

Numark®

5000FX

PROFESSIONAL EFFECTS MIXER

Quick Start Owner's Manual

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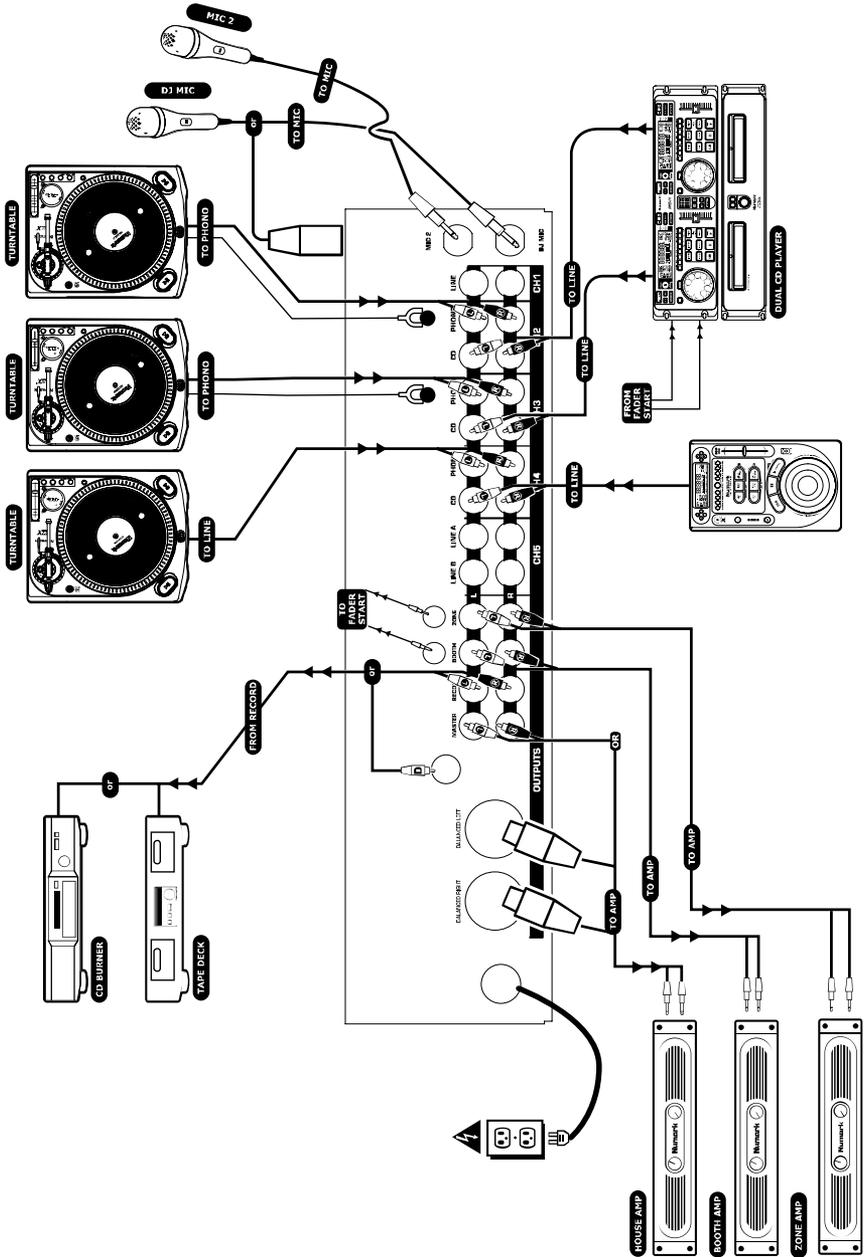
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QUICK SETUP DIAGRAM

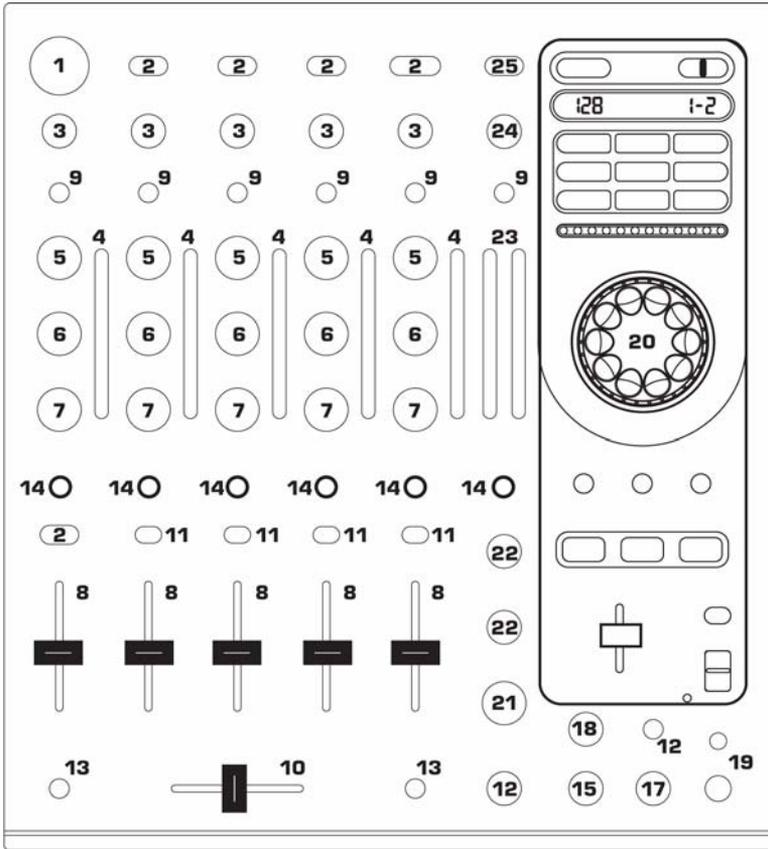


MIXER QUICK SETUP

1. Make sure that you have the correct power adapter with the 5000FX.
2. **READ SAFETY INSTRUCTION BOOKLET BEFORE USING THE PRODUCT.**
3. Study this setup diagram.
4. Place mixer in an appropriate position for operation.
5. Make sure all devices are turned off and all faders and gain knobs are set to "zero"
6. Connect all stereo input sources as indicated in the diagram.
7. Connect the stereo outputs to power amplifier(s), tape decks, and/or other audio sources.
8. Plug all devices into AC power.
9. Switch everything on in the following order.
 - audio input sources (i.e. turntables or CD players)
 - mixer
 - last, any amplifiers or output devices
10. When turning off, always reverse this operation by,
 - turning off amplifiers
 - mixer
 - last, any input devices
11. Go to <http://www.numark.com> for product registration.

More information about this product may be found at <http://www.numark.com>

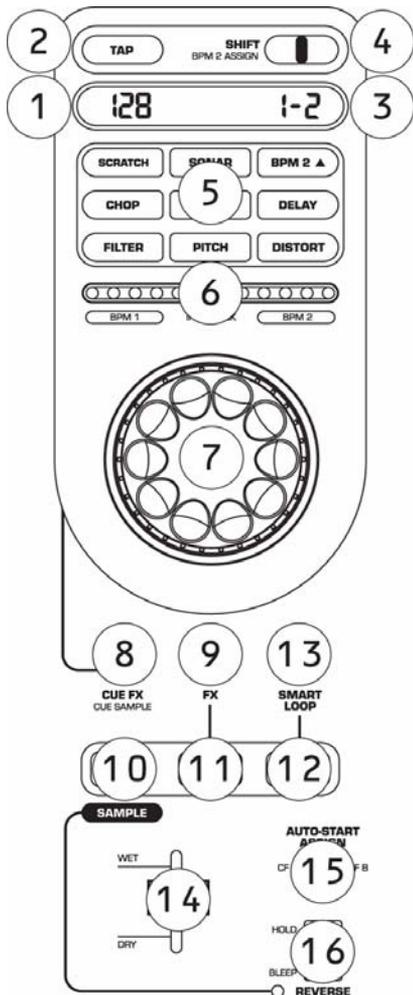
FRONT PANEL FEATURES



1. **XLR/1/4" Combo Microphone Input Jack:** Connect your DJ mic at this location. Note that this input and the rear DJ Mic input jack share the same channel controls. To use the DJ MIC, the Input Selection Switch on Channel 1 must be set to DJ MIC.
2. **Input Selector:** This toggles select which input source is routed to the channel.
3. **Channel Gain Knob:** This rotary control adjusts the pre-fader input level. This adjustment should be made so the meters are just peaking in the red section of the PFL meter.
4. **Pre Fader Level Meter (PFL):** Accurately shows level of incoming channel audio. Accurately match channel levels using the pre-fader gain and EQ controls before mixing them together. The idea is to match PFL input levels. You should avoid trying to match the input with the stereo output meter.
5. **Channel Treble:** This rotary control adjusts the high-tone level.
6. **Channel Middle:** This rotary control adjusts the middle-tone level.
7. **Channel Bass:** This rotary control adjusts the low-tone level.
8. **Channel Fader:** This adjusts the level sent to program mix. For best results, set the fader near the bold line. This allows headroom adjustment in the mix.
9. **FX/Sampler Buttons:** Routes channel audio to the effects processor and sampler. This is explained further in the FX section.

10. **Replaceable Crossfader:** This slide fader blends audio between the channels assigned via Crossfader Assign A and B assign switches. **Note:** *The crossfader is user replaceable in the event that it wears out. Simply remove the facepanel and then remove the screws holding it in position. Replace the fader with a quality authorized replacement from your local Numark retailer (Numark D-Type or CP-Pro fader).*
11. **Assign Switch:** Slider Position determines which input channel will be heard when the crossfader is moved towards this side. *The volume levels of channels not assigned to the crossfader will be determined only by the individual channel sliders.*
12. **Slope Knob (Fader Curve Control):** The position of this knob determines the rate of volume level change when the fader is moved. When turned to the left, the volume will gradually change as the crossfader is moved. When it is turned all the way to the right, a very sharp change in volume will occur when the fader is moved from the endpoint.
13. **Fader-Start Button:** Allows the crossfader to send Play and Cue digital pulse commands to your auto-start **Numark** CD player or other brand. To use this feature, attach your mixer to a remote-start-equipped CD player using standard 1/8"(3.5mm) cables. When you move the crossfader to one side, the attached CD player will start. When it is moved away, that side will cue (similar to pressing the cue button) or stop depending upon brand of CD player.
14. **Cue Button:** Pressing this button sends audio from that channel (post-gain, post-EQ, pre-channel-fader-level) to the PFL cue section of the headphone control. The FX Cue button will send a 100% wet signal for preview.
15. **Headphone Mix Knob:** Program level (Master) and PFL (CUE) signal levels can be mixed by this knob. When all the way left, the audio selected by the Cue buttons will be heard in the headphones. When all the way right, only the final (PGM) program mix audio will be heard.
16. **Split/Blend Button:** When pressed down, the headphone audio will be split, so that mono PFL audio is in the left ear, and mono PGM audio is in the right ear. When the button is up, stereo PFL and PGM audio will be mixed (blended).
17. **Headphone Volume Knob:** This rotary control adjusts the volume level of the headphone output.
18. **Headphone Tone Knob:** This adjusts the sound in the headphone output to help in beat-matching. The knob does NOT change the sound of any other outputs. Adjustments to the BASS or TREBLE can assist headphone cueing in loud environments.
19. **Headphone Jack:** Your headphones can be connected to these ¼" and 1/8" terminals. The volume should always be set at its lowest setting while connecting and disconnecting headphones to prevent damage to headphones and/or your hearing.
20. **FX/Sampler:** This is explained in the Effects section of this manual.
21. **Master Gain:** This control adjusts the main output volume.
22. **Booth/Zone Gains:** This controls the volume to zone or booth monitors..
23. **Stereo Level Indicator:** This quickly and accurately tracks level of audio sent to it. Set the mixer, crossover, equalizer and power amp inputs to avoid distortion at each step in the audio chain. Proper attention to the peak meter results in the punchiest possible sound without audible distortion. When using meters, the idea is to match PFL inputs, not the PFL input with the stereo output meter!
24. **Panning:** Adjusts the balance of right to left audio in all outputs (Master, Record, Zone).
25. **Stereo/Mono toggle:** Adjusts the **Master** output for stereo or mono operation.

EFFECTS CONTROLS



1. **Parameter Display (Left):** This display shows the BPM (Beats Per Minute) of the source selected for processing.
2. **TAP Button:** This button is used adjust the BPM and reset the downbeat. Calculation of the BPM is done automatically by the internal processor.
 - Tapping this button once will reset the downbeat to when the tap occurs.
 - Tapping the button with the beat resets both the BPM and the downbeat.

- Holding the Tap Button for a few seconds causes the processor to automatically recalculate the BPM.
3. **Parameter Display (Right):** This display shows the effect value or the secondary BPM.
 4. **Shift Toggle:** Used to adjust parameters of effects (see FX Descriptions).
 5. **Effect Selection:** The 5000FX has 8 effects and two Beatkeepers™. These are described in the FX Description section.
 6. **LED Indicator:** This displays a quick visual reference for parameters used in the FX and beat alignment of the Beatkeeper™.
 7. **Wheel:** The wheel controls the effects and can be used as a scratch wheel. How the wheel can be used for each effect is detailed in the FX Description section.
 8. **CUE FX:** This button sends the FX output to the headphone cue. This can be used to preview to the effect 100% wet.
 9. **SAMPLER FX:** This button allows the sampler audio to be processed by the FX processor.
 10. **RECORD:** To record a sample, select your source with the FX/Sampler buttons. Press once to record. Press a second time to stop the recording.
 11. **PLAY SINGLE:** Pressing Play will trigger the sample playback (even if the recording has not been stopped). The audio will only play as long as the play button is held. Play is stopped upon release of the button.
 12. **LOOP:** Pressing Loop will play the sample and repeat until the Loop button is pressed again.

While a loop is playing, you can spin the wheel to temporarily “bend” the pitch. This way you can manually adjust to other beats in your mix. If you depress the Sampler FX button and select the Pitch effect, you can make a permanent change to the pitch.

You can also cut your loops in half. Press the SAMPLER FX button to set the FX to the sampler. Then use the “SHIFT” toggle to adjust the length of the sample. The length of the sample is shown in the Right Parameter Display.
 13. **SMART LOOP:** This button activates the Smart Loop mode in the sampler. When recording or playing back a loop, the looped sample will be synced to the

beat via the Beatkeeper™. BPM2 should be assigned to the sampler. This is explained in the BPM 2 section.

14. **FX MIX/SAMPLER LEVEL:** This fader controls the mix between the source audio and the FX audio. When using the sampler, this fader controls the volume of the sampler output. If you choose to process the sampler, this slider adjusts volume of the sampler. All effects will be 100% wet.
15. **SAMPLER CROSSFADER ASSIGN:** This assigns the sampler to one side of

the crossfader. You can use the Fader Start button with this switch to trigger the sampler when the crossfader is moved.

16. **REVERSE:** This plays the audio from the selected channel in reverse. The audio plays from a memory buffer and will stop when the memory runs out. Bleep will temporarily reverse the audio until released. When the sampler is playing, this control will reverse play of the sampler.

EFFECTS DESCRIPTIONS

Note: All effect mix levels are adjusted by the position of the wet/dry fader when used with Channel 1 thru Master, except BPM2. When used with the Sampler, all effects are 100% wet.

- **SCRATCH:** Creates a real-time scratch effect, just like a needle on a record, using the audio buffer

Wheel: Scratches the source music forward and backwards. Push forward to release the scratch with the music.

Toggle: No Function

Display 2: No Function

- **SONAR:** Creates a unique “swoosh” effect.

Wheel: Moving the wheel clockwise initiates the effect. Moving the wheel counter-clockwise removes the effect.

Toggle: No Function

Display 2: The level of this effect is shown in the right parameter display and LED indicator.

- **BPM 2:** This is used to view the tempos for two sources. Use the LED indicator to assist in matching the beats. This uses Numark’s patented Beatkeeper® technology.

Display 1 (Left): Shows the BPM 1 (Beats Per Minute) of the source selected for processing.

Display 2: Shows the BPM of the second source (BPM 2) and the channel selected.

Toggle: Selects the channel for BPM 2 assignment

TAP Button: This button is used to adjust the BPM and reset the downbeat. Calculation of the BPM is automatic with the internal processing.

- Tapping this button once will reset the downbeat to when the tap occurs.

- Tapping the button with the beat, resets both the BPM manually and the downbeat.

- Holding the Tap Button for a few seconds causes the processor to automatically recalculate the BPM.

LED Indicator: Shows BPM 1 on the left, BPM 2 on the right, and Interlock in the middle. When Beats are aligned, the Interlock buttons will illuminate.

Wheel: No Function

Note: If you need to reset and calculate BPM1, turn off the BPM 2 effect, reset, then turn it back on.

- **CHOP:** This FX is used to mute sections of the audio synchronized to BPM 1

Toggle: Adjusts the rate of the CHOP effect based upon the BPM 1 setting

Wheel: Moving the wheel clockwise makes the gaps in the music longer. Moving the wheel counter-clockwise makes the gaps in the music shorter.

Display 2: Shows the fractions of the gap based on beats of the music.

- **ECHO:** This creates a repeating echo in the music. To stop the music and still hear the echo tail off, flip the input selector switch. To use this effect, BPM1 should be set to the current BPM.

Toggle: Adjusts the rate of the echo based upon the BPM1 setting.

Wheel: Moving the wheel clockwise increases the echo time. Moving the wheel counter-clockwise makes the echo in the music shorter.

Display 2: Shows the fractions of the beat of the echo delay time.

- **DELAY:** This effect delays the music in time from the original source. To use this effect, BPM1 should be set to the current BPM.

Toggle: Adjusts the delay time based upon the BPM1 setting

Wheel: Moving the wheel clockwise increases the delay time. Moving the wheel counter-clockwise makes the delay shorter.

Display 2: Shows the fractions of the beat of the delay time.

Wet/Dry slider: This fades from source audio to delayed audio. This effect can be used to create the same double beat effect often used by DJs when 2 of the same song are mixed with the beats offset.

- **FILTER:** This effect is used to filter out frequencies of the audio.

Toggle: Adjusts the point of frequency removal from 150 (low), vocal (mid), and high.

Wheel: Fine tunes the filter frequency.

Display 2: Shows the frequency of the music eliminated.

- **PITCH (Channel 1- Master Processing Mode):** Adjusts the pitch or Key of the audio source.

Toggle: Adjusts the pitch by one musical half-step at a time.

Wheel: Fine tunes the pitch.

Display 2: Shows amount of pitch adjustment.

- **PITCH (Sampler Processing Mode):** This effect adjusts the pitch and tempo of the sampler.

Toggle: Selects the type of adjustment desired.

- **SLD** is a key-slide effect that smoothly changes the pitch of the music without changing the tempo.
- **PIT** changes both the pitch (key) of the music and tempo at the same time.
- **LOC** changes only the tempo of the music without changing the key. This effect is known as Key Lock.

Wheel: Fine-tunes these adjustments.

Display 1: Shows the BPM of the sampler

Display 2: Shows the amount of tempo or key change.

- **DISTORT:** This effect creates distortion from the audio source.
Wheel: Moving the wheel clockwise increases the effect. Moving the wheel counter-clockwise decreases the effect.
Toggle: No Function
Display 2: Shows the level of this effect.

SPECIFICATIONS

Inputs

Line: 10Kohm input impedance
83mV rms sensitivity for 1.22V output
Mic: 600 ohm input impedance unbalanced
1.9mv rms sensitivity for 1.22V output
200mV rms max input
Phono: 47Kohm input impedance
1.3mV rms sensitivity @1KHz for 1.22V output

Outputs

Line: 6.5V rms max
Headphone: 0.5W into 47 ohm
Distortion: less than 0.01%

Signal to Noise Ratio (maximum output) JIS-A weighted

Line: Better than 82dB
Mic: Better than 80dB
Phono: Better than 72dB

Frequency Response

Line: 20Hz-20KHz ± 0.5 dB
Mic: 20Hz-15KHz ± 0.5 dB
Phono: ± 1 dB except for controlled attenuation of -3 dB
@ 20Hz to reduce rumble and feedback

Channel Equalizer

Bass: $+6/-32$ dB @40Hz
Middle: $+6/-32$ dB @1.35KHz
Treble: $+6/-32$ dB @15KH
Channel Kill: 80dB at 20Hz to 20KHz

Power Consumption

24 Watts typical
29 Watts with full headphone output

Dimensions

320mm(W)x355mm(D)x100mm(H)

Weight

6.1 kgs

For the most effective wheel performance, occasional calibration is recommended:

1. Select the Scratch effect.
2. Move the WET/DRY (FX Mix Control) fader throughout its entire range.
3. Spin the wheel while holding the Record (FX Controls) and Single Play (" $>$ " FX Controls) buttons at the same time.
4. The display will show "CAL".