



transleted from okey 98 Jan | Feb 2011



Review: Dynacord PowerMate 1000-3

The third generation



Dynacord PowerMate 1600-3: 2.815,00 Euro PowerMate 2200-3: 3.370,00 Euro Internet: www.dynacord.com PowerMate 1600-3: 2.815,00 Euro PowerMate 2200-3: 3.370,00 Euro Internet: www.dynacord.com

"In the long run, all that helps is power"
runs an oft-quoted proverb. Doubtless
the legions of live performers and
session musicians that have turned the
Dynacord PowerMate range of mixing
desks with integrated power amps in
recent years into best sellers and a
synonym for the entire breed would
agree. But nothing is ever too good to be
improved, so now Dynacord is sending
an entirely new PowerMate generation
into the fray: the PowerMate3. We put
the "baby" of the bunch, the
PowerMate3 1000, through its paces.

Powered mixers were, and remain, an extremely popular breed – not only with those who perform on stage but also with the many musicians with practice rooms in their homes. Uniting the mixing desk and power amplifier in a single device saves space as well as cables. A further advantage is that the mixer and power amplifiers in such devices are perfectly matched because they were designed for one another. All in all, then, a powered mixer represents a highly practical solution! And even for users of powered speaker systems, a powered mixer can still be good choice since it puts an additional powerful stereo power amplifier at their disposal, capable if the worst comes to the worst of "firing up" even quite a large PA system should this prove necessary.

The earlier PowerMate models already enjoyed a more than enviable reputation: indestructible quality, fine components, enormous reserves of power and great reliability were the attributes heard with increasing frequently from satisfied PowerMate users. The new models look set to continue the success story. New digital power amplifier technology, expanded mixing functionality (such as additional auxiliary channels – there are now six), a four-channel USB interface allowing the mixer

Manufacturer: Dynacord Model: PowerMate 1000-3 Type: Powermixer with

digital amplifier (2 x 1000 W / 4 Ohm) and USB-Audiointerface

In- & Output: PowerMate 1000-3:

6 x Mono In, 4 x Stereo In PowerMate 1600-3: 12 x Mono In, 4 x Stereo In

PowerMate 2200-3: 18 x Mono In, 4 x Stereo IN Tape in / out, Headphones

2 x Master Out
2 x Master Out
2 x Monitor Out
Aux 1/2 Send
FX 1/2 Send
Power Amp In
AUX:

6 (2 x Int. Effekte, 2 x Monitor, 2 x Aux) Speical features:

2 Multi-effects-DSPs (24bit), editable USB Audio-Interface for up to 4 channels in/out parallel (USB 2.0) 11-band Master-EQ

Dynamic Speaker Protection Measurements /

Weight: 361 x 229 x 96 mm, 4,4 kg Preis (UVP):

PowerMate 1000-3: 2.430,00 Euro
PowerMate 1600-3: 2.815.00 Euro

to be integrated into a PC-based recording environment, a MIDI interface (e.g. for switching effects programs within the mixer), a new effects section comprising two editable effects processors, a graphic display for the settings – these are just some of the features of the new PowerMate generation.

Models

The PowerMate3 series comprises the models 1000, 1600 and 2200, the principle difference between them being the number of available input channels. In the case of the 1000, there are 6 mono and 4 stereo channels; the 1600 offers 12 mono channels and, again, 4 stereo ones, whilst the 2200 boasts a full 18 mono and, yet again, 4 stereo channels. All the other features – such as the effects, auxiliary and master sections – are identical in all models. When selecting "your" PowerMate, you can therefore concentrate entirely upon the number of channels you need, confident in the knowledge that no other compromises in terms of components and features are involved.

Inputs

The mono input channels of the PowerMate are "jam-packed" with goodies: balanced XLR or, as an alternative, jack inputs (the mono channels are equally suitable for microphone and line level signals), a gain control, a low-cut filter (at 80 Hz), a voice filter, an insert (for looping in e.g. limiters, compressors or the like), a three-band equalizer with a parametric mid, six rotary controls for the aux busses – (2 x FX = internal effects units, 2 x Monitor and 2 x Aux), a pan pot, mute and PFL (pre-fade listen) buttons and, naturally, a pleasantly smooth-running channel fader are features common to all mono channels. In addition, the microphone inputs can be supplied in groups with phantom power for the operation of such microphones as require it.

Each of the four stereo input channels offers a three-band equalizer, controls for the same six auxiliary busses, a balance control, Mute and PFL buttons, and a channel fader. Since the stereo channels are also equipped with microphone inputs, each channel boasts not only XLR but also jack inputs as well as two Gain controls. Admittedly you have to do without a low-cut and voice filter in the stereo channels, but since in the vast majority of instances these channels will be receiving line-level signals from sources such as instruments, this is hardly a shortcoming.

The stereo channels are also served by the two CD stereo inputs (on RCA connectors) as well as the two stereo channels of the integrated USB audio interface, the two CD inputs being assigned to stereo channels 7-8 and 9-10, respectively, and the USB signals to the stereo channels 11-12 and 13-14. In the case of the larger models in the PowerMate3 series, the same pattern is maintained but the equivalent channel numbers are higher (CD 1-2 -> Stereo 13-14 etc.).

Given the lavish provision in terms of inputs and the comprehensively equipped channel strips, it should be possible with the PowerMate to cope with the overwhelming majority of situations you are likely to encounter in practice, producing each time a successful mix.

Aux / Effects

As we have already mentioned, the new PowerMate3 models boast six auxiliary busses on which all the input channels can be freely mixed.



The first two, FX1 and FX2, are dedicated to the two internal effects processors, though the mixes in question are also available at the two FX Send sockets to supply external effects devices and the like. Aux 1 and Aux 2 can be used, among other things, as additional monitor sends or to ply further effects devices. The signals present at each of the Aux Send sockets is taken from a point in the signal chain either before or after the channel faders depending upon the position of the

The two remaining auxiliary busses, Mon 1 and Mon 2, are each equipped with a feedback filter – a useful feature in a great many stage situations – and their signals are available on both XLR and jack sockets. All six auxiliary busses naturally are equipped with their own faders as well as mute and PFL buttons.

relevant aux pre/post switch in the master section.

At this point, we should put the two internal effects processors of the PowerMate under the magnifying glass. These, as we have said, are driven via two of the six auxiliary busses. Two such internal effects busses or processors were already offered by the predecessor models, but for the new generation this aspect has undergone a thorough renovation. To begin with, two completely new, identically constructed effects DSPs offering 24-bit signal processing and 100 effects algorithms each are now integrated. Among the 100 presets, the individual effects are once more divided into categories such as reverb, delay etc. with the various effects arranged in ascending order of intensity – an excellent idea – so, for example, slots 1-20 are assigned to reverb algorithms, slots 21-40 to echo/reverb or chorus/reverb, slots 41-60 to an assortment of delay algorithms, and 61-100 to things like flanger, chorus, doubling and various other reverb and delay programs. A new feature is the enlarged display for the effects section, in which the name of the current effect is displayed in clear lettering. Furthermore, it is now possible to edit the most important effects parameters! You can also store your own variations in the twenty memory locations provided for user presets. Being able to edit and save effects like this





increases enormously the value of the effects section by introducing considerably greater flexibility into the use of the internal effects. The sound quality of these, incidentally, is pretty decent throughout the bank and in no way inferior to that of many dedicated effects units or instruments. So the effects provided by the PowerMate represent a great deal more than some kind of bonus feature thrown in for good measure. You can really work with them, and work very well and creatively too, so they render most external effects devices completely redundant. Incidentally, the new PowerMates are also equipped with a socket for a footswitch that you can use to switch the effects devices on and off directly, allowing you, for example, to switch off the reverb while making an announcement.

Digital recording

The PowerMate3 models are not only professional mixer / amplifiers; they also offer the functionality of a digital audio interface. This supports four audio channels by means of which the PowerMate can be integrated into a digital recording environment. For this purpose, the mixer is connected to a computer by means of a USB-to-host interface. If a USB 2.0 port on the computer is used, this interface allows the simultaneous exchange of up to four channels in each direction. The PowerMate comes, incidentally, with the application Cubase LE, so you can get started right away and enter the world of digital audio recording. This, too, considerably increases the range of possible uses of the PowerMate; in one device it really offers you everything – interface, mixer, effects... –and all of outstanding quality.

Master / Power amplifiers

As is the case with any mixer, everything in the end converges on the master section. This, too, in the PowerMate3 models is comprehensively equipped. The Standby button allows you to mute the mixer without needing to pull down the master faders. The stereo master equalizer is similar in format to that of the predecessor models, allowing the sum signal of the mixer to be further adjusted - to the acoustics of the room, for example. Eleven frequency bands in all can be boosted or attenuated using the appropriate faders. A menu item also allows you to determine whether to switch the equalizer into the master L/R channels or into either or both of the monitor channels. The stereo sum signal is routed on the one hand naturally to the internal power amplifiers, but it is also available on the sockets of the Master B section for the benefit of separate amplifiers, additional mixers etc. The Master B signal is switchable both pre-/post-fader and stereo/mono. Two RCA sockets, labelled "Rec Send" and "2 Track Return", offer, respectively, a recorder direct access to the master signals and the playback of a stereo audio signal directly through the master section. Naturally a headphone socket with a level control is also provided. A further unusual feature is a stereo input for the power amplifier. This makes it possible for the signals of other mixers, for example, to be fed directly into the power amplifiers of the PowerMate. When this happens, the PowerMate's own master signals are, naturally, disconnected from the internal power amplifiers.

Anyone who picks up the PowerMate3 1000 and is familiar with its predecessors will be delighted by its comparative lightness. Thanks to the use of digital power amplifier technology, the weight of the 1000 model has fallen from 20 kg to 14 kg.

But the new digital power amplifiers of the PowerMate3 score points also in terms of power, being capable of "blowing" 1000 watts per channel into 4 ohms through the Speakon cables in the direction of the loudspeakers; at the permissible limit of 2.66 ohms, the power amplifiers are capable of outputting 2 x 1,350 watts. Solo entertainers and small bands will therefore find they have more than enough power behind them to fill even medium-sized halls. And even when the limits are reached, they need have no worries, as a dynamic protective circuit intervenes whenever necessary to ensure that the loudspeakers are not overloaded

In a variety of test applications, including concerts and demos, the device we tested acquitted itself with distinction, demonstrating not only the impressive power it is capable of generating but also exemplary sound quality. I have to say that when the test period was over, we were exceedingly reluctant to send it back ...

Claus Riepe

The new Dynacord PowerMate3 mixers are comprehensively and intelligently equipped; rock solid in terms of workmanship and production quality - the new lid implementation, for example, with its integrated handle, offers exemplary carrying comfort - they exhibit outstanding quality in every component and detail. Confident in the reserves of power made possible by the application of state-of-the-art power amplifier technology, they will not capitulate even faced with quite large venues, and thanks to their audio interface and newly expanded effects section, the new PowerMates are grateful and versatile "workhorses" not only on stage but also in the home studio, rendering in the process many peripheral devices redundant. With this new generation of powered mixers, Dynacord will undoubtedly write a whole new chapter in the PowerMate success story. And competitors in this device category once again have a new standard to which to aspire.