

PART THREE: THE HOW-TO SECTION

This section describes the procedures involved in the operation of your UltraMix system. Before beginning, you may want to take a few minutes to become familiar with the names and locations of the various controls, both on the UltraMix Pro screen and the UltraPilot hardware controller. It's also a good idea to take a quick peek at all the items in the menus, either on-screen or by referring to the menu descriptions starting on page 170. A basic knowledge of "what's where" will make your learning experience faster and a lot more fun.

SOME NOTES ON TERMINOLOGY

The Mackie UltraMix system employs three separate controllers: mouse/monitor screen, QWERTY (computer) keyboard, and UltraPilot. Some functions are accessible through one controller only; however, most are accessible through two controllers, and many by all three. (The UltraMix Shortcuts section on page 221 details the functions and available controller options.)

In cases where only one controller applies, we'll tell you which one to use. For example: "To change the size of your fader window, use the mouse to click in the appropriate sizing button on the UltraMix Pro screen."

- **Choose** refers to actions that set up preferences or offer options for further actions. Example: "Choose Modify Levels from the Edit menu."

Edit	
Undo	⌘Z
Cut Fader	⌘H
Copy Fader	⌘C
Paste Fader	⌘U
Clear Faders	
Delete Time	⌘D
Insert Blank Time	⌘H
Add Program Change...	⌘K
Modify Levels...	⌘L
Set Default Levels...	
Edit Program Change...	⌘=
Select All	⌘A

- **Select** refers to actions that identify or isolate certain faders, time frames, or combinations of faders and time frames. Selection limits subsequent actions to those predefined (selected) faders or times only. Example: “Select all faders you want to include in the first Group.”

Two more key terms are used rather loosely: **fader** and **track**. Generally, both refer to a specific channel where your audio passes through for level control and muting. In some cases, fader may refer to the specific controller (either mechanical or virtual) that modifies levels. In other cases, fader will refer to all functions associated with a particular track—making “fader” practically the same as “track.”

“RECORD” MEANS MIDI, NOT AUDIO

Unless otherwise specified, the terms “record” and “recording” in this manual refer to any process that records (“writes”) MIDI data concerning your mix into the UltraMix file you have created. What happens (or doesn’t happen) as far as recording audio on your master tape is totally irrelevant to UltraMix, though we assume it means one heckuva lot to you. (Translation: We figure by the time you’re ready to automate you’ll have already tracked and recorded all of your audio!)


PREPARING FOR A MIX SESSION

This section outlines a number of procedures required for getting ready to mix with your UltraMix system. It looks like a lot of stuff, but don't panic and hurl this hefty manual to the floor in utter dismay. Many of the following procedures need be done only once; your choices will be stored for automatic recall each time you open UltraMix Pro. That means you don't have to do them again unless new circumstances call for changes. For example, once you define your Autosave procedure and save it as a default setting, it works the same way each time you open your UltraMix Pro software. You don't have to do this again unless you want to use a different method for saving files automatically.

So, with that bit of relief in mind, let's forge ahead with preparations.

HOW TO SET UP YOUR MIXING CONSOLE

Again, we assume all the previously described hardware connections are made and tested. Sorry to sound like a broken record (a nostalgic reference to the vinyl era), but this IS important. The following suggestions will help you in setting up your hardware mixer controls and route signals.

 *To set your mixing console for using UltraMix automation:*

1. If you have a console with tape returns, use them for the outputs from your multitrack recorder. (This avoids adding another gain stage to your mix, which can add noise.)

Otherwise, adjust your channel trims for Unity gain and then set the channel faders to Unity.

If you're used to using Mackie mixers, you know that we're very serious about the Unity gain concept in the channel path — it gives you the best signal-to-noise ratio and the most headroom. Refer to your mixer manual if you need a reminder on setting levels.

If you have console faders set to any positions other than the Unity marking (“U” or 0dB, depending on the console), you may have trouble getting reproducible mixes. If for any reason you can't set faders at Unity, you should either pencil the fader settings directly on the console surface or use a bit of artist's masking tape to mark fader positions on the mixer.

Using a tracksheet, note the initial settings of gain trims, fader positions, EQ, and panning because all of these can affect the levels on your mix.

From now on, all levels routed into your final mix will be controlled by the UltraMix system. UltraMix will take care of any further level adjustments you need to make. You'll have plenty of headroom.

2. Adjust the EQ.

You will probably reach over and tweak the EQ at some point before or during your final mix. Keep that tracksheet handy and mark any changes you make. (You can use UltraMix to print a blank tracksheet, as described on page 76.)

3. Make sure the channels are assigned to the main stereo bus.

If you are automating the main inserts, make sure the fader volume on the mains is approximately at Unity gain. UltraMix will take care of those levels as well.

4. Set your auxiliary sends and returns to the proper initial effects levels.

If you are also automating your console's effects returns, treat those levels like you would any other signal. Set them at or near Unity gain.

5. Connect or route all your audio sources (tape track output, DAW and/or MIDI instruments) to the channel faders on the console.

Make sure the signal flow is passing through the insert point so that UltraMix can do its magic. If you want to use a standard MIDI file (with or without tape playback), import the file into UltraMix, as described on page 81.

A Note On Reassigning Inputs To UltraPilot Fader Banks

Your UltraPilot fader pack has only 16 hardware faders, whereas the basic UltraMix system has 34 channels (32 inputs plus Master output). This means that the mechanical faders must be switched from one bank to another during the course of your mix.

Once you establish your rough mix as explained later, you likely will be dealing with only one or two faders—a half dozen at most—in any one recording pass. This is particularly true if you use groups to combine multiple, identical fader moves.

However, if you need to make separate, distinct, different moves on two or more faders, AND those faders are on different banks on the UltraPilot, things could get tricky. (There are ways around this, as detailed later in the Record Modes and Group sections.) ***Consequently, if at all possible, you should keep all faders that might need separate moves in the same recording pass in the same bank of 16.*** In other words, try not to have three tracks of background vocals coming through on faders 16, 17 and 18. If you have a situation like that, consider repatching the tracks now to keep them all in the same bank of 16.

Define (Or Redefine) A Synchronization Source

You should have a synchronization source set up already, since this was covered in the Software Installation procedure. If the source you have defined now is not the one you want, or if things aren't working and you think the sync source might be the problem, go back to that section and run through the procedure again. See page 49 for Macintosh. Windows users should check to make sure there is only one MIDI device studio clock selected.

Set UltraMix Faders To Unity Gain

Setting your UltraMix faders to Unity means that your software console will match your hardware console, thus establishing a common, logical starting point for your mix. Here's the quickest way to do it:

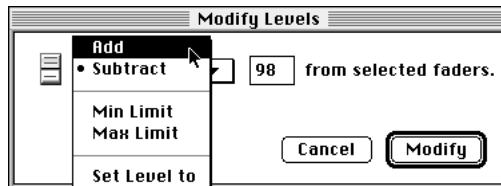
1. Select all faders. Choose Select All from the Edit menu (⌘/CTRL-A).

Edit	
Undo	⌘Z
Cut Fader	⌘H
Copy Fader	⌘C
Paste Fader	⌘U
Clear Faders	
Delete Time	⌘D
Insert Blank Time	⌘H
Add Program Change...	⌘K
Modify Levels...	⌘L
Set Default Levels...	
Edit Program Change...	⌘=
Select All	⌘A

2. Choose Modify Levels from the Edit menu (⌘/CTRL-L).



3. Choose Add from the dropdown menu and enter 98 (MIDI number for Unity gain) in the fader value box. (Since this is the default setting, the correct choices may already be there.) Click the Modify button.



A final window will ask you if you are sure; answer by clicking on the Yes button.

That's it! You've just set the faders to Unity gain for the duration of your mix, or until you change them. As simple as that was, you can avoid doing it before every mix. All you have to do is save it as a Unity Gain template (see page 69). Or, try this...

Set Default Levels

In the royal Mix kingdom, Set Default Levels is the first cousin of Modify Levels. When mixdown time occurs and you begin to set your faders and trim your trims for a well balanced playback, there is still the need to capture your channel faders in a non-uniform manner due to EQ, dynamics, and other interplaying traits of mix tracks. Set Default Levels allows you to set up a rough mix snapshot of your

faders so that you have a starting point for your entire mix, which you deviate from as you build the final mix. It's somewhat akin to making sure the bath water is warm and the level is right before you hop into the tub and add soap, relax the brain, and scrub the scalp.

There are a number of ways to capture your initial level settings and a few Ultra-idiosyncracies to be aware of before using this function. Let's start with some background info.

System Insights

When you move an UltraPilot fader or use a mouse to move an onscreen fader, the software and hardware act to update the information for immediate use (under constant scanning) — generally to convert glass to solid fader and vice versa. So if at any point you punch in or out, UltraMix knows the value of the faders.

When you bank-select from the UltraPilot (more about this later), or you change screens to another fader window, the glass faders literally make an impression of where they are (like a busted bottle in a movie theater). They make their value known; all they need to do is show up first.

This quality allows UltraMix to set the default levels of the faders for the entire mix duration, from the UltraPilot faders' last known value. If you are working on getting your fader values all set up on fader bank 1-16 and then you swap over to fader bank 17-32 to finish the entire set, do not swap banks back to 1-16 before you do your default level set. If you do, you will reset faders 1-16 and mess up what you just did. Instead, use a mouse to tweak, if necessary. You'll understand soon enough...

To set default levels:

1. Select all of the channels that you want to perform a rough mix (default level) on.

If you want to select specific channels, use the mouse to click the little square above the top number on each channel. You can also swipe across a number of contiguous channels and then Shift-click to deselect those you don't want included. Or, if that's not good enough for you, you can also select faders with the left and right arrow keys.

2. Select all of the session window fader channels by choosing Select All from the Edit menu (⌘/Ctrl-A).



3. On the UltraMix transport control, engage the Rehearsal, Replace, and Master Record buttons in that order. The purpose of rehearsal mode is not to be harmin' the mix, or for checking levels to practice with.



4. Now hit the “W” on the keyboard and you’ll notice that all of the selected channels’ Rec/Rdy lights turned from red to yellow.

5. Bring the selected channel faders up.

6. Hit Play/Stop on the UltraPilot (or click on the Play button on the screen, or hit the spacebar).

Now we can make some observations:

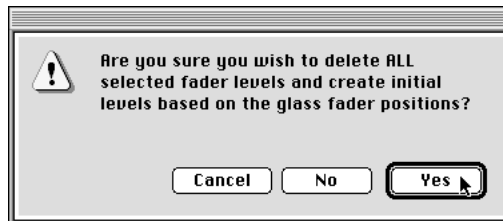
If you hooked up a multitrack recorder and sync, etc., and all is OK, then tape will roll and be heard. If you had imported a standard MIDI file, it should be playing and triggering sound modules, etc. If you’re not hearing any audio, hit VCA bypass to see if signal is entering the Ultra-34 (first turn down your monitors or headphones!).

If you bank-select, you'll soon find out that fader 1 becomes fader 17 (and vice versa) and that any two channels that are 16 channels apart (2 & 18, 3 & 19, etc.) and record-enabled will always become the current UltraPilot fader position. So, for this exercise (and in general), don't use bank-select during a record pass. There are ways around this, which you'll learn about soon enough (hint: multiple passes, grouping, mousing, Insta-groups). For now, use the mouse to move faders on the other side of the bank select to levels that you would like to start your mix with.

When you've reached the point where all of the fader levels are satisfying you, hit Play/Stop on the UltraPilot or click on the Stop button with the mouse, or hit the Spacebar. Immediately (without haste), choose Set Default Levels from the Edit menu.



Click Yes at the prompt, and now you have rough mix levels from the very start of the session.




Rewind and listen. Undo Rehearsal if you're satisfied. Save your session. And have a nice day.

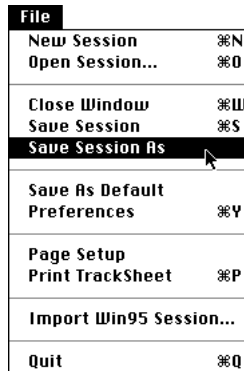
NOTE: It's usually easier to reenact a mix session that started and ended with a mixing console's faders set to Unity (or some other uniform setting). If your console faders are not set to Unity, make sure you log them on your tracksheet in case you need to remix at a later point.

Save A Starting Template File

A fader window template is simply a starting point for any new mix.

 *To save a template:*

1. Follow the procedure above for setting faders to Unity gain.
2. Choose the window view size you would like to start with by clicking on 1x, 2x or .5x in the lower-left corner of the session window. In most cases this would be 1x, but you might want 2x if you work only with 16 channels, or .5x if you always have multiple Ultra-34 units connected and in use.
3. Choose Save Session As from the File menu.



4. Type a distinctive name for the file, such as “Template” or “Start here mix” or “Zero Hour.”



5. Choose the desired folder for storage and click Save.

You can now use this template file as a starting point for any session. As soon as you open the template, use the Save Session As command on the File menu to save the file with a different name. If you forget to do this, you'll be altering your original template file rather than making a copy of it.

Saving Your Mixes

As you work with UltraMix, the moves you record are stored in the computer's RAM memory. To turn this information into a document that you can open later, you need to save it to disk. If you quit UltraMix or turn off your computer without saving a session, that session will be lost. Fundamental stuff, but our lawyers tell us we have to say this so we're covered should you claim that you lost a sure-to-go-platinum mix because you didn't KNOW that. Well, now you do.

The first time you save any session, you must name it and tell UltraMix where to save the file. It's a good idea to get this out of the way before you start mixing.

To save a new mixing session:

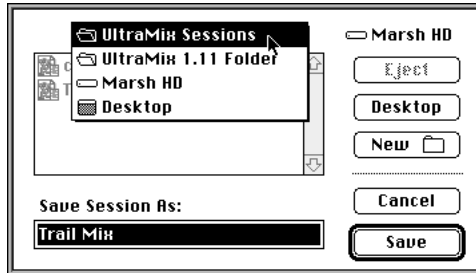
1. If it's not already open, start UltraMix.

UltraMix opens a new mixing session.

2. Choose Save Session As from the File menu.

File	
New Session	⌘N
Open Session...	⌘O
Close Window	⌘W
Save Session	⌘S
Save Session As	
Save As Default Preferences	⌘Y
Page Setup	
Print TrackSheet	⌘P
Import Win95 Session...	
Quit	⌘Q

3. Type a name for your new session and select a location for the session document.




4. Click Save.



The session will be saved as a document using the name and location that you designated.

NOTE: As you work with your mix and record new passes, save your work frequently. Even though you saved the session before you got started, you should always save often as a fail-safe procedure.

You have a number of options when it comes to saving mixes. You may wish to complete a mix and then save it under the same name as your original (“overwriting”), or you may want to save new mixes under different names (“Tom Mix 1,” “Tom Mix 2,” etc.) in case you decide at a later time that the mix you did just before lunch was the best. A typical UltraMixer session takes up around 200K (involved ones take a little more), so saving multiple mixes won’t take up tons of space on your hard drive. Save often, whichever way you prefer.

 *To save changes to your mixing session:*

1. Choose Save Session As... from the File menu.
2. Type a name for the copy of your session and select a destination for the new session document.

If you want to save the copy in the same folder as your original session, you must give the copy a different name. Again—if you give it the same name as the original session file you will overwrite the original.

3. Click Save.

UltraMix closes your original session, and your copy file becomes the current session. (Its name now shows in the session window title bar.) Remember, nothing that you did after you first saved your session will be available in the original session file. However, if you decide that nothing you did since you saved your original session was not worth keeping, you can close your latest copy (saving it first, in case you change your mind again) and revert to the original file.

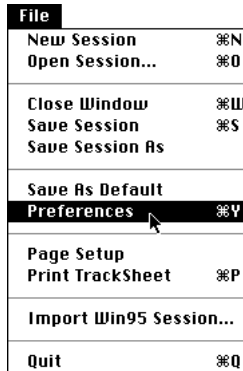
Auto-Saving A Mix

To help your memory, and give you peace of mind (particularly in regions prone to severe thunderstorms), you should use UltraMix's Auto-Save feature. Once you get rolling, this feature relieves stress by automatically storing your files on your hard drive at intervals you determine. It's way cool and a superb way to fill up your old 100MB hard drive.

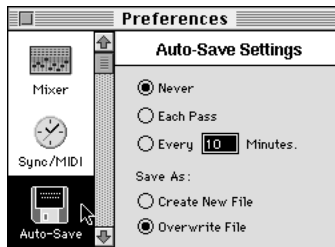
There are two ways to save your work as you go, one of which is automated.

 *To set the Auto-Save settings:*

1. Choose Preferences... from the File menu.



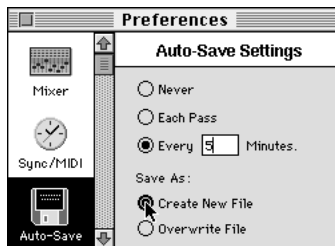
2. Click the Auto-Save icon on the left side of the Preferences window.



The Auto-Save Settings appear on the right side of the window.

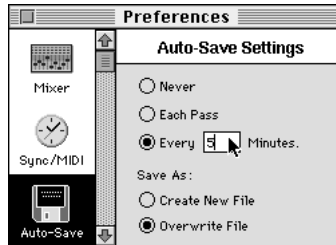
3. Specify how often you want UltraMix to automatically save the session that you are working on.

If you do not want UltraMix to automatically save the session, click Never. If you want UltraMix to save the session after you complete each pass, click Each Pass. If you prefer to have UltraMix save the session after a specific length of time, click Every __ Minutes.



To change the number of minutes for this option, double-click in the number box and type in a new number.

4. Specify whether you want UltraMix to save the session as a new session file by clicking on Create New File (you'll have to give it a new name), or to Overwrite File, which replaces the older session of the same name.



5. If you want to use this same Auto-Save procedure in future mixes, close the Preferences box and choose Save As Default from the File menu.

File	
New Session	⌘N
Open Session...	⌘O
Close Window	⌘W
Save Session	⌘S
Save Session As	
Save As Default	
Preferences	⌘Y
Page Setup	
Print TrackSheet	⌘P
Import Win95 Session...	
Quit	⌘Q

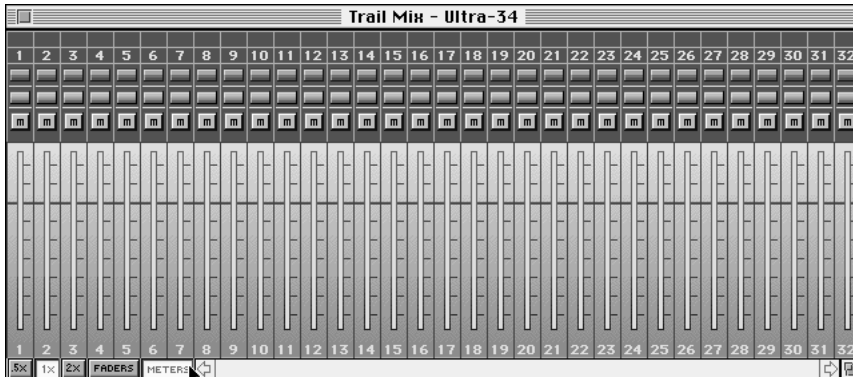
NOTE: *If you choose the option to save at a specified interval (Every __ Minutes), Auto-Save will save at the end of each pass only if the pass is longer than the specified interval. If you choose to save as A New Session File, UltraMix will prompt you with the Save As window at the end of each interval, but not while a pass is running.*

Trim The Meter Bridge

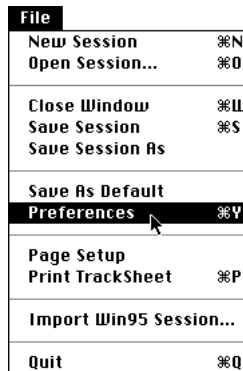
The Meter Bridge Trim function allows you to adjust the visual level on the virtual meter bridge display. The bar graph meters show the input levels coming into your Ultra-34 gain cells. Trimming the meters does not change the signal levels. You can use this function to boost level indication if the levels displayed are too low to view easily. Or, you can use trim to roughly calibrate your meters to an external reference, such as the meters on your multitrack tape recorder.

To trim the meter bridge:

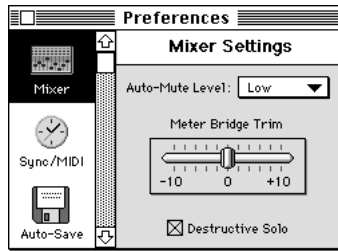
1. Select the Meters view by clicking the Meters button in the lower-left of your session window, or by using Shift/Soft Key 9 on UltraPilot. (If you roll tape or play back SMFs, you should see levels.)



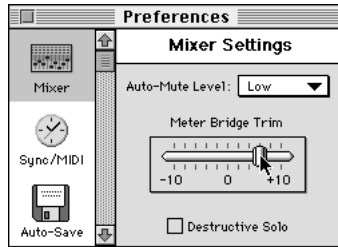
2. Choose Preferences from the File menu.



3. Click on the Mixer icon.



4. Click and hold on the Meter Bridge Trim knob.



5. Adjust higher or lower as desired.

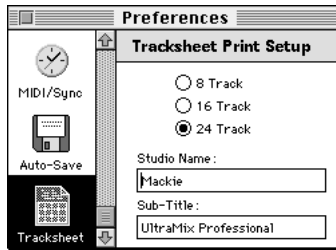
6. Close the Preferences window.

Print Tracksheets

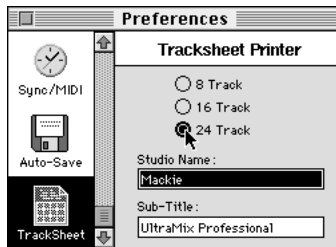
Hallelujah! No more exorbitant copying bills, fuzzy multi-generation copies, or hand-drawn emergency replacements. UltraMix lets you conveniently print your own tracksheets. Be sure your printer is connected, loaded with paper, and turned on. Also, you may have to switch over to the “loop through” printer port on your MIDI interface.

To print a tracksheet:

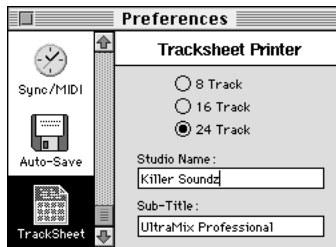
1. Choose Preferences from the File menu.
2. Click the down arrow at the bottom of the scroll bar to scroll down the list of icons on the left side of the window until you see the Tracksheet icon at the bottom.



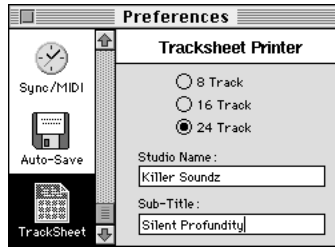
4. Click the button beside the appropriate track format (8, 16, or 24 tracks).



5. The Studio Name box is already highlighted, so type the name of your studio (or some other colorful description).

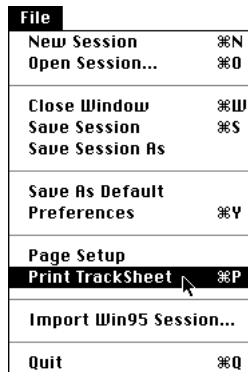


6. Click the Sub-Title box (or hit the Tab key on your computer keyboard) and type the title of the work that you are mixing.



7. Close the Preferences window.

8. Choose Print Tracksheet from the File menu.



9. Click Print.

10. Don't forget to reset the Printer thru switch on your interface.