DDX3216. The world's first digital mixer with analog feel.

DANALOG

PRACTICAL APPLICATIONS

BEHRINGER
JUST LISTEN.

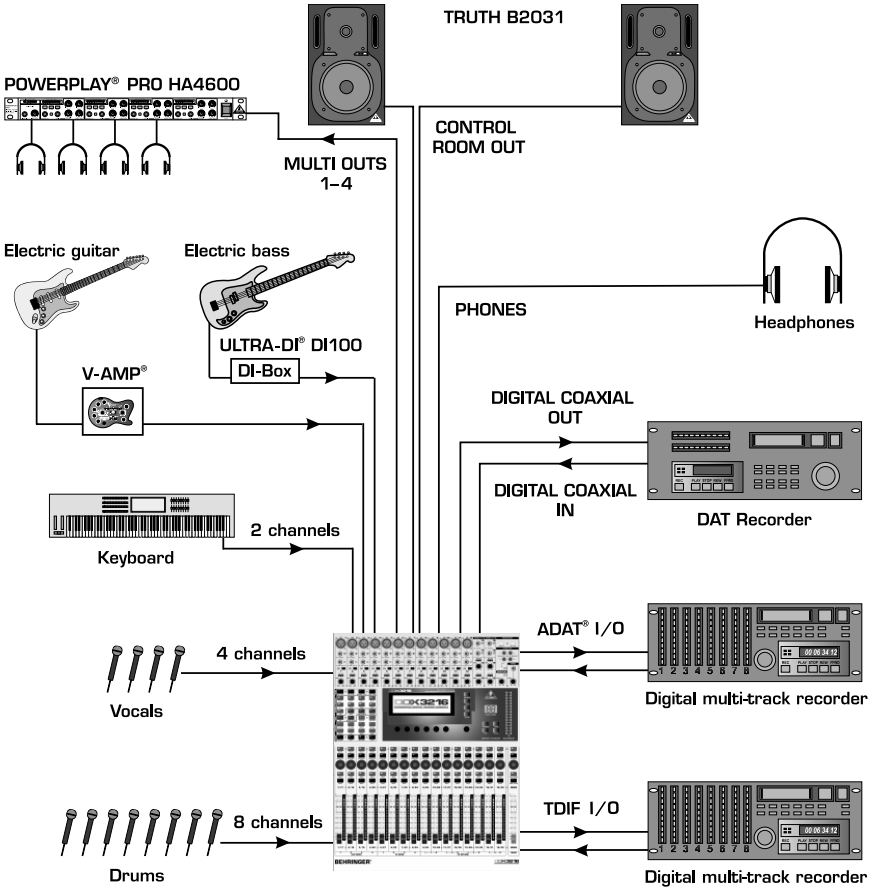
Recording

Benefits of the DDX3216

- high-grade 24-bit converters and 32-bit internal processing for highest namic resolution.
- ere is no need to leave the digital domain after the initial A/D conversion, as additional A/D and D/A conversion stages are required. Thus, maximum dio quality is retained.
- e busses allow you to record 16 signals at the same time. Along with the four lti outputs, this gives you 20 channels for simultaneous multi-track recording.
- 8 snapshot memories enable you to work on several projects simultaneously. th the help of the dynamic automation feature, a single operator can conduct mplex recording scenarios.
- e 4 multi outputs can be used for quick and easy creation of monitor mixes.
- e four built-in, fully editable effects processors with 26 programmable algo- hms allow purely digital effects processing and are simultaneously accessi- e from all 32 channels.
- mpressor/limiter, gate and sweepable high-pass filter for all 32 channels.
- der and mute groups make it easier to operate several channels simultaneously.
- e first 16 channels offer up to 276 ms of delay for run-time compensation effects.
- emote control of multi-track recorders is possible via MMC.
- e built-in meter bridge gives you full control over all input signal levels.
- serts on the first 12 channels allow you to integrate external analog gear.

Hints

- annels 1 through 12 provide high-grade microphone preamps with switch- le phantom power for condenser microphones.
- e the multi outputs for monitor mixes in the studio.
- t the input levels on the analog inputs as high as possible to ensure aximum dynamics.



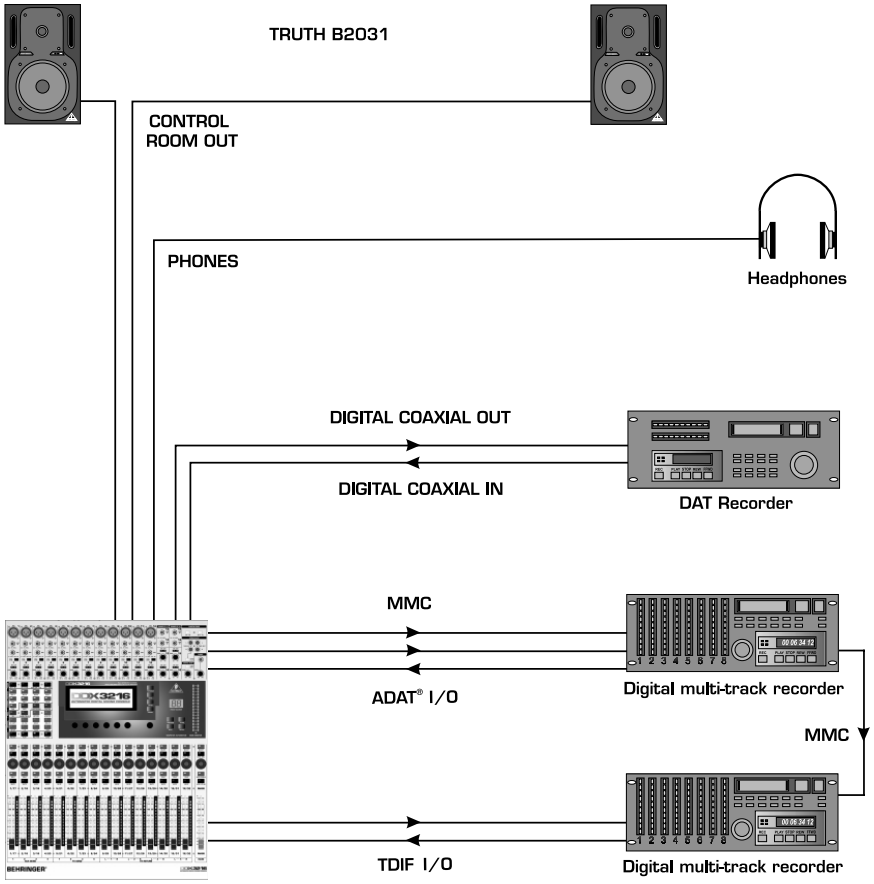
Mixdown

enefits of the DDX3216

fully-fledged channels for mixdowns, including a fully parametric 4-band
compressor/limiter and gate.
itional sweepable high-pass filter per channel.
uilt-in multi-effects processors with 26 editable algorithms, accessible from
32 channels.
xiliary busses (4 FX and 4 AUX), which can also be routed to the digital outputs.
Pair function allows you to group channels into stereo pairs.
er and mute groups allow easy handling of multiple channels.
scenes can be easily compared using the snapshot feature.
need for external computers due to the integrated dynamic automation.
DDX3216 can be used as a stand-alone unit in combination with multi-
k recorders.
effects and dynamics libraries facilitate frequently recurring mix scenarios.
note control of multi-track recorders via MMC.
es can be stored and transferred via MIDI, the PCMCIA slot or the serial
rface with our free Windows® data transfer software.
erts on the first 12 channels allow you to integrate outboard analog gear.

ints

option slots allow input/output of digital audio signals (ADAT®, TDIF, AES/EBU).
8 auxiliary busses can be routed to digital outputs to feed effects devices
ipped with a digital input.
S/PDIF input features a sample rate converter, allowing you to connect the
X3216 to any devices with digital outputs.
the S/PDIF output to record the digital main mix directly to a DAT or CD recorder.



MIDI/Digital Studio

Benefits of the DDX3216

e ADAT® and TDIF I/O options allow you to transfer up to 32 digital signals /from the DDX3216.

e 16 analog inputs allow you to connect external devices such as synthe-zers or sound modules.

o need for additional and costly outboard equipment due to the built-in fects and dynamics processors.

e faders and encoders on the DDX3216 transmit MIDI controller data for cording with external sequencing software.

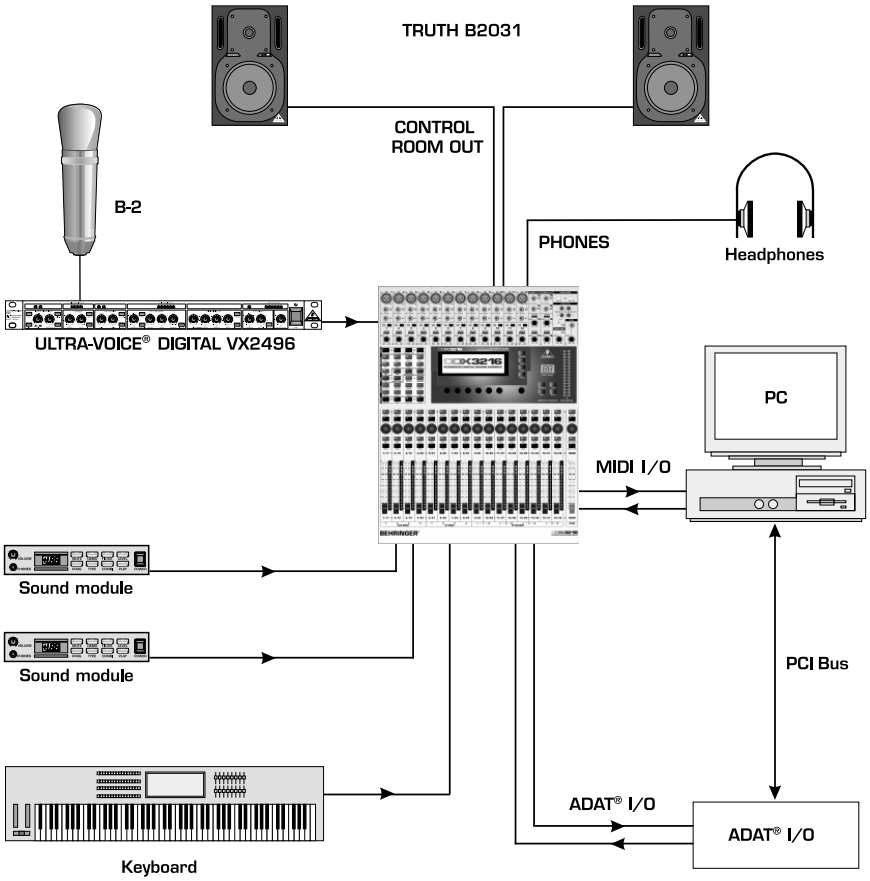
xes can be stored and transferred via MIDI, the PCMCIA slot or the serial terface with our free Windows® data transfer software.

serts on the first 12 channels allow you to integrate outboard analog gear.

emote control of computers etc. via MMC.

e DDX3216 replaces the A/D and D/A conversion stages usually per-rmed on a computer.

u can mix harddisk recording tracks with signals from external MIDI uipment.



Hints

lize the internal processing options of your DDX3216 to save computing wer of your PC.

you connect the DDX3216 via MIDI to your computer, please be sure that the ftware does not respond to the controller data triggered by fader movements the console.

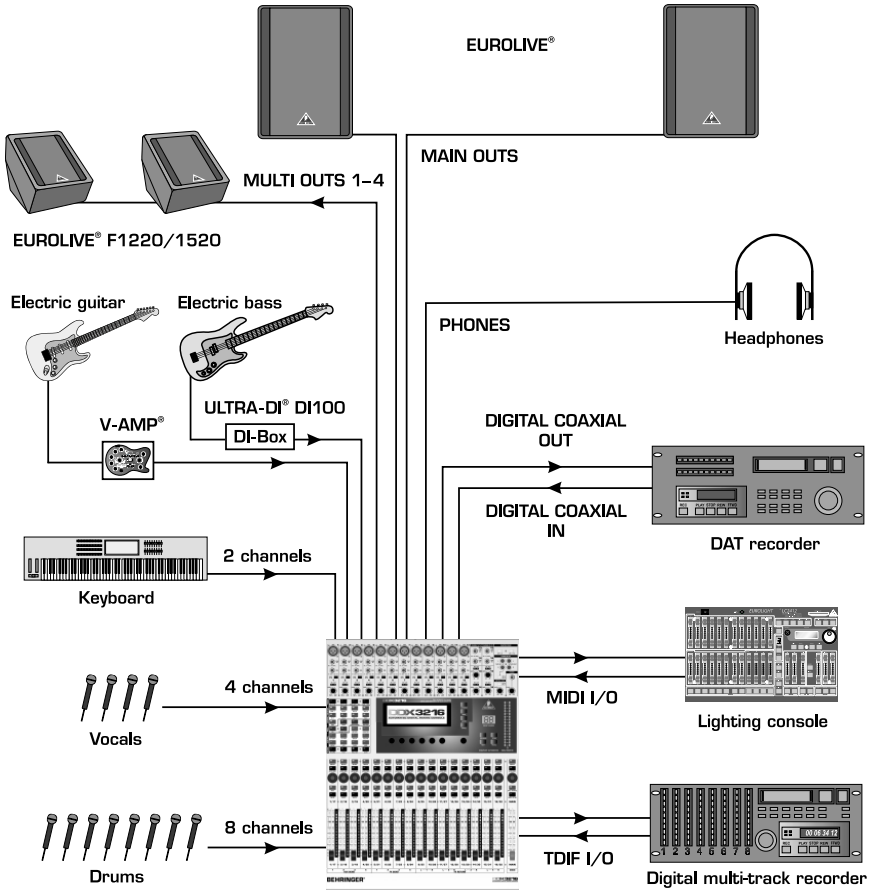
Live Sound

enefits of the DDX3216

high-grade 24-bit converters and 32-bit internal processing for highest amic resolution.
analog inputs, each with EQ, compressor/limiter and gate.
gate and the fully parametric 4-band EQ can be used to eliminate feed-k problems.
busses allow you to record up to 16 signals simultaneously.
snapshot memories allow easy reconfiguration of the console for different gs.
4 multi outputs allow you to easily create additional monitor mixes.
arate level settings for bus routing enable additional on-stage monitor es.
uilt-in effects processors, simultaneously accessible from all 32 channels.
er and mute groups allow easy handling of multiple channels.
to 276 ms of delay for run-time compensation or effects on the first channels.
built-in meter bridge gives you full control over all input signal levels.
erts on the first 12 channels allow you to integrate outboard analog gear.
k-mountable (kit included).

ints

the main EQ to make up for deficiencies in the room acoustics, unless you e a BEHRINGER ULTRA-CURVE PRO available.

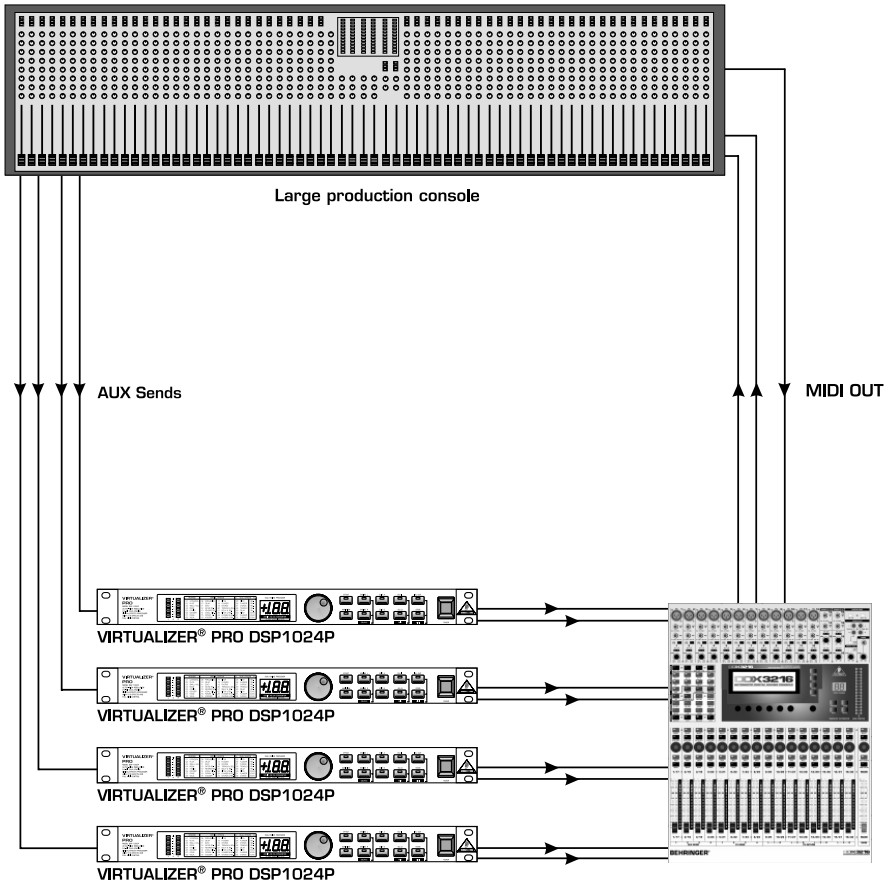


Effects/Keyboard Submixer

Benefits of the DDX3216

- to 8 AES/EBU paths with the AES/EBU option.
- analog inputs.
- coming signals can be processed additionally with the DDX3216's built-in gnal processors.
- ogram change data allows you to run snapshots in sync with the main console.
- e digital output uses only two channels on the main console.

he DDX3216 is an ideal effects submixer for larger production onsoles.



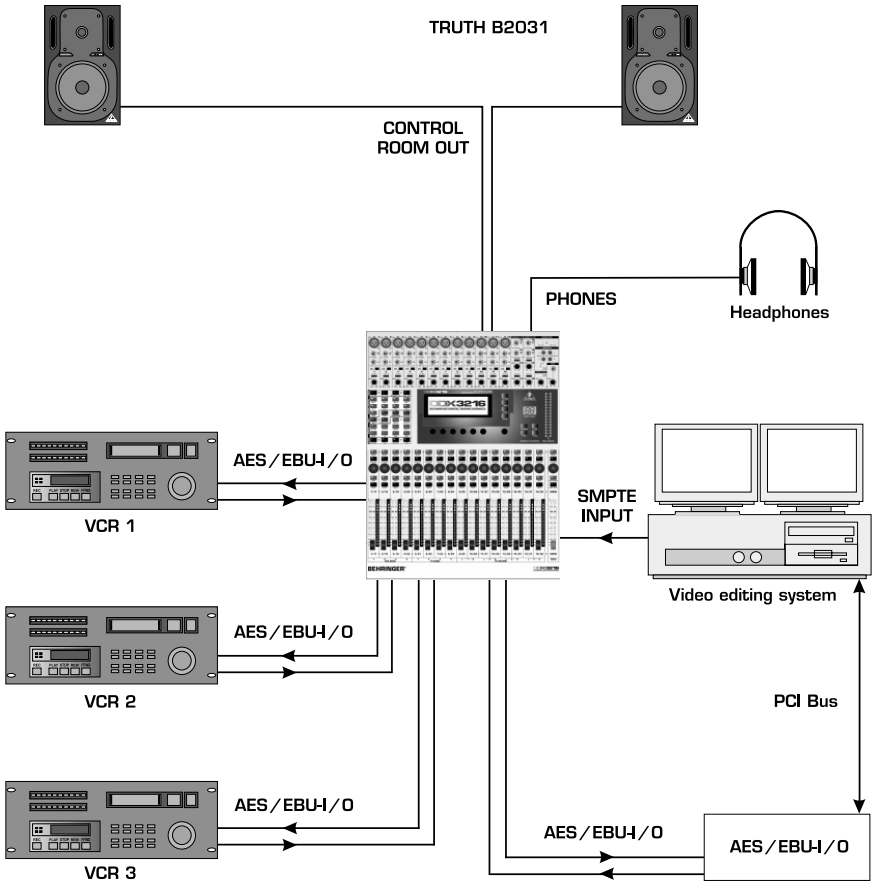
Postproduction

Benefits of the DDX3216

fessional 48-kHz sampling rate.
analog inputs.
to 8 AES/EBU paths with the AES/EBU option.
rdclock I/O for synchronization with a master clock.
PTE input.
namic automation records and plays back controller movements in sync with SMPTE clock of a VTR/editing system.
uilt-in effects devices plus compressor/limiter, gate and sweepable high-s filter, simultaneously accessible from all 32 channels.
ck-mountable (kit included).

lints

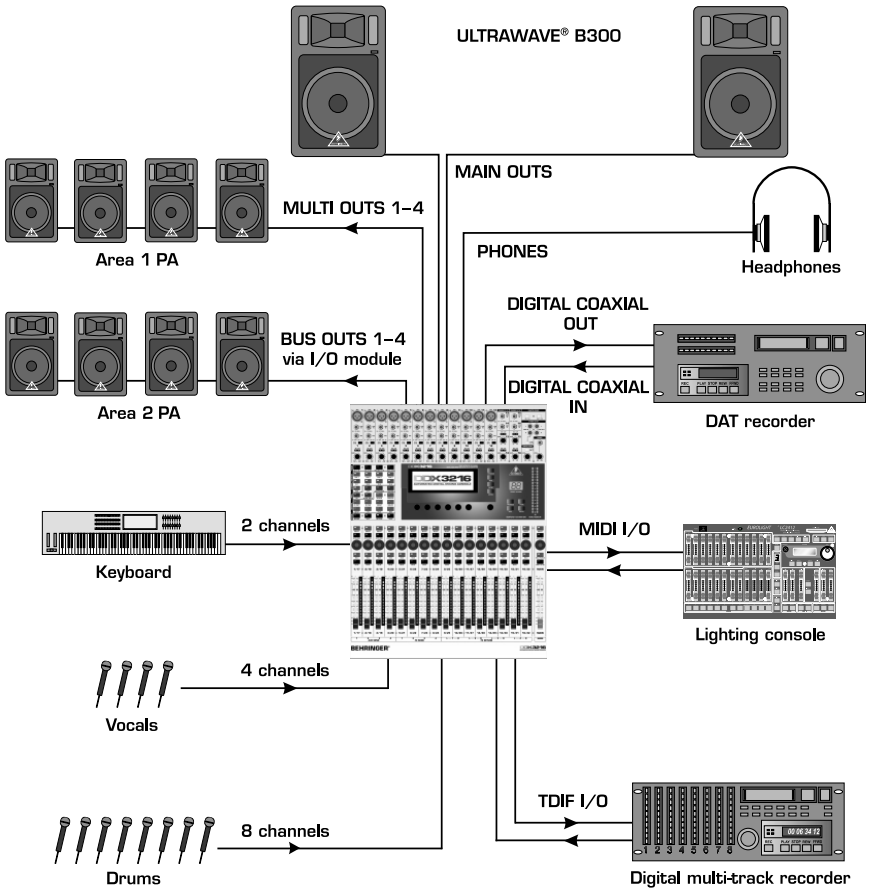
egrate the DDX3216 via the AES/EBU interfaces into your digital VTR/editing tem for fully digital operation.



Installation

Benefits of the DDX3216

e DDX3216 can be quickly and easily reconfigured to handle a variety of fferent situations.
to 24 outputs for complete control of the most complex PA systems.
ouping allows you to make up for run-time differences between various eaker systems. This also gives you the option to process the outputs with te, EQ and compressor.
built-in effects processors plus compressor/limiter, gate and sweepable high-ss filter, simultaneously accessible from all 32 channels.
auxiliary busses for monitoring or external effects.
der and mute groups allow easy handling of multiple channels.
e internal dynamic automation and the SMPTE input allow fully automatic xes, particularly helpful for playback tracks in musicals.
e DDX3216 can be linked to lighting consoles via MIDI or SMPTE.
ck-mountable (kit included).



Hints

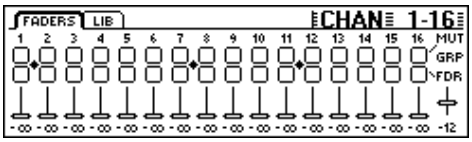
y to avoid the use of external patchbays so that you can recall snapshots for fferent applications at the touch of a button without having to check wiring.
so try to avoid changing the gain settings for the analog inputs.

Primary functions at a glance....

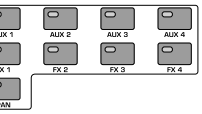
aders

fader settings correspond to the layer currently selected with fader keys.

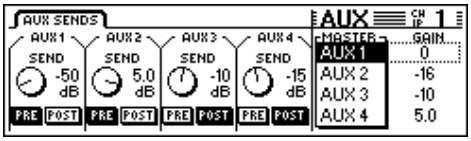
The FADER page shows both mute and fader groups and the fader position plus their respective values in decimal format. Press one of the four fader buttons to switch between the four available layers (Ch 1-16, Ch 17-32, Bus Out 1-16, AUX/FX).



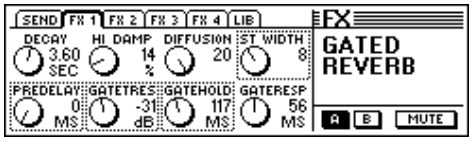
hannel Control



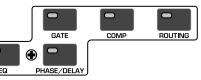
blue CHANNEL CONTROL keys determine the functions of the ous channel controllers. Depending on which key you select, the nnel controllers will perform the associated function.
ss one of the AUX keys to display the AUX Sends page, where can use the display encoders to control the four AUX sends and to adjust the send masters. For example, press the AUX 3 key to use the channel controllers to adjust the AUX 3 send levels for each channel.



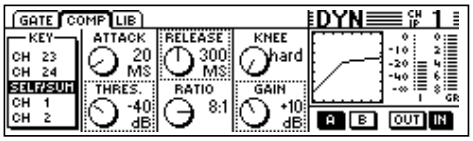
With the keys FX 1 through FX 4 you can adjust the channel and master sends as well as configure the four internal effects. Starting from the Send page, press one of the keys repeatedly to display the respective Effects page and finally the LIB (library) page, where you can save your own effects settings. The useful A/B function allows you to make easy comparisons between two different effect variations.



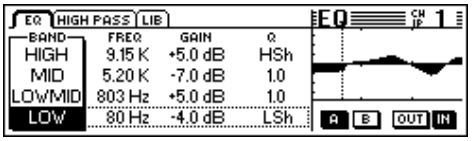
roc (Processing)



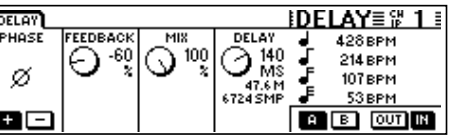
COMP page with added graphics allows easy adjustment of the mpressor parameters. The compressor's characteristic curve dis- s exactly how the signals are being processed, while the input gain reduction level meters give you visual level control. The e applies to the GATE page. The third page here is the LIB page, ch allows you to save your settings.



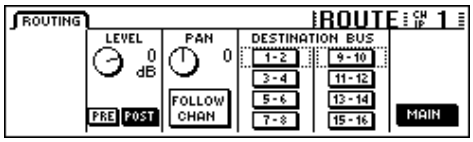
The EQ page displays all relevant information on the currently selected channel EQ, showing you which frequencies are being processed in what manner. The graphic window complements the value display. The channel controllers allow signal processing via the four fully parametric EQ bands. This page also gives access to the sweepable high-pass filter. Finally, the LIB page can be used to save and recall various settings.



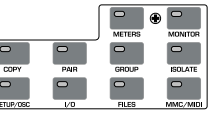
The PHASE/DELAY page allows effective compensation for any run-time-induced sound deterioration, which is caused for example by multiple microphones placed at various distances to the sound source. In addition, the input delay can be used for effects. Just set the parameters Feedback, Mix and Delay to achieve the effect you want. The BPM indicator allows easy adaptation to the song tempo.



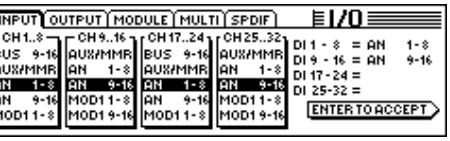
This ROUTING page is available on each channel. Here, you can route the single channels to the 16 busses, either pre or post-fader. The Pan control adjusts the volume ratio within a paired bus, e.g. 1 and 2.



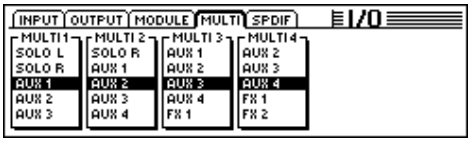
General



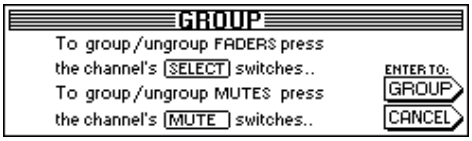
e Input Matrix allows you to assign the physical inputs in groups 8 to the 32 channels on your DDX3216. It is also possible to route e input to two channels to allow various processing or mix rameters of the same signal. Configuration of installed options is ndled on the Output page.



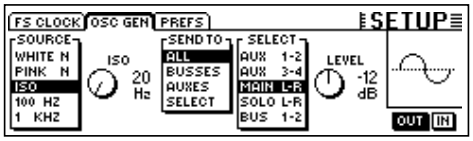
re, you can assign signals to the four multi outputs. Use the dis-ay controllers to dial in the desired settings. Signals can be select-l from any of the 16 busses, the main output, the 8 sends and/or e solo bus.



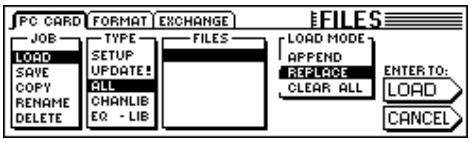
Fader and mute groups can be formed easily by selecting the channels/mutes in question. If you wish to change the volume settings within a group later on, use the Isolate key to temporarily "dissolve" the group and adapt the volumes. The Pair function allows you to form stereo channel pairs.



The oscillator can also be routed to all busses and sends, as well as the main and solo busses. A wide variety of waveforms can be generated for maximum flexibility. Additionally, the SETUP/OSC button gives you access to the clock settings, while PREFS (Preferences) allows you to customize all operating functions.

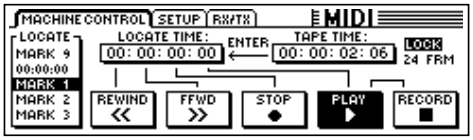


The built-in PCMCIA card slot enables quick storage and backup of user data. The various FILES pages allow formatting of PCMCIA cards as well as data transfer via the serial interface with our free Windows® file exchange software or MIDI.

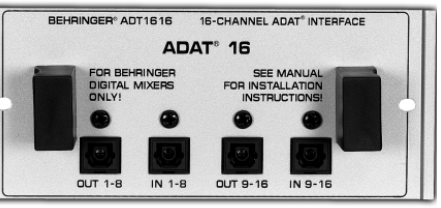


Automation

e internal dynamic automation can be synchronized with exter-l devices. The display controllers also allow you to control ternal tape machines via MMC (MIDI Machine Control). The channels to be recorded are enabled with the AUTO/REC buttons on each channel. The Relative Mode simplifies editing of an existing dynamic mix.

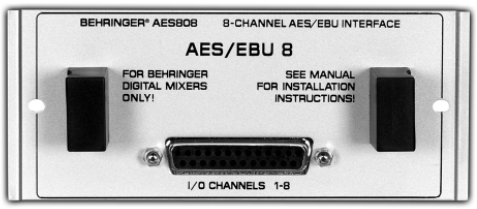


Power-Packed Options



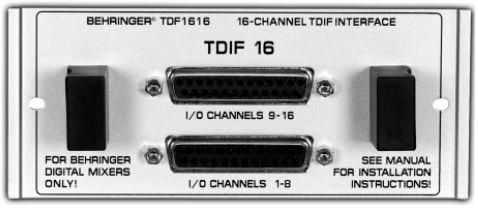
DT1616
6-Channel ADAT® Interface
r DDX3216

ADT1616 gives you digital access to the numerous digital orders, synthesizers and outboard gear that support the ADAT® ti-channel optical digital format. Its "double" I/O offers 16 inputs outputs (2 x 8 each). The auto-clock data stream allows the X3216 to be synchronized with external ADAT® devices without additional wordclock connection.



AES808/ACB808P
8-Channel AES/EBU Interface for DDX3216/19" Connector Box

Our AES/EBU interface complies with the AES3 format and allows for two-channel auto-clock/auto-sync transmission with a resolution of up to 24 bits with cable lengths of up to 1,500 feet. The AES808 offers 4 2-channel inputs and outputs and comes complete with the rack-mountable breakout connector box ACB808P and a connection cable.



TDF1616
16-Channel TDIF Interface for DDX3216

The TDF1616 allows you to digitally transfer audio data to and from a TASCAM® digital recorder. Again, you get 2 x 8 inputs and outputs for 16-channel transmission with a single connection. Although TASCAM® recommends using a separate wordclock connection, later models of their digital recorders allow synchronization via the TDIF interface.

EHRINGER SUPPORT

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