MCS-3000 Series Users Manual Addendum Support for Digidesign Pro Tools™

Covering Pro Tools HD, TDM, LE and Free Versions 5 and later on Macintosh OS9 and Windows platforms



Introduction

JLCooper's MCS-3000 Series controllers fully support Pro Tools 5. This includes the 8 fader MCS-3800, the 4 fader MCS-3400, the MCS-3000 and the 8 fader expander MCS-3000x.

That means you can now record, edit, and mix your Pro Tools sessions with real, physical, touch sensitive moving faders.

The MCS-3800 communicates with Pro Tools via MIDI using Digidesign's personality for the Mackie HUI™. This is included with all shipping versions of Pro Tools 5 for Mac and Windows.

Features Include:

- The MCS-3800 features 8 touch sensitive, motorized faders
- Faders can be "bank switched" to control up to 32 channels
- Expander support, up to 32 moving faders with Pro Tools
- Virtual Encoder Knobs with automated graphic display of position
- Channel names displayed in back-lit LCD scribble strip
- A "one-button" record mode
- LCD shows pan positions, send levels, insert and send assignments
- Robust jog mechanism
- User programmable controls, so you can map the functions where you need them
- Full size numeric keypad
- Time code display in SMPTE, Feet & Frames, Bars & Beats and Samples
- Zoom/Navigation/Selection cursor keys
- Dedicated bank switches
- Rugged transport controls
- Plug-In Section for manipulating Plug Ins
- Send Section for assigning Inputs and Outputs
- Modular construction allows you to add modules as your needs grow
- Professional appearance with solid construction
- Easy expansion to surround panning

MCS-3000 Series User's Manual Addendum, Digidesign's Pro Tools[™] Support © 2002 JLCooper Electronics, 142 Arena Street, El Segundo, CA 90245 (310) 322-9990 Fax: (310) 335-0110 http://www.jlcooper.com JLCooper Part Number 932073-1, Third Edition, August 22, 2002

- MCS-3800, MCS-3400, MCS-3000, MCS-3000x, MCS-Panner and MCS-Bridge are trademarks of JLCooper Electronics.
- Pro Tools[™] and Digidesign are registered trademarks of Avid Technology, Inc. HUI[™] is a registered trademark of the Mackie corporation.
- OMS is a trademark of Gibson Guitar Corp.
- Macintosh is a registered trademark of Apple Computer Inc.
- Windows is a registered trademark of Microsoft Corp.
- Digital Timepiece and MOTU are registered trademarks of Mark of the Unicorn Inc.
- All other product names are the property of their respective owners.

Contents

Setup	.4
Connections	4
Configure OMS	4
Configure MIDI Interface	5
Configure Pro Tools	
Using the MCS-Bridge	7
Surround Panning	
Ű	
Common System and Troubleshooting Messages	8
General Operation	9
Transports	
One Button Record Mode	. 9
Bank Switches	9
Zoom Mode Page 1 Button	10
Page Buttons and LCD Display	11
Show Pan/Sends or System Messages	
Display Channels 1 through 4 or 5 through 8	
Pan	
Sends A-E	13
Input	13
Output	
Assign Sends and I/O	
Assign Insert	
Insert/Parameter	
Time Code Display	14
Keypad	
Scrub and Shuttle	
Scrub / Shuttle On and Off	
Fine Scrub Control	
Fixed Speed Shuttle	
Zoom Mode and Scrubbing	
Making Selections with Scrub and Shuttle	
Faders, Bank Switch and Touch Sensor	
Writing a Fader Move	
Channel Buttons Above the Faders	
Automating Plug-Ins	
Initialized Factory Default Assignments	20
User Programmable Functions	21
Assign Mode	
Command Menu Items	

Setup

If you have it available, it is recommended that you also read the first chapter of the Digidesign manual, Pro Tools MIDI Controllers Guide, for general information about setting up Pro Tools for external control via MIDI. Then follow these instructions to insure correct operation. The following instructions detail installation on a Macintosh computer. Installation on a Windows computer is similar except that OMS is not used.

Connect Both the MIDI In and the MIDI Out

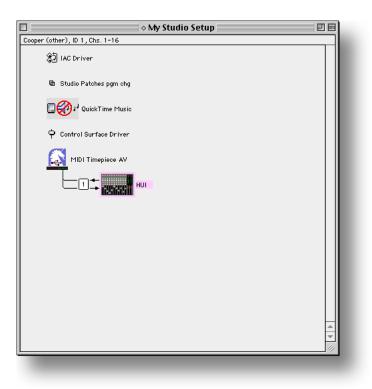
Two way MIDI communication is required:

Connect a MIDI cable from the MCS-3800's MIDI output to the computer interface's MIDI In. Connect a MIDI cable from the MCS-3800's MIDI input to the computer interface's MIDI Out.

If using a MIDI Patchbay or MIDI Switcher, or a MIDI Interface with a built-in MIDI patchbay, make sure that you do not loop the MIDI from the MCS-3800 back to itself.

Configure OMS

This section applies to Macintosh computers only. If you are using a Windows computer, skip this section. OMS "MIDI Device Info" for the MCS-3800 typically looks like this:



	MIDI Device Info
NUSIO <mark>M</mark>	Manuf: Cooper
	Name: MCS-3800
	Receives Sends ✓ Is controller MDI Time Code ✓ Is multitimbral MIDI Beat Clock MIDI Machine Control MIDI Machine Control
	Receive Channels 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 X
	Cancel OK
-	

The OMS example shown in the MCS-3800 User Manual needs minor editing to work with Pro Tools. Specifically, when defining the MCS-3800 or MCS-3400, do not select: "receives MTC" and "receives MMC" do not select: "sends MTC" and "sends MMC". These are not necessary for Pro Tools operation.

Be sure to check your "OMS MIDI Setup" dialogue to confirm that you have chosen the correct port or ports that are connected to your MIDI Interface.

Configure Your Interface

A simple MIDI interface, such as an Apple Serial Interface, a soundcard MIDI port or a USB MIDI interface, typically requires no configuration after the drivers or extentions have been installed. It is ready to use right away.

If the interface has a built in patchbay or switcher, you will need to open the interface's setup software.

Make sure that the MCS-3800 is routed to and from the computer.

Make sure that the MCS-3800 is not routed back to itself.

Make sure that you have not accidentally enabled any MIDI filters or other processing.

If you are using the Clockworks or MTP Express Console from Mark of the Unicorn, make sure that you do not route MTC or MMC to the MCS-3800.

2	Device Settings & Routing
SOURCE	DESTINATION
Computer 📃	Computer
Network port 🔳	🔳 Network port
MIDI In 1 🚙	San MIDI Out 1
MIDI In 2 🚙	MIDI Out 2
MIDI In 3 🚙	💁 MIDI Out 3
MIDI In 4 🚙	💁 MIDI Out 4
MIDI In 5 🚙	MIDI Out 5
MIDI In 6 🚙	IDI Out 6
MIDI In 7 🚙	MIDI Out 7
MIDI In 8 🚙	@ MCS-3800
MTC Out 😃	😃 MTC In
ADAT	ADAT
MMC Out 🎽 🛛	MMC In

In the case of Clockworks, click on the MIDI jack icon. Turn off automatic device detection.



Configure Pro Tools

Though Digidesign does not have a control surface personality specifically for the MCS-3800, they do have a personality for the Mackie HUI. The MCS-3800 can mimic the Mackie HUI, emulating the same commands and responses allowing you to control Pro Tools with your MCS-3800.

First, select from the Pro Tools menu, MIDI | Input Devices. Verify that the OMS MIDI device that represents your MCS-3800 is enabled with an "X" in the box next to it.

Next, select from the Pro Tools menu, Setups | Peripherals. In the MIDI Controllers section, set the **Type** menu to "HUI". The items in the Type menu are the so-called "Personalites" that Pro Tools supports. On a Macintosh, these are files that reside in the Controllers folder inside the DAE folder. On a Windows computer, these files reside in the *ProgramFiles**Digidesign**DAE**Controllers* directory. If "HUI" does not appear in this menu, contact Digidesign.

Set the "Receive From" and "Send To" fields to the MIDI port where your MCS-3800 is attached. On a Macintosh, the items in this menu get their names from OMS. If MCS-3800 does not appear here, check your OMS setup and interface settings.

If you require more than 8 faders, you can add MCS-3000x expanders in the same fashion. However, there are a couple of things to keep in mind. Each MCS-3000x must be connected to it's own MIDI port and, an MCS-3800 must be the first controller if you want to use the nonchannel based features such as the numeric keypad, transport buttons, jog wheel.

Configure the MCS-3000x by setting the rear panel jumpers in the following manner:

For the Aux Buttons to control the track arming, set Sw1 = "ON", Sw2 = "ON", Sw3 = "OFF", Sw4 = "ON".

For Aux Buttons to conrol the track automation, set Sw1 = "OFF", Sw2 = "OFF", Sw3 = "ON", Sw4 = "ON".

Select Inputs To Enable	
Control Surface Driver Control Surface Driver MCS-3800, cable input 1 MIDI Timepiece AV Control AC Bus #1	
Cancel	ОК

Peripherals 🛛 🗐				
Synchronization Machine Control MIDI Controllers Ethernet Controllers				
		_		
	Type	Receive From	Send To	# Ch's
*1	НИ	MCS3800cblnp1	MCS-3800	
#2	none	none	none	
#3	none	none	none	i 🗖 🛛 📲
#4	none	none	none	
Cancel OK				

Using the MCS-Bridge

For more convenient track arming, panning and metering, the MCS-Bridge can be added. The MCS-Bridge adds 8 graphic buttons and 2 rotary encoders. You *must* have version 1.39 or later firmware in the MCS-3800 and version 1.05 or later firmware in the MCS-Bridge to use it under Pro Tools.

To use the MCS-Bridge with Pro Tools, just connect the MCS-Bridge to the MCS-3800 wih the supplied telephone cable. Verify that the jumpers are 1-3 are in the UP position and jumper 4 is in the DOWN position. That's it.. The MCS-3800 will automatically identify and use the MCS-Bridge. There is no additional configuration required in Pro Tools.

Tracks are armed by pressing the large graphic button above the faders. The button will flash red when the track is armed.

The MCS-Bridge indicates clip by changing the graphic button backlight to orange.

The knob above the button changes the mode of the display between a slider and the VU meter. Pressing the knob while turning will change the mode on all eight tracks.

The knob below the button will move the selected slider. It can adjust the Pan, PanR and Send A-E parameters of a track.

Surround Panning

If you require surround panning, the MCS-Panner can be added.

There are two ways you can integrate the MCS-Panner into you system. First, you can connect it to its own MIDI port. In that case, you would set it up just like you did with the MCS-3800. This is detailed in the MIDI Control Surfaces Guide.

Alternatly, you can connect the MCS-Panner to the MCS-3800 using the supplied modular telephone cable. Verify that the dip switches on the rear of the MCS-Panner are all set to the "off" position. Configure the MCS-3800 as you would normally. Then, configure another controller as an MCS-Panner, set the "Receive From" MIDI port to be the same as the MCS-3800 MIDI port. Set the "Send To" MIDI port to any unused port. Unfortunately, Pro Tools does not allow a MIDI port in multiple "Send To" fields. The consequence is that the MCS-Panner will not indicate status via the LEDs on the MCS-Panner.

Peripherals ynchronization/Machine Control/MIDI Controllers/Ethernet Controllers}					
#1	Type HUI	Receive From	Send To HUI	*Ch's	
*2	HUI	HUI, cableinput1 HUI, cableinput1	HUI unused port		
*3	ncoe	none	none	1 i i i i i i i i i i i i i i i i i i i	
*4	0001	tone	500#		
		Canc	. –	ок	

If you are using the Digital Timepiece from Mark of the Unicorn, set Receive From "Digital Timepiece" and Send To "MCS-3800".

The remaining settings in this dialog will vary depending upon your system.

Click OK, and Pro Tools sends a command to the MCS-3800, causing the MCS-3800 to display, "Pro Tools Mode". This indicates that the MCS-3800 is receiving MIDI from the computer and has been placed into Pro Tools mode.

The Peripherals dialog settings are automatically saved as within Pro Tool's Preferences. Once having setup the system, it should not be necessary to go through these steps again. The next time that you launch Pro Tools, the MCS-3800 will automatically switch itself into Pro Tools Mode.

Common System Messages and Troubleshooting Messages

The following messages typically appear in the LCD when working with the MCS-3800 and Pro Tools.

Press a channel	strip's	INSERT	switch
to assign/edit an	insert		

This is the first message in the display after launching Pro Tools. If, instead of this message, you would prefer to view the channel names and pan position, press the "Page 2" button above the LCD display. (If you do want to jump right in and begin editing an Insert, press the blue Shift button, and then the "SOLO" button above a fader. This is the equivalent of the INSERT switch on the MCS-3800.

Pro Tools has a dialog on screen!

If Pro Tools has a dialog on screen, that requires you to OK or Cancel before proceeding, the MCS-3800 will display the following

Pro Tools has a dialog on screen! ENTER = OK, F8/ESC = Cancel

Press Enter on the keypad to OK. Press the F8 button to cancel.

No Pro Tools Session is Currently Open

This is displayed when the Pro Tools application is running, but no session is currently open. MCS is currently inactive because Active in Background is disabled in Pro Tools. In the Options Menu, if Active in Background is not checked, the MCS-3800 will display this message when Pro Tools is in the background.

Pro Tools has Lost Communication

Pro Tools will continuously send out, about once a second, a MIDI note command. This is used as "Active Sensing", that is, a MIDI command used to detect if there is a controller connected. The MCS-3800 replies with a MIDI command. This goes on all the time, in fact, if your MIDI interface has activity LEDs, you will see them blink for both the input and the output, about once a second. If Pro Tools sends this command, and does not receive a reply, Pro Tools will display the following:



All this means is that there is no MIDI communication between the MCS-3800 and Pro Tools. Power cycling the MCS-3800 is not likely to help. There is probably something not set up correctly, in either Pro Tools Peripherals dialog, OMS (on Macintosh), or the MIDI Interface, (its setup software or cable connections).

Verify that the MIDI port that the MCS-3800 is connected to in the MIDI | Input Devices menu is enabled.

General Operation

The MCS-3800 takes advantage of Pro Tools ability to communicate via MIDI using Digidesign's Personality for the Mackie HUI.

Many of the MCS-3800 controls are user programmable. Specifically, the "F keys" F1 through F8, the seven "W buttons" W1 through W7 that encircle the jog/shuttle assembly, and the five "M buttons" M1 through M5 above the jog/shuttle assembly. Other controls, whose functions are more obviously standardized, are not user programmable. For example, the keypad, the transport buttons and the faders are not programmable.

The Page buttons above the LCD determine whether the LCD and encoders are used for display and editing Pans, Sends, or Plug Ins.

Since the operation of the MCS-3800 is based upon Digidesign's personality file for the Mackie HUI, it may be helpful to also refer to the Pro Tools 5 MIDI Controllers Guide chapter about the Mackie HUI controller, for more detailed information about the operation of specific controls.

Transports

The transports control the standard functions, Rewind, Fast Forward, Stop, Play, and Record. (The behavior of the transports is not affected by the state of the MCS-3800 Shift button.)

One Button Record

Normally, Pro Tools requires that both Record and Play be pressed in order to go into Record. The MCS-3800 has a "one button Record mode". When enabled, you can go into record simply by pressing only the Record button.

Warning! It is suggested that you use this feature only after disabling destructive recording. One button recording enables you to work very quickly, and you may not want to risk accidental loss of material due to destructive recording.

To enable one button record, make sure that the MCS-3800 is in Pro Tools Mode. Press ASSIGN, then press the Record button. The LCD displays, "Record Button is in Normal Mode". Rotate any encoder, the LCD displays, "Record Button is in Single Button Mode". Press ASSIGN to exit Assign Mode.

One button record is not the same as QuickPunch. Quick Punch allows you to go in and out of record with the record button only, but still requires that you press both record and play to initiate recording.

Since one button record actually simulates pressing record and play at the same time, it will not give satisfactory results if you try to use it at the same time as QuickPunch.

Bank Switches

When working with eight faders to control systems with more than eight channels, you need a quick way to change "banks". For example, your eight faders can mix channels 1 through 8. Changing banks allows you to use the same eight faders to mix channels 9 through 16, 17 through 24 or 25 through 32.

The MCS-3800 has four dedicated Bank switches, to allow you to immediately change to any bank. The bank change affects the faders and the buttons above the faders.

Zoom Mode (Page 1 Button)

The "Page 1" button above the LCD sets the Zoom mode, which determines how the four Cursor Buttons behave. The cursor buttons are used to help view and navigate the waveform in the Edit Window. Pressing this button repeatedly cycles through the 3 zoom modes:

LED On = Standard Zoom Mode

In Zoom Mode, the cursor buttons behave just like the Pro Tools on-screen zoom buttons. The Up button and the Down button increase and decrease the view vertically, the amplitude axis. The Left button and Right button increase and decease the view horizontally, the time axis.

LED Off = Navigation Mode

In Navigation Mode, the cursor button are used to move the cursor.

The Left button and Right button move the edit cursor to the next or previous region boundary. The Up button and the Down button are used as Mark In and Mark out controls.

The Cursor Buttons can be used in combination with other buttons for additional functions: W2 (called "Shift/Add") pressed in combination with Left or Right extends the selection to the next or preceding region boundary. Shift F7 (called "Option /All") pressed in combination with Left or Right centers the left or right side of the selection in the Edit Window.

LED Flashing = Selection Mode

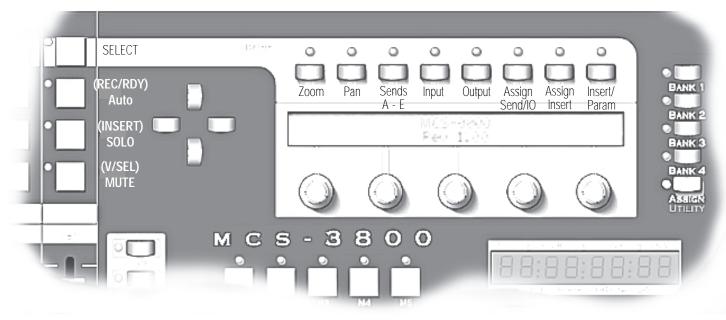
In Selection Mode, the cursor buttons are used along with the Scrub/Shuttle wheel, to adjust selection. The Left button and Right buttons adjust the selection In and Out points. Double-clicking the Left or Right button sets the cursor at the left or right edge of the selection.

The Up button and the Down button move the selection to the next or previous track.

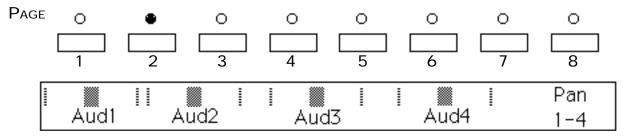
The Cursor Buttons can be used in combination with other buttons for additional functions: W2 (called "Shift/Add") pressed in combination with Up or Down extends the selection, adding additional tracks.

"Page" Buttons and the LCD Display

Page buttons 2 through 8 above the LCD are used to select the LCD and Encoder functionality. The LCD displays either pan positions with channel names, send levels, send or insert assignments, or plug-in settings.

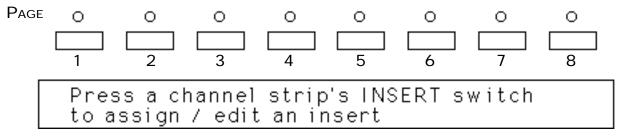


When Pan (Page 2) or Sends (Page 3) is lit, the LCD displays channel-related information, including "scribble strip" channel names, pan positions, send levels (graphically or in dB), input and output assignments, and automation modes.



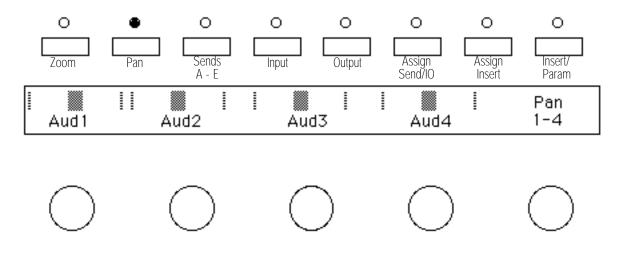
When Pan or Sends is Selected, Channel Names are Displayed

When Pan (2) or Sends (3) is not lit, the LCD displays System messages and Plug In information.

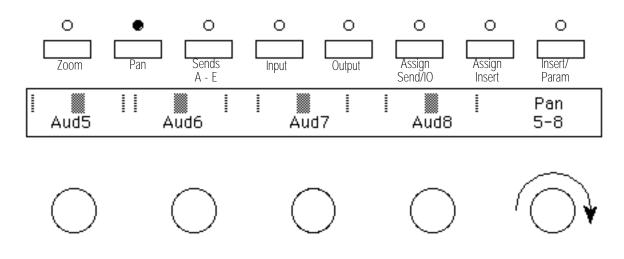


When the Pan or Sends LEDs are off, System Messages are Displayed

Displaying Channels 1 through 4, or Channels 5 though 8 When Pan or Sends is selected, the first four channels are displayed.



Rotate the fifth encoder to display the next four channels.



Pan

Pressing the Pan (Page 2) button turns the Pan LED on and off.

The first time Pan is turned on, the LCD indicates "Pan" in the upper right. Rotate the encoders to edit pan positions on mono channel strips, or the left-channel pan on stereo strips.

The next time that Pan is turned on, the LCD indicates "PanR". Rotate the encoders to edit the right-channel pan on stereo strips.

The pan positions are shown graphically in the LCD above the encoders.

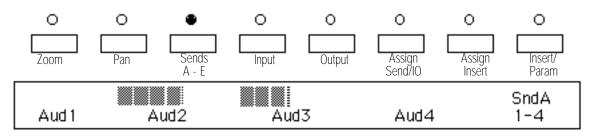
Send A-E

Press the Send A-E button to edit send levels.

The LCD indicates "SndA".

Pressing repeatedly cycles the display through SndB, SndC, SndD, SndE, and back to SndA.

The send levels are shown graphically in the LCD above the encoders.



To temporarily display the send levels in dB, press W1, (called the "Command/Alt/Fine" button). ("Command/Alt/Fine" is assigned to W1, but you can re-assign it to any of the F, W, M buttons.)

Input

Pressing the Input button (Page 4) momentarily displays the current input assignments. The Input button is also used during the process of assigning inputs, see below.

Output

Pressing the Output button (Page 5) momentarily displays the current output assignments. The Output button is also used during the process of assigning outputs, see below.

Assign Sends and I/O

Pressing Assign Sends and I/O (Page 6) enters the mode for assigning Sends, Inputs, and Outputs.

To assign sends, first select the Send using the Send A - E button. Press Assign Send I/O. (Page 6). Its LED flashes. Rotate an encoder for the desired channel, to scroll through a list of possible assignments. Confirm the assignment by pressing the Assign Send I/O button again. Its LED goes out.

To assign Inputs or Outputs, first press Assign Send I/O. Its LED flashes.

Press either Input or Output.

Rotate an encoder for the desired channel, to scroll through a list of possible assignments. Confirm the assignment by pressing the Assign Send I/O button again. Its LED goes out.

Assign Insert

To select a channel for insert editing, first press and release the blue Shift button so that its LED is on, indicating that the switches are now ready to send "shifted" commands. Then, press a Solo button above the fader. Shifted Solo is the Insert switch.

Press Assign Insert (Page 7) to enter Insert Assignment mode. The first four inserts are displayed. Rotate the fifth encoder to display the fifth insert.

Rotate the encoder for the desired insert to scroll through a list of available inserts/plug ins. Press Assign Insert again to confirm the selection.

The Assign Insert LED will go out, and the Insert/Parameter LED will automatically light.

Insert / Parameter

The Insert/Parameter button (Page 8) selects whether the LCD is displaying insert assignments, or the editable parameters for a single insert.

When an insert has already been selected, or just assigned, you may use the encoders to edit the individual parameters within the insert, such as EQ settings.

The fifth encoder is used with the Insert/Param switch. When displaying inserts, rotate the fifth encoder to view inserts 1-4 or insert 5 only. When displaying parameters, rotate the fifth encoder to reveal additional pages of parameters.

If the parameter is switched instead of continuous, use the DSP Select switches (Shift M2 - Shift M5) to turn the parameter on or off.

Time Code Display

The time code display shows the current time according to the format selected in the Display menu in Pro Tools.

Keypad

The keypad is used for numeric entry and editing. The Enter key is equivalent to clicking on "OK". The Clear key is used to clear a selected field of numbers or text.

The keypad may also be used for setting a fixed shuttle speed and direction (see above.)

Pressing a number followed by the Locate button recalls a previously entered memory location. The MCS-3800 "Set Locate" and "Last" keys have no function within Pro Tools.

Scrub / Shuttle

The MCS-3800 has a jog/shuttle mechanism. Due to the fact that the HUI only has a wheel, the MCS-3800 only uses the jog wheel in its emulation of the HUI.

Scrub or Shuttle mode is indicated by both the Rewind and Fast Forward LEDs being lit at the same time. When jog or shuttle mode is enabled, other controls are disabled. Press Stop to regain the other controls.

The LCD display, when not showing Pans and Sends, will indicate either "Shuttle in Use, Hit SCRUB or STOP to exit." or "SCRUB in Use, Hit SCRUB or STOP to exit."

Scrub/Shuttle Select

The Scrub and Shuttle functions are selected by pressing W7. Though W7 has been assigned this feature by default, you can re-assign "Scrub/Shuttle Select" to any of the F, W, M buttons.

When scrub or shuttle are selected, the LEDs above the wheel are lit. When scrub or shuttle are not selected, the LEDs above the wheel are off.

Fine Scrub Control

For fine scrub control regardless of the waveform magnification, hold W1 (Command/Alt/Fine) button (W1) while turning the wheel.

Fixed Speed Shuttle

To shuttle at a fixed speed without using the shuttle ring, hold down W6 (Control/Clutch) and type a number on the keypad from 0-9. (0 is shuttle off). Use the +/- key to change directions.

Zoom Mode and Scrub/Shuttle

The relative fineness or coarseness of scrub is affected by the current magnification of the waveform view. Using the cursor keys to first zoom in on the waveform allows finer scrubbing. Turn Zoom Mode (Page 1 LED) on.

Making Selections with Scrub/Shuttle Selection is done while scrubbing primarily by using W2 ("Shift/Add").

While scrubbing or shuttling, press and hold W2 to make a selection. Release W2 when you've reached the desired end of selection. To extend or trim the selection, use scrub to re-position the "I-Beam", and while turning the wheel press and release W2.

For a more detailed discussion of selection techniques, please refer to Digidesign's *MIDI Control Surfaces Guide*.

Faders, Bank Switch, Touch Sensors

The 8 motorized faders control up to 32 channels. Use the bank switches to select which range of channels you are controlling.

Select Bank 1 to control Channels1 through8.Select Bank 2 to control Channels9 through16.Select Bank 3 to control Channels17 through24.Select Bank 4 to control Channels25 through32.

The faders are touch sensitive, which means that touching the fader automatically turns off its motor, allowing you to edit automated fader moves at any time.

Even if you are not editing automated fader moves, you can still move a fader manually at any time to make a temporary change to the mix. When you release the fader, Pro Tool's AutoMatch feature will gradually move the fader to its current level in the automated mix.

Note: In Pro Tools TDM make sure that Automation is Enabled for Volume (see page 19).

Writing a Fader Move

Refer to the Pro Tools Reference Guide for detailed instructions regarding Mixing and Automation.

Here is a very brief example of how to write a moving fader. Make sure that fader automation is enabled:

To do this on the MCS-3800, press the Shift button and observe that the F1 LED is lit. To do this on Pro Tools, in the Display menu, select Show Automation Enable window. Make sure Auto Suspend is off and Volume is on.

Exit the MCS-3800 shift mode by pressing the blue shift button to turn the shift LED off.

Put fader 1 into write mode by pressing both channel 1's Auto button (labeled AUX on the MCS-3800) and also press F7 (automation write mode) at the same time. On Pro Tools, observe that the mode indicator above the fader says Write.

Press Play and move the fader. Stop.

Put fader 1 into read mode by pressing both channel 1's Auto button (labeled AUX on the MCS-3800) and also press F2 (automation read mode).

On Pro Tools, observe that the mode indicator above the fader says Read.

Press Play and observe that the fader moves automatically.

Channel Buttons Above the Faders

Above each fader are four channel buttons. These buttons above each fader are used for channel-specific operations, including Select, Auto, Solo, and Mute. When the blue shift button is pressed first, the buttons have an alternate function, namely, (Rec/Rdy), (Insert), and (V/SEL).

Select

Selects a channel strip prior to assignment, grouping, deletion, etc.

Auto (Labeled Aux on the MCS-3800)

Allows the changing of the automation mode. Used in combination with the automation mode select switches, which by default have been assigned to F2 through F7.

For example, to put channel 1 into Write mode, hold down F7 and while holding down F7, press channel 1's Aux button.

Solo

Solos channel. Mutes all other channels that are not soloed. The LEDs of channels that have been manually muted will be solid. The LEDs of channels that have been muted due to the solo function will flash.

Mute

Mutes channel.

Shifted Channel buttons

Pressing the MCS-3800's blue Shift button puts the MCS-3800 into Shift mode. The Shifted Mute, Solo, and Aux buttons above the faders then have a different function. The Select button does not change its function regardless of whether the MCS-3800 is in Shift mode.

Record Ready (Shift Aux)

Arms the channel strip's disk track for recording.

Insert (Shift Solo)

Used to select Plug In inserts for display and editing in the LCD.

V/SEL (Shift Mute)

This switch has several different functions. It acts as a Pre / Post switch for the currently active Send. It also functions as Send Mute switch.

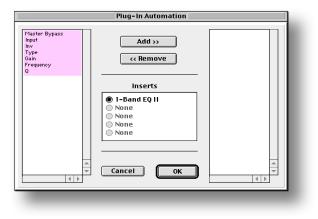
Automation of Plug Ins

Before automating the Plug-Ins, some initial steps need to be performed within Pro Tools. One of these steps, referred to as "arming the Plug Ins", is done in Pro Tools using the mouse, since the HUI Personality file does not support remotely arming Plug Ins.

Within the Plug In, click on the Automation button.



This opens the Plug-In automation dialogue.



From the table on the left side of the window, choose which parameters you intend to automate. Click the Add button. Click OK to confirm your selections and close the dialog.

Plug-In Automation				
	Add >> < Remove	Master Bypass Input Inv Type Gain Frequency Q		
	Inserts			
	1-Band EQ II None None None None None None			
* *	Cancel OK			

Next, open the Automation Enable window. Be sure that "Plug Ins" are enabled. You can do this remotely, press Shift so the Shift LED is lit. Shift F1 though Shift F6 toggle the state of the Automation Enable buttons. Shift F6 toggles Plug In automation enable. Turn Shift off.



Put the desired channel or channels into automation write mode. Be sure that Shift is off. Press and hold F7. While holding F7, press the channels Aux button. This Write Enables the channel.

Press play and automation recording begins.

Plug In automation changes are made by rotating the encoders,

If the plug in has switches, the switches are toggled by pressing Shift and the M2 through M5 buttons.

Press Stop. Rewind and press Play to listen to the automated changes relating to the Plug In. For more detail information about automating Plug Ins, refer to your Pro Tools Reference Guide.

Initialized Factory Default Assignments

From the factory, the F, W, and M buttons have been preassigned to send the following Pro Tools commands:

F1	Undo	Shift F1	Auto Enable: Fader
F2	Auto Mode: Read	Shift F2	Auto Enable: Pan
F3	Auto Mode: Touch	Shift F3	Auto Enable: Mute
F4	Auto Mode: Latch	Shift F4	Auto Enable: Send Level
F5	Auto Mode: Off	Shift F5	Auto Enable: Send Mute
F6	Automation Status	Shift F6	Auto Enable: Plug In
F7	Auto Mode: Write	Shift F7	Option / All
F8	Escape / Cancel	Shift F8	Suspend Automation
W1	Cmd / Alt / Fine	Shift W1	Edit Mode (Shuffle, Slip, Spot, Grid)
W2	Shift / Add	Shift W2	Separate
W3	In	Shift W3	Cut
W4	Capture Region	Shift W4	Copy
W5	Out	Shift W5	Paste
W6	Ctrl / Clutch	Shift W6	Delete
W7	Jog / Shuttle Enable	Shift W7	Edit Tool (Zoom, Scrub, Trim, Select, Grabber, Pencil)
M1	Mix Window	Shift M1	DSP Bypass
M2	Edit Window	Shift M2	DSP Select 1
M3	Transport Window	Shift M3	DSP Select 2
M4	Mem Loc Window	Shift M4	DSP Select 3
M5	Alt Window	Shift M5	DSP Select 4

Shortcuts and Special Features Include:

W1 (Cmd/Alt/Fine) and Wheel = Slow Scrub.

W1 (Cmd/Alt/Fine) and In or Out. Allows entering In or Out using Keypad.

W6 (Ctrl/Clutch) and Keypad, causes shuttle at a fixed speed. Use the +/- key to change direction. W6 (Ctrl/Clutch) and Record, toggles record mode

Shift M1 (DSP Bypass) and any DSP Select: Bypasses one Plug In.

User Programmable Features

The MCS-3800 has over 60 keys. In Pro Tools mode, 20 of them are User-Programmable. These are the F keys, and the M and W buttons.

Since these keys can be used with or without the blue Shift key, there are really 40 programmable Pro Tools functions.

User-Programmability means that you can customize your control surface to put the functions *where you want them.*

If you are uncomfortable with the factory defaults, you can edit them and move the controls around. For each key, you can choose from a menu of about 60 commands.

So the MCS-3800 allows you to create a "palette" of your most commonly used functions, and put them physically where they make the most sense to you.

Assign Mode

The F, W, and M buttons are programmed in Assign Mode. To enter Assign Mode, press the yellow Assign button. The yellow LED turns on. Then, select the button that you wish to assign. For example, press F1, and the LCD indicates:

F1 <---Pressing this button on the MCS-3800

Undo<——Sends this Pro Tools command

This means that the F1 button is currently assigned to be the Undo function.

To change this assignment, rotate any encoder to view the list of Pro Tools commands. Press Enter again to confirm your assignment. The display will indicate, "Storing Changes to Memory". You may then select another control, or, exit Assign mode by pressing Assign again (yellow LED off). To assign a shifted control, press the blue Shift button prior to selecting the button that you wish to edit.

To cancel your edit and revert to the previous assignment, do not press Enter. Rather, simply press Assign to exit Assign mode (yellow LED off).

If you select a button that you did not intend to edit, press Assign twice to exit and re-enter Assign mode.

Command Menu Items

The following commands are supported by Pro Tools using Digidesign's HUI Personality File. These commands may be assigned to any of the F keys, W or M buttons, or Shifted F keys, W or M buttons.

DSP Compare DSP Bypass DSP Select 1 **DSP Select 2 DSP Select 3 DSP Select 4** Function 1 Function 2 Function 3 Function 4 Function 5 Function 6 Function 7 Function 8 Auto Fader Auto Pan Auto Plug in Auto Mute Auto Send Auto Send-Mute Auto Read Auto Trim Auto Touch Auto Write Auto Off Auto Status

Edit Capture Edit Cut **Edit Paste** Edit Separate Edit Copy Edit Delete Audition Pre In Out Post Jog/Shuttle Enable **RTZ** (Return to Zero) End (Go to End) Online Loop QuickPunch **Monitor Status**

Phase Status Group Status Create Group Suspend Group Rec/Rdy All Master Bypass Master Mute Master Shift Suspend Default

Transport Window Edit Window Mix Window Alt Window Status Window Mem/Loc Window

Undo Edit Mode Shift/Add Ctrl/Clutch Save Edit Tool Option/All Cmd/Alt/Fine