TASCAM
TEAC Professional Division

D00804300A

∿SANE WAVE∿

US-2400

DAW Controller
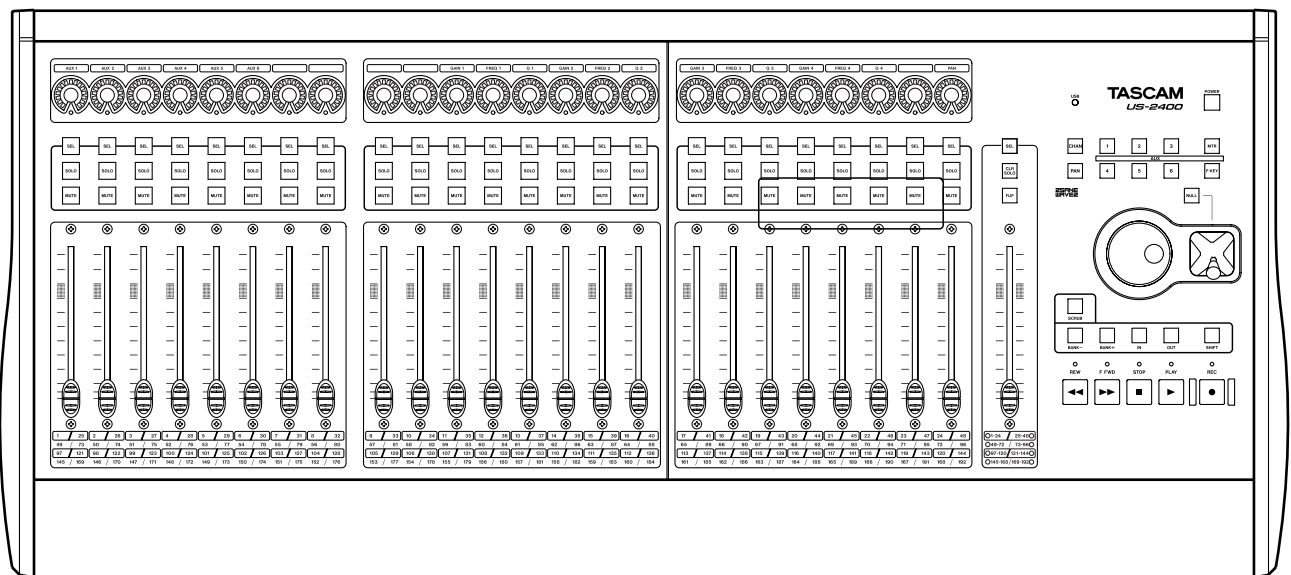
USER'S GUIDE

The following marking is located on the bottom of the unit:

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT (for U.K. Customers)

DO NOT cut off the mains plug from this equipment.

If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not provided with a mains plug, or one has to be fitted, then follow the instructions given below:

IMPORTANT: DO NOT make any connection to the larger terminal which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-and-YELLOW.

The wires in this mains lead are coloured in accordance with the following code:

BLUE   **: NEUTRAL**

BROWN   **: LIVE**

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

IF IN DOUBT — CONSULT A COMPETENT ELECTRICIAN

For U.S.A

TO THE USER

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residental area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION

Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

For the consumers in Europe

WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Pour les utilisateurs en Europe

AVERTISSEMENT

Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

Für Kunden in Europa

Warnung

Dies is eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen versursachen ; in diesem Fall kann vom Betrieber verlang werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

1 Read these instructions.

2 Keep these instructions.

3 Heed all warnings.

4 Follow all instructions.

5 Do not use this apparatus near water.

6 Clean only with dry cloth.

7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. Grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10 Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11 Only use attachments/accessories specified by the manufacturer.

12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13 Unplug this apparatus during lightning storms or when unused for long periods of time.

14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

● Do not expose this apparatus to drips or splashes.

● Do not place any objects filled with liquids, such as vases, on the apparatus.

● Do not install this apparatus in a confined space such as a book case or similar unit.

● The apparatus draws nominal non-operating power from the AC outlet with its POWER switch in the off position.

Contents

Thank you for purchasing the TASCAM US-2400 professional DAW controller. It is designed to give you hands-on control of the most common tasks performed when mixing within a Digital Audio Workstation (DAW) environment. Its driverless design and support for common control surface protocols means that your new US-2400 can be set up for mixing in just a few minutes with minimal configuration.

Please take some time to look through this manual and familiarize yourself with the US-2400's features and operation. We suggest you pay particular attention to the operational notes for your software application(s) of choice. You may also want to refer to your software's documentation in many cases, for a clear understanding of how certain features are integrated. Your experience with the US-2400 will be greatly enhanced by a good working knowledge of your audio software.

Unpacking the unit

When you unpack the US-2400 you should find, in addition to this manual:

- The unit itself
- A 1.5 m USB cable
- AC power adapter and cable
- *Quick Start Guide*
- Warranty material

Contact your TASCAM supplier if any of these items is missing.

About this manual

Controls and indicators on the US-2400 are marked in this typeface: **SOLO**.

Controls, messages, etc. on the computer screen are shown in this typeface: `Press any key to continue`.

Any key on a computer keyboard is shown in square brackets, e.g. `[Enter]`.

Copyright, etc.

Windows and Windows XP are trademarks of Microsoft Corporation.

Macintosh, MacOS and MacOS X are trademarks of Apple Computer.

Mackie Control and HUI are registered trademarks or tradenames of LOUD Technologies Inc.

All other trademarks are the property of their respective holders.

Features

Following is a quick overview of the top and rear panel features of the US-2400. For more detailed use instructions, please refer to the appropriate section later in this manual.

Channel strips

Each channel strip includes a continuous rotary encoder surrounded by a ring of LEDs (LED Ring Encoder) for control and display of pan, auxiliary send levels and other continuous MIDI controller messages. The indicator ring surrounding each encoder provides information from the DAW on the current status of the encoder, and also operates in a special Meter Mode, allowing an at-a-glance overview of the levels in your DAW.
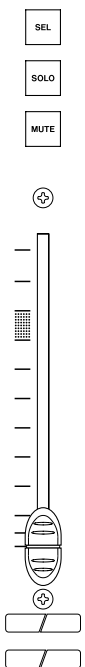
Channel strips also include a 100mm, touch-sensitive, motorized channel fader with 10-bit electrical resolution for pre-cise level control and for control of pan, auxiliary send levels, and other continu-ous MIDI controller messages.

Three keys are also included on every channel strip to control their noted func-tions in your DAW. They are **MUTE**, **SOLO** and **SEL**ect.

Master section

The master section on the right side of the US-2400 includes a 100mm, touch-sensitive, motorized master fader with 10-bit resolution, tape-machine style transport controls (**FF**, **REW**, **STOP**, **PLAY**, **REC**), **IN** and **OUT** keys, a jog/shuttle wheel and a joystick for surround panning (which may be used if your DAW supports this facility).
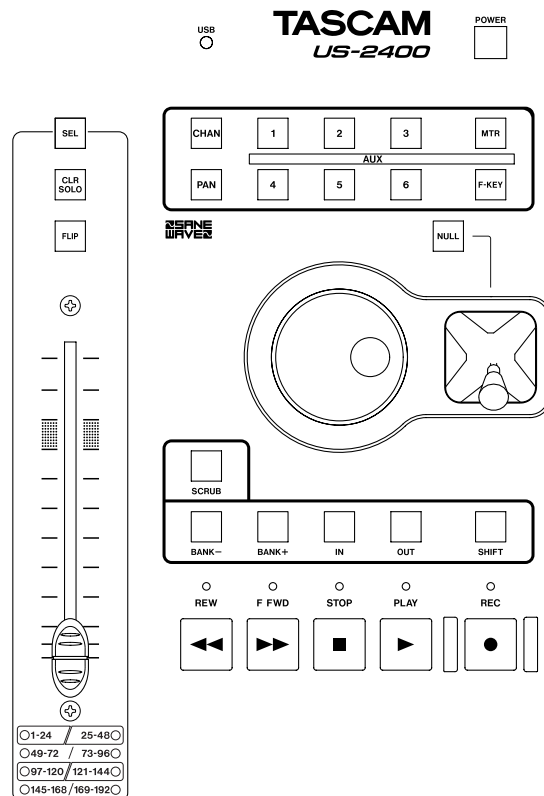
Just above the Master fader is a **SEL**ect key, a **FLIP** key to place the Aux send controls on the faders, allowing the touch-sensitivity to be used, and a **CLR SOLO** key.

Above the joystick are keys to assign the function of the encoders. The possible functions are: pan (**PAN**), Aux Send Levels 1-6 (**AUX**), meters (**MTR**), and channel mode (**CHAN**).

There is also a **NULL** key for use in conjunction with the joystick.

At the top of the Master Section is a **USB** activity indicator which lights steadily when a valid USB connection is present, and flashes to show USB com-munication between the US-2400 and a DAW.

POWER indicator, etc.

Connect the DC connector from the power adapter to the **DC IN** connector on the rear of the US-2400.

Connect the supplied AC power cable to the appropriate inlet of the power adapter.

Connect the plug of the supplied AC power cable to your AC outlet.

To the right of the USB indicator is a **POWER** key which pulses when the unit is in standby mode and lights steadily when the unit is powered up.
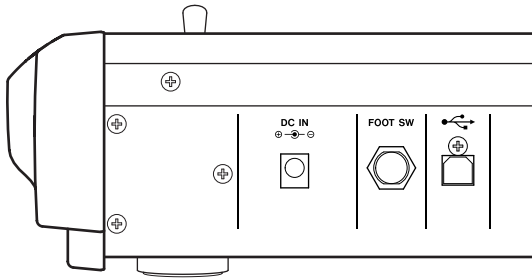
When the US-2400 is first connected to the power it turns on and the key lights steadily.

Press **POWER** to put the unit into standby mode (the key pulses).

Press any key (including **POWER**) in standby mode to turn the US-2400 on again.

Rear Panel

On the rear panel are connections for the included power supply, USB, and a footswitch which may be used for hands-free punching.

Computer Requirements

The US-2400 takes advantage of the audio/MIDI services already built-in to the Mac OSX and Windows XP operating systems. This allows the US-2400 to be automatically recognized by those operating systems, and become available to a DAW without the need to install additional driver software.

Any computer capable of running these operating systems will function with the US-2400. One available USB port is required.

> **NOTE**
>
> *The US-2400 is a high-bandwidth USB device and should not share a USB port with other devices. Connecting other devices to a USB port with the US-2400 may degrade its performance.*

Macintosh OS X

The US-2400 requires Mac OS X 10.2.8 or greater, including 10.3 (Panther). Free updates to OS X 10.2.8 from earlier versions of 10.2 are available from the Apple Computer Web site.

Mac OS 9 does not include the built-in audio/MIDI services required for the US-2400.

Windows XP

The US-2400 requires the use of Windows XP. We recommend that you install the latest Service Pack available to take advantages of the latest improvements in the OS MIDI and audio services.

Other versions of Windows do not include the built-in audio/MIDI services required for the US-2400.

Place the US-2400 in a location where you will be comfortable mixing that is free from static electricity, moisture and dust (we've also found that subtle mood lighting and a nice chair can really enhance the sound of your mix).

Special notices

In addition to the notices at the beginning of this manual, please note the following:

• The US-2400 is supplied with a 1.5 m USB cable. Use this cable whenever possible to connect the US-2400 to the computer. If it is necessary to use another cable, make sure the other cable is the highest quality possible.

• Connect the US-2400 directly to the host computer where possible. Do not use a USB hub, if it can be avoided.

• Avoid eating or drinking over the control surface of the US-2400. Spilled liquids and crumbs will not improve the performance of the unit! A smoke-free atmosphere is preferred.

• Although the USB system allows you to "hot-swap" accessories, we strongly recommend that you connect the US-2400 before launching the DAW software and disconnect it after quitting the software. If you connect or disconnect it while the DAW software is running, you may experience unpredictable behavior.

Macintosh OS X

Connect the included USB cable between the US-2400 and an available USB port on your computer.

Power up the US-2400, so that the **POWER** indicator lights steadily. The **USB** indicator should then light.

Open `Audio/MIDI Setup` (located in `Applications>Utilities`) and check that the US-2400 has appeared as a four-port MIDI device in the `MIDI Devices` tab.

It is not necessary to restart the computer.

Windows XP

Connect the included USB cable between the US-2400 and an available USB port on your computer.

Power up the US-2400, so that the **POWER** indicator lights steadily.

Within a few moments, the Windows system will detect the device, install its own device driver services and inform you that your new device is ready to use, and the **USB** indicator should light.

It is not necessary to restart the computer.

Use of touch-sensitive faders

The humidity and temperature of your environment affects the touch-sensitivity of the faders. Under normal working conditions you should experience no issues. However, extremes of temperature and/or humidity may sometimes cause operational problems.

The US-2400 is capable of operating in any one of several modes. The first mode emulates the commonly supported HUI and the next three provide special Mackie Control protocol emulation modes, specifically for use with Sonar, Digital Performer, and Logic. The last mode is a Native Mode which is provided for the implemention of customized control surface mappings.

Placing the US-2400 into one of the surface control modes is done when the unit is taken out of standby mode (with the **POWER** indicator pulsing). This setting is saved when the unit is powered off and on again, until changed in the same way.

HUI To set the HUI emulation surface control mode (factory default). We recommend using this mode with Pro Tools:

1 **With the US-2400 in standby, press and hold the master SEL key and the AUX 1 keys together.**

2 **While holding down these keys, turn on the US-2400 using the POWER key. Release the SEL and AUX keys.**

For details of how to use the US-2400 with Pro Tools, see "Pro Tools" on page 16.

Mackie Control (Sonar) To set the Mackie Control emulation surface control mode for use with Sonar:

1 **With the US-2400 in standby, press and hold the master SEL key and the AUX 2 keys together.**

2 **While holding down these keys, turn on the US-2400 using the POWER key. Release the SEL and AUX keys.**

For details of how to use the US-2400 with Sonar, see "Sonar" on page 18.

Mackie Control (Digital Performer) To set the Mackie Control emulation surface control mode for use with Digital Performer:

1 **With the US-2400 in standby, press and hold the master SEL key and the AUX 3 keys together.**

2 **While holding down these keys, turn on the US-2400 using the POWER key. Release the SEL and AUX keys.**

For details of how to use the US-2400 with Digital Performer, see "Digital Performer" on page 20.

Mackie Control (Logic) To set the Mackie Control emulation surface control mode for use with Logic:

1 **With the US-2400 in standby, press and hold the master SEL key and the AUX 4 keys together.**

2 **While holding down these keys, turn on the US-2400 using the POWER key. Release the SEL and AUX keys.**

For details of how to use the US-2400 with Logic, see "Logic" on page 22.

**Native mode** To set Native mode:

1 **With the US-2400 in standby, press and hold the master SEL key and the AUX 5 keys together.**

2 **While holding down these keys, turn on the US-2400 using the POWER key. Release the SEL and AUX keys.**

Confirming the setting

In the setup procedures described above, when the US-2400 has powered up, the appropriate **AUX** key (**1** for HUI emulation, **2** for Mackie Control emulation (Sonar), **3** for Mackie Control emulation (DP), **4** for Mackie Control emulation (Logic) and **5** for Native mode) will flash three times to confirm the setting.

Also note that when the unit is powered on, even when an emulation is not being selected, the **AUX** key corresponding to the currently-selected emulation will flash three times.

Recognizing the US-2400 in your DAW
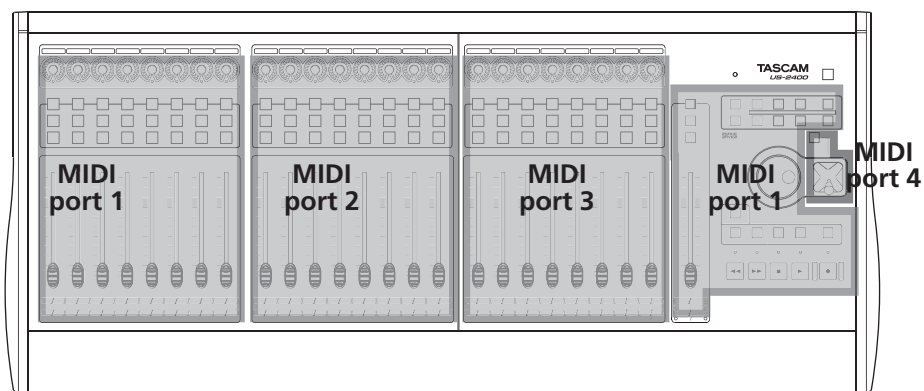
Each bank of 8 faders on the US-2400 appears to the computer as one MIDI port, with the leftmost fader bank containing channels 1 through 8 also including the master section controls. The joystick appears on the fourth MIDI port. The following generalized steps should get you going on most DAWs, though some steps may not apply to your particular DAW software.

For more detailed information on using the US-2400 with a particular DAW application, see the section entitled "Applications" on page 16.

If your DAW is not one of the ones covered in the "Applications" section, please refer to your DAW's documentation to ensure that it supports multiple control surfaces, either HUI or Mackie Control and follow the basic steps described here.

In the case of Mackie Control emulation, you may need to experiment with the three emulation modes provided by the US-2400 to find the one that properly controls your DAW's Aux sends and maps the US-2400's **IN** and **OUT** keys to useful functions.

- Enable the US-2400 MIDI ports in your DAW's MIDI configuration window. Restarting the DAW software may be required for this change to take effect.
- Open the Control Surface configuration window in your DAW software.
- For DAWs that support multiple control surfaces as a single unified device, assign each US-2400 MIDI port to a separate control surface entry. Generally, you'll have to choose a control surface here that allows the DAW to find the US-2400 in a particular control surface mode. For example, if the US-2400 is emulating the HUI protocol, you would choose three HUI devices, each one on a different US-2400 MIDI port.
- Assign the ports left to right as follows: Port 1 represents faders 1–8; Port 2 represents faders 9–16; Port 3 represents faders 17–24; Port 4 represents the joystick. Note that Port 1 includes the master section controls.
- You may need to quit and restart the DAW application for the above control surface assignments to take effect.

Firmware Update Procedure

From time to time new firmware may be posted for download from TASCAM's Web sites.

This will be a self-guided updater utility with versions for both Macintosh and Windows computers.

We recommend that you check the TASCAM Web sites periodically to ensure that you have the latest firmware installed in your US-2400.

This section covers use of specific controls and features of the US-2400 itself. For more details about using or configuring the US-2400 with your particular DAW app, please refer to the section entitled "Applications" on page 16.

Encoder Modes

The rotary encoders can operate in a variety of modes, offering flexibility and comprehensive control. Each of their modes is detailed below.

Pan

This is the default mode for the encoders. It is functionally the same in any control surface mode (HUI, Mackie Control, or Native). When in this mode, the encoder sends channel pan control data to the DAW application.

If the US-2400 is not in pan encoder mode, press the **PAN** key above the wheel to enable pan encoder mode (the key lights).

There is a single LED below the encoder itself which may indicate center pan position when lit. Note that some DAWs do not transmit this information so your center indication LED may or may not illuminate with your DAW.

Since these are continuous-turn, multi-function soft encoders, they are not detented, to provide maximum resolution.

NOTE

The US-2400 ring encoders are made up of 15 LEDs. However, certain control protocols (such as HUI), only support 11 indicators to show pan data. In these cases, hard left and hard right are shown on the US-2400 by illuminating the three extreme left or right LEDs respectively.
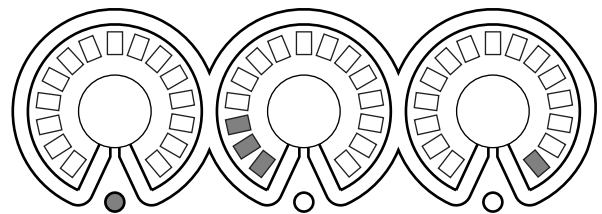
| Center | Hard left (HUI & Mackie Control modes) | Hard right (Native mode) |

Auxiliary send levels

To use the encoders to control the Aux send levels in your DAW application, press the **AUX** key (above the jog wheel) corresponding to the desired Aux send. Doing so makes that Aux send available on the encoders of all channel strips. This is functionally the same in all control surface modes.

The channel strip mode (see below) provides a means of sending general MIDI controller messages to your DAW for use in controlling plug-ins and other externally controllable parameters as supported by your DAW.

Meters

When the **MTR** key is pressed and lit, the encoder indicators display peak level metering information from the DAW app (when supported by the DAW application).

Note that in this mode, the encoders themselves can still be used, as selected by the **PAN**, **AUX** or **CHAN** keys.

Channel strip mode

Pressing the **CHAN** key makes all Aux sends available simultaneously for the channel selected by the channel **SEL** keys (Native mode only).

In addition, this mode also offers dedicated EQ controls in Native mode.

In HUI and Mackie Control modes, this enters MIDI Controller mode; see below).

MIDI Controller Mode

When the **CHAN** key is pressed in HUI or Mackie Control emulation mode, the encoders are placed into MIDI Controller mode.

In MIDI Controller mode, the **CHAN** indicator is lit and the encoders send out Control Change messages on MIDI port 4, channel 1.

Encoder 1 is mapped to MIDI Controller 0, encoder 2 to MIDI Controller 1, and so on to encoder 24, which is mapped to MIDI Controller 23.

You can assign these MIDI controller messages to parameters of DAW plug-ins, etc. Often it is possible to place a DAW parameter into a "learn mode" where it will sense incoming controller messages and make the assignment for you.

Values set in this mode are memorized when the mode is exited, and restored when the mode is re-entered.

In Native mode, press and hold the **F-KEY** and press the **CHAN** key to enter this MIDI Controller mode.

Bank Switching

The US-2400 is capable of controlling up to 192 DAW channels via eight 24-channel banks as shown by the indicators located below the master fader.
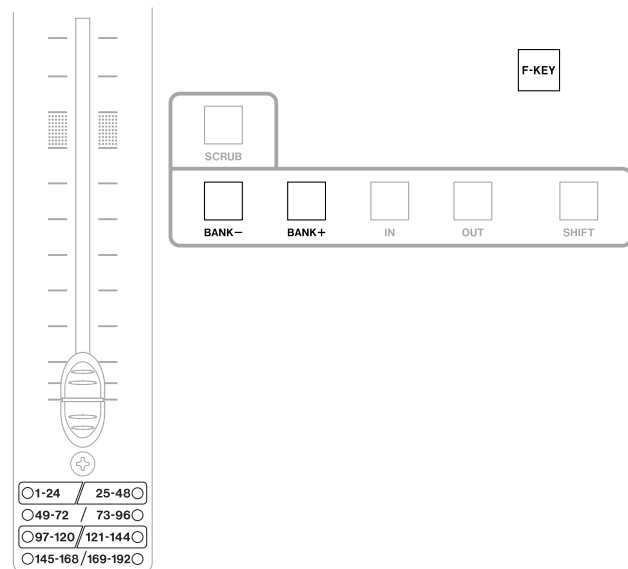
Pressing the **BANK +** key focuses the control surface on the next higher bank of 24 channels.

Pressing the **BANK –** key focuses the control surface on the next lower bank of 24 channels.

Holding **F-KEY** while pressing either **BANK –** or **BANK +** changes the control surface focus by one channel in the specified direction. The US-2400's motorized faders automatically move to the correct physical positions to represent their DAW-controlled channels.

NOTE

The HUI and Mackie Control protocols do not transmit bank indicator information, so the US-2400 bank indicators are only operational in Native mode.

Transport Controls

These tape-machine style transport controls send the following transport commands to the DAW application in any selected control protocol:

○ REW	○ F FWD	○ STOP	○ PLAY	○ REC
◄◄	►►	■	►	●
Rewind	**Fast forward**	**Stop**	**Play**	**Record**
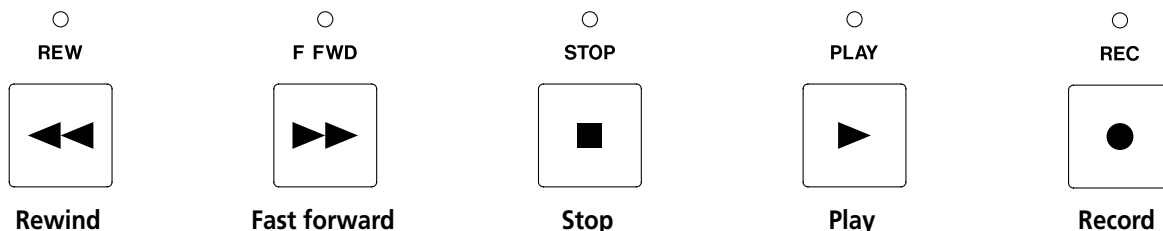
Note that the way in which a particular DAW responds to these commands may vary.

For example, some DAW applications may use the Rewind command to move backward in time by one musical bar—other DAWs may use it to smoothly scroll backwards in time as long as it is held down. Please refer to your DAW's documentation for more information.

Transport wheel

Normally, turning the transport wheel moves the DAW's playhead within the DAW project.
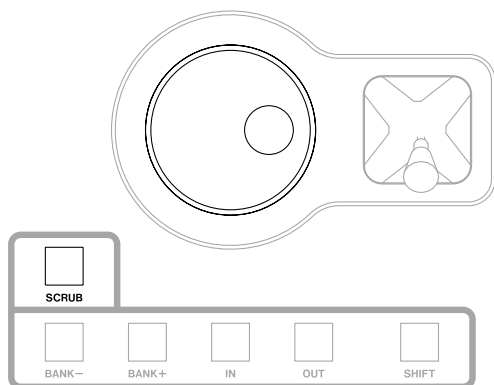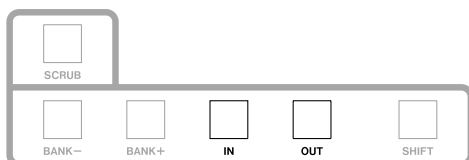
When the **SCRUB** key is pressed, the wheel becomes an audio scrub wheel for use when locating to precise points.

These functions vary between DAW applications in their exact implementation.

In/Out points

The use of these **IN** and **OUT** keys differs between DAW applications.

Refer to the application notes for your particular DAW for details of how to use these keys.

Joystick

The joystick is made available on a fourth MIDI port, in order for it to be accessed by the DAW application independently of the selected control protocol, since neither the HUI nor Mackie Control protocol supports surround panning control.
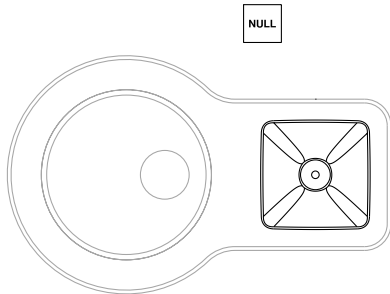
All joystick messages are sent as generic MIDI Controller messages on port 4, channel 2

The X-axis uses controller 80 (decimal) and the Y-Axis is on controller 81 (decimal).

Joystick Nulling The **NULL** key's switch is sent using controller 82 (decimal): 127 = pushed, 0 = released.

The **NULL** tally indicator status is received using controller 83 (decimal): 127 = on, 0 = off.

Special Features

The following special features are incorporated to make your work with the US-2400 easier.

Clearing solos

When any channel is placed in solo mode (including a channel on a fader bank other than the bank currently assigned to the surface by the **BANK** keys), the **CLR SOLO** key illuminates.
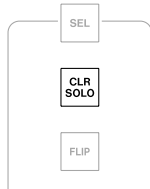
Pressing the **CLR SOLO** key disables all solos, even if they are not within the bank currently assigned to the surface.

Flip

When the US-2400 is in HUI emulation mode, pressing the **FLIP** key places the selected Aux send controls onto the faders for easy adjustment and automation using the touch-sensitive capabilities of the faders.
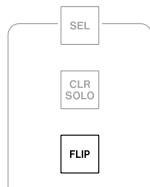
For example, with Aux send 1 assigned to the encoders by the **AUX 1** key, pressing **FLIP** assigns Aux send 1 to the touch-sensitive faders. This may allow easier writing of automated mix moves to Aux send 1.

Further functionality is available in the Mackie Control emulation modes, as described in "Applications" on page 16.
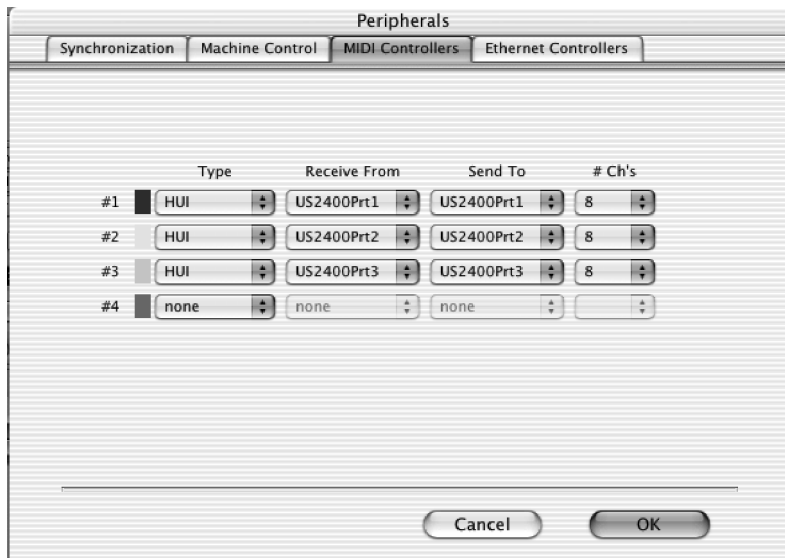
Footswitch

When a momentary contact footswitch (such as a keyboard sustain pedal) is connected to this jack with the US-2400 powered off, the US-2400 will automatically sense the footswitch polarity (i.e. push-to-make, push-to-break) when it is powered on.

The footswitch is preset to mirror the function of the transport **REC** key for hands-free punching.

Pro Tools

For Pro Tools compatibility, the US-2400's HUI emulation mode is available. Each bank of eight faders represented by a US-2400 MIDI port may be assigned as a HUI Controller in Pro Tools by accessing the `Peripherals` window under the `Setups` menu—from that menu, click on the `MIDI Controllers` tab.

1 **Put the US-2400 into HUI emulation mode (factory default):**

 With the unit in standby mode (POWER pulsing), press and hold the master SEL key and the AUX 1 key. Then press the POWER key to enter HUI emulation mode. This setting is saved through power cycles until manually changed.

2 **Configure three HUI MIDI controllers , each one assigned to a different US-2400 MIDI port as shown above.**

Each bank of 8 faders on the US-2400 is represented to the computer as one MIDI port. The leftmost fader bank containing channels 1 through 8 also includes the master section controls.

3 **Assign the ports as follows: Port 1 represents faders 1 through 8; Port 2 represents faders 9 through 16; Port 3 represents faders 17 through 24. Note that Port 1 includes the master section controls.**

NOTE

Later versions of Pro Tools do not install the HUI control surface plug-in by default. It may either be found on the Pro Tools installer CD in a separate folder or on the Digidesign Web site.

Control details

Generally the US-2400's surface controls function as expected, controlling their named parameters in Pro Tools. For example: faders, **MUTE** keys, **SOLO** keys and transport controls control those parameters in Pro Tools. Exceptions and specific details follow:

Encoders

These default to control of the channel Pan parameter. Also available are Aux sends 1 through 5 (the maximum number of Aux sends supported by the HUI protocol is five). Aux sends are available directly by pressing the appropriate **AUX** key.

Use the **CHAN** key to enter the MIDI Controller mode ("MIDI Controller Mode" on page 12).

Pro Tools supports meters via the HUI protocol in MTR mode.

Panning

By default, the encoders control the pan value of mono tracks in Pro Tools and/or the left channel of stereo tracks. To control the pan value of the right channel of a stereo track, press the **PAN** key. It flashes, indicating that right channel pan mode is active.

Transport keys

The **REW**, **F FWD**, **STOP**, **PLAY** and **REC** keys normally control the corresponding functions in Pro Tools. They also have the following additional functions when combined with the **SHIFT** and **F-KEY** keys:

- **SHIFT**+**REW** locates the playhead to the beginning of the project

- **SHIFT**+**F FWD** locates the playhead to the end of the project
- **F-KEY**+**PLAY** toggles the Loop function (same as `[Option]` + `[L]`)
- **F-KEY**+**STOP** toggles Online status (same as `[Command/Ctrl]` + `[J]`)
- **F-KEY**+**REC** toggles QuickPunch (same as `[Command/Ctrl]` + `[Shift]` + `[P]`)

Transport wheel

Press the **SCRUB** key on the US-2400 to activate the transport wheel as an audio scrub wheel in Pro Tools. When the transport wheel is used with the **SHIFT** key in this mode, it defines a selected In/Out point in the session.

When **SCRUB** is not enabled, the transport wheel has no function.

SEL keys

Pressing a US-2400 **SEL** key alone will select that channel in Pro Tools. Holding **SHIFT** allows multiple selections and de-selection using the **SEL** keys.

Holding the **F-KEY** while pressing a **SEL** key will record-enable/disable that track.

"Double-clicking" a channel's **SEL** key opens the channel's naming and comments dialog in the Mac version of Pro Tools.

Holding the Master **SEL** key while pressing any channel's **SEL**, **MUTE** or **SOLO** key will toggle that state on all channels.

Special functions

The following key combinations bring up commonly-used ProTools windows:

- **F-KEY**+**AUX 1** brings up the Mix window
- **F-KEY**+**AUX 2** brings up the Edit window
- **F-KEY**+**AUX 3** toggles the Transport window
- **F-KEY**+**AUX** 4 toggles the Memory Locations window
- **F-KEY**+**AUX 5** toggles the Session Setup window

- Pressing and holding **F-KEY** while pressing either **BANK –** or **BANK +** changes the control surface focus by one channel in the specified direction. The US-2400's motorized faders automatically move to the correct physical positions to represent their DAW-controlled channels.
- Pressing **IN** or **OUT** directly sets an In or Out point.
- **F-KEY**+**IN** toggles pre-roll.
- **F-KEY**+**OUT** toggles post roll.

Sonar

For Sonar compatibility, a Sonar-compatible version of Mackie Control emulation mode is available.

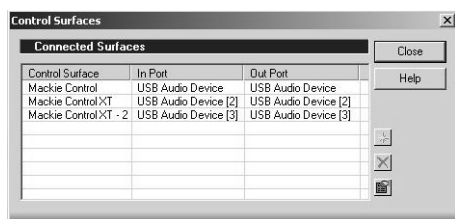Put the US-2400 into its Sonar version of Mackie Control emulation mode:

> **With the unit in standby mode (POWER pulsing), press and hold the master SEL key and the AUX 2 key. Then press the POWER key to enter Sonar Mackie Control emulation mode.**

Note that Windows shows the US-2400 as a generic `USB Audio Device` with `[2]`, `[3]` and `[4]` appended to that name to show the second & third fader bank and joystick.
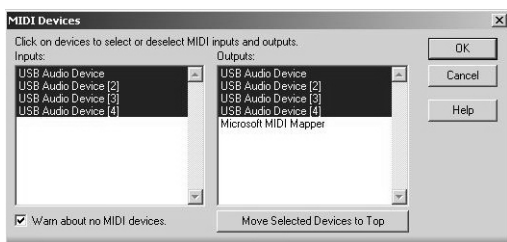
Be sure these MIDI Ports are enabled in the `MIDI Device` window under the `Options` menu (see above).

Each bank of eight faders represented by a US-2400 MIDI port should be assigned as a Mackie Control Surface or Mackie Control Extender (XT) in Sonar by accessing the Control Surfaces window under the Options menu. Configure three Mackie Control surfaces as shown below, each one assigned to a different US-2400 MIDI port.

Setting up the controls Now the Mackie Controls should be set inside Sonar:

1   **From the** `Tools` **menu, select the** `Mackie Control` **window:**
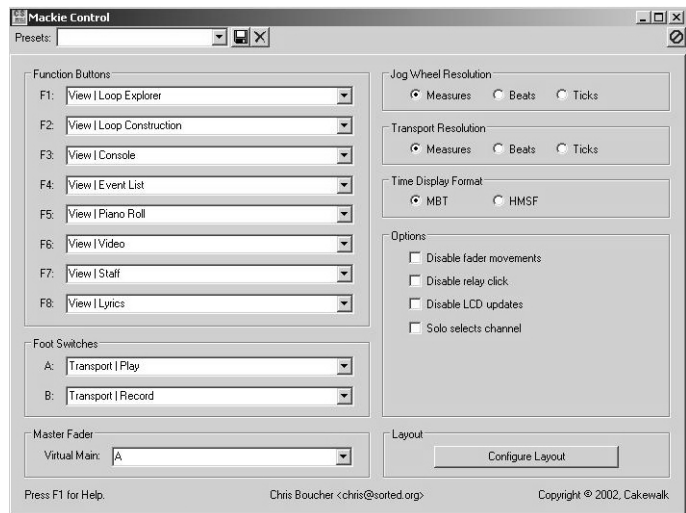
2   **Click the** `Configure Layout` **button on the lower right of the window. It changes to** `Press Again When Done`**.**

3   **Press and hold the F-KEY and SHIFT keys of the US-2400, and press and release the master** `SEL` **key.**

4   **Complete the configuration by pressing the on-screen** `Press Again When Done` **button.**

5   **Close this window. Your US-2400 is now configured for use with Sonar.**

Control details

Generally the US-2400's surface controls will function as expected, controlling their named parameters in Sonar.

For example, faders, **MUTE** and **SOLO** keys and the transport controls will control those parameters in Sonar. Exceptions and specific details follow:

Encoders

These default to controlling the channel Pan.

When an **AUX** key is pressed, Aux sends are available (see "Auxiliary send levels" on page 11).

When **CHAN** is pressed, the encoders send generic MIDI controller messages as described in "MIDI Controller Mode" on page 12.

Transport keys

The **REW**, **F FWD**, **STOP**, **PLAY**, and **REC** keys normally control the appropriate functions in Sonar.

They additionally emulate the following Mackie Control commands when used with the **F-KEY**:

- **REW** + **F-KEY** = Left Arrow
- **FF** + **F-KEY** = Right Arrow
- **STOP** + **F-KEY** = Down Arrow

- **PLAY** + **F-KEY** = Up Arrow
- **REC** + **F-KEY** = Zoom

Other keys:

- **IN** + **F-KEY** = HOME
- **F-KEY** + **IN** = LOOP ON/OFF
- **OUT** = MARKER
- **F-KEY** + **OUT** = PUNCH

Transport wheel

The transport wheel acts as a simple locator in Sonar, whether the **SCRUB** indicator is lit or not.

SEL keys

Pressing a US-2400 **SEL** key alone selects that channel in Sonar.

Record-enable and disable a track by pressing and holding the **F-KEY** while pressing the **SEL** key for that track.

FLIP

Pressing the **FLIP** key exchanges the functions of the faders and encoders, allowing the touch-sensitive faders to be used for writing Aux or pan automation.

When in this mode, the encoders are used to control the DAW faders.

Digital Performer

For Digital Performer compatibility, the US-2400 provides a DP-compatible version of Mackie Control emulation.

Each bank of eight faders represented by a US-2400 MIDI port should be assigned as a Mackie Control Surface or Mackie Control Extender in Digital Performer by following the steps below:

1 **With the unit in standby mode (POWER pulsing), press and hold the master SEL key and the AUX 3 key. Then press the POWER key to enter Digital Performer Mackie Control emulation mode.**

2 **Open the** Audio/MIDI Setup **application, and create one Mackie Control and two Mackie Control Expander devices.**

3 **Connect their MIDI ports to the US-2400 as shown below.**
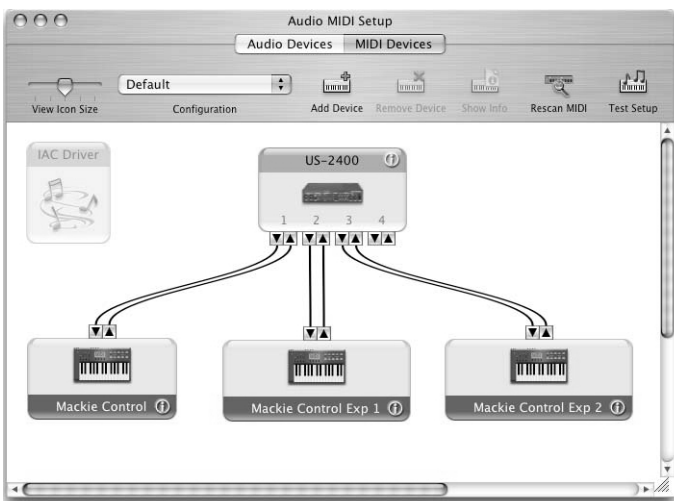
4 **Next, open the** Control Surface Setup **window under the** Setup **menu in Digital Performer and configure one Mackie Control Surface and two Mackie Control Expanders (XT) as shown below, each one assigned to a different US-2400 MIDI port. Note that the US-2400 ports appear via the Mackie Control devices set up previously.**
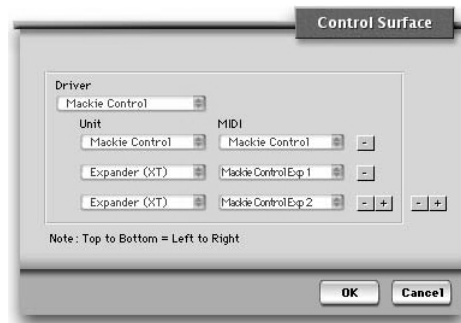
Each bank of 8 faders on the US-2400 is represented to the computer as one MIDI port. The leftmost fader bank containing channels 1 – 8 also includes the master section controls.

5 **Assign the ports as follows:**

- **Port 1: faders 1 – 8 and master section controls**
- **Port 2: faders 9 – 16**
- **Port 3: faders 17 – 24**
- **Port 4: represents the joystick.**

Control details

Generally the US-2400's surface controls function as expected, controlling their appropriate parameters in Digital Performer.

For example, faders, **MUTE** and **SOLO** keys and the transport controls will control those parameters in Digital Performer. Exceptions and specific details follow:

Encoders

When an **AUX** key is pressed, Aux sends are available.

When **CHAN** is pressed, the encoders send generic MIDI controller messages as described in "MIDI Controller Mode" on page 12.

Transport keys

The **REW**, **F FWD**, **STOP**, **PLAY**, and **REC** keys normally control the corresponding functions in Digital Performer.

They additionally emulate the following Mackie Control commands when used with the F-KEY:

- **REW** + **F-KEY** = Left Arrow
- **F FWD** + **F-KEY** = Right Arrow
- **STOP** + **F-KEY** = Down Arrow

- **PLAY** + **F-KEY** = Up Arrow
- **REC** + **F-KEY** = Zoom

Other keys:

- **IN** = RTZ
- **F-KEY** + **IN** = CYCLE
- **OUT** = MARKER
- **F-KEY** + **OUT** = PUNCH

Transport wheel

When the **SCRUB** key is on (the indicator is lit), the transport wheel acts as a simple locator in Digital Performer.

SEL keys

Pressing a US-2400 **SEL** key alone selects that channel in Digital Performer.

Pressing and holding **SHIFT** while pressing **SEL** keys allows multiple selection and de-selection.

Record-enable and disable a track by pressing and holding the **F-KEY** while pressing the **SEL** key for that track.

FLIP

Pressing the **FLIP** key exchanges the functions of the faders and encoders, allowing the touch-sensitive faders to be used for writing Aux or pan automation.

When in this mode, the encoders are used to control the DAW faders.

Logic

For Logic compatibility, a Logic version of the US-2400's Mackie Control emulation mode is available. Each bank of eight faders represented by a US-2400 MIDI port will be automatically assigned by Logic as a Mackie Control Surface or Mackie Control Extender by following the steps below:

Put the US-2400 into Mackie Control emulation mode:

1 With the unit in standby mode (POWER flashing), press and hold the master SEL key and the AUX 4 key. Then press the POWER key to enter Logic Mackie Control emulation mode.

2 Launch Logic – it will automatically detect the new device and configure itself.

Control details
Generally the US-2400's surface controls function as expected, controlling their corresponding parameters in Logic.

For example, faders, **MUTE** and **SOLO** keys and the transport controls will control those parameters in Logic. Exceptions and specific details follow:

Encoders
When an **AUX** key is pressed, Aux sends are available.

When **CHAN** is pressed, the encoders send generic MIDI controller messages as described in "MIDI Controller Mode" on page 12.

Transport wheel
The transport wheel acts as a simple locator in Logic. Pressing **SCRUB** increases the locate resolution.

SEL keys
Pressing a US-2400 **SEL** key alone selects that channel in Logic.

Holding **SHIFT** while pressing a **SEL** key sets that channel fader to unity gain. Pressing **SHIFT** alone illuminates the **SEL** keys of all channels currently set to unity gain.

Record-enable and disable a track by pressing and holding the **F-KEY** while pressing the **SEL** key for that track.

Transport keys
The **REW**, **F FWD**, **STOP**, **PLAY**, and **REC** keys normally control the corresponding functions in Logic.

They additionally emulate the following Mackie Control commands when used with the **F-KEY**:

• **REW** + **F-KEY** = Left Arrow
• **F FWD** + **F-KEY** = Right Arrow
• **STOP** + **F-KEY** = Down Arrow

• **PLAY** + **F-KEY** = Up Arrow
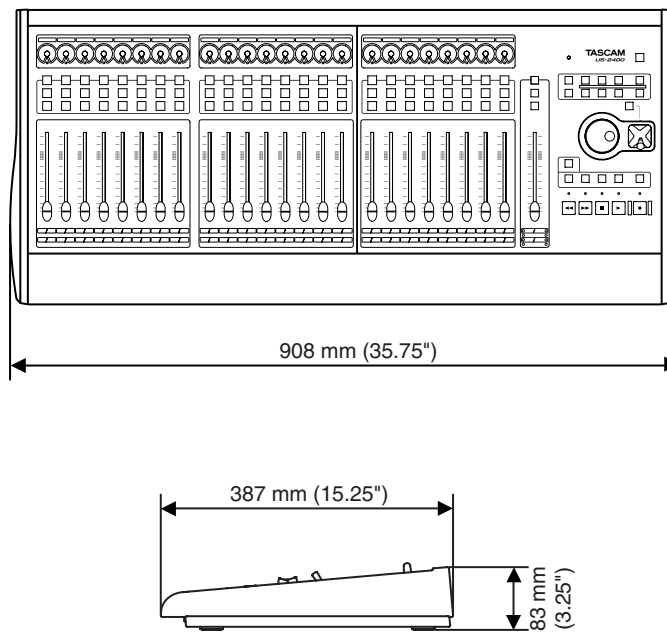• **REC** + **F-KEY** = Zoom
Other keys:
• **IN** = RTZ (double press of **STOP** key)
• **F-KEY** + **IN** = CYCLE
• **OUT** = **MARKER**
• **F-KEY** + **OUT** = CLICK

Dimensional drawing

908 mm (35.75")

387 mm (15.25")

83 mm (3.25")

Specifications

Operating systems	Windows XP
	Macintosh Mac OS X 10.2.8 or above
Communication	USB 1.1 @ 12MHz[a]
External power adapter AC input	90VAC — 264VAC, 47Hz — 63Hz
External power adapter DC output	8V, 5.62A
Power consumption	32W
Electromagnetic environment	E4
Peak inrush curent	25A
Dimensions (w x h x d)	908 x 83 x 387 (mm) 35.75 x 3.25 x 15.25 (in)
Weight (excluding AC adapter)	9kg (19.8 lbs)
Operational temperature	5°C to 40°C (41°F to 104°F)
Supplied accessories	AC adapter AC power cable 1.5m (4.5ft) USB cable

a. The US-2400 may be connected to a USB 2.0 port but will communicate at USB 1.1 Full Speed (12Mbps)

TASCAM
TEAC Professional Division

US-2400