

# CS-32 *Mini*<sup>DESK</sup>

## 32 Channel Control Surface






Users Manual



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*CS-32 Mini<sup>DESK</sup> User's Manual, First Edition  
Part Number 932092*

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# Introduction

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Thank you for purchasing the CS-32 MiniDESK. The CS-32 MiniDESK allows you to control audio and sequencing software applications in an intuitive way. No longer do you have to use a mouse and keyboard to mix and edit, you can now use a tactile interface with tracks of faders, buttons and knobs. This is the way music was meant to be mixed.

The CS-32 MiniDESK is directly supported by:

- Digidesign Pro Tools HD, TDM, LE & Free
- Steinberg Cubase and Nuendo 1.6
- MOTU Digital Performer 3.1

The CS-32 MiniDESK is available in 2 different versions to suit your needs and application:

- USB
- MIDI

# Compatibility

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The CS-32 MiniDESK works with the following operating systems:

	USB	MIDI
Mac OSX	✓	✓
Mac OS9.x	✓	✓
Mac OS8.x		✓
Windows XP Professional	✓	✓
Windows XP Home	✓	✓
Windows 2000 Professional	✓	✓
Windows NT		✓
Windows Me	✓	✓
Windows 98SE	✓	✓
Windows 98	✓	✓
Windows 95	✓	✓
Windows 3.x		✓
DOS		✓
Table 1: CS-32 MiniDESK Compatibility		

*Note:*

*The CS-32 MiniDESK USB must be plugged into a self-powered port not a bus-powered port. This can be a USB port on the computer or laptop or a USB port on a powered hub.*

# Unpacking and Setup

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When you receive your CS-32 MiniDESK, you should receive the following items:

## ***USB version***

- CS-32 MiniDESK
- This Users Manual
- Driver CD-ROM
- 4 adhesive rubber feet
- Warranty Card

## ***MIDI version***

- CS-32 MiniDESK
- This Users Manual
- Power Supply
- 4 adhesive rubber feet
- Warranty Card

Please take a moment to fill out the warranty card and send it in.

# Installation and Use

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## Connecting the CS-32 MiniDESK

### MIDI

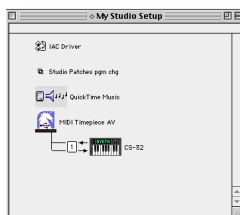
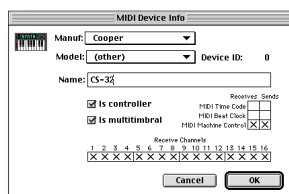
The MIDI version of the CS-32 MiniDESK can connect to any computer or device that has a standard MIDI port.

### Configuring the CS-32 MiniDESK MIDI for OMS Applications

To use the CS-32 MiniDESK MIDI under MacOS9 with OMS applications, you will need to create a device in OMS.

To create a device in OMS:

1. Launch *OMS Setup*.
2. In the menu select *File / New Studio Setup* or, *File / Open Current Studio Setup*.
3. In the menu select *Studio / New Device*.
4. Configure the Dialog box as pictured at right.
5. The Studio setup should appear similar to the picture at right. Your MIDI interface and port numbers will vary based on your system.
6. In the menu select *File / Save and Make Current*.



## USB

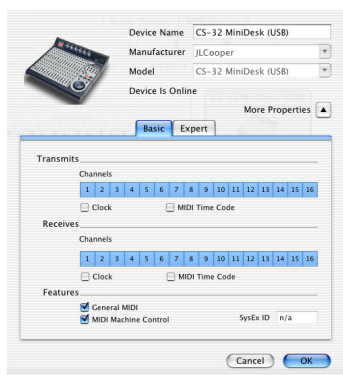
The USB version of the CS-32 MiniDESK can connect to any computer running Windows, MacOS9 or MacOSX with a USB port.

*Note: The CS-32 MiniDESK must be plugged into a self-powered hub or the computer directly to work properly. A bus-powered hub does not supply enough current.*

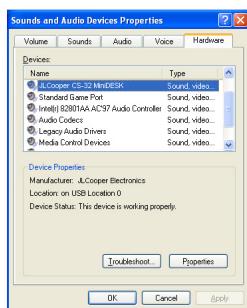
Please follow the directions on the *CS-32 MiniDESK Installation CD* to install the drivers.

The MacOS9 installer installs an OMS extension, which allows the CS-32 MiniDESK to appear as an OMS device. The OMS device appears as *Control Surface Driver*.

The MacOSX installer installs a driver, which allows the CS-32 MiniDESK to appear as a MIDI port. The device appears as *CS-32 MiniDESK MIDI In* and *CS-32 MiniDESK MIDI Out*.



The Windows installer installs a driver, which allows the CS-32 MiniDESK to appear as a MIDI port. The device appears as *CS-32 MiniDESK MIDI In* and *CS-32 MiniDESK MIDI Out*.





## Using as a Generic MIDI Controller

The CS-32 MiniDESK defaults to a standard MIDI controller profile when it is powered up. In this profile, the CS-32 MiniDESK sends and responds to generic MIDI messages. That is, the transport controls send MIDI Machine Commands, the faders send MIDI volume messages and the ARM buttons send track arming messages. The remaining buttons and knobs send controller messages. While these messages are fixed in the CS-32 MiniDESK, many MIDI applications allow you the flexibility to change the mapping of MIDI messages to features within the application.

The messages that the CS-32 MiniDESK sends and receives are detailed in the Technical Reference section.

## Using as a Pro Tools Controller

The CS-32 MiniDESK is supported by all versions of Pro Tools including:

- Pro Tools Free
- Pro Tools LE
- Pro Tools TDM
- Pro Tools | HD

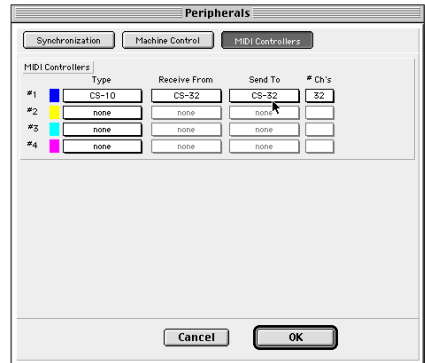
Pro Tools supports the CS-32 MiniDESK as a CS-10<sup>2</sup> with 32 faders. While Pro Tools supports the CS-32 MiniDESK with 32 channels, it is possible to control more channels by bank swapping the faders. The banks can be swapped by using the ◀ and ▶ cursor buttons.

## Configuring Pro Tools to use CS-32 MiniDESK MIDI

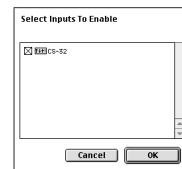
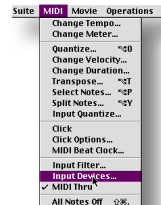
1. In the menu, select *Setups / Peripherals...*
2. Select the *MIDI Controllers* tab.



3. Set *Type* to *CS-10*.
4. Set *Receive From* to *CS-32*.
5. Set *Send To* to *CS-32\**.
6. Set *#CH's* to *32*.
7. Close the window.



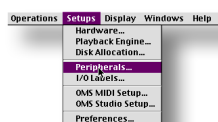
8. In the menu, select *MIDI / Input Devices...*
9. Verify that the box next to *CS-32\** is checked.
10. Click OK



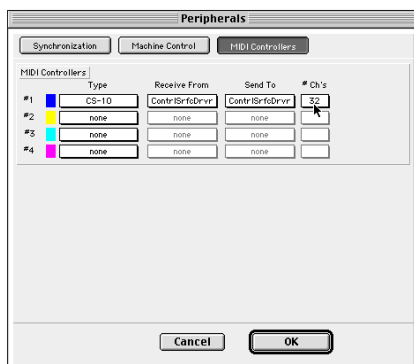
\* This is the OMS name you assigned in the OMS setup.

## Configuring Pro Tools to use CS-32 MiniDESK USB

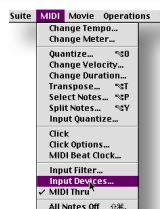
1. In the menu, select *Setups / Peripherals...*
2. Select the *MIDI Controllers* tab.



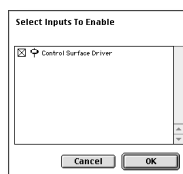
3. Set *Type* to *CS-10*.
4. Set *Receive From* to *Control Surface Driver*.
5. Set *Send To* to *Control Surface Driver*.
6. Set *#CH's* to 32.



7. Close the Peripherals window.
8. In the menu, select *MIDI / Input Devices...*



9. Verify that the box next to *Control Surfaces Driver* is checked.
10. Click OK



## **Using the CS-32 MiniDESK in Pro Tools**

The CS-32 MiniDESK was designed to work exactly like the CS-10<sup>2</sup> in Pro Tools. Please refer to the Digidesign document *MIDI Control Surfaces Guide* in the Pro Tools Help Menu.

*Note: When the Scrub or Shuttle mode is selected, Pro Tools hides and disables the mouse. This is not due to the CS-32 MiniDESK, rather it is a function of Pro Tools.*

*Note: Enabling SOLO on a channel does not affect the CS-32 MiniDESK MUTE LEDs even though the MUTE buttons in the Pro Tools mix window appear to be activated. This is not due to the CS-32 MiniDESK, rather it is a function of Pro Tools. Pro Tools treats and displays an explicit mute (pressing MUTE) and an implicit mute (pressing SOLO) differently. Pro Tools only displays an explicit mute on the CS-32 MiniDESK.*

## **Using as a Digital Performer 3.1 Controller**

### **Configuring Digital Performer 3.1**

Run the Digital Performer Installer on the CS-32 MiniDESK driver CD.

Verify that the following files are in the following folders:

System Folder | Extensions Folder:

- CS-32 USB Interface
- CS-32 USB Shim

System Folder | OMS Folder:

- JLC OMS Driver

Digital Performer Folder | Plug-ins:

- CS-32 DP Plug-in

## ***Using the CS-32 MiniDESK in Digital Performer 3.1***

### **Value/Mode Display**

Displays the current mode. The default mode is Pan/Send, during which the encoders will control the selected channel's Pan and Sends. The display will read "PA" when the CS-32 is in this mode. Other modes will be discussed below.

### **Faders**

Controls channel levels. Will not "take over" until NULLED. NULL status is displayed by the NULL LEDs. Upper arrow if fader is above NULL point, lower arrow if below, and both if NULLED. While a fader is moving, its value is shown in the Value/Mode display. If the fader is not NULLED yet, the display will just show "--". Once it is NULLED, the display will show its MIDI values (0-127). For values over 99, just the last two digits are shown with leading zeros included. So a value of 107 will be displayed as "07" while a value of 7 will be displayed as " 7".

### **Mutes**

Controls channel mutes. Mute LEDs display mute status.

### **Solos**

Controls channel solos. Solo LEDs display solo status. Mute LEDs are not affected.

### **Pan Select**

Choose which channel the encoders operate. Only one channel will be selected at a time. Its LED will be on.

### **Track Select**

Selects or highlights tracks within Performer for editing, or other operations. Multiple tracks can be selected at once. Each selected track's LED will be ON.

## Arm

Defaults to toggling Record for each channel. Arm LEDs display the status for each channel. During mixdown, the function of the Arm buttons can be changed to toggling between automation off and some automation mode. The particular automation mode that the Arm buttons toggle is set using the Function Keys. See the Function Key section for details. When the Arm buttons are set to toggle automation, a channel's LED is OFF if automation is disabled for that channel and ON if any automation mode is enabled for that channel.

## Locate

Capture and recall locate points. Each locate button will store and recall a different locate point. To capture a locate point, set the current time to the desired time, then while holding down the CS-32 SHIFT button, hit a Locate button. From then on, hitting that Locate button will cause the transport to move to its stored time. When a locate point is being captured or recalled, the locate number (i.e. channel number) will briefly flash in the Value/Mode display, and its LED will briefly flash.

*NOTE: Digital Performer doesn't have any built in way for a plug-in to send it to a certain time, so the plug-in has to trick Digital Performer by "typing" the time into the current time field. This will not work if some other text editing field (the track name for instance) is active. It works fine if no text field is active or if the current time field is active.*

*NOTE: If you change the time format after capturing a locate point, that locate point will have no effect. For example, if you capture a locate point while the time format is Bars and Beats, then switch the format to Real Time, recalling that locate point won't do anything.*

# Technical Reference

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## Electrical Connections

### ***MIDI***

The MIDI In and MIDI Out ports follow the MIDI specification. Just plug the CS-32 into your MIDI interface.

### ***USB***

The USB version of the CS-32 MiniDESK conforms to the USB v1.1 specification. It is entirely powered from the USB bus. The CS-32 MiniDESK consumes approximately 150 milliamps. For this reason, the CS-32 MiniDESK must be powered directly from the computer, or from a self-powered hub. A bus-powered hub will not work reliably. JLC Cooper discourages the use of USB extension cables. If you must use an extension cable, please keep the distance to a minimum.

### ***Footswitch***

The CS-32 MiniDESK has a footswitch jack at the end of the cable attached to the unit. Any normally open switch contact with a 1/4-inch mono plug will work.

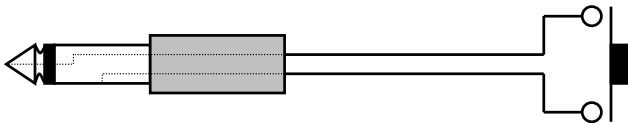


Figure 1: Footswitch Connection

## Power

The MIDI version of the CS-32 MiniDESK requires a 9 volt DC supply capable of delivering at least 200 milliamps. The MIDI version of the CS-32 MiniDESK comes with a power supply appropriate for the country in which the unit was sold. If you need a power supply specific to your location, please contact your local distributor or JLC Cooper Electronics.

Location	JLCooper Part Number
North America	PSDC117
Europe	PSDC230

**Table 2: JLC Cooper approved Power Supplies**

*Warning: Using a power supply other than the units specified in the above table can result in damage to the CS-32 MiniDesk and/or other equipment which is not covered by the JLC Cooper Factory Warranty.*

## Commands

Below is a list of the MIDI messages that are sent:

*Note: The values below are hexadecimal.*

Control	MIDI Message	
Fader 1	BF 00 <i>value</i>	
:	:	
Fader 32	BF 1F <i>value</i>	
Track Select 1	BE 20 <i>value</i>	
:	:	
Track Select 32	BE 3F <i>value</i>	
Locate 1	BD 60 <i>value</i>	MMC Goto Locate 1
:	:	:
Locate 8	BD 67 <i>value</i>	MMC Goto Locate 8
:	:	
Locate 32	BD 7F <i>value</i>	
Arm 1	BD 20 <i>value</i>	MMC Track Arm 1
:	:	:
Arm 32	BD 3F <i>value</i>	MMC Track Arm 32
Pan Select 1	BE 00 <i>value</i>	
:	:	
Pan Select 32	BE 1F <i>value</i>	



Solo 1	BD 40 <i>value</i>	
:	:	
Solo 32	BD 5F <i>value</i>	
Mute 1	BD 00 <i>value</i>	
:	:	
Mute 32	BD 1F <i>value</i>	
Knob P1	BF 43 <i>value</i>	
Knob P2	BF 44 <i>value</i>	
Knob P3	BF 45 <i>value</i>	
Knob P4	BF 40 <i>value</i>	
Knob P5	BF 41 <i>value</i>	
Knob P6	BF 42 <i>value</i>	
Bank	BE 40 <i>value</i>	<i>Only in Host Mode</i>
SHIFT	BE 41 <i>value</i>	
Footswitch	BE 56 <i>value</i>	
F1	BE 42 <i>value</i>	
F2	BE 43 <i>value</i>	
F3	BE 44 <i>value</i>	
F4	BE 45 <i>value</i>	
F5	BE 46 <i>value</i>	
F6	BE 47 <i>value</i>	
F7	BE 48 <i>value</i>	
F8	BE 49 <i>value</i>	
F9	BE 4A <i>value</i>	
◀ (Cursor Left)	BE 54 <i>value</i>	
▶ (Cursor Right)	BE 55 <i>value</i>	
▲ (Cursor Up)	BE 52 <i>value</i>	
▼ (Cursor Down)	BE 53 <i>value</i>	
◀◀	BE 4B <i>value</i>	MMC Rewind
▶▶	BE 4D <i>value</i>	MMC Fast Forward
▶ (Play)	BE 4C <i>value</i>	MMC Play
■	BE 4E <i>value</i>	MMC Stop
●	BE 4F <i>value</i>	
● + ▶		MMC Record Strobe
SCRUB	BE 50 <i>value</i>	
SHUTTLE	BE 51 <i>value</i>	
Wheel	BF 60 <i>value</i>	

Table 3: MIDI Messages

	<i>value=</i>
Pressed	7F
Released	00

**Table 4: Button Values**

	<i>value=</i>
Illuminated	7F
Dark	00

**Table 5: LED Values**

	<i>value=</i>
Full Down	00
:	:
Full Up	7F

**Table 6: Fader Values**

	<i>value=</i>
Fast CW	3F
:	:
Slow CW	01
Slow CCW	7F
:	:
Fast CCW	40

**Table 7: Wheel Values**

## Troubleshooting

If for some reason the CS-32 MiniDESK does not give you the expected results, take a moment to do some investigating. The most important concept is that you have your CS-32 MiniDESK connected properly as outlined in *Installation and Use*. Take a moment to double check your setup.

A common problem is forgetting to turn the power switch on or turning the unit on after the software application has launched.

The CS-32 MiniDESK has two LEDs to aid you in troubleshooting your setup. These are the ACTIVITY IN and ACTIVITY OUT indicators. These light up when data is received by or sent from the CS-32 MiniDESK.

In addition, the JLCopper website ([www.jlcooper.com](http://www.jlcooper.com)) will contain up to date information on drivers, applications and troubleshooting.

If all else fails, you can contact the JLCopper Service Department at: [service@jlcooper.com](mailto:service@jlcooper.com).

## Care and Service

If properly cared for, your CS-32 MiniDESK should provide years of troublefree performance. While the CS-32 MiniDESK is built in a rugged metal enclosure, please avoid dropping the CS-32 MiniDESK.

Clean with a soft, damp cloth. Do not allow liquids, dust or other foreign matter to get inside the unit.

There are no user-serviceable parts in the CS-32 MiniDESK. Please refer to the JLCopper Electronics Limited Factory Warranty on the following page for detailed warranty and service information.

## **JLCooper Electronics Limited Factory Warranty**

JLCooper Electronics ("JLCooper") warrants this product to be free of defects in materials or workmanship for a period of 12 months from the date of purchase. This warranty is non-transferable and the benefits apply only to the original owner. Proof of purchase in the form of an itemized sales receipt is required for warranty coverage. To receive service under this warranty, customers in the United States should contact the JLCooper factory at (310) 322-9990 and talk to a service technician. If necessary, a Return Authorization number may be issued. For our customers outside the United States, it is recommended that you first contact your Dealer or Distributor, since they may offer their own service or support policy. If local support is not obtainable, please send a FAX to JLCooper's Service Department at +1 310 335 0110 with a detailed description of the service required. Upon issuance of return authorization, the product should be packed in the original shipping materials and shipped prepaid and insured to: Service Department, JLCooper Electronics, 142 Arena Street, El Segundo, CA 90245. Please include the following: copy of the sales receipt, your name and address (no P.O. Boxes, please), a brief description of the problem, and any other related items discussed with the service department and considered necessary to evaluate the product or effect a repair. The return authorization number must be clearly written on the outside of the package. JLCooper will at its option, without charge for parts or labor, either repair or replace the defective part(s) or unit. Shipping costs are not covered by this warranty. JLCooper's normal repair turn around time at the factory is approximately 15 business days from receipt of product to shipping. Your actual turn around time will include return shipping. Actual turn around time will vary depending upon many factors including the repeatability of the customer's reported complaint, the availability of parts required for repair, the availability of related products needed to evaluate the product if necessary. Priority services are available at additional cost. These should be discussed with the service technician at the time the return authorization is issued. This warranty provides only the benefits specified and does not cover defects or repairs needed as result of acts beyond the control of JLCooper including but not limited to: abuse, damage by accident/negligence, damage from using incorrect power supply, modification, alteration, improper use, unauthorized servicing, tampering, or failure to operate in accordance with the procedures outlined in the owner's manual; nor for natural or man-made events such as, but not limited to flooding, lightning, tornadoes, earthquake, fire, civil unrest, war, terrorism, etc.

THE DURATION OF ANY OTHER WARRANTIES, WHETHER IMPLIED OR EXPRESS, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. JLCOOPER HEREBY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO: LOSS OF TIME, INCONVENIENCE, DELAY IN PERFORMANCE OF THIS WARRANTY, THE LOSS OF USE OF THE PRODUCT OR COMMERCIAL LOSS, AND FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY APPLICABLE TO THIS PRODUCT. JLCOOPER SHALL NOT BE LIABLE FOR DAMAGES OR LOSS RESULTING FROM THE NEGLIGENT OR INTENTIONAL ACTS OF THE SHIPPER OR HIS CONTRACT AFFILIATES. THE CUSTOMER SHOULD CONTACT THE SHIPPER FOR PROPER CLAIMS PROCEDURES IN THE EVENT OF DAMAGE OR LOSS RESULTING FROM SHIPMENT. THIS WARRANTY SHALL BE GOVERNED BY THE LAWS OF THE STATE OF CALIFORNIA.