



Recording and mixing with the DM-24 and Digi 001

The combination of the TASCAM DM-24 and the Digi 001 make for a very powerful system. While the 001 provides 32 audio tracks in Pro Tools and audio I/O, the DM-24 provides 16 mic pres, 24-bit A/D converters, compressors, gates, 4-band parametric EQ, and DSP effects like TC Works reverb, and Antares mic/speaker modelers.

This document will show you how to use this combination for recording and mixing. You will be able to record up to 8 tracks simultaneously via ADAT I/O. You will be able to submix 14 tracks within the DM-24. Each of the 14 channels will have a compressor, a 4-band parametric EQ and 6 aux sends. The aux sends can be used with the two internal effects processors and with outboard effects processors. You will also have access to the snapshot recall and dynamic automation. This takes the stress off of your computers CPU leaving you more resources to run your favorite plug-ins and automation in Pro Tools. This 14 track submix will be sent back to Pro Tools via S/PDIF where it will join the Pro Tools stereo buss signal. The Pro Tools stereo buss signal is sent back to the DM-24 via S/PDIF where it is monitored via your powered speakers.

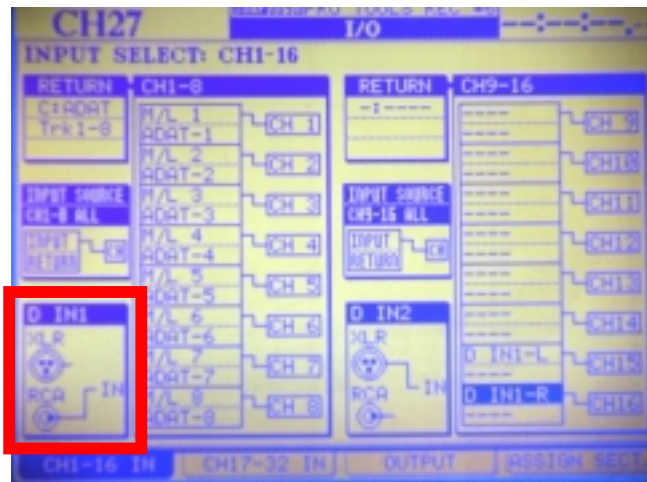
This document will also show you how to use HUI emulation. This allows the DM-24 to be a powerful control surface for Pro Tools as well.

HOOK UP

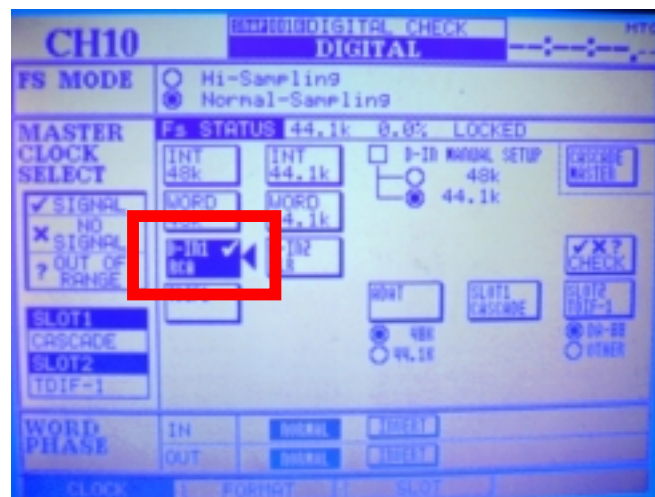
1. Connect an ADAT lightpipe cable between the OUT of the DM-24 and the IN of the 001.
2. Connect an ADAT lightpipe cable between the IN of the DM-24 and the OUT of the 001.
3. Connect an S/PDIF cable between the OUT of the DM-24 and the IN of the 001.
4. Connect an S/PDIF cable between the IN of the DM-24 and the OUT of the 001.
5. Connect a MIDI cable between the OUT of the DM-24 and the IN of the 001.
6. Connect a MIDI cable between the IN of the DM-24 and the OUT of the 001.
7. Connect a ¼" cable between outputs 3-8 of the 001 to line inputs 11-16 of the DM-24.

WORD CLOCK

In this example the 001 will be the wordclock master. On the I/O page set D-1 IN to RCA (S/PDIF.)

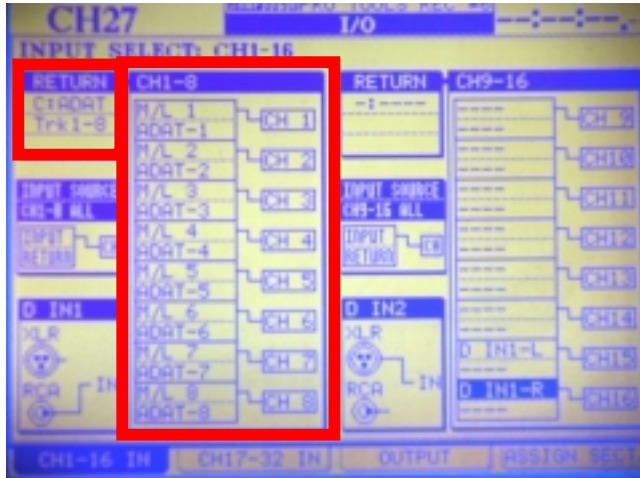


On the DM-24 DIGITAL-CLOCK page, set the DM-24 to clock to the D-1 IN (RCA.)

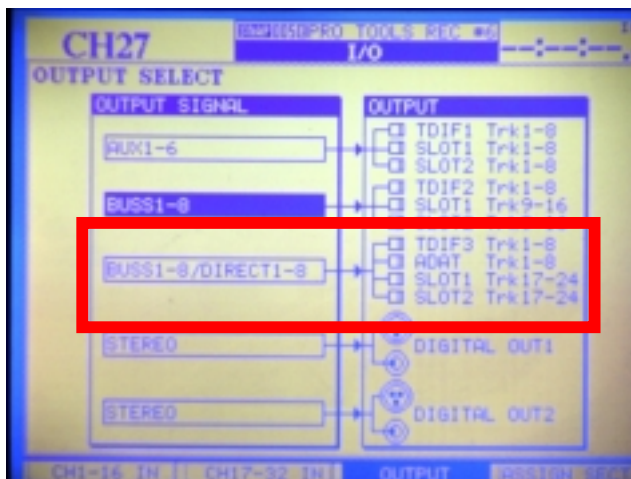


SETTINGS

In the example below, the DM-24 has mic/line inputs 1-8 assigned to channels 1-8. These channels are set to DIRECT OUT. Notice that RETURN C: ADAT trk 1-8 is also chosen for this group of 8 channels. This setting is needed to “send” the DIRECT OUTS to the ADAT digital output. These are the signals that will be sent to Pro Tools for recording.



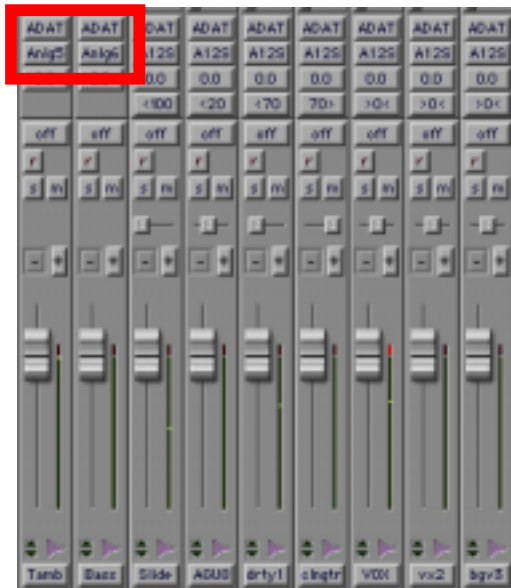
The output page must also be setup to send DIRECT 1-8 to the ADAT output.



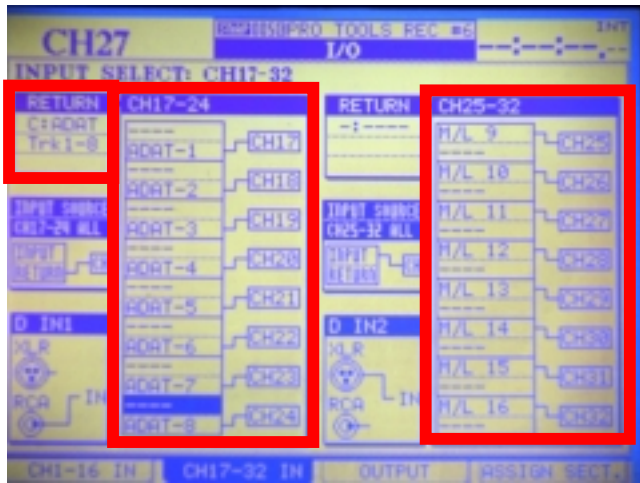
To record in Pro Tools from the DM-24, you must assign your Pro Tools tracks to receive their input from the ADAT connection sent from the DM-24 direct outputs.



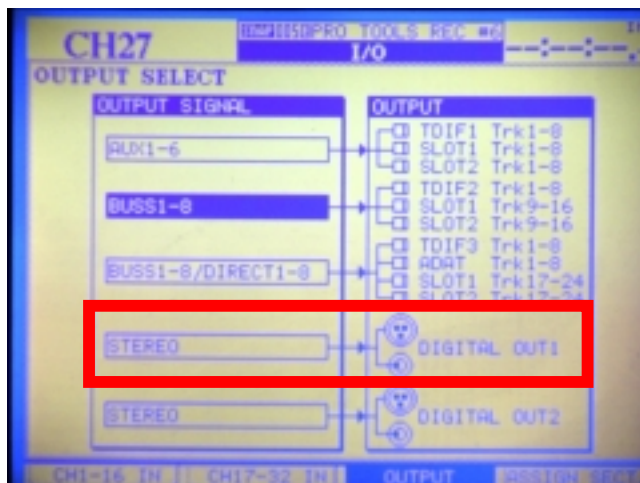
You must also assign your outputs. This is where you decide what tracks you want to mix in the DM-24, and what tracks you want to mix in Pro Tools. In the example below the Tambourine is sent to analog output 5, the Bass is being sent to analog output 6 and the other tracks are being sent to the Pro Tools stereo buss.



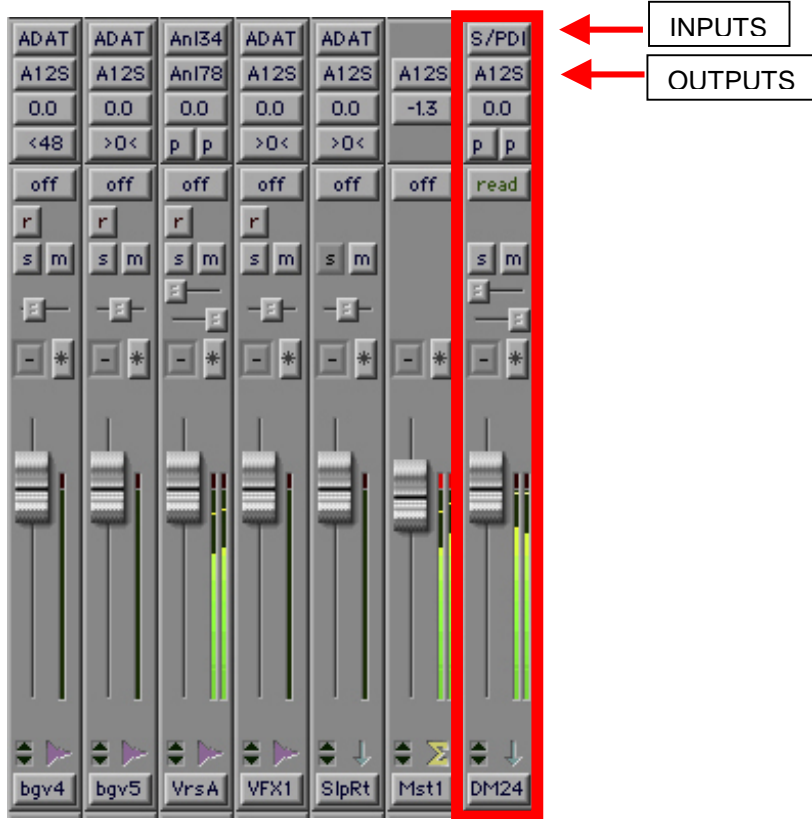
In the example below, channels 17-32 are setup to receive 14 tracks from the 001 - 8 tracks via ADAT digital I/O and 6 tracks from the analog I/O. These channels are all assigned to the stereo buss of the DM-24.



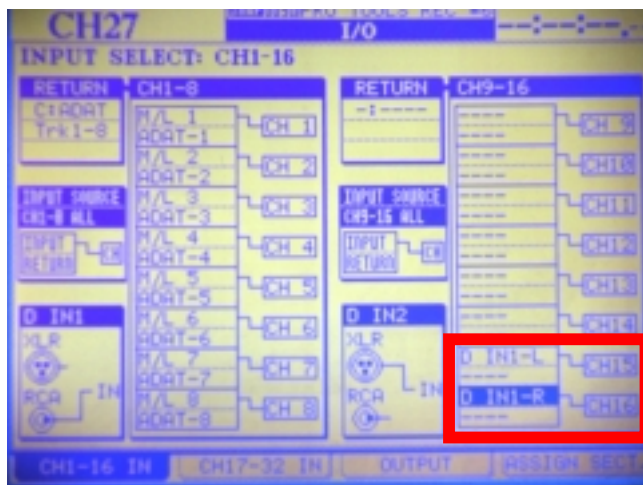
The stereo buss of the DM-24 is sent to the S/PDIF Digital Output 1.



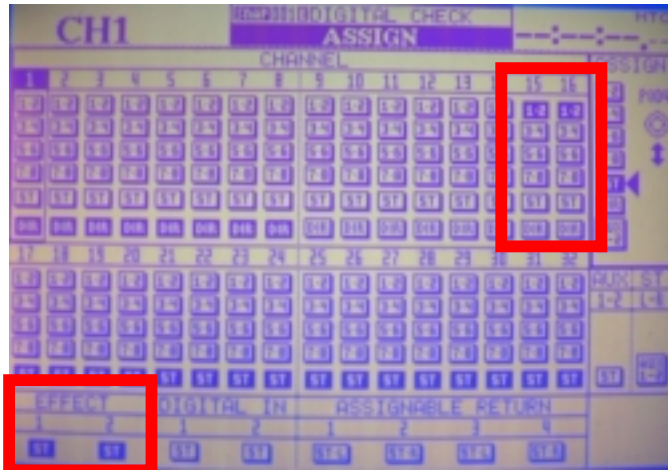
In Pro Tools, create a stereo aux input. Set the input to S/PDIF. This is where the stereo buss signal of the DM-24 is sent to Pro Tools. This signal is assigned to the Pro Tools stereo buss.



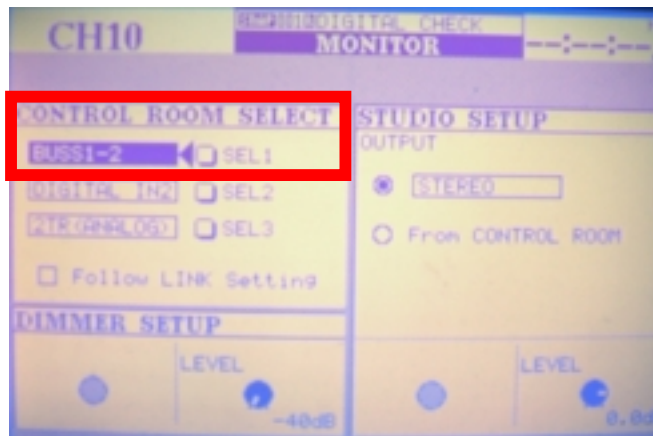
Assign channels 15 and 16 to D IN 1-L and D IN 1-R.



Assign channels 15-16 to BUSS 1-2 and nothing else.
Assign EFFECT 1 and 2 to the Stereo buss.



On the MONITOR page assign SEL 1 to BUSS 1-2.
Press the SEL 1 key in the Control Room section to
Monitor this section.



This is how you route audio with this system. You are always monitoring the Pro Tools stereo buss. There are two different ways to monitor with reverb while you are recording. You can set up post fader aux sends on channels 1-8. The reverb returns have been sent directly to the stereo buss. If you continue to monitor the Pro Tools stereo buss, you will hear the reverb while you are recording - even though the recording is dry. This is suitable if the Pro Tools track is being sent to the Pro Tools stereo buss, not back to the DM-24 for submixing. If the track IS being sent back to the DM-24 for submixing, you should setup a post fader aux send on the return channel. This way, if you do punch ins, the track playing back will go through reverb. If not, the track will be playing back dry until you punch in, and then the input signal will have reverb on it. This can be a little strange for the performer.

DM-24 HUI emulation with Pro Tools

First, you must have an OMS setup which has MIDI I/O connected between the 001 and the DM-24 (HUI).



As a device:

Manuf: Mackie

Model: other

Device ID: 0

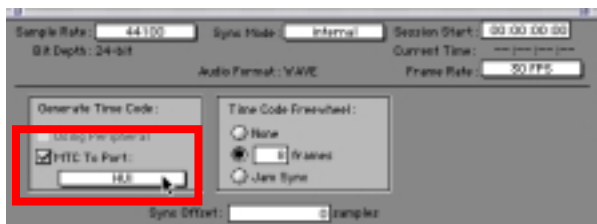
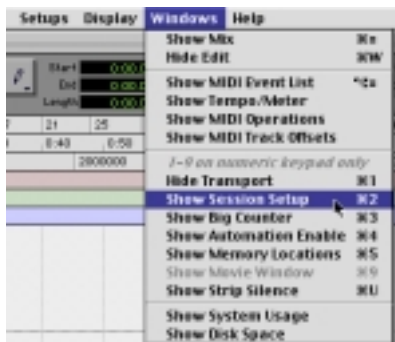
Name HUI

Receives MTC is checked

Is Controller is checked

Receives on CH 1

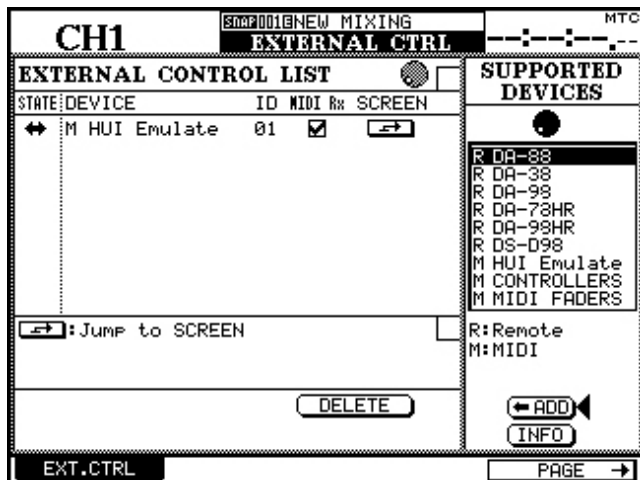
In Pro Tools Session Startup window MTC to Port is checked and HUI is the chosen port.



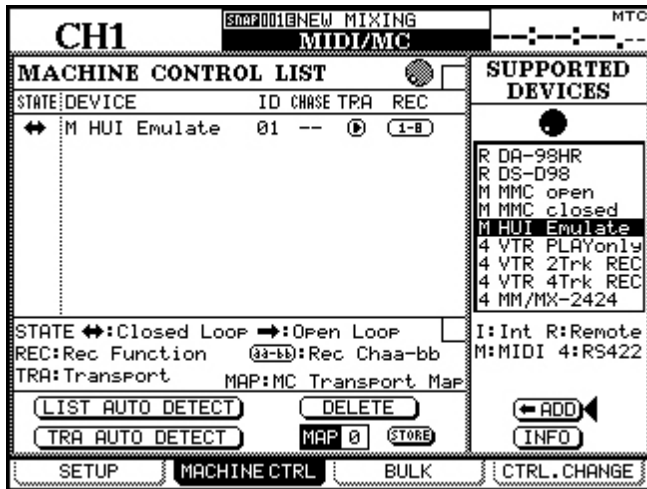
Under SETUPS-PERIPHERALS-MIDI CONTROLLERS
 #1 TYPE is HUI
 Receive from HUI
 Send to HUI
 Channels 8



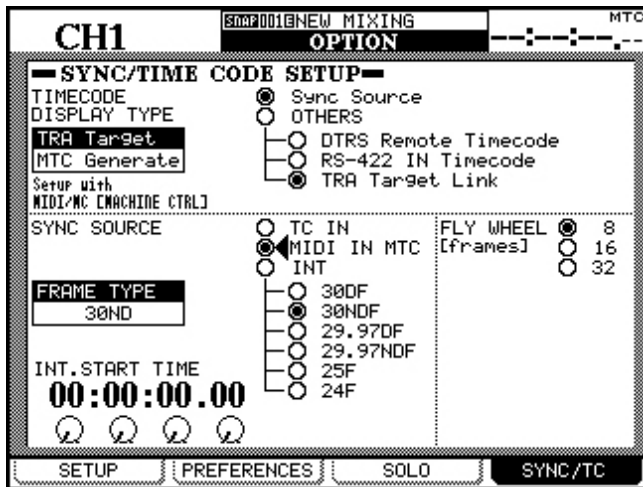
On the DM-24 EXTERNAL CONTROL page HUI EMULATE ID 01 MIDI RX checked.



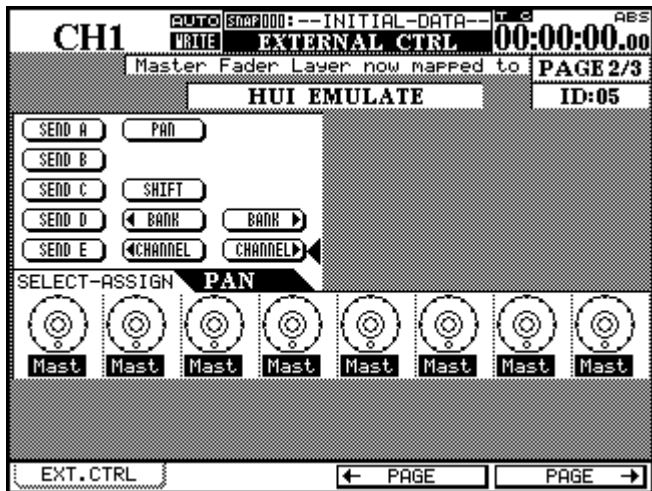
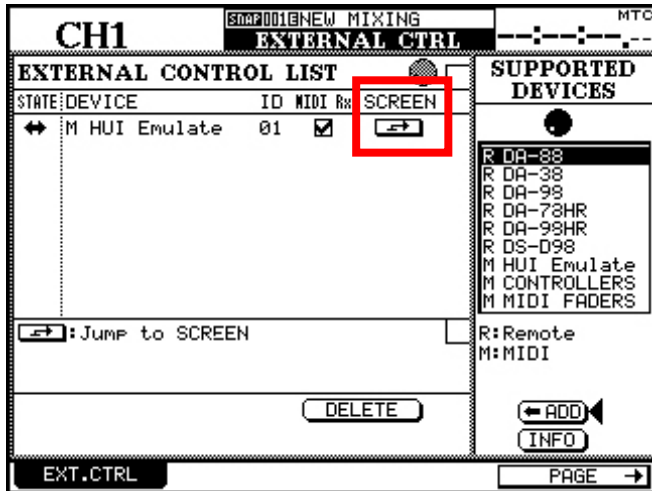
On the MACHINE CONTROL page HUI EMULATE ID 01 TRA checked and REC 1-8.



On the OPTION-SYNC/TC page I have SYNC SOURCE and MIDI IN MTC checked. This allows the DM-24 automation to be triggered by the MTC sent from Pro Tools.



On the DM-24 EXTERNAL CONTROL page use the cursor to point to the JUMP TO SCREEN icon and press ENTER. This will take you to the HUI control screen.



SEND A-E refer to aux sends. If you point to A and press ENTER, the encoders on the LCD will show you all of the levels for the first aux send on the channels viewed. Using the cursors, you can highlight the encoder area and adjust them 4 at a time.

Pressing SHIFT flips the aux send controls from the POD knobs to the faders. This allows you to control the aux sends 8 at a time with touch sensitive faders.

When PAN is solid, it will show you the pan settings for all channels viewed on the encoders on the LCD screen. Press ENTER and PAN will flash. This simply removes PAN control from the POD knobs.

Moves made with the HUI emulation are recorded in Pro Tools automation, NOT with the DM-24 automation. MTC sent from Pro Tools is used to trigger the DM-24's internal automation. This is helpful as you are running audio in to the DM-24. If you are ONLY using the DM-24 as a "control surface" and mixing in Pro Tools, the MTC going to the DM-24 is not needed.

The small print

HUI is a registered trademark of Mackie Designs Inc. Pro Tools is a registered trademark of Avid Technology, Inc. and its subsidiaries and divisions.

The DM-24 provides basic HUI functionality.

Faders, pans, mutes, track arming, aux sends, transports, banking in groups of 8 and individual channel banking. The DM-24 does NOT provide all the features of a Mackie HUI.

