



Setting Up the US-428 to Work with MOTU Digital Performer

The US-428 is supported in Digital Performer v2.7 and later. Before setting up the US-428 to work with Digital Performer, please install the US-428 MacOS v3 drivers, and set up either OMS or FreeMIDI. (Refer to the chapters on setting up both the drivers and OMS. Information on setting up FreeMIDI may be found in the Digital Performer documentation)

Begin the setup procedure below with the US-428 plugged in and powered on.

- Locate the Digital Performer Control Surface Plugin on the US-428 CD-ROM. (If you've downloaded the driver from our website, locate the folder on your hard drive.) Drag it into the **PLUGINS** folder within the **DIGITAL PERFORMER** folder.

Important: The Control Surface Plugin **must** be in the **PLUGINS** folder within the **DIGITAL PERFORMER** folder. Failure to use the correct folder will result in non-performance.

- Next, verify that the ASIO drivers are installed correctly. Open the **ASIO DRIVERS** folder within the **DIGITAL PERFORMER** folder. Verify that this folder contains both the US-428's 16 bit and 24 bit ASIO drivers. (If not you can copy them from the US-428 folder on the Desktop, which was created during installation.)
- Open the US-428 Control Panel (Apple menu). Select **US-428 NATIVE** from the pulldown menu.
- Open Digital Performer. Select an existing project, or open a new one.
- From the **BASICS / MOTU AUDIO SYSTEM OPTIONS** menu, select **CONFIGURE HARDWARE DRIVER**. From the pulldown menu that appears, select the **ASIO** device option, and then select one of the US-428's ASIO drivers.
- Select the **BASICS / CONTROL SURFACE SETUP** menu. From the **HARDWARE** pulldown menu, select the US-428 as the Control Surface. Select **US-428 CONTROL PORT** from the **MIDI COMMUNICATION** drop down menu. If you wish to use the MIDI ports on the US-428, you must go to the **BASICS / SET INPUT FILTER** menu and check the box marked **ACCEPT INPUT FROM MMC DEVICE**.

Controller Surface Mapping

Note: The **SET** and **REC ENABLE** buttons act as shift keys, and should be held down while pressing other buttons to modify their behavior.

TRANSPORT CONTROLS:

STOP	Stop, or rewind if already stopped
PLAY	Play toggle
REC	Record toggle and one-touch recording
REW	Fast rewind (REW LED lit)
SET + REW	Slow rewind (REW LED flashing)
FFWD	Fast forward (FFWD LED lit)
SET + FFWD	Slow forward (FFWD LED flashing)

(If you select Fast or Slow Forward mode while playing, Digital Performer will play at double or half speed.)

<<LOCATE	Go to beginning of song
LOCATE>>	Go to end of song
SET + <<LOCATE	Set Memory Start to current time
SET + LOCATE>>	Set Memory End to current time

Channel Controls:

The US-428 has 8 channel strips and a master fader. The master fader controls the volume for any and all tracks that contain master faders. Regular channel strip faders never affect a master fader track.

Each channel strip contains a fader, a **SELECT** button, a **SELECT** LED, a **RECORD** LED, a **MUTE** button, and a **MUTE** LED. The eight channel strips affect a bank of eight contiguous tracks within Digital Performer's Mixing Board window. The set of tracks being controlled may be changed as described in the "Bank Selection" section below.

The channel fader directly controls the volume of a track (unless it's a master fader track). Select a track by pressing the **SELECT** button. The corresponding **SELECT** LED will light. Pressing a **SELECT** button will deselect any previously selected track(s). With the **TRACK** window active, the currently selected track is highlighted.

Pressing **SET + SELECT** will toggle the select state of a track. This may be used to select or deselect multiple tracks, or to change the set of selected tracks.

The **PAN** knob will control the panning for the selected track(s). Holding **SET** while panning gives you finer control.

The **REC** button acts like a shift key with the **SELECT** buttons. Holding **REC** and pressing a **SELECT** button toggles the record enable state for that track. **SET + REC** clears all record-enabled tracks.

The **MUTE** buttons control both mute and solo status of a track. When the **SOLO** LED is unlit, pressing a **MUTE** button toggles the mute status of a track, and the **MUTE** LED's reflect the mute status of the track. Pressing the **SOLO** button toggles the Global Solo State, indicated by the lit **SOLO** LED. When the **SOLO** led is lit, pressing a **MUTE** button toggles the solo state of the track, and the **MUTE** LED reflects the solo status of the track. (When the last track's **SOLO** is cleared, the Global Solo Status is automatically cleared by Digital Performer, and the tracks' mute status is

once again shown.) **SET + SOLO** clears all mutes when the **SOLO** led is not lit, or clears all solos when the **SOLO** LED is lit.

Aux Send Controls:

Audio tracks have four aux send levels and aux send mutes. (To see them, display the send field in the track window.) To change these controls, select a track(s) and press the **AUX1**, **AUX2**, **AUX3** or **AUX4** button. Its LED will light, indicating that the **DATA WHEEL** now controls that function. Moving the **DATA WHEEL** will now control the selected Aux Send level for the selected track(s). Holding **SET** while moving the **DATA WHEEL** allows for finer control. Pressing the currently selected **AUX** button will turn off the **AUX** LED and the **DATA WHEEL** will resume normal operation. Pressing a different **AUX** button will select a different Aux Send to be controlled. Pressing **SET +** an **AUX** button will toggle the corresponding send mute status for the selected track(s).

Bank Selection:

<<BANK BANK>>	Shift 8 tracks to the left Shift 8 tracks to the right
SET + <<BANK SET + BANK>>	Shift 1 track to the left Shift 1 track to the right

If less than 8 tracks remain to the left or right, the bank buttons will shift as many tracks as available. The **<<BANK** LED is lit if you can shift further left, and the **BANK>>** LED is lit if you can shift further right. Performing any banking operation will automatically bring the Mixing Board window to the front.

Note that banking actions are disabled if the **REC** button or any **SELECT** button is being held down. This is to prevent banking during a possible updating of tracks' automation data.

Fader Nulling:

When changing banks, a physical fader position might not match the corresponding channel's on-screen fader's position. Pressing the **NULL** button places the US-428 into Null mode and lights the **NULL** LED. In this mode, the fader strips' red **REC** and green **SEL** LED'S display whether the fader is too high (**REC** LED on) or too low (**SEL** LED on). When both are lit, the physical fader matches the on-screen fader's position. Press **NULL** again to return to normal operational mode.

Window Navigation

F1	Toggle the Mixing Board window to front/back
F2	Toggle the Track Overview window to front/back
F3	Cycle through the open windows
SET + F1	Enter Insert Parameter mode
SET + F2	Save open file
SET + F3	Close the front window
GAIN	Scroll window right/left
FREQ	Scroll window up/down

Q
SET + Q

Zoom window horizontally in/out
Zoom window vertically in/out

EQ Controls

If you place a **PARAEQ 4-BAND** effect in the topmost insert slot for an audio track, the US-428 can directly control that EQ. Pressing the **Lo**, **LoMid**, **HiMid** or **Hi** buttons will activate the EQ controls for the first (leftmost) selected track. When the EQ controls are active, one of the **Lo**, **LoMid**, **HiMid** or **Hi** leds will be lit. Pressing the button below that led will deactivate the EQ controls (which is different from deactivating the EQ inserted effect).

With the EQ controls active, the following controllers are functional:

GAIN	Change the filter gain for the selected EQ band
SET + GAIN	Fine filter gain adjust
FREQ	Change the filter frequency for the selected EQ band
SET + FREQ	Fine filter frequency adjust
Q	Change the filter bandwidth for the selected EQ
SET + Q	Fine filter bandwidth adjust
SET + Lo, LoMid, HiMid or Hi	Cycles through various filters (and bypass) for selected EQ
SET + NULL	Toggle EQ bypass switch status

You can also use the **PARAEQ 2-BAND** effect in the top insert position, in which case only the **Lo** and **LoMid** bands are available.

Insert Parameter Controls

Pressing **SET + F1** lights the **F1** LED indicating that insert parameter control mode is active. In this mode you can control parameters for insert B, C, D or E for the leftmost selected track. The topmost insert slot (A) is reserved for the **PARAEQ 4-BAND** insert and direct control by the normal EQ functions described in the previous section:

- Select a track (when multiple tracks are selected, the leftmost/lowest is used)
- Insert an effect in one of the lower four slots for that track
- Press **SET + F1** (F1 led will light)
- Press **Lo**, **LoMid**, **HiMid**, or **Hi** to select an insert slot. The effects window will appear for the selected insert.

Now the **Data Wheel** will increment/decrement parameter 1 for the selected effect. Holding **Set** while turning the data wheel will change the parameter faster. Press F3 to move up a parameter number, or press F2 to move down a parameter number. This will allow you to access any effect parameter.

The **Q** knob controls the parameter one above the **DATA WHEEL**. **FREQ** controls the parameter two above it, and **GAIN** controls the parameter three above it. This gives you simultaneous access to four consecutive parameters. These knobs also respond to holding the **SET** button for faster changes.

Pressing **SET + NULL** will toggle the bypass for the selected insert effect.

You can exit insert parameter control mode by pressing **F1** or any **AUX** button. You can also press any of the EQ buttons to change which effect on a track you're controlling. You can also select a different track and parameter slot.

Automation Controls

SET + RECORD	Cycle selected tracks through automation record modes
SET + PLAY	Cycle selected tracks through automation play modes
SET + STOP	Turn automation off for selected tracks.

To change the automation state for a master fader, hold the **REC** button down to select it before pressing the above buttons.

In Latch modes, the movement of a control (fader, pan, knob, wheel) starts updating that parameter. In Touch mode, the **SELECT** button acts as the touch sensor for that track. Holding a **SELECT** button "touches" that track's parameters and begins updating; releasing **SELECT** stops the updating. The **REC** buttons act as touch sensors for the master fader.

The **BANK**, **EQ** and **DATA WHEEL** buttons (**AUX 1-4**, **ASGN** and **F1-3**) are disabled when any **SELECT** button is being held down. This prevents disruptions while automation data is being used.

Two notes related to using the US-428 for automation and the **BASICS / AUTOMATION SET-UP** dialog box:

1. If you wish to disable a Global Automation Enable type (e.g., Pan), you must do it for both Audio and MIDI.
2. The Enable Automation Types under Track Automation Configuration should be set to All. It is not possible to enable/disable automation on a track-by-track basis.

Note that using the **SELECT** button when in a touch mode touches all the tracks' automation types. If you have automation data recorded for a track and want to update just the pan, for example, latch mode may be easier. Also, Send Level and Mute automation moves are only made visible on the mixing board screen if the send's output is assigned.