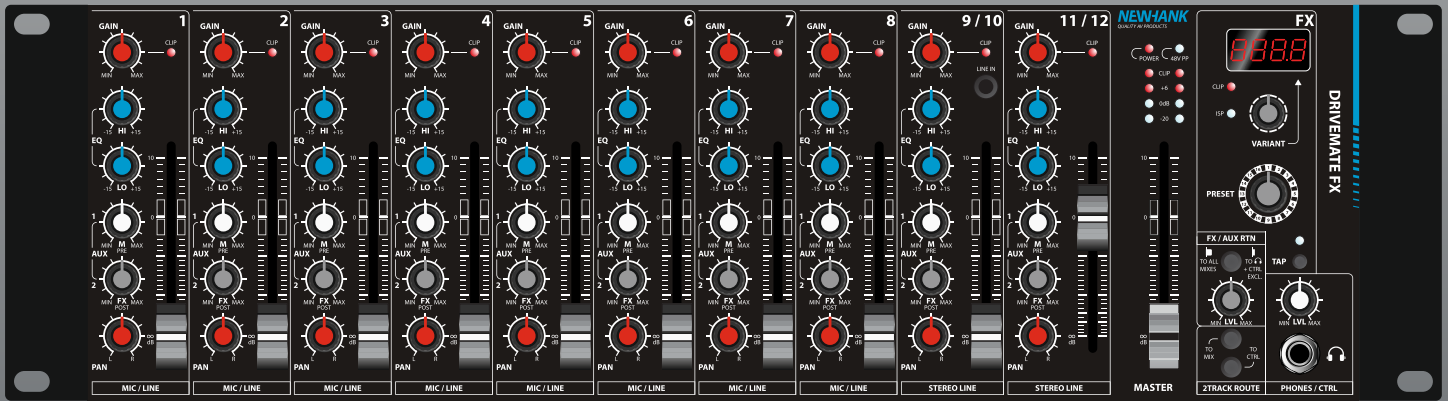


# User manual

## DRIVEMATE FX



Introducing the 12-Channel Rack-Mountable Mixer, the perfect solution for live sound reinforcement, studio setups, and installations where versatility and space efficiency are key. This 19" rack-mountable mixer is designed to deliver exceptional performance and control in a compact format.

### Key features

- 12 Input Channels:
  - 8 Mono Mic/Line Channels: Each equipped with Gain, EQ, Pan, and Level control for precise sound shaping and mixing.
  - 2 Stereo Channels: Ideal for connecting stereo line-level sources such as keyboards or media players.
- Effects and Processing:
  - Onboard FX Module: Includes 16 high-quality FX presets, such as reverb, delay, and chorus, allowing you to add depth and character to your mix.
  - Dedicated FX Bus: Easily route signals to the FX processor with individual channel control.
- Auxiliary Send/Return:
  - One AUX Send: Use for monitor mixes or external effects processing.
  - AUX Return: Conveniently integrate external effects or additional audio sources into your mix.
- Ergonomic Design:
  - Intuitive Layout: Each channel strip features clear and easy-to-access controls for efficient operation during performances or recordings.
  - Sturdy Construction: Built to withstand the rigors of live and studio use.
- Rack-Mountable:
  - Standard 19" Design: Saves space and integrates seamlessly into rack setups for fixed installations or mobile rigs.

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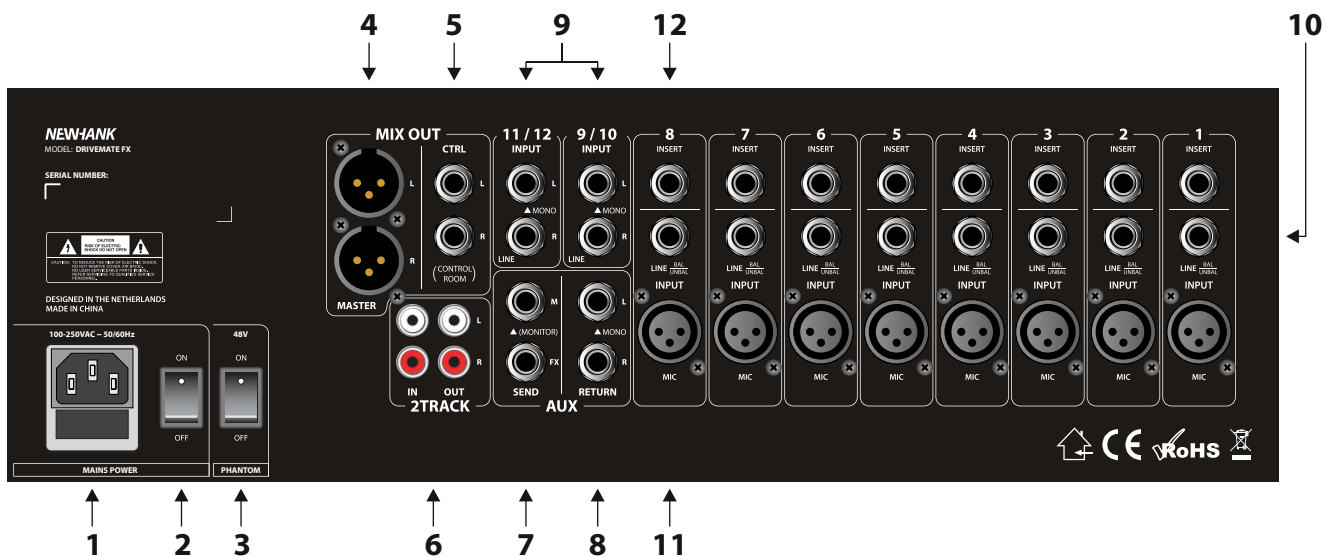
### Safety notice

For your safety, do not attempt to open this device. There are no user-serviceable parts inside, and opening the unit may lead to electric shock or damage. Please refer all servicing needs to qualified service personnel only. Attempting repairs yourself will void any warranty and may compromise the device's performance and safety.

### Set-up precautions

Ensure all connections are made before plugging the device into an electrical outlet. Set the master fader to the minimum position before powering on. If the device has experienced a sudden increase in environmental temperature, avoid switching it on immediately to prevent internal damage from condensation. Wait until the device reaches room temperature before turning it on.

### Functions and controls

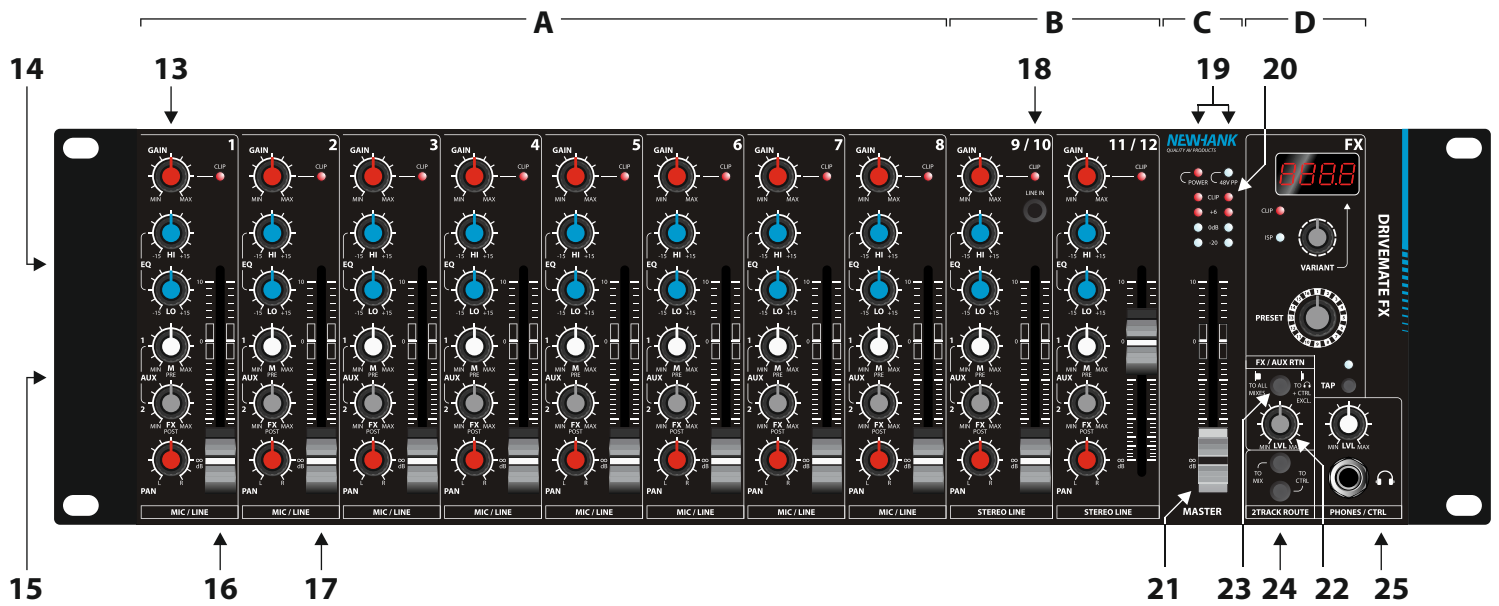


- 1. Power Connection and Fuse Access** - The device connects to the AC mains via the provided power cable. Ensure the voltage and frequency specified on the unit match your local power supply. The fuse, located within a small compartment at the AC inlet, can be replaced by first disconnecting the power cable, then sliding out the compartment drawer. Always use a fuse with identical specifications. If the new fuse fails as well, the unit should be serviced by qualified professionals.
- 2. Power Control** - The unit includes a power switch to turn it on or off. Always turn it off when not in use to save energy and enhance safety.
- 3. Phantom Power** - A dedicated switch activates the 48V phantom power required for condenser microphones, which is supplied to the microphone inputs. This feature is unnecessary for dynamic microphones and should remain off in such cases. The front panel includes an LED indicator to display the phantom power status.

4. **Master Outputs** - The master mix is output via balanced XLR connectors, delivering professional-grade sound.
5. **Control Room Outputs** - A pair of TRS connectors mirrors the headphones output, offering flexibility for monitoring.
6. **2TRK In/Out** - This section consists of unbalanced RCA connectors designed for recording the main mix or playing back audio into the mix. Routing is adjustable using the corresponding front-panel controls.
7. **AUX Sends** - Each AUX bus (Monitor or EFX) outputs a balanced signal composed of input from the respective channel's AUX controls. The Monitor AUX operates pre-fader, while the EFX AUX is post-fader.
8. **AUX Returns** - A stereo TRS input allows for integrating line-level audio sources. For mono signals, use the left jack to feed the signal into both left and right channels.
9. **Stereo Line Inputs** (Channels 9/10 and 11/12) - Balanced TRS connectors accommodate stereo sources. Mono signals can be plugged into the left input for equal distribution across both channels.
10. **Line Inputs** - TRS connectors handle line-level signals, with a DI box recommended for high-impedance sources like guitars. Avoid simultaneous use with the microphone input.
11. **Microphone Inputs** - Balanced XLR connectors accept both dynamic and condenser microphones. For condenser microphones, ensure the phantom power switch is enabled.
12. **Insert Jacks** - These connectors offer send and return paths for external signal processors, accessible via a TRS Y cable.

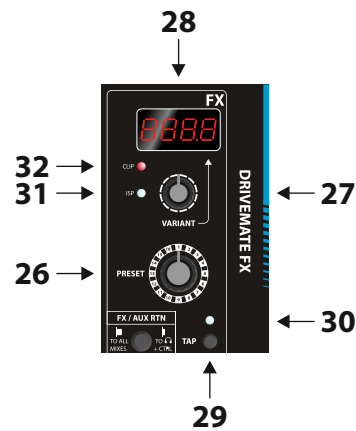
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- A. **Mono Input Channels (1-8)** - Accept both mono line and microphone inputs.
- B. **Stereo Input Channels (9/10 and 11/12)** - Accept stereo line signals.
13. **Gain Controls** - Adjust input sensitivity to optimize signal levels while preventing overload, as indicated by the CLIP LED.
14. **Equalizer** - A 2-band EQ with  $\pm 15$  dB adjustment for fine-tuning low (80 Hz) and high (12 kHz) frequencies.
15. **AUX Buses** - Create independent mixes for monitor and effects applications. The AUX1 bus is pre-fader, while AUX2 is post-fader.
16. **Balance/Pan Control** - Distribute mono or stereo signals between the left and right outputs.
17. **Channel Faders** - Smooth 60mm sliders adjust each channel's level within the main mix.
18. **AUX Input (Channel 9/10)** - A 3.5mm stereo input, ideal for connecting external devices like MP3 players. Plugging in automatically overrides the back side inputs on this channel.
- C. **Master section** - Area with master mix level control and indicators.
19. **Power Indicators** - LEDs display the unit's power and phantom power status.
20. **Level Meter** - Indicates the main output level in decibel steps, with visual feedback for optimal levels and clipping.
21. **Master Fader** - Adjusts the overall output level.
22. **AUX Return Volume Control** - Sets the level for AUX Return inputs or internal effects.
23. **AUX Return Routing** - Assigns the AUX RETURN signal exclusively to the headphones/control room outputs.
24. **2Track Routing** - Routes the 2TRK input to the control room, headphones, or main mix, providing flexible playback and monitoring options.
25. **Headphones/Control Room Outputs** - Provide flexible monitoring options, with independent volume control.

D. **Effects Processor** - Area with effects processor parameter control.



26. **Effects Preset Selector** - This control allows you to select one of the 16 available effects programs. The chosen effect is displayed in the first two digits of the display, making it easy to identify the active setting. See the table on the next page for available presets.
27. **Effects Variant Selector** - This knob adjusts a key parameter of the selected effects program. The variation is shown in the second two digits of the display, offering fine-tuned customization of the effect. See the table on the next page for available preset variations.
28. **Display** - The display shows the selected effect program in the first two digits and the corresponding variation in the last two digits, providing clear feedback on your current settings.
29. **Tap Button** - Use this button to manually set the speed or timing for time-based effects. Simply tap the button to match the desired tempo. For effects that are not time-based, this button will have no function. The tempo LED reflects the active tempo setting.
30. **Tempo LED** - This LED indicates the current tempo for time-based effects. The speed can be adjusted by tapping the TAP button. If the selected effect is not time-based, the LED remains off.
31. **Input Signal Present LED** - This LED lights up when the effects processor is receiving input. The signal level is controlled by the AUX2 (FX) knobs on the channel strips.
32. **Clip LED** - The CLIP LED lights up when the level of the signal sent to the effects processor is too high. To prevent distortion, reduce the signal level using the AUX2 (FX) knobs.

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## DRIVEMATE FX

### Effects presets table

The table below details the 16 effects presets available on the mixer, along with the corresponding functions of the Variant and Tap controls for each preset. These settings allow for precise customization of your audio effects.

Preset	Name	Variant Parameter	Tap Control	Description
1	Flanger	Depth - from low to deep	-	Classic stereo flanger with a slow sweep
2	Chorus	Depth - from low to deep	-	Chorus/ensemble effect with short delays
3	Delay-M	Feedback - from single repeat to long repeating echos	Delay time	Simple mono delay, great for vocals and guitars
4	Delay-PP	Feedback - from single repeat to long repeating echos	Delay time	Stereo "Ping Pong" delay that jumps from left to right output for complex effects
5	RV Plate	Decay & Brightness - from short/bright to long/warm	-	Emulation of a '70s plate reverb – a smooth decay for instruments
6	RV PPlate	Decay & Brightness - from short/bright to long/warm	-	Plate reverb with a short (20ms) pre-delay, perfect for adding space to vocals while keeping them clear and intelligible
7	RV Room	Decay & Brightness - from short/bright to long/warm	-	Emulates a small studio room, great for adding ambience to drums and instruments
8	RV Hall	Decay & Brightness - from short/bright to long/warm	-	Gives the sound of a concert hall, ideal for keyboards, string, and wind instruments
9	RV Spring	Decay & Brightness - from short/bright to long/warm	-	The sound of a spring reverb, adds a funky vintage sound to guitars
10	VocD	Detune amount - light to deep	-	Vocal doubler effect – a Pitch shifter with a slight echo to fatten vocals or guitars
11	Rev+DelM	Reverb decay - short to long	Delay time	Reverb with a short mono delay
12	Rev+DelPP	Reverb decay - short to long	Delay time	Reverb with a short stereo ping-pong delay
13	RV+Chorus	Reverb decay - short to long	-	Reverb and chorus multieffect, nice on keyboards
14	RV+Flange	Reverb decay - short to long	-	Reverb and flanger multieffect, interesting with guitar
15	RV+VocD	Reverb decay - short to long	-	Reverb with vocal doubler multieffect, great for pop vocals
16	Rotary	Depth - light to deep	-	Emulation of the rotary speaker from an organ, fun for guitars or keyboards

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## DRIVEMATE FX

### Maintenance and warranty

To ensure this product's longevity and reliability, we have carefully selected high-quality components to make it as durable as possible. However, certain parts, such as potentiometers, faders, and switches, are subject to wear over time due to the number of operation cycles rather than the passage of time.

In many cases, issues with electro-mechanical components can arise from dust contamination, which may require periodic cleaning. As the interiors of these components are not easily accessible, cleaning sprays are often used to remove dust. However, please exercise caution when using such products, as some cleaning fluids contain chemicals that, while effective at removing dust, can also corrode or damage contact surfaces. These chemicals may also cause cosmetic damage to surrounding components. For this reason, we cannot accept claims for replacement of parts damaged by mechanical or chemical effects resulting from cleaning or other improper maintenance.

This product includes a two-year limited warranty, ensuring peace of mind and support for your purchase.

This factory warranty period starts at invoice date from distributor to dealer.

### General specifications

Frequency response (Mic in @20dB)	10Hz - 22kHz +/- 1dB
Singal-to-noise Ratio	> 90dB
THD (Mic in @ -20dB)	0.01%
Preamp Noise (EIN 150Ω source)	< 114dB
Residual Output Noise	< 95dB
CMRR (Max Gain)	> 50dB @ 1kHz
Crosstalk (On adjacent channels)	< 65dB
Power supply	100-250VAC, 50-60Hz
Power consumption	25 Watt
Weight	3,75kg; 8,3lbs
Dimensions	483x133x162mm (19", 3U)

For latest product information, visit our website:

[www.newhank.com](http://www.newhank.com)