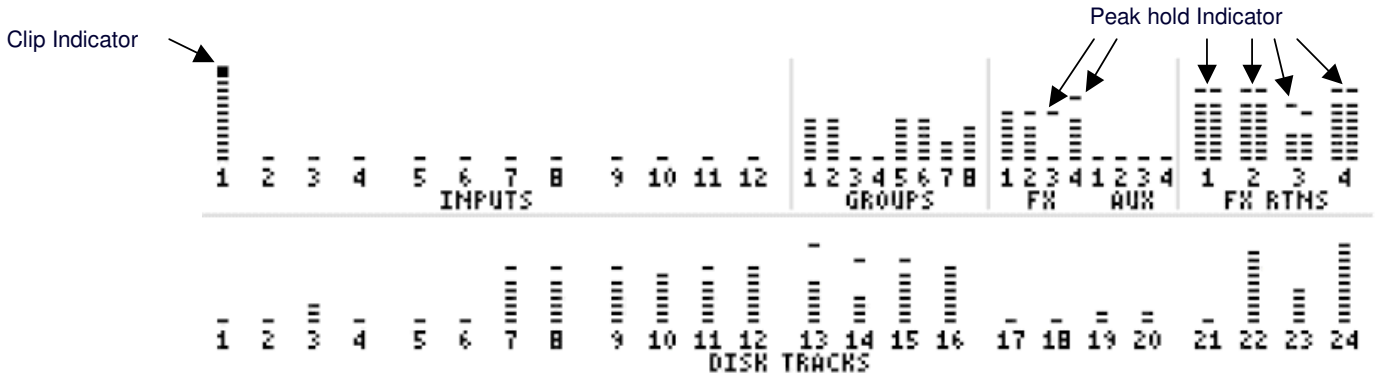
Pan [Indicator: Pan-key is lit and LED-crown around the rotary encoders] 	Rotary Encoders (top row of LLC = Lower Left Control) First make sure that the rotary encoders are in the Pan function: Q-Channel (ULC 6th key in last row) must not be active = not illuminated. Then the Pan key (ULC 7th in the last row) must be active = illuminated. Use the Fader Bank (FB in LRC) to get to the channel you want and then use the rotary encoder to set the Pan of this channel.
L/R [Indicator: L/R key is flashing and SELECT keys of assigned channels are lit while SELECT keys of not assigned channels flash]	Key (first key left in last row in ULC) -> Press L/R key (key will flash) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need. -> Press all the flashing SELECT keys (first row of keys in LLC) of all the channels you want to assign to L/R (or press all the illuminated SELECT keys of all channels you want to de-assign from L/R)
Group Select	Key (keys left in last row in ULC) -> Press 1/2, 3/4, 5/6, or 7/8 key (key will flash), to prepare assigning to Group 1/2, 3/4, 5/6, or 7/8. -> Use Fader Bank (FB in LRC) to get to the Fader Bank you need. -> Press all the flashing SELECT keys (first row of keys in LLC) of all the channels you want to assign to that group (or press all the illuminated SELECT keys of all channels you want to de-assign from group)
Aux/Fx Send [Indicator: one of FX/AUX 1-4 keys is flashing] [Indicator: one of FX/AUX 1-4 keys is lit and LED-crown around the rotary encoders]  	Motorized 100mm Fader (LLC) First make sure that the faders are in the FX/AUX function: Q-Channel (ULC 6th key in last row) must not be active = not illuminated. Then one of the FX/AUX 1, 2, 3, or 4 key (ULC 8th , 9th, 10th, 11th, 12th in the last row) must be active = flashing (you must press the key twice). Use the Fader Bank (FB in LRC) to get to the channel you want and then use the faders to set the Aux/Fx Sends of these channels. Rotary Encoders (top row of LLC = Lower Left Control) First make sure that the rotary encoders are in the FX/AUX function: Q-Channel (ULC 6th key in last row) must not be active = not illuminated. Then activate (= key illuminates) one of the FX/AUX 1, 2, 3, or 4 key (ULC 8th , 9th, 10th, 11th, 12th in the last row) to prepare the setting of a SEND. Use the Fader Bank (FB in LRC) to get to the channel you want and then use the rotary encoders to set the Aux/Fx Sends of these channels. Activate another FX/AUX 1, 2, 3, or 4 key (ULC 8th , 9th, 10th, 11th, 12th in the last row) to set other SEND's - and so on.
Pre/Post	Keys (right side in last row of keys of ULC) -> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> Press PRE keys of FX/AUX 1 to 4 to configure the Sends either pre (illuminated) or post (not illuminated) fader.
Aux/Fx	-> Make sure that Q-Channel is active = illuminated (ULC 6th key in last row) -> Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want. -> use Q5 (LCD QL) to go to the Aux/Fx Send configuration in the LCD Display (rectangular block above the rectangular block with PRE/POST). -> use Q6 (LCD QL) to change the value in the block to GLOB, AUX, FX, or OFF. The AUX/FX bus number (1-4) is fixed by position, and so you can not set the second Aux/Fx to e.g. AUX 1

GLOB	MIXER (MK) -> FX/AUX SETUP [F5/F6] (LCD SK) -> Q1 to Q6 (LCD QL) This sets up the routing for all the FX/AUX Sends of all Channels which have set their Aux/Fx switch to "GLOB". Furthermore, it configures the internal effects FX1 to 4 to stereo or mono and sets the AUX/Studio – switch in the output section. -> use Q1 to configure FX/AUX 1/2 to 2 x MONO or one STEREO and use Q4 to configure FX/AUX 3/4 to 2 x MONO or one STEREO. -> use Q2 to switch to FX1, AUX1, or OFF and use Q3 to switch to FX2, AUX2, or OFF. -> use Q5 to switch to FX3, AUX3, Studio L (STU L), or OFF and use Q6 to switch to FX4, AUX4, Studio R (STU R), or OFF.
SOLO [Indicator: the channel ON key (LLC) flashes when solo'd as well as the !!! SOLO !!! LED (MM) will flash as long as there is any channel solo'd]	SOLO SETUP: MIXER (MK) -> SOLO SETUP [F3/F4] (LCD SK) -> F4 to F6 (LCD SK) to set to PFL (pre fade listen), AFL (after fade listen) or SIP (solo in place). {You will not use [F3] "DSIP" (destructive solo in place) in a live performance, but may using it before that in sound check. There you could use DSIP to solo a channel and hear also all the effects used for that channel. All the other channels will be muted when using DSIP. Channels that you don't want to be muted, can be isolated on other menu pages over [F2] "ISOLATE" and "MORE"} USING SOLO (to solo a channel): SHIFT (LRC) + channel ON (LLC) [you may need to switch first to the correct Fader Bank (FB in LRC)] -> to add another channel to the solo'd channel simply press their channel ON key (LLC). -> to isolate a new channel press again SHIFT + channel ON key. -> to clear all SOLO: press SHIFT + channel ON key and the same channel ON key again.
AUX IN: ON	Press FB5 key "USER BANK" (FB in LRC) and then use ON-key in 9th column of second row of keys in LLC (works in USER BANK default setting)
AUX IN: Fader	Press FB5 key "USER BANK" (FB in LRC) and then use 100mm motorized Fader in 9th column (LLC) (works in USER BANK default setting)
Aux Master SENDS	Press FB5 key "USER BANK" (FB in LRC) and then use 100mm motorized Fader in 5th to 8th column (LLC) (works in USER BANK default setting)
FX Master SENDS	Press FB5 key "USER BANK" (FB in LRC) and then use 100mm motorized Fader in 1st to 4th column (LLC) (works in USER BANK default setting)
GROUP Master SENDS	Press FB4 key "GROUP FX" (FB in LRC) and then use 100mm motorized Fader in 1st to 8th column (LLC)
GROUP To L/R	See under control "L/R" (and there use FB4: Fader Bank "GROUP FX")
GROUP To SOLO	See under control "SOLO" in description "USING SOLO" (and there use FB4: Fader Bank "GROUP FX")
Master Fader	Use 100mm motorized Fader in Master section (MM)
SOLO Level	MIXER (MK) -> SOLO SETUP [F3/F4] (LCD SK) -> Q1 (LCD QL) to set the Solo Level
Effects	FX (MK) -> CURSOR "^" / "v" to select a FX-Channel (CN) -> CURSOR ">" to go to the effect list -> CURSOR "^" / "v" to select an effect -> RECALL [F3] (LCD SK) to assign the effect to the FX-Channel -> then use Q1 to Q6 (LCD QL) to edit the effects parameters.
Effects ON/OFF	FX (MK) -> CURSOR "^" / "v" to select a FX-Channel (CN) -> press F6 (LCD SK) to switch the FX-Channel ON or OFF
MBCX	The four internal effect processors can be replaced with the MBCX. This can be done (and be used) in the MIXDOWN (You will use this mainly at home, therefore use the manual for more information). CD-R = SHIFT+SETUP (MK) -> MIXDOWN [F1] (LCD SK) -> F2/F3 (LCD SK) to enable MBCX pre- or post-fader

User Bank's	I think it is best to leave USER BANK (Fader Bank number 5 = FB5) in its default setting and only use extra user banks 1-4 for your own settings. To access an extra user Bank: SHIFT+FB1-4 (LRC) to access extra user bank 1 to 4 and FB5 (FB) to access user bank. To store new user bank settings: SETUP (MK) -> U-BANK [F4] (LCD SK) -> PREV [F3] or NEXT [F4] to go to one of the user banks -> Q6 (LCD QL)to select a possible assignment in the left column -> CURSOR ">" to go to the right column -> Q6 (LCD QL) to select one of the 12 possible fader positions -> ASSIGN [F6] (LCD SK)
MIX SCENES and SNAPSHOTS	Keys (STORE, RECALL, ENTER, and CANCEL keys in MIX SCENE in LRC Scene/Snapshot Store and Recall pages are context-sensitive: - if you are in CHANNEL/EQ page, the EQ Snapshot window will pop-up, - if you are in CHANNEL/COMP or N.GATE page, the DYNAMICS Snapshot window will pop-up, - if you are in an FX page, the FX Snapshot window will pop-up, - otherwise, the Scene window will pop-up. To store a MIX SCENE: STORE (LRC) -> enter two-digit number (CN in LRC) to store in a place between 00 to 99 -> Q5 (LCD QL) to select which controls to store: "ALL", "STATIC ONLY", or "NO FADERS" -> ENTER (LRC) To recall a MIX SCENE: RECALL (LRC) -> enter two-digit number (CN in LRC) to recall from a place between 00 to 99 -> Q5 (LCD QL) to select which controls to recall: "ALL", "STATIC ONLY", or "NO FADERS" -> ENTER (LRC) Scene 00 is used as the INITIAL SCENE: When Automation is on, scene 00 will be loaded whenever you press PLAY. To store a EQ or DYN SNAPSHOT: Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want -> activate Q-Channel (so it is illuminated) (ULC 6th key in last row) -> STORE (LRC) -> Q5 (LCD QL) to select the snapshot type -> Q6 (LCD QL) to select a place -> ENTER (LRC) To recall a EQ or DYN SNAPSHOT: Use Fader Bank (FB in LRC) to get to the channel-bank you need and then the SELECT key (first row of keys in LLC) of the channel you want -> activate Q-Channel (so it is illuminated) (ULC 6th key in last row) -> RECALL (LRC) -> Q5 (LCD QL) to select the snapshot type -> Q6 (LCD QL) to select an existing snapshot -> ENTER (LRC) To store a FX SNAPSHOT: FX (MK) -> STORE (LRC) -> Q5 (LCD QL) to select the FX Channel -> Q6 (LCD QL) to select a place -> ENTER (LRC) To recall a FX SNAPSHOT: FX (MK) -> RECALL (LRC) -> Q5 (LCD QL) to select the FX Channel -> Q6 (LCD QL) to select an existing snapshot -> ENTER (LRC)

Preset Libraries Patch-, FX-, Comp-, N-Gate-, and EQ- PRESET LIBRARY	To store a patch setting into the LIBRARY: PATCH = SHIFT+MIXER (MK) -> PATCH PRESETS [F5/F6] (LCD SK) -> SAVE [F5] (LCD SK) -> name the settings -> OK [F6] (LCD SK) To recall a patch setting from the LIBRARY: PATCH = SHIFT+MIXER (MK) -> PATCH PRESETS [F5/F6] (LCD SK) -> Q6 (LCD QL) to select a preset -> SELECT [F6] (LCD SK) To store an effect to the FX LIBRARY: FX (MK) -> STORE [F4] (LCD SK) -> name the effect -> OK [F6] (LCD SK) to store the effect in the FX Library (same category it came from) To recall an effect from the FX LIBRARY: FX (MK) -> FX LIBRARY [F1/F2] -> CHANNEL [F2] to select an FX Channel -> Q6 (LCD QL) to select a category -> CURSOR ">" to go to the effect list of this category -> Q6 to select an effect -> RECALL [F3] (LCD SK) to assign the effect to the FX-Channel -> EXIT [F1] to go back to the FX page -> then use Q1 to Q6 (LCD QL) to edit the effects parameters. **Going to the EQ-, COMP-, or N.GATE- page:** Use Fader Bank (FB in LRC) to get to the channel-bank you need -> press SELECT key (first row of keys in LLC) of the channel you want -> press Q-Channel key (so it is illuminated) (ULC 6th key in last row) -> go to the EQ [F1] (LCD SK), COMP [F3], or N.GATE [F3] page (if you are in EQ page you first need to press DYN [F3] (LCD SK) to get to COMP and N.GATE) To store a channels Compressor, Noise-Gate, or EQ settings to the LIBRARY: Go to the EQ-, COMP-, or N.GATE- page -> LIBRARY [F6] (LCD SK) -> STORE [F4] (LCD SK) -> name your setting -> OK [F6] (LCD SK) To recall a Compressor, Noise-Gate, or EQ settings to a channel from the LIBRARY: Go to the EQ-, COMP-, or N.GATE- page -> LIBRARY [F6] (LCD SK) -> Q6 (LCD QL) to select a setting -> RECALL [F3] (LCD SK)
MBCX Preset Library	To recall a setting from the MBCX LIBRARY: CD-R = SHIFT+SETUP (MK) -> MIXDOWN [F1] (LCD SK) -> F2/F3 (LCD SK) to enable MBCX pre- or post-fader -> LIBRARY [F5] (LCD SK) -> Q5 (LCD QL) to select a preset -> RECALL [F3] (LCD SK) To store a setting into the MBCX LIBRARY: CD-R = SHIFT+SETUP (MK) -> MIXDOWN [F1] (LCD SK) -> F2/F3 (LCD SK) to enable MBCX pre- or post-fader -> LIBRARY [F5] (LCD SK) -> Q5 (LCD QL) to select a preset -> STORE [F4] (LCD SK) -> name the setting -> OK [F6] (LCD SK)
Autolocate	To go to a stored AUTOLOCATE point: GOTO (TF) -> enter two-digit number (CN) -> ENTER (LRC) To store a new AUTOLOCATE point: MEMORY (TF) -> enter two-digit number (CN) -> ENTER (LRC) (this stores the current NOW time into the selected locate memory).

PROJECT	If you are mixing without recording, you may recall a prepared project for that use. When you are mixing and recording, you probably need to create a new project for every new live application. To load a PROJECT: PROJECT (MK) -> Q6 (LCD QL) to select a project -> LOAD [F6] (LCD SK) To create a new PROJECT: PROJECT (MK) -> NEW [F5] (LCD SK) -> name the project -> OK [F6] (LCD SK) -> RESET MIXER [F5/F6] (LCD SK) {or may be you will use KEEP CURRENT [F3/F4] (LCD SK)}
SETUP Mixer	SETUP (MK) -> Q1 to Q5 (LCD QL) to set Sample Rate, Digital Sync, …, Bit Depth
RESET Mixer	RECALL (LRC) -> Q5 (LCD QL) to select which controls to reset: “ALL”, “STATIC ONLY”, or “NO FADERS” -> RESET MIXER [F3/F4] (LCD SK)
Indicator	**Description**
METER (TRACKS-, INPUTS-, FX RTN - Channels)	MIXER (MK) You will see all the meters from INPUTS-, TRACKS-, FX RTN- Channels as well as from GROUPS-, FX-, and AUX- Master SENDS. Alternatively you will always see the METER of the selected channel in the CHANNEL-page.
METER (AUX IN - Channel)	Press FB5 key “USER BANK” (FB in LRC) -> press SELECT key in 9th column (first row of keys in LLC) -> activate Q-Channel (so it is illuminated) (ULC 6th key in last row): You will see the AUX IN - METER in the channel-page.
METER (Master SENDS: Aux, FX, GROUP)	MIXER (MK) You will see all the meters from GROUPS-, FX-, and AUX- Master SENDS as well as from INPUTS-, TRACKS-, FX RTN- Channels. Alternatively you will always see the METER of the selected channel in the CHANNEL-page.
METER (L/R Master)	Always visible beside the left side of the LCD panel.
Key - LEDs	Keys can illuminate lit or flashing when selected. These key-associated indicators are mentioned above under the Control where it belongs to.



Output Section:

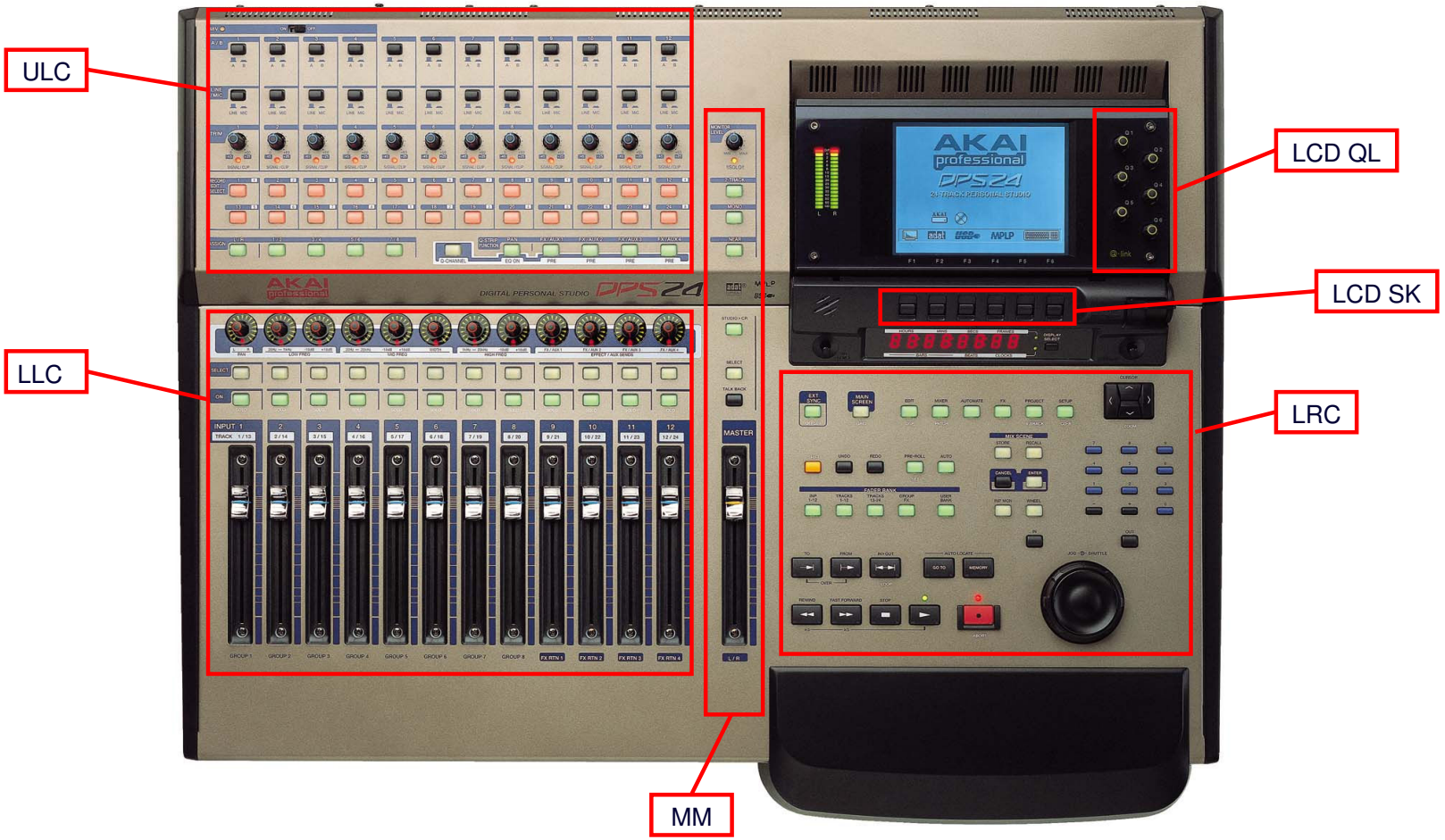
Control	Operation
Output Patch	PATCH = SHIFT+MIXER (MK=Mode Key) -> OUTPUTS [F2] (LCD SK=Soft Key) -> Q5 and Q6 (LCD QL=Quick Link knob) -> use Q5 to go to the appropriate OUTPUT and then use Q6 to select the appropriate audio source.
AUX / Studio	MIXER (MK) -> FX/AUX SETUP [F5/F6] (LCD SK) -> Q5 and Q6 (LCD QL) -> use Q5 to switch to FX3, AUX3 or Studio L (STU L) and use Q6 to switch to FX4, AUX4 or Studio R (STU R). For both: "FX and AUX" this switch will go to the AUX Send outputs and only for "STU" this switch will go to the Studio outputs.
Talkback	Key above Master Fader in the MM(=Master and Monitor section) -> press and talk
MIC	In the LCD-Panel down on the left side above the MIC Trim.
MIC Trim	Rotary Pot in LCD-Panel down on the left side.
2 Track Source	SETUP (MK) -> PREFS [F3] (LCD SK) -> AUDIO SETUP [F3/F4] (LCD SK) -> 2 Track Source [Q1] (LCD QL)
2 Track Level	SETUP (MK) -> PREFS [F3] (LCD SK) -> AUDIO SETUP [F3/F4] (LCD SK) -> 2 Track Level [Q2] (LCD QL)
2-TRACK [Indicator: key lit when on]	1st key from top in MM (= Master and Monitor section) below monitor level rotary Pot
STUDIO > CR [Indicator: key lit when on]	4th key from top in MM
SOLO	This is automatically switched with the SOLO-keys of the channels (SHIFT+ON) -> see table in Mixer Section above
MONO [Indicator: key lit when on]	2nd key from top in MM
NEAR [Indicator: key lit when on]	3rd key from top in MM
Monitor Level	Rotary Pot in MM
Headphone Level	SETUP (MK) -> PREFS [F3] (LCD SK) -> AUDIO SETUP [F3/F4] (LCD SK) -> Headphone Level [Q6] (LCD QL)
Level	Rotary Pot in front left side panel of the DPS24
Format	SETUP (MK) -> PREFS [F3] (LCD SK) -> AUDIO SETUP [F3/F4] (LCD SK) -> SPDIF Format [Q5] (LCD QL)
MPLP: ADAT / SPDIF	SETUP (MK) -> PREFS [F3] (LCD SK) -> AUDIO SETUP [F3/F4] (LCD SK) -> MPLP Connection [Q4] (Quick Link knob)
Indicator	**Description**
!!! SOLO !!!	LED This LED is flashing whenever one or more channels are solo'd.
Key - LEDs	Keys can illuminate lit or flashing when selected. These key-associated indicators are mentioned above under the Control where it belongs to.

Control – area abbreviations

Areas on the top panel of the DPS24:

ULC: Upper Left Control area
LLC: Lower Left Control area
MM: Master and Monitor section
LCD QL: Q-Link-knobs to the right of the LCD panel
LCD SK: Soft Keys on the bottom of the LCD panel

LRC: Lower Right Control area
MK: Mode Keys
CN: Cursor and Number keys
FB: Fader Bank
TF: Transport Functions




MK
CN
SHIFT key
FB
TF
EXT SYNC
MAIN SCREEN
EDIT
MIXER
AUTOMATE
FX
PROJECT
SETUP
CURSOR
ZOOM
MIX SCENE
STORE
RECALL
SHIFT
UNDO
REDO
PRE-ROLL
AUTO
CANCEL
ENTER
FADER BANK
INP 1-12
TRACKS 1-12
TRACKS 13-24
GROUP FX
USER BANK
SUP MON
WHEEL
IN
OUT
TO
FROM
IN>OUT
AUTO LOCATE
GO TO
MEMORY
JOG SHUTTLE
REWIND
FAST FORWARD
STOP
ABORT

MIX SCENES and RESET MIXER (see also above under Control in Mixer Section)

To reset the Mixer: RECALL (LRC) -> Q5 (LCD QL) to select which controls to reset: “ALL”, “STATIC ONLY”, or “NO FADERS” -> RESET MIXER [F3/F4] (LCD SK).

The table below shows the default mixer settings applied when RESET MIXER is pressed.
[The actual values (instead of the shown values) of all the Items shown in the following table are stored/recalled in/from a MIX SCENE.]

• **Faders** / **Mute:**	Fader	Mute	ATT	INV
- INPUTS:	0dB,	CH ON,	0dB,	OFF
- TRACKS:	0dB,	CH ON,	0dB,	OFF
- GROUPS:	0dB,	CH ON		
- FX RETURNS:	0dB,	CH ON		
- FX/AUX SENDS:	0dB,	CH ON		
- AUX IN:	-120dB,	CH ON		
- MASTER:	0dB			
• **Pan:** All Pan centered				
• **EQ, DYN, and SENDS** for all **Mono Channels** (INPUTS and TRACKS):				
- EQ:	ON,	FLAT EQ		
- DYN:	OFF			
- SENDS 1-4:	GLOB,	POST,	-120dB	
- CHANNEL LINKS:	OFF			
• **SENDS** for **FX RTN Channels:**				
- SENDS 1-4:	OFF,	POST,	-120dB	
• **L/R ASSIGN:**				
- TRACKS and FX RTNS:		L/R		
- INPUTS and GROUPS:		"---" (not assigned)		
• **GROUP ASSIGN:** all signals:		"---" (not assigned)		

• **FX/AUX SETUP:**			
- 4 x MONO			
- FX 1-4			
• **FX:**			
- MBCX:	OFF		
- FX1:	ON,	Big Hall	
- FX2:	ON,	Stereo Delay	
- FX3:	ON,	Stereo Chorus	
- FX4:	ON,	Pan Phaser	
• **INPUT ROUTING:**			
- INPUT SOURCES:		ADC 1-12	
- TRACK SOURCES:		GROUPS 1-8	
- FX RTN SOURCES:		FX 1-4 L+R	
• **MIDI CHANNELS:**			
- Fader:	OFF,	Controller 007,	default value=104
- Pan:	OFF,	Controller 010,	default value=64

You can influence which controls get affected when applying RESET MIXER, STORE, or RECALL a MIX SCENE by selecting an option in RECALL CONTROLS as follows:

ALL

Will reset (store/recall) all controls (faders, pans, sends, EQ, DYN, channel on/off, FX/MBCX settings, etc.)

STATIC ONLY

Will reset (store/recall) all static controls (EQ, DYN, FX/MBCX settings)

NO FADERS

Will reset (store/recall) all controls except the faders.

Automation

If you are mixing in a live application e.g. a musical, where you have some music, sounds, special sound effects, etc. stored on hard disc, you can use automation. It is also possible to automate scene recalls. EQ, DYNAMICS and FX Snapshots recall can also be automated for individual channels.

For Automation, please read the AUTOMATION section in the MANUAL. It will be helpful to read the AUTOLOCATOR section as well.

Physical Inputs (42) [What is and how is it connected to the physical inputs (instrument; outboard gear; Mic/DI; phantom power)?]

Mic / Line Input	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

AUX Input	
L	
R	

2 Track Input	
L	
R	

Digital Input	
L	
R	

ADAT Input			
1		13	
2		14	
3		15	
4		16	
5		17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12		24	

Mixer Channels (46) [Which physical Input is routed to which channel and how are the channel treated (inserts, bus assignments, send…)?]

INPUTS FB 1	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

TRACKS FB 2	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

FB 3	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

FX RTN FB 4: 9-12	
1L	
1R	
2L	
2R	
3L	
3R	
4L	
4R	

AUX IN FB 5: 9	
L	
R	

Mixer Busses [What is the name/function for the bus signal?]

FX Bus	FB 5: 1-4
1	
2	
3	
4	

AUX Bus	FB 5: 5-8
1	
2	
3	
4	

GROUP Bus	FB 4: 1-8
1	
2	
3	
4	
5	
6	
7	
8	

Mixer internal Effects (4)

FX Internal Effects	
FX 1	
FX 2	
FX 3	
FX 4	

Physical Outputs (32 routable) [Which signal is routed to which physical output?]

AUX Send Output	
1	
2	
3	
4	

Studio Output (instead of AUX 3+4)	
L	
R	

Stereo L/R Output	
L	
R	

Digital Output	
L	
R	

ADAT Output			
1		13	
2		14	
3		15	
4		16	
5		17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12		24	

Monitor Output (Main and Near)
Here you get the signal from Stereo L/R Output; when soloing: the soloed channels; when "Studio>CR"-key: the signal from Aux 3+4 Bus; when "2-Track"-key: the signal from "2 Track Source", which may be one of the physical Inputs: 2-TR IN L+R, or Digital IN L+R, or AUX IN L+R.

ADAT Feedback connections OUT to IN: ☐ 1-8; ☐ 9-16; ☐ 17-24; ☐ _____

Physical Inputs (42) [What is and how is it connected to the physical inputs (instrument; outboard gear; Mic/DI; phantom power)?]

Mic / Line Input			
1	Hi Hat	AKG C 391	+48V
2	Overhead L	AKG C 391	+48V
3	Overhead R	AKG C 391	+48V
4	Guitar 1	active DI	+48V
5	Kick	Beta 52	
6	Snare	SM 57	
7	Tom (Floor)	SM 57	
8	Tom 1	SM 57	
9	Tom 2	SM 57	
10	Tom 3	SM 57	
11	Bass	DI	
12	Guitar 2	MD 421	

AUX Input			
L	Keyboard L	DI	
R	Keyboard R	DI	

2 Track Input			
L	CD-Player L		
R	CD-Player R		

Digital Input			
L	Solo 1	MMP-2	Beta 58
R	Solo 2	MMP-2	Beta 58

ADAT Input					
1	Tenor Sax	ADA8000	UHF Clamp	13	
2	Alt Sax	ADA8000	UHF Clamp	14	
3	Choir 1	ADA8000	SM 58	15	
4	Choir 2	ADA8000	SM 58	16	From ADAT Out 16 (Bass)
5	Choir 3	ADA8000	SM 58	17	From ADAT Out 17 (Guitar 1)
6	Choir 4	ADA8000	SM 58	18	From ADAT Out 18 (Guitar 2)
7	Theater 1	ADA8000	Beta 97 UHF	19	From ADAT Out 19 (Drum Group 1)
8	Theater 2	ADA8000	Beta 97 UHF	20	From ADAT Out 20 (Drum Group 2)
9				21	From ADAT Out 21 (Inst. Group 3)
10				22	From ADAT Out 22 (Inst. Group 4)
11				23	From ADAT Out 23 (Chor Group 5)
12				24	From ADAT Out 24 (Chor Group 6)

Mixer Channels (46) [Which physical Input is routed to which channel and how are the channel treated (inserts, bus assignments, send…)?]

INPUTS	FB 1			
1	DIGI L	Comp.	L/R	FX1,Aux3,4
2	DIGI R	Comp.	L/R	FX1,Aux3,4
3	ADAT 7	Comp./Gate	L/R	FX1,Aux3,4
4	ADAT 8	Comp./Gate	L/R	FX1,Aux3,4
5 Link 6	ADAT 19 (Drum Gr.1) / ADAT 20 (Drum Gr.2)		3/4	FX2, Aux3,4
7	ADAT 16 (Bass)	Exp.	3/4	FX1
8	ADAT 17 (Guitar1)	Exp.	3/4	FX1
9	ADAT 18 (Guitar2)	Exp.	3/4	FX1
10				
11 Link 12	2 Track In L (CD-Player) / 2 Track In R (CD-Player)		L/R	Aux3,4

TRACKS	FB 2			
1	Mic 5	Comp./Gate	1/2	
2	Mic 6	Gate	1/2	
3	Mic 1		1/2	
4	Mic 7	Exp./Gate	1/2	
5	Mic 8	Exp./Gate	1/2	
6	Mic 9	Exp./Gate	1/2	
7	Mic 10	Exp./Gate	1/2	
8	Mic 2	Gate	1/2	
9	Mic 3	Gate	1/2	
10	Line 11	Comp. ADT16	Aux3,4	
11	Line 4	Comp. ADT17	Aux3,4	
12	Mic 12	Comp. ADT18	Aux3,4	

	FB 3			
13	ADAT 1	3/4	Aux3,4	
14	ADAT 2	3/4	Aux3,4	
15 Link 16	AUX L / AUX R	3/4	Aux3,4	
17	ADAT 3 Comp.	5/6		
18	ADAT 4 Comp.	5/6		
19	ADAT 5 Comp.	5/6		
20	ADAT 6 Comp.	5/6		
21	DIGI L			
22	DIGI R			
23	ADAT 7			
24	ADAT 8			

FX RTN	FB 4: 9-12		
1L	FX 1 L	L/R	
1R	FX 1 R		
2L	FX 2 L	L/R	
2R	FX 2 R		
3L	ADAT 23 (Choir L)	L/R	FX1, Aux3,4
3R	ADAT 24 (Choir R)		
4L	ADAT 21 (Inst. L)	L/R	
4R	ADAT 22 (Inst. R)		

AUX IN	FB 5: 9
L	
R	

Mixer Busses [What is the name/function for the bus signal?]

FX Bus	FB 5: 1-4
1	Hall for Vocal, Bass, Guitar
2	Reverb for Drums
3	
4	

GROUP Bus	FB 4: 1-8	
1	Drums L	ADT 19
2	Drums R	ADT 20
3	Instrumental L	ADT 21
4	Instrumental R	ADT 22
5	Choir L	ADT 23
6	Choir R	ADT 24
7		
8		

AUX Bus	FB 5: 5-8
1	
2	
3	Monitor for vocalist (Solo, Choir)
4	Monitor for instrumentalist

Instead of routing back Group 3/4 and patching them to FX RTN 4 you could have assigned Group 3/4 to R/L here. However, with the feedback routing you have the control for Choir and Instrument closer together. You also could define a user Bank.

Mixer internal Effects (4)

FX Internal Effects	
FX 1	Reverb (Hall)
FX 2	Reverb (Drums)
FX 3	
FX 4	

Physical Outputs (32 routable) [Which signal is routed to which physical output?]

AUX Send Output	
1	
2	
3	
4	

Studio Output (instead of AUX 3+4)		
L	Aux Bus 3	Stage Monitor Vox
R	Aux Bus 4	Stage Monitor Inst.

Stereo L/R Output		
L	Stereo Master L	
R	Stereo Master R	

Digital Output		
L	Stereo Master L	ULTRACURVE PRO L
R	Stereo Master R	ULTRACURVE PRO R

Monitor Output (Main and Near)
Here you get the signal from Stereo L/R Output; when soloing: the soloed channels; when "Studio>CR"-key: the signal from Aux 3+4 Bus; when "2-Track"-key: the signal from "2 Track Source", which may be one of the physical Inputs: 2-TR IN L+R, or Digital IN L+R, or AUX IN L+R.

ADAT Output			
1		13	
2		14	
3		15	
4		16	TRACK 10 (Bass first processing)
5		17	TRACK 11 (Guitar 1 first processing)
6		18	TRACK 12 (Guitar 2 first processing)
7		19	GROUP 1 (Drums L)
8		20	GROUP 2 (Drums R)
9		21	GROUP 3 (Instruments L)
10		22	GROUP 4 (Instruments R)
11		23	GROUP 5 (Choir L)
12		24	GROUP 6 (Choir R)

ADAT Feedback connections OUT to IN: ☐ 1-8; ☑ 9-16; ☑ 17-24; ☐ _____

Main Control:

Instrument:	Physical IN:	Channel:	Fader Bank:	Assign:	Sends:	Inserts:
Solo 1	Digital L	INP 1	1 : 1	L/R	FX1; Aux 3,4	Compressor
Solo 2	Digital R	INP 2	1 : 2	L/R	FX1; Aux 3,4	Compressor
Theater 1	ADAT In 7	INP 3	1 : 3	L/R	FX1; Aux 3,4	Compressor / Gate
Theater 2	ADAT In 8	INP 4	1 : 4	L/R	FX1; Aux 3,4	Compressor / Gate
CD Player	2 Track L+R	INP 11, 12	1 : 11+12	L/R	Aux 3,4	
Effekt 1 (generic HALL)	FX1 intern	FX RTN 1	4 : 9	L/R		
Effekt 2 (Drums Reverb)	FX2 intern	FX RTN 2	4 : 10	L/R		
Choir	ADAT In 23+24	FX RTN 3	4 : 11	L/R	FX1; Aux 3,4	
Instr.	ADAT In 21+22	FX RTN 4	4 : 12	L/R		

Adjustment Control:

Instrument:	Physical IN:	Channel:	Fader Bank:	Assign:	Sends:	Inserts:
Drums (balancing)	Mic 1-3, 5-10	TRACKS 1-9	2 : 1-9	GROUP 1/2		
Kick	Mic 5	TRACK 1	2 : 1	GROUP 1/2		Compressor / Gate
Snare	Mic 6	TRACK 2	2 : 2	GROUP 1/2		Gate
Hi Hat	Mic 1 (+48V)	TRACK 3	2 : 3	GROUP 1/2		
Tom (Floor)	Mic 7	TRACK 4	2 : 4	GROUP 1/2		Expander / Gate
Tom 1	Mic 8	TRACK 5	2 : 5	GROUP 1/2		Expander / Gate
Tom 2	Mic 9	TRACK 6	2 : 6	GROUP 1/2		Expander / Gate
Tom 3	Mic 10	TRACK 7	2 : 7	GROUP 1/2		Expander / Gate
Overhead L	Mic 2 (+48V)	TRACK 8	2 : 8	GROUP 1/2		Gate
Overhead R	Mic 3 (+48V)	TRACK 9	2 : 9	GROUP 1/2		Gate
Drums (Final)	ADAT In 19/20	INP 5/6	1 : 5+6	GROUP 3/4	FX2; Aux 3,4	
Bass (1st processing)	Line 11	TRACKS 10	2 : 10	ADT Out 16	Aux 3,4	Compressor
Bass (2nd processing)	ADAT In 16	INP 7	1 : 7	GROUP 3/4	FX1	Expander
Guitar 1 (1st processing)	Line 4	TRACKS 11	2 : 11	ADT Out 17	Aux 3,4	Compressor
Guitar 1 (2nd processing)	ADAT In 17	INP 8	1 : 8	GROUP 3/4	FX1	Expander
Guitar 2 (1st processing)	Mic 12	TRACKS 12	2 : 12	ADT Out 18	Aux 3,4	Compressor
Guitar 2 (2nd processing)	ADAT In 18	INP 9	1 : 9	GROUP 3/4	FX1	Expander
Tenor Sax	ADAT In 1	TRACKS 13	3 : 1	GROUP 3/4	Aux 3,4	
Alt Sax	ADAT In 2	TRACKS 14	3 : 2	GROUP 3/4	Aux 3,4	
Keyboard	AUX L/R	TRACKS 15/16	3 : 3/4	GROUP 3/4	Aux 3,4	
Choir (balancing)	ADAT In 3-6	TRACKS 17-20	3 : 5-8	GROUP 5/6		Compressor

GROUP Control:

GROUP:	Fader Bank:	Name:	INPUT Channels:	Fader Bank:	Assign:	Destination:
1/2	4 : 1+2	Drums	TRACKS 1-9	2 : 1-9	ADT Out 19/20	INP 5/6 -> GROUP 3/4
			TRACKS 1 (Kick)	2 : 1		
			TRACKS 2 (Snare)	2 : 2		
			TRACKS 3 (Hi Hat)	2 : 3		
			TRACKS 4 (Tom Floor)	2 : 4		
			TRACKS 5 (Tom 1)	2 : 5		
			TRACKS 6 (Tom 2)	2 : 6		
			TRACKS 7 (Tom 3)	2 : 7		
			TRACKS 8 (Overhead L)	2 : 8		
			TRACKS 9 (Overhead R)	2 : 9		
3/4	4 : 3+4	Instruments			ADT Out 21/22	FX RTN 4 -> L/R
			INP 5/6 (Drums);	1 : 5+6		
			INP 7 (Bass);	1 : 7		
			INP 8 (Guitar 1);	1 : 8		
			INP 9 (Guitar 2);	1 : 9		
			TRACKS 13 (Tenor Sax);	3 : 1		
			TRACKS 14 (Alt Sax);	3 : 2		
			TRACKS 15/16 (Keyboard);	3 : 3/4		
5/6	4 : 5+6	Choir	TRACKS 17-20 (Choir 1 - 4)	3 : 5-8	ADT Out 23/24	FX RTN 3 -> L/R