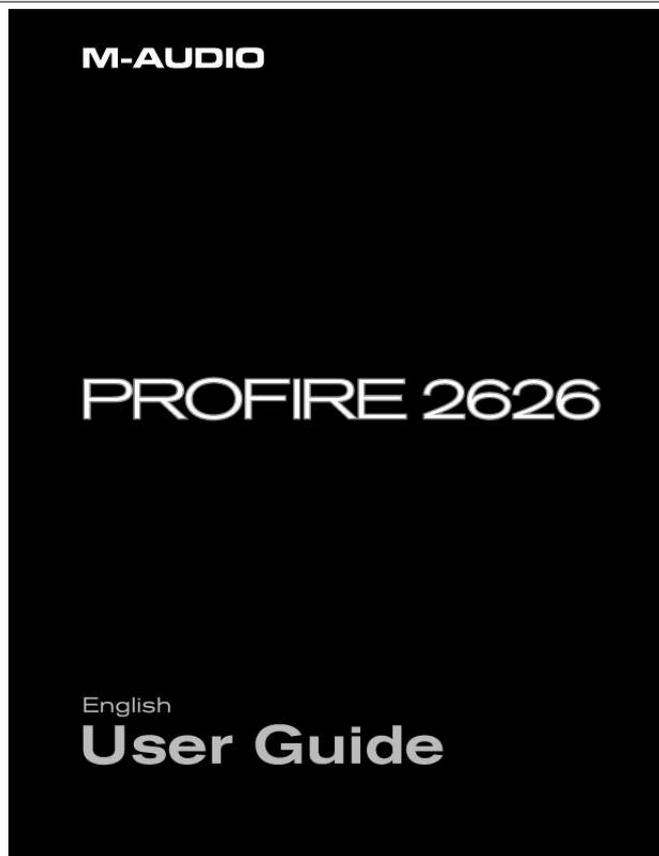




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You can read the recommendations in the user guide, the technical guide or the installation guide for M-AUDIO PROFIRE 2626. You'll find the answers to all your questions on the M-AUDIO PROFIRE 2626 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual M-AUDIO PROFIRE 2626
User guide M-AUDIO PROFIRE 2626
Operating instructions M-AUDIO PROFIRE 2626
Instructions for use M-AUDIO PROFIRE 2626
Instruction manual M-AUDIO PROFIRE 2626



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Manual abstract:

2/96 kHz Operation MAC OS X: 176.4/192 kHz Operation Windows XP/Vista: 88.2/96 kHz Operation Windows XP/Vista: 176.4/192 kHz Operation Control Panel Application Mixer Router Output Source Routing Active Input Ports Active Software Returns Input Channel Order Settings Sample Rate Master Volume Knob Mixer Peak Meters Standalone Mode About Additional Functions File Help User Guide 3 3 4 5 6 6 8 9 11 11 12 13 14 15 16 16 19 20 20 21 21 22 24 26 27 27 31 31 31 31 ProFire 2626 Digital Clocking Scenario 1: ProFire 2626 as Clock Master Scenario 2: ProFire 2626 Slaved to an Optical Input Scenario 3: ProFire 2626 Slaved to S/PDIF Input MIDI Connection Diagram and Example Scenarios Example Scenario #1: Recording a Duo Hardware Input and Output Connections Configuring the Mixer, Router, and Settings tabs Setting up the DSP Mixer: Routing the DSP Mixer outputs: Configure the Master Volume Knob to Control Your Studio Monitors: Disabling unused input ports: Using the DSP Mixer to create Cue Mixes Example Scenario #2: Mixing in Surround Hardware Input and Output Connections Configuring the Mixer, Router, and Settings tabs Configuring and Using your DAW to create a Surround Mix Troubleshooting Warranty Warranty Terms Warranty Registration User Guide 32 33 34 35 36 37 39 39 41 41 41 42 42 42 43 43 44 45 46 49 49 49 ProFire 2626 User Guide 3 1 Introduction Congratulations on your purchase of the ProFire 2626 audio interface ProFire 2626 is part of M-Audio's award winning series of FireWire-based digital recording solutions and features solid hardware design, robust driver technology, and a powerful Control Panel application--all designed to deliver professional connectivity, exceptional fidelity, and nextgeneration performance Even if you are experienced with digital recording, please take a moment to read through this guide It provides detailed information about the ProFire 2626 interface and will help you get the most out of your new purchase You may also want to refer to your audio software's documentation to better understand how ProFire 2626 can be integrated with the application Your experience with the interface will be greatly enhanced by a good working knowledge of your equipment 2 Minimum System Requirements Minimum System Requirements can be found on the M-Audio website at www m-audio com ProFire 2626 User Guide 4 3 About the ProFire 2626 FireWire Audio Interface The ProFire 2626 interface is a super-highway of audio inputs and outputs for your computer Like a highway, there are a certain number of "audio lanes" going to and from your computer--these "lanes" are referred to as streams ProFire 2626 gets its name from the fact that there are 26 streams going into the computer and 26 streams returning from the computer This means you can record up to 26 separate audio channels while simultaneously playing back an additional 26 audio channels if you use all of the analog and digital connections available on the interface ProFire 2626 has a variety of audio connections on its front and back panels The back panel features eight analog combo jacks These multi-purpose jacks accept either XLR or 1/4" balanced/unbalanced inputs and can be used to record microphone or line-level sources The eight XLR inputs are routed to preamps featuring the same technology found in the award-winning M-Audio Octane with controls for gain, phantom power, and 20dB pad on the front panel Next to the combo jacks are eight 1/4" TRS line-level outputs These balanced outputs can be used in a number of ways including monitoring the outputs of your audio software or sending tracks to an external mixer or effects processor Since ProFire 2626 has eight analog outputs, it can also be used for surround mixing in formats up to 7.1 (seven satellites and one subwoofer) The Master Volume knob on the front of the interface can be configured to adjust the output level of any combination of output pairs (i.e., 1/2, 3/4, 5/6, or 7/8) for stereo mixes or up to all eight outputs simultaneously--perfect for surround mixing On the front panel of ProFire 2626, you'll find two 1/4" (TS) instrument input jacks You have the option of using these two jacks as inputs instead of using the first two combo jacks on the rear of the interface These two jacks differ slightly from those on the rear of the interface since they are optimized for instrument-level signals and can be used to record the direct output of an electric guitar or bass Like the rear panel XLR connectors, these inputs can also be routed to the preamps The front panel also features two 1/4" headphone jacks with an independent volume knob for each output The first headphone output is sourced from audio routed to analog outputs 1/2 while the second headphone output is sourced from audio routed to analog outputs 3/4 The remaining inputs and outputs on the interface are for digital signals ProFire 2626 supports both coaxial (RCA) and optical S/PDIF formats as well as the multi-channel ADAT standard (including high resolution S/MUX II* and S/MUX IV* modes) The Control Panel software allows users to scale the active I/O channels to preserve system resources, determine the format and number of digital input and output channels that will be available to your audio software, as well as set the order of the input ports as they appear in your software The Control Panel also includes an 18-input, 16-output DSP mixer allowing you to create near-zero latency monitor mixes ProFire 2626 also includes MIDI and BNC Word Clock inputs and outputs for connecting external MIDI instruments and synchronizing multiple pieces of digital audio gear to the same clock * To use high resolution S/MUX II or S/MUX IV modes, the device connected to ProFire 2626 must also support S/MUX II or S/MUX IV operation. ProFire 2626 User Guide 5 4 ProFire 2626 Features 26-input, 26-output audio configuration Up to 24-bit/192 kHz operation Eight XLR/TRS combo jacks on rear panel supporting mic or line-level signals Two 1/4" (TS) front panel instrument input jacks Eight high-quality preamps with award winning Octane™ technology Phantom power, 20dB pads, and signal/clip LED indicators for all mic preamps Two Stereo 1/4" headphone outputs with individual level controls Eight balanced 1/4" (TRS) line-level outputs Two optical inputs supporting ADAT, S/MUX II, S/MUX IV or S/PDIF** Two optical outputs supporting ADAT, S/MUX II, S/MUX IV or S/PDIF** Coaxial (RCA) S/PDIF input and output BNC Word Clock input and output User-assignable Master Volume knob MIDI input and output Comprehensive software-controlled 18x16 DSP Mixer and Router Jet PLL synchronization technology provides robust clocking between digital devices Windows XP/Vista drivers for ASIO, MME/WDM, DirectX and GSIF2 protocols Mac OS X drivers for Core Audio and Core MIDI Standalone operation as eight channel mic preamplifier, A/D, and D/A converter Compatible with Pro Tools M-Powered 7.4 and later*** ** S/PDIF optical format available on Optical Port B only *** with downloadable cs update ProFire 2626 User Guide 6 5 Hardware Controls and Connectors 1 2 3 4 1 2 3 4 3 4 3 4 3 4 3 4 3 4 3 4 5 6 7 6 7 8 9 10 Front Panel 1 Instrument Inputs (Channels 1/2): These unbalanced 1/4" jacks are used for connecting high impedance instrument-level signals (i.e., electric guitars and basses) to ProFire 2626 When using these inputs, make sure that the Mic/Inst (2) button is set to its "in" position in order to route the associated instrument input to NOTE: The 1/4" line input section of the combo preamp connector (on the rear of the interface) is never sent to Mic/Inst Buttons: These buttons determine whether the channel's XLR input (rear-panel combo jack) or the 1/4" instrument input (on the front panel) will be routed to the preamp When this button is set to the "out" position, the combo jack's XLR connection will be active and the front panel input will be ignored Conversely, when this button is set to the "in" position, the channel's 1/4" front panel input will be active and the combo jack's XLR connection will be ignored Signal/Clip Indicators: The green LED indicates the presence of a signal at the corresponding analog input while the red LED indicates "clipping" or distortion at the input Use these LED meters to set levels for the eight analog inputs Gain Adjustment Knobs / 20dB Pads: These are dual function knobs that are used to adjust the preamp gain as well as to engage a 20dB pad Turn this knob clockwise to increase the input gain for a channel Pull the knob to the "out" position to engage a 20dB pad or leave the knob in the "in" position to allow signals to bypass the pad the preamp, however, the interface does sum the 1/4" line-level portion of the combo jack and front-panel instrument-level input.



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While the summing of these two 1/4" inputs does not affect either input's impedance or signal level, it does make it possible to record audio from both inputs simultaneously. If you have connected a line-level device to the rear of the interface but only intend to record from the corresponding instrument input on the front, please make sure that the connected device is not outputting any audio (or is powered off). 2 3 Setting Gain Levels To set gain levels for an analog input, begin by turning the Gain Adjustment Knob (4) for that channel fully counter-clockwise. While the sound source is playing at its loudest levels, slowly turn the knob clockwise until the red clip indicator (3) begins to illuminate. Then, turn the knob counter-clockwise until the clip indicator no longer illuminates.

At this point, you should be ready to record with the optimum gain setting. Please keep in mind that the red LED indicates that your input is clipping (distorting) digitally. This is not the same kind of analog-style distortion found on guitar amplifiers and stomp boxes. Digital distortion is generally considered to be harsh and unmusical and it is recommended that you use these LED meters to avoid this type of clipping. 4 ProFire 2626 5 Phantom Power Buttons: These two buttons apply +48V phantom power to XLR inputs 1-4 and 5-8 The top button activates phantom power on XLR inputs 1 through 4 while the bottom button activates phantom power for inputs 5 through 8 The LED next to each button will illuminate when phantom power is being sent to the associated channels Headphone Level Knobs: These knobs adjust the output volume of the headphone outputs Turn these knobs clockwise to increase the level of their associated headphone outputs; turn them counterclockwise to reduce the output levels User Guide About Phantom Power: Be mindful when engaging phantom power since not all microphones require phantom power to operate.

For example, most dynamic microphones do not require any phantom power whereas condenser microphones usually do. @@@@This prevents the Master Volume Knob from influencing the levels of headphone outputs 1 and 2 and effectively provides front panel volume controls for three unique nship between various components within the interface (each of the blocks in the diagram are described in detail further below): 44. 1/48kHz Operation (Mac & PC) Mac /PC Audio Application Hardware Inputs Analog ADAT A ADAT B S/ PDI F 1|2|3|4|5|6|7|8 1 |2|3|4|5|6|7|8 1|2|3|4|5|6|7|8 1|2 18x16 DSP Mixer Software Returns 1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20|21|22|23|24|25|26 (Select source for each hardware output) Router 1|2|3|4|5|6|7|8 Analog 1|2|3|4|5|6|7|8 ADAT A 1 |2|3|4|5|6|7|8 ADAT B 1 |2 S/ PDI F Hardware Outputs Hardware Inputs These are the physical audio inputs on ProFire 2626 including the eight analog combo jacks, two instrument inputs, two ADAT ports, and the S/PDIF connector All signals that enter the interface through the hardware inputs can be sent to the Mac/PC, DSP Mixer, and Router (all described below) Mac/PC This block represents your computer and its DAW software All signals received at the hardware inputs can be sent to your computer and made available for recording and mixing within the audio application ProFire 2626 Software Returns This block represents the audio outputs of your audio application Software returns can be routed to the DSP Mixer and the Router (both described below) DSP Mixer This is the 18 input, 16 output DSP mixer contained within the ProFire 2626 interface The block features a dashed line because the DSP mixer can be completely bypassed by the user if desired As shown in the illustration above, the mixer's 18 input channels accept signals from any of the hardware inputs or software returns See the "Mixer" section of the "Control Panel Application" chapter to learn how to configure and use the DSP mixer In cases where the computer is unable to run with sufficiently small buffer size settings (i e , the software monitoring latency is too high), the DSP Mixer can be used instead to achieve near-zero latency monitoring of your input signals Router The Router is a device that lets you select the source of each hardware output on ProFire 2626 These sources include any pair of hardware inputs, the main output of the DSP mixer or any of its seven auxiliary sends, and any available software return pair The router is an extremely useful tool since it allows you to reconfigure how audio streams flow out of the interface without having to physically re-patch the cables connected to the back of the interface Hardware Outputs These are the physical outputs of ProFire 2626 including the eight 1/4" analog jacks, two ADAT ports, and the S/PDIF connector The Router (see above) lets you select the source of each hardware output pair About Software Returns: User Guide 10 The term "Return" has its roots in analog recording, where input sources (Microphones, Instruments, etc.) are connected to large format mixing consoles, routed to multi-track reel-to-reel tape machines for recording and then returned to the mixing desk. @@@This way,

problems with the recording (e. g. @@@While recording systems have evolved greatly over the years and DAW applications have become more popular for recording and playback, the concept of returning signals from your recording device has not changed. In the case of the ProFire 2626, the output of your audio software (the recording device) is returned to the ProFire 2626 Router section hence the term "software returns." Signals returning from your software to ProFire 2626 can then be sent to the DSP mixer and/or any hardware output of your choosing. Why use the DSP Mixer? Most audio applications include mixing and monitoring functionality and you may be wondering why you would want to use the ProFire 2626 DSP Mixer for monitoring instead of the DAW application. The main reason for using the DSP Mixer is that software-based audio applications suffer from a phenomenon known as "latency." Latency is the amount of time it takes your audio signals to pass through the computer (and its DAW software) and become available at the hardware outputs. This delay is usually quite small and is measured in milliseconds, but it may be large enough to distract a performer who wishes to record while monitoring through software. The amount of latency varies depending on many factors including your computer's performance and buffer size settings. Powerful computers with fast processors may allow you to run your sessions with very small buffer size settings, providing virtually imperceptible latency.

In this case, you can use your application's software monitoring features and bypass the ProFire 2626 DSP Mixer. ProFire 2626 ProFire 2626 Operation at High Sample Rates User Guide 1 1 ProFire 2626 can operate at high sample rates including 88 2/96 kHz and 176 4/192 kHz However, the number of available inputs and outputs is reduced when operating at these rates and certain input and output ports are disabled as a result (see the "About S/MUX II and S/MUX IV modes" section for additional information) Furthermore, at high sample rates, the number of software returns is automatically reduced to match the number of available hardware outputs and to preserve system resources This section describes how channels are affected at high sample rates Note that since Windows and OS X operating systems handle audio differently, each operating system is described separately About S/MUX II and S/MUX IV modes: An ADAT port is designed to transfer eight channels of audio at sample rates up to 48 kHz When operating at higher sample rates, the port must operate in S/MUX II (up to 96 kHz) or S/MUX IV (up to 192 kHz) mode S/MUX II mode combines pairs of ADAT channels (i e channels 1/2|1, 3/4|2, 5/6|3, 7/8|4) to create four high bandwidth channels capable of transferring high resolution audio up to 96 kHz S/MUX IV mode combines groups of four ADAT channels (i e , 1-4|1, 5-8|2) to create two high bandwidth channels capable of transferring high resolution audio up to 192 kHz Sample Rate 44 1-48 kHz 88 2-96 kHz 176 4-192 kHz Number of Channels (per ADAT port) 8 4 (S/MUX II) 2 (S/MUX IV) ProFire 2626 MAC OS X: 88.



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2/96 kHz Operation 88.2/96 kHz Operation (Mac) Mac User Guide 12 Audio Application Hardware Inputs ADAT A (S/MUX II) ADAT B (S/MUX II) S/P D I F Analog 112131415161718 1 12131415161718 112 18x16 DSP Mixer Software Returns

112131415161718191011112113114115116117118119120121122123124125126 (Select source for each hardware output) Router 112131415161718 Analog 1 12131415161718 ADAT A (S/M U X I I) 112131415161718 ADAT B (S/M U X I I) 112 S/P D I F Hardware Outputs At sample rates of 88.2 or 96 kHz, the ADAT ports operate in S/MUX II mode As a result, the number of available ADAT channels is reduced to four channels per port (i.e., channels 5-8 are disabled on all ADAT I/O ports) and software return channels 19-26 are disabled Tip: Users who regularly work at different sample rates may wish to use the Control Panel's "save" and "load" functions to store and recall preferred routing assignments for each sample rate. This will allow them to quickly shift between various sample rates without having to reconfigure routing assignments each time. ProFire 2626 MAC OS X: 176.4/192 kHz Operation 176.4/192 kHz Operation (Mac) Mac User Guide 13 Audio Application Hardware Inputs S/P D I F Analog (S/M U X IV) (S/M U X IV) 112131415161718 1 12131415161718 112131415161718 112 ADAT A ADAT B 18x16 DSP Mixer Software Returns 112131415161718191011112113114115116117118119120121122123124125126 (Select source for each hardware output) Router 112131415161718 Analog 1 12131415161718 ADAT A (S/M U X IV) 112131415161718 ADAT B (S/M U X IV) 112 S/P D I F Hardware Outputs At sample rates of 176.4 or 192 kHz, the ADAT ports operate in S/MUX IV mode As a result, the number of available ADAT channels is reduced to two channels per port (i.e., channels 3-8 are disabled on all ADAT I/O ports), and software return channels 15-26 are disabled Tip: Users who regularly work at different sample rates may wish to use the Control Panel's "save" and "load" functions to store and recall preferred routing assignments for each sample rate. This will allow them to quickly shift between various sample rates without having to reconfigure routing assignments each time. ProFire 2626 Windows XP/Vista: 88.

2/96 kHz Operation (PC) 88.2/96 kHz Operation PC User Guide 14 Audio Application Hardware Inputs ADAT A (S/MUX II) ADAT B (S/MUX II) S/P D I F Analog 112131415161718 1 12131415161718 112 18x16 DSP Mixer Software Returns

112131415161718191011112113114115116117118119120121122123124125126 (Select source for each hardware output) Router 112131415161718 Analog 1 12131415161718 ADAT A (S/M U X I I) 112131415161718 ADAT B (S/M U X I I) 112 S/P D I F Hardware Outputs At sample rates of 88.2 or 96 kHz, the ADAT ports operate in S/MUX II mode As a result, the number of available ADAT channels is reduced to four channels per port (i.e., channels 5-8 are disabled on all ADAT I/O ports) and software return channels 13-16 and 21-24 are disabled TIP: Users who regularly work at different sample rates may wish to use the Control Panel's "save" and "load" functions to store and recall preferred routing assignments for each sample rate. This will allow them to quickly shift between various sample rates without having to reconfigure routing assignments each time. Windows XP/Vista Users: Please note that certain input and output ports become unavailable at high resolutions (such as ADAT 5-8 in S/MUX II mode). While the ports will become disabled as the sample rate is increased, your DAW application's audio inputs and outputs may still be routed to unavailable ports.

In this case, the disabled inputs and outputs will not stream audio. To avoid this, configure your DAW application's inputs to receive audio from active ports and make sure that the application is sending audio to active software returns. Next, you may need to reconfigure the Router to ensure that the software returns from your DAW application are routed to active hardware output ports. To help you quickly identify disabled hardware inputs and software returns, the Control Panel application grays-out and italicizes any inputs, outputs, or software returns that are disabled. The DSP Mixer displays an exclamation point () if the input source stream has become disabled.

ProFire 2626 Windows XP/Vista: 176.4/192 kHz Operation 176.4/192 kHz Operation (PC) PC User Guide 15 Audio Application Hardware Inputs S/P D I F Analog (S/M U X IV) (S/M U X IV) 112131415161718 1 12131415161718 112131415161718 112 ADAT A ADAT B 18x16 DSP Mixer Software Returns

112131415161718191011112113114115116117118119120121122123124125126 (Select source for each hardware output) Router 112131415161718 Analog 1 112131415161718 ADAT A (S/M U X IV) 1 12131415161718 ADAT B (S/M U X IV) 1 12 S/P D I F Hardware Outputs At sample rates of 176.4 or 192 kHz, the ADAT ports operate in S/MUX IV mode As a result, the number of available ADAT channels is reduced to two channels per port (i.e., channels 3-8 are disabled on all ADAT I/O ports), and software return channels 11-16 and 19-24 are disabled TIP: Users who regularly work at different sample rates may wish to use the Control Panel's "save" and "load" functions to store and recall preferred routing assignments for each sample rate. This will allow them to quickly shift between various sample rates without having to reconfigure routing assignments each time. Windows XP/Vista Users: Please note that certain input and output ports become unavailable at high resolutions (such as ADAT 5-8 in S/MUX II mode). While the ports will become disabled as the sample rate is increased, your DAW application's audio inputs and outputs may still be routed to unavailable ports. In this case, the disabled inputs and outputs will not stream audio. To avoid this, configure your DAW application's inputs to receive audio from active ports and make sure that the application is sending audio to active software returns. Next, you may need to reconfigure the Router to ensure that the software returns from your DAW application are routed to active hardware output ports. To help you quickly identify disabled hardware inputs and software returns, the Control Panel application grays-out and italicizes any inputs, outputs, or software returns that are disabled.

The DSP Mixer displays an exclamation point () if the input source stream has become disabled. ProFire 2626 User Guide 16 7 Control Panel Application ProFire 2626 provides adjustable parameters for many of its features Some of them can be accessed directly from the ProFire 2626 front panel, such as input gain, phantom power, and output levels However, there are additional parameters that cannot be accessed from the front panel--these will be available to you using the included Control Panel software In Windows, open the ProFire 2626 control panel by double-clicking on the M-Audio icon in the system tray, or from Start > Control Panel (Classic View) In Mac OS X, click the M-Audio ProFire 2626 icon in the system preferences window The Control Panel features four tabs across the top of the screen (shown below) Each tab focuses on a specific component or feature set of ProFire 2626 and is described below Mixer The tab labeled "Mixer," provides access to the ProFire 2626 DSP Mixer This 18-input, 16-output mixer allows you create up to eight different stereo mixes from 18 input sources consisting of any of the hardware inputs (i.e., analog and digital inputs) and software returns (software outputs) This allows you to set up near-zero latency cue mixes in which the performers hear "customized" mixes while recording The "Example Scenario #1" section in this user guide describes a real-world scenario in which the DSP Mixer can be used and provides a detailed tutorial on how to set up and use the mixer ProFire 2626 User Guide 17 It is important to note that any changes made to the DSP Mixer will only affect what is audible from the mixer's outputs--the DSP Mixer does not affect the signals that are sent to the audio application for recording For example, if you are recording a vocalist and he/she tells you to turn up the vocal track so they can hear themselves better, you can increase the vocalist's microphone channel in the DSP Mixer This will make the vocal part louder in the vocalist's headphones, but it will still be recorded into the audio application at the volume determined by the front panel Gain Adjustment Knob (4) The DSP Mixer is set up like a standard mixing console: There are 18 input channels, each with its own volume fader, pan and aux send knobs, solo () and mute () buttons, as well as a master output section with its own pair of faders, and mute buttons A pair of channels can be linked together by clicking the link icon () between the two channels Linking channels allows you to adjust mute, solo, aux, and fader settings simultaneously by modifying parameters on either one of the linked channels NOTE: Linking two channels will not have any effect on their pan or channel input selection.

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TIP: If you control your monitoring levels externally (i.e., through a mixing board or by using your speaker's own level control) then the Master Volume knob on ProFire 2626 can be used as an aux send knob: Connect ProFire 2626's analog outputs 3/4, 5/6 and 7/8 to your external effects processors' inputs. Configure your audio software so that audio signals that are to be processed by the external gear are routed to these outputs. Using the ProFire 2626 Control Panel, assign the Master Volume knob to control analog outputs 3/4, 5/6 and 7/8. The Master Volume knob on ProFire 2626 can now be used as a dedicated aux send knob for external effects processing. Lastly, connect the outputs of your external effects processors to the analog inputs on ProFire 2626. You can now monitor the incoming signals through the DSP mixer, and/or route them to your audio application for recording. TIP: To control the level of the main monitor mix without affecting the level at the headphone outputs, assign the Master Volume to either analog outputs 5/6 or 7/8 and use those outputs for your main monitors.

*This will allow you to route independent cue mixes to headphone output 1 (which always plays audio routed to analog outputs 1/2) and headphone output 2 (which always plays audio routed to analog outputs 3/4) while still using the Master Volume knob to set levels for your studio monitors. This prevents the Master Volume Knob from influencing the levels of headphone outputs 1 and 2 and effectively provides front panel volume control of three discrete stereo outputs. See the section entitled "Example Scenario #1: Recording a Duo" to learn more about creating cue mixes. ProFire 2626 Mixer Peak Meters User Guide 27 This section of the Control Panel configures the operation of the meters within the DSP Mixer Mode This drop-down menu determines the behavior of the meters of the ProFire 2626 DSP mixer Pre-fader When this parameter is set to "Pre-fader" the meters will display the level of a signal before it passes the fader This allows signal levels to be displayed regardless of the fader positions within the DSP mixer (i.e., a fader can be all the way down and no sound will be heard from the mixer's output, but you can still see if there is any activity on that input) Post-fader This setting configures the meters to show levels after signal has passed through the faders In this configuration, fader positions will affect the meters For example, a fader that is all the way down will result in no signal being displayed on its meter Peak Hold The meters of the ProFire 2626 DSP mixer feature a "peak hold" function designed to assist in finding the loudest transients of a signal This drop-down menu determines how long the peak indicator will remain before resetting: Off 1 Second 3 Seconds Infinite This setting turns the peak hold function off Peak levels are held for one second Peak levels are held for three seconds Peak levels are held until the meters are cleared TIP: Peak levels can be cleared at any time by clicking the meters in the DSP mixer. Standalone Mode ProFire 2626 can be used in Standalone Mode (i.e., without a computer) To enter Standalone Mode, power down the interface, disconnect any FireWire cables attached to the FireWire Ports (12), and power on the interface The parameters in this section of the Control Panel determine how ProFire 2626 will function while operating in Standalone Mode This is a useful feature as it allows you to set the Standalone Mode settings independently from the hosted settings This saves you from having to reconfigure the Control Panel each time before you use the interface in Standalone Mode Sync Source This drop-down menu determines the clock synchronization source when using ProFire 2626 in Standalone Mode If you have connected a S/PDIF, ADAT, or Word Clock device to your ProFire 2626 and would like to use that device's clock as the master clock source, select "ADAT A," "ADAT B," "Coax S/PDIF," or "Word Clock" from this drop down menu Otherwise, leave this parameter on its default "Internal" setting to allow ProFire 2626 to use its internal clock ProFire 2626 Sample Rate This menu selects the sample rate of the interface when operating in Standalone Mode Optical Port B Mode This parameter determines how the second pair of optical ports will operate when the interface is in Standalone mode ADAT: Selecting "ADAT" will allow you to send and receive four channels of audio at 88.2/96 kHz (per ADAT port; S/MUX II) or two channels at 176.4/192 kHz (per ADAT port; S/MUX IV) In Standalone Mode, Optical Port B can only be set to ADAT when the interface is operating at sample rates of 88.2 to 192 kHz * User Guide 28 NOTE: This parameter only displays sample rates (i.e., "44.1 kHz", "48 kHz", etc.) when the Standalone Mode Sync Source is set to "Internal." If you are clocking the interface to an external S/PDIF or Word Clock device, this parameter displays "Auto" and the interface automatically locks to the sample rate of the master device.*

*If you are clocking to an ADAT device, this menu provides the same options found under the S/MUX Mode parameter while in hosted mode ("Auto," "S/MUX II (88.2 to 96 kHz)," and "S/MUX IV (176.4 to 192 kHz).") See the S/MUX Mode description earlier in this section to learn more about these settings. S/PDIF: Selecting "S/PDIF" allows the second optical input and output ports to convert optical S/PDIF signals into coaxial S/PDIF signals while simultaneously converting coaxial S/PDIF to optical S/PDIF * Since ProFire 2626 has a maximum of eight analog inputs and outputs, optical port B is not necessary for A/D or D/A conversions at 44.1/48 kHz. Optical port B can be used for A/D, D/A operation at sample rates above 48 kHz. Note: The coaxial and optical S/PDIF ports support a maximum sample rate of 96 kHz when operating in Standalone mode. This is because optical S/PDIF has a maximum sample rate limit of 96 kHz. As a result, when ProFire 2626 is operating at sample rates above 96 kHz, this parameter automatically defaults to ADAT mode.*

ProFire 2626 Converter Mode User Guide 29 ProFire 2626 can operate in two different ways while in Standalone Mode Each mode is described separately below: A/D D/A Mode: When this parameter is set to "A/D - D/A" mode the interface operates like a standard analog-to-digital (A/D), digital-to-analog (D/A), and S/PDIF format converter The operation of this mode varies by the sample rate of the interface This is described in detail below: 44.1-48 kHz (Optical Port B can only be set to S/PDIF at these sample rates) Analog In 1-8 ADAT (port A) In 1-8 Coaxial S/PDIF Optical S/PDIF ADAT (port A) Out 1-8 Analog Out 1-8 Optical S/PDIF Coaxial S/PDIF 88.2-96 kHz (when Optical Port B is set to ADAT) Analog In 1-8 ADAT In 1-8 ADAT Out 1-8* Analog Out 1-8 88.*



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2-96 kHz (when Optical Port B is set to S/PDIF) Analog In 1-4 ADAT In 1-4 Coaxial S/PDIF Optical S/PDIF 176.4-192 kHz (Optical Port B can only be set to ADAT at this sample rate) Analog In 1-4 ADAT In 1-4** ADAT Out 1-4** Analog Out 1-4 ADAT Out 1-4 Analog Out 1-4 Optical S/PDIF Coaxial S/PDIF

* When operating at 88.2/96 kHz (S/MUX II mode), four channels of audio are sent/received via ADAT port A while the remaining four channels are sent/received via ADAT port B. ** When operating at 176.4/192 kHz (S/MUX IV mode), two channels of audio are sent/received via ADAT port A while the remaining two channels are sent/received via ADAT port B. ProFire 2626 A/D Mode: User Guide 30 In this mode, ProFire 2626 acts only as an analog-to-digital (A/D) and S/PDIF format converter The interface does not perform any digital-to-analog (D/A) conversion, but instead allows the analog inputs to be routed to both the analog and optical output ports simultaneously 44.1-48 kHz (Optical Port B can only be set to S/PDIF at this sample rate) Analog In 1-8 Coaxial S/PDIF Optical S/PDIF Analog Out 1-8 ADAT (port A) Out 1-8 Optical S/PDIF Coaxial S/PDIF 88.

2-96 kHz (when Optical Port B set to ADAT) Analog In 1-8 Analog Out 1-8 ADAT Out 1-8* 88.2-96 kHz (when Optical Port B set to S/PDIF) Analog In 1-4 Coaxial S/PDIF Optical S/PDIF 176.4-192 kHz (Optical Port B can only be set to ADAT at this sample rate) Analog In 1-4 Analog Out 1-4 ADAT (port A) Out 1-4** Analog Out 1-4 ADAT (port A) Out 1-4 Optical S/PDIF Coaxial S/PDIF * When operating at 88.2/96 kHz (S/MUX II mode), four channels of audio are sent/received via ADAT port A while the remaining four channels are sent/received via ADAT port B. ** When operating at 176.4/192 kHz (S/MUX IV mode), two channels of audio are sent/received via ADAT port A while the remaining two channels are sent/received via ADAT port B.

NOTE: The Master Volume Knob assignment made through the Settings tab remains persistent while the unit is in standalone mode. To remove any attenuation from the Master Volume Knob while in standalone mode, disable any assignments made in the Settings tab or simply turn the Master Volume Knob fully clockwise. ProFire 2626 About User Guide 31 The About tab provides version information for the Control Panel, driver, and any connected ProFire 2626 interfaces This page also features convenient links to driver updates, downloadable manuals, FAQs, tech support, product registration, and the M-Audio home page Note that clicking the link buttons will open your web browser and that your computer must have Internet access for these pages to load Additional Functions ProFire 2626 also features a variety of functions accessible through its File, and Help menus These menus are as follows: File This menu allows you to save and load all of the parameters on the Mixer, Router, and Settings tabs This is useful if you'd like to save various configurations (i e , a multi-tracking setup, a surround mixing setup, etc) so that you do not have to manually reconfigure your system each time you work on a different type of project The "Load Recent Settings" sub-menu lists up to 10 of the most recent Control Panel configurations that you have loaded The "Clear Menu" option clears the list of recently loaded files (this option does not affect the actual configuration files--it simply removes the recent file names from the sub-menu) The "Revert to Factory Settings" option allows you to reset all of the ProFire 2626 Control Panel parameters to their factory default settings Help This menu gives you convenient access to the support, software update, and product documentation pages on the M-Audio website Note that clicking these options will open your web browser and that your computer must have Internet access for these pages to load ProFire 2626 User Guide 32 8 Digital Clocking Your computer-based DAW stores and manipulates music as digital samples Those samples are sent to and from your DAW as "snapshots" of data These snapshots are all the same size--16-bit or 24-bit, depending on your selected resolution--each with a beginning and an end, and are sent in sequential order (i e , one after the other) as a stream of data Think of this data stream as a sentence, made up of a series of words of identical length The rate at which these words are transmitted (i e , how many samples are transmitted each second) is known as the "sample rate" of the device Audio CDs have a sample rate of 44,100 samples per second (known as "44.1 kHz") whereas certain high-end professional audio devices (such as ProFire 2626) support very high sample rates (up to 192 kHz) for high audio fidelity Precise, accurate timing in sending and receiving those words is critical Each device in your interconnected digital world must share the same timing in order to communicate correctly--that is, their clocks must be synchronized This synchronization is achieved by designating one device as the timing "master," and all other connected devices as "slaves," locking the slaves to the master Only one device in the chain can be the master, and all other devices must slave to that master All devices must be running at the same sample rate as well For example, if the master is running at 44.1 kHz, no other device should be set to any other sample rate Word Clock is an important part of digital studios but is often overlooked by engineers new to digital recording It is crucial to set up Word Clock correctly because without precise synchronization between your digital devices, your digital audio signal will be filled with clicks, pops, and white noise, or may not play at all The following pages give practical digital synchronization examples and setup tips ProFire 2626 Scenario 1: ProFire 2626 as Clock Master User Guide 33 By selecting "internal" as the sync source in the Control Panel, you designate ProFire 2626 as the clock master You will then need to select "external" (or "slave" on certain devices) mode on each of your other digital devices (this is usually an internal menu setting on that device) In Figure 1 below, digital multi-track recorders with ADAT optical outputs are connected to optical ports A and B of the ProFire 2626, and a DAT machine is connected to the coaxial S/PDIF I/O ProFire 2626 is selected as the master, and all of the other devices are set to "external" (or "slave") Slave (ADAT A) In A In B 12V DC 3.5A Out A Out B In A Out A Master 1 -- + MIDI S/PDIF Word Clock 7 5 3 8 In B Out B Optical 7 6 5 4 Mic/Line Inputs 3 2 1 8 6 4 Line Outputs 2 MIDI S/PDIF Word Clock S/PDIF (RCA) Slave (DAT) Slave (ADAT B) ProFire 2626 Scenario 2: ProFire 2626 Slaved to an Optical Input User Guide 34 If you prefer to use another device as clock master, you will need to configure that device to act as master and select that device's input on ProFire 2626 as the sync source This locks (or "slaves") ProFire 2626 (and any other devices connected to ProFire 2626) to that master device In Figure 2 below, a digital multi-track recorder with an ADAT optical output is configured as clock master ProFire 2626 and other devices (a DAT machine and another multi-track recorder, in this case) receive and lock to the clock of the "master" ADAT device Master (ADAT A) In A In B 12V DC



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5A Out A Out B In A Out A Slave 1 -- + MIDI S/PDIF Word Clock 7 5 3 8 In B Out B Optical 7 6 5 4 Mic/Line Inputs 3 2 1 8 6 4 Line Outputs 2 MIDI S/PDIF Word Clock S/PDIF (RCA) Slave (DAT) Slave (ADAT B) ProFire 2626 Scenario 3: ProFire 2626 Slaved to S/PDIF Input User Guide 35 You may need to use a two-track device as clock master This is because many two-track digital devices, such as consumer CD players, are not designed to be locked to other devices due to their lack of digital inputs Configure ProFire 2626 to synchronize externally when receiving digital signal from such devices In Figure 3 below, the CD player is configured as the clock master, with ProFire 2626 and other devices configured as slaves Slave (ADAT A) In A In B 12V DC 3.5A Out A Out B In A Out A Slave 1 -- + MIDI S/PDIF Word Clock 7 5 3 8 In B Out B Optical 7 6 5 4 Mic/Line Inputs 3 2 1 8 6 4 Line Outputs 2 MIDI S/PDIF Word Clock S/PDIF (RCA) Master (CD Player) Slave (ADAT B) The previous three examples have covered some of the most common clocking methods and are intended to help you understand the basic principles of digital clocking. Note that there are many other ways in which proper clocking can be established between digital audio devices and this chapter cannot cover every conceivable scenario. If your studio uses more advanced clocking devices such as a "house" master clock, please refer to that device's user guide to learn more about how it can be configured to work with ProFire 2626. ProFire 2626 User Guide 36 9 MIDI ProFire 2626 provides 16 channels of MIDI I/O over standard 5-pin DIN connectors found on the breakout cable These I/O ports can be used to connect MIDI-compatible devices to your computer such as controller keyboards, drum machines, or sound modules Alternatively, these ports can be used to send and receive MIDI Time Code (MTC) and other synchronization formats for locking to a hardware or software sequencer MIDI is an extensive protocol and covering it in detail is beyond the scope of this guide If you would like to learn more, please refer to one of the many books and articles that have been written about this subject and are available online or through your local music retailer The diagram below demonstrates a scenario in which a controller keyboard and a sound module are connected to ProFire 2626: MIDI S/PDIF Word Clock 12V DC 3.5A ProFire 2626 -- + MIDI S/PDIF Word Clock In A Out A 7 5 3 1 8 In B Optical Out B 7 6 5 4 Mic/Line Inputs 3 2 1 8 6 4 Line Outputs 2 MIDI Out MIDI In MIDI Out MIDI In MIDI Keyboard Sound Module 1 2 3 Make sure the breakout cable is connected to the back of ProFire 2626 Connect the controller keyboard's MIDI output to the ProFire 2626 MIDI input Connect the ProFire 2626's MIDI output to the MIDI input of the sound module Once the hardware connections have been made, you may need to configure your music software to make use of the ProFire 2626 MIDI input and output ports This configuration process varies from program to program; Please see your audio application's user guide to learn how to do this ProFire 2626 User Guide 37 10 Connection Diagram and Example Scenarios ProFire 2626 is a flexible interface with a variety of inputs and outputs This flexibility allows ProFire 2626 to be used in a many different applications ranging from studio multi-tracking and on-location recording to multi-channel surround mixing This guide cannot cover every conceivable use of ProFire 2626, but the diagram below illustrates the various kinds of equipment that can be connected to the interface The remainder of this chapter illustrates two real-world scenarios in which ProFire 2626 can be used MIDI Keyboard DAT ADAT Word Clock DAT EQ, Mixer Computer Mixing Desk Amplifier Powered Monitors FireWire 12V DC 3.5A Mic, Keyboard, CD Player 12V DC 3.5A -- + MIDI S/PDIF Word Clock In A Out A 7 5 3 1 8 In B Out B Optical 7 6 5 4 Mic/Line Inputs 3 2 1 Power Supply Clip Clip 8 6 4 Line Outputs 2 Clip Clip Clip Clip Clip 1-4 1 Headphones 2 Headphones Master Volume Power 1 Inst Pull -20dB Inst 2 Pull -20dB 3 Pull -20dB 4 Pull -20dB 5 Pull -20dB 6 Pull -20dB 7 Pull -20dB 8 Pull -20dB Phantom Power Mic/Line Inst Mic Gain Mic/Line Inst Mic Gain Mic Gain Mic Gain Mic Gain Mic Gain 5-8 Level Level Guitar /Bass Headphones · onnecttheProFire2626interfacetoanavailableFireWireportonyour C computer · ttachthein-linepowersupplytothePowerSupplyConnector(11)andturnonthe A interface using the Power Button (9) · onnectlineoutputs1/2toyourstudio'smixingdesk,amplifier,orpowered C monitors TIP: Any time cables are connected (or disconnected) from a mixing desk, amplifier, or powered monitors, you may hear a loud pop from the speakers. It is recommended that you turn down your monitors to prevent this. ProFire 2626 User Guide 38 · fyouarerecordingthedirectoutputofanyelectricguitarsorbasses,connecttheseinstrumentstoAnalogInputs1 I and 2 (1) on the front panel Be sure the Mic/Inst Button (2) is in the "in" position for each channel that is using the front panel inputs If any 1/4" line-level devices have been connected to the corresponding rear-panel inputs, make sure that these devices are not outputting any audio · AttachuptotwopairsofheadphonestotheHeadphonejacks(7) · onnectlineoutputs3-8toanydeviceswithanaloginputsthatyouwishtouseduringrecordingormixing.Such C devices can include compressors, EQs, signal processors, mixers, or additional speakers if you are mixing in surround · seanaloginputs3-8toconnectmicrophonesoranyline-leveldevices(keyboards,samplers,CDplayers,etc.) U that you wish to record If you have attached analog outputs 3-8 to external audio processing devices (such as compressors, EQs, etc), you can use these inputs to bring the outputs of those devices back into your audio application · fyowishtouseanydeviceswithADAT*inputsandoutputs(digitalmixers,A/DandD/Aconverters,othercomputers I equipped with ADAT ports), connect these devices to the optical connectors (13) on the rear panel of ProFire 2626 By combining the signals from both ADAT optical ports, ProFire 2626 can send/receive 16 channels of audio while operating at 44 1/48 kHz, eight channels at 88 2/96 kHz (in S/MUX II mode), and four channels at 176 2/192 kHz (in S/MUX IV mode) · ousetheS/PDIF*,WordClock*,orMIDI,inputsandoutputs,connectthesuppliedbreakoutcabletotheBreakout T Cable connector (14) on the rear panel of the interface S/PDIF is a common format found on many consumer and professional devices (A/D and D/A Microphone Preamps converters, CD players, keyboards and samplers, etc) that is used to digitally transfer stereo signals Word Clock is a synchronization format often found on professional digital audio devices (digital mixers, A/D and D/A converters) It is used to synchronize two or more digital audio devices to the same master clock MIDI is a communication protocol supported by nearly all modern keyboard and synthesizer products as well as most DAW applications This protocol is commonly used to connect MIDI-capable devices to each other, or to connect these devices to the recording application running on your computer The "MIDI" section of this guide covers this protocol in greater detail * Whenever audio devices are digitally interconnected (i.



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e., through ADAT, S/PDIF, or Word Clock), you must set up proper clocking among all of the devices to ensure error free transfer of audio. The "Digital Clocking" section of this guide covers this topic in detail. ProFire 2626 Example Scenario #1: Recording a Duo User Guide 39 This example demonstrates how ProFire 2626 can be used to record a duo consisting of a guitarist/vocalist and a percussion player In this scenario, the guitarist/vocalist is playing an electric guitar while singing into a microphone The percussionist is performing on a variety of hand drums (recorded using four microphones) as well as playing a drum machine with a stereo output Hardware Input and Output Connections Drum Machine Microphones XLR Connector XLR Connector XLR Connector 5 4 Mic/Line Inputs 1/4" TS or TRS Connector 1/4" TS or TRS Connector 12V DC 3.5A -- + MIDI S/PDIF Word Clock In A Out A 7 5 3 1 8 In B Optical Out B 7 6 XLR Connector 3 2 1 8 6 4 Line Outputs 2 Clip Clip Clip Clip Clip Clip Clip 1-4 1 Headphones 2 Headphones Master Volume Power 1 Inst Pull -20dB Inst 2 Pull -20dB 3 Pull -20dB 4 Pull -20dB 5 Pull -20dB 6 Pull -20dB 7 Pull -20dB 8 Pull -20dB Phantom Power Mic/Line Inst Mic Gain Mic/Line Inst Mic Gain 5-8 Level Level standard 1/4" TS instrument cable Set to "Inst" Guitar Microphone XLR Connector ProFire 2626 · Input Connections: The electric guitar is recorded "direct" by connecting it to the first channel's front-panel Instrument Input (1) with a standard 1/4" TS instrument cable When using a front panel input, make sure that the Mic/Inst button (2) for that channel is in the "in" position If a 1/4" line-level device is connected to the first channel's combo connector (on the rear of the interface), make sure that the device is not outputting any audio The vocalist's microphone as well as the four percussion microphones can be plugged into channels 2-6 on the rear of the interface using XLR cables Engage the Phantom Power buttons (5) if your microphones require power Remember that certain vintage microphones may be damaged if phantom power is sent to them--read your microphone's manual if you are not sure if it requires power User Guide 40 TIP: The XLR inputs of the combo connectors on the rear of the interface feed into the mic preamps while the 1/4" rear panel inputs bypass the preamps. If you are recording line-level signals, it is recommended that you use the 1/4" inputs to bypass the preamplifier's circuitry (since the preamp is not necessary in this case). Finally, the drum machine's line-level outputs are plugged into channels 7/8 using 1/4" cables Hardware Input Analog 1 (front panel 1/4") Analog 2 (rear combo/XLR) Analog 3 (rear combo/XLR) Analog 4 (rear combo/XLR) Analog 5 (rear combo/XLR) Analog 6 (rear combo/XLR) Analog 7 (rear combo/1/4") Analog 8 (rear combo/1/4") Instrument Guitar (direct) Vocalist Microphone Percussion Microphone 1 Percussion Microphone 2 Percussion Microphone 3 Percussion Microphone 4 Drum Machine line-output (left) Drum Machine line-output (right) · Output Connections: The two headphone outputs of ProFire 2626 can be used to create a customized cue mix for each performer The guitarist/vocalist receives a set of headphones connected to Headphone Output 1 while the percussionist receives a set connected to Headphone Output 2 The recording engineer's studio monitors are connected to analog outputs 5/6 Hardware Output Headphone Output 1 Headphone Output 2 Analog Outputs 5/6 Destination Guitarist/Vocalist Headphone Percussionist Headphone Studio Monitors ProFire 2626 Configuring the Mixer, Router, and Settings tabs Setting up the DSP Mixer: User Guide 41 The default input channel configuration of the DSP Mixer should work well for most recording scenarios (including this one) You can verify and/or change the mixer input assignments by clicking the downward arrow () at the top of each input channel and making your selection from the drop-down menu that appears The input channels of the DSP Mixer should be assigned as shown in the table below: DSP Mixer Input Channel Mixer Input Channel 1 Mixer Input Channel 2 Mixer Input Channel 3 Mixer Input Channel 4 Mixer Input Channel 5 Mixer Input Channel 6 Mixer Input Channel 7 Mixer Input Channel 8 (Digital I/O not used in this example) Mixer Input Channel 17 Mixer Input Channel 18 Input Channel Source Analog 1 Analog 2 Analog 3 Analog 4 Analog 5 Analog 6 Analog 7 Analog 8 (Digital I/O not used in this example) SW Return 1 SW Return 2 Since we will be setting up two headphone mixes, we will need to see the knobs for Aux Send 1 and Aux Send 2 Use the "-" and "+" buttons () on the right side of the mixer to hide unnecessary Aux Sends (i.e., Aux Sends 3-8) or to show the first two Aux Sends (in case the Aux Send 2 knobs have been hidden) If you would like to name your mixer input channels, you can double-click the numbers listed along the bottom of the mixer and enter more useful descriptions for each channel For example, "1" can be renamed "Guitar", "2" can be changed to "Vocals", and so on Routing the DSP Mixer outputs: We will be using the faders and aux send knobs of the DSP Mixer to create customized cue mixes for the guitarist/vocalist, percussionist, and the recording engineer To make sure all of your outputs are correctly routed, go to the Router tab in the Control Panel: 1 2 3 Open the drop-down menu under Analog Out 1/2 and select "Aux Send 1 " Open the drop-down menu under Analog Out 3/4 and select "Aux Send 2 " Open the drop-down menu under Analog Out 5/6 and select "Mixer Out " Tip: If the recording engineer wishes to hear the output of the audio application instead of the DSP Mixer, Analog Out 5/6 can be changed from "Mixer Out" to "SW Return 1/2."

" In this scenario, your audio application's mix--including all of its plug-in effects--is heard. This may be the desired monitoring method if the engineer does not require the extremely low latency of the DSP Mixer. ProFire 2626 User Guide 42 Configure the Master Volume Knob to Control Your Studio Monitors: Since the studio monitors are connected to analog outputs 5/6, make sure that the "Analog Out 5/6" box is checked under the "Master Volume Knob" section of the Settings tab Make sure that the "Analog Out 1/2" and "Analog Out 3/4" boxes are unchecked in this menu This will ensure that the Master Volume knob (8) on the front panel can be used to control the levels of your studio monitors but will not affect the output levels of headphones 1 and 2 Disabling unused input ports: Since the optical and coaxial (S/PDIF) inputs are not being used in this scenario, these inputs should be disabled from the Router tab of the Control Panel Doing so will minimize the amount of FireWire bandwidth and system resources used by ProFire 2626 Using the DSP Mixer to create Cue Mixes Once the Mixer, Router, and Settings tabs are configured as described above, you can use the DSP Mixer to create cue mixes for the guitarist/vocalist, percussionist, and the control room monitors: . . . T he faders along the bottom are used to create the mix heard on the studio monitors in the control room T he Aux 1 knobs create the mix heard by the guitarist/vocalist listening to Headphone Output 1 T he Aux 2 knobs create the mix heard by the percussionist listening to Headphone Output 2 TIP: Double-clicking a fader or aux send knob will set it to "unity" gain.



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This is the gain level at which signals pass through the mixer without being amplified or attenuated. If your performers are doing overdub recording (i.e., playing along to previously recorded tracks in your DAW software), the outputs of your software will appear on input channels 17/18 in the DSP Mixer as this is the default configuration. The Headphone Level knob (6) and Master Volume knob (8) on the front panel of ProFire 2626 can be used to adjust the overall level of the headphones and studio monitors, respectively. **IMPORTANT:** Whenever you are using the ProFire 2626 DSP Mixer for input monitoring, make sure that you are not simultaneously using your DAW application's input monitoring capabilities. If both monitoring methods are activated at the same time, "double monitoring" may take place, which can result in various problems including phasing and distracting slap-back delays. **NOTE:** Remember that the DSP Mixer does not affect the signals that are sent to your audio application. DSP Mixer input channels can be set to any level preferred by the cue mix listener without affecting what is recorded into your music software.

ProFire 2626 Example Scenario #2: Mixing in Surround User Guide 43 This example demonstrates how ProFire 2626 can be used to create a six-channel surround mix. In this scenario, your audio application must have provisions for multi-channel surround mixing (such as surround panners and a 6-channel master output). Many DAW applications now include these features: **Hardware Input and Output Connections** Subwoofer Line Output 3 Center Front Left Line Output 1 Front Right Line Output 2 Line Output 4 Surround Left Surround Right 12V DC 3.5A -- + MIDI S/PDIF Word Clock In A Out A 7 5 3 1 8 In B Optical Out B 7 6 5 4 Mic/Line Inputs 3 2 1 8 6 4 Line Outputs 2 Line Output 5 Line Output 6 ProFire 2626 Input Connections: Since we are simply mixing for this scenario and are not recording anything, we do not have to use any inputs. Since the optical and coaxial (S/PDIF) inputs are not being used in this scenario, these inputs should be disabled from the Router tab of the Control Panel. Doing so will minimize the amount of FireWire bandwidth and system resources used by ProFire 2626. **Output Connections:** User Guide 44 **Note:** At least one group of inputs must remain active at all times, therefore, the final group of inputs (analog inputs, in this case) must remain active. The analog outputs of ProFire 2626 must be connected to the six speakers (five satellites, 1 subwoofer) in your studio. **Hardware Output Analog Outputs 1/2 Analog Outputs 3/4 Analog Outputs 5/6 Destination Speaker Left / Right Center / Subwoofer Surround Left / Surround Right** **Configuring the Mixer, Router, and Settings tabs** **Setting up the DSP Mixer:** Unlike the first example scenario, the DSP Mixer of the interface is not necessary and should not be routed to any of the hardware outputs in the Router. For this example, only the surround mixing capabilities of your DAW application are used to create the mix. **Software returns:** Since your audio software will be outputting a mix consisting of six channels of audio, the interface must have a minimum of six active software return streams. To do this, go to the Router tab of the Control Panel. **Windows users:** Software returns can be activated/deactivated in banks. Check the "Software Return 1-8" box to activate its corresponding software returns and uncheck the remaining boxes to deactivate unnecessary software returns (this will preserve system resources). **Mac users:** The Control Panel for Mac OS X has a drop-down menu showing the maximum amount of software return streams. Use this menu to select six software returns on your system. **ProFire 2626 Routing your DAW application outputs:** User Guide 45 In this scenario, your audio application will output a mix consisting of six channels. The ProFire 2626 Router must be correctly configured so that these channels leave the interface through the correct analog outputs. To make sure all of your outputs are correctly routed, go to the Router tab in the Control Panel: 1 2 3 Open the drop-down menu under Analog Out 1/2 and select "SW Return 1/2". Open the drop-down menu under Analog Out 3/4 and select "SW Return 3/4". Open the drop-down menu under Analog Out 5/6 and select "SW Return 5/6". **Configure the Master Volume Knob to Control Your Studio Monitors:** Since your studio monitors are connected to analog outputs 1-6, make sure that the "Analog Out 1/2", "Analog Out 3/4", and "Analog Out 5/6" boxes are checked under the "Master Volume Knob" section of the Settings tab. This will ensure that the Master Volume knob (8) on the front panel can be used to simultaneously raise or lower the levels of all six speakers. **Configuring and Using your DAW to create a Surround Mix** Your audio hardware is now set up for surround mixing. Your surround mix channels are routed correctly through the interface and the Master Volume knob can be used to control all six speakers simultaneously. You may need to configure your audio software further before you can begin mixing. For example, you will need to ensure that your audio application's left and right channels are being sent to "SW Return 1/2", the surround left and surround right channels are sent to "SW Return 3/4", and the center and subwoofer channels are being routed to "SW Return 5/6". This configuration varies from application to application, but it is usually done through your program's "Settings" or "Control Panel" menu. Finally, if your DAW offers additional features relating to surround mixing (i.e., video synchronization and/or playback, bass management, etc.), you may need to set up these features as well. Please refer to your application's user guide to learn how to do this. **ProFire 2626 User Guide 46 11 Troubleshooting Problem: No sound. Possible Cause 1: Power supply not connected** Verify that the ProFire 2626 power supply is properly attached to the interface and plugged into a working AC outlet. Next, make sure the interface is powered on using the Power Button (9). **Possible Cause 2: Improper connection to external devices** Verify that the analog outputs of ProFire 2626 are properly connected to the inputs of an appropriate device (such as a mixer, amplifier, or powered monitors) using good cables. If you are connecting digitally to a digital device such as a DAT recorder or digital mixer, make sure you are using proper digital cables and that the device is configured to receive signals from ProFire 2626. Finally, verify that the interface is properly connected to your computer using the supplied FireWire cable. **Possible Cause 3: The ProFire 2626 device drivers are not properly installed** See the installation instructions in the printed ProFire 2626 Quick Start Guide for further information. **Possible Cause 4: There is a resource conflict between the ProFire 2626 and another device in your computer** Try the following to see if the issue resolves: a b c d If your computer has multiple FireWire ports, try connecting ProFire 2626 to a different port. If you have other FireWire devices connected to your system, try disconnecting those devices and rebooting the computer. If there are PCI cards installed in your computer, remove other PCI cards from your system one at a time to see if a FireWire resource conflict can be traced to a specific PCI slot or card in your system. If ProFire 2626 is sharing FireWire resources with other FireWire devices (i.e., hard disks, other interfaces, etc.), the FireWire bus may be overloaded with data. To resolve this issue, disable any software returns you are not using from the Settings tab of the Control Panel. This may free up bandwidth at the FireWire bus allowing audio to stream properly. If this does not bring the desired results, try removing the other FireWire devices from your computer to free up FireWire bus bandwidth. **Windows Users:** If your computer includes a built-in sound card, turn it off. This is usually done through the system BIOS or by changing a hardware jumper on the motherboard. See your computer's documentation for more information about this. **e** If these steps do not resolve your problems, please see the Support > Knowledge Base page on www.maudio.com for additional information. **Possible Cause 5: Your audio application has not been configured to use ProFire 2626 as its audio input/output device** Refer to your software's documentation to learn how to do this. **Possible Cause 6: Your audio outputs have been misrouted in the ProFire 2626 Control Panel** Check the Control Panel's Router page to verify the output routing assignments. Also, if you are monitoring the outputs of ProFire 2626's DSP Mixer, make sure that the mixer's faders, solo, and mute controls are set properly. **ProFire 2626 Problem: No visual activity on Signal/Clip LED indicators.**



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