

Digital Recording Console 02R Options

There are a number of options you can add to your Digital Recording Console 02R. Some of these options add to the convenience and appearance of the 02R, such as the peak meter bridge (MB02) or the wooden side panels (W02SP). There is also a memory expansion kit (ME4M) which allows you to add up to 2 MB of additional memory for the automation system.

The most important options are the I/O cards.

These cards support direct digital interconnection to the latest generation of modular digital multitrack recorders. Alesis ADAT, TASCAM TDIF-1, YAMAHA, and AES/EBU cards are available.

In addition, you can insert a Digital Cascade card into one of the I/O slots, allowing you to cascade multiple 02Rs together to create a larger digital mixing system.

An analog card is also available to allow you to connect to an analog multitrack recorder.

02R Options

Type	Product	Format
Analog I/O Card	CD8-AD	AD/DA
	CD8-AE	AES/EBU
Digital I/O Card	CD8-AE-S	AES/EBU
	CD8-AT	ADAT
	CD8-TDII	TDIF-1
	CD8-Y	YAMAHA
	CD8-CS	
Digital Cascade Kit	CD8-CS	
Peak Meter Bridge	MB02	
Memory Expansion Kit	ME4M	
Wooden Side Panels	W02SP	

I/O Cards

The I/O cards transmit and receive signals between your 02R and external devices, such as modular digital multitrack recorders, hard disk recorders, analog multitrack recorders, or other 02R's. The cards come in two sizes (form factors), single slot and double slot:

- Single slot I/O cards can be installed in any slot from 1 through 4.
- Double slot I/O cards can only be installed in slots 1 or 2.

The I/O cards fall into three groups:

- **Digital I/O Cards** – These cards provide 8 tracks of digital input and output. They are used to connect the 02R to a digital multitrack recorder – either tape or disk based. Cards supporting ADAT, TDIF-1, YAMAHA, and AES/EBU formats are available. Except for the CD8-AE card, these cards are single slot, allowing you to insert up to four cards giving you a maximum 32 tracks of digital mixdown.
- **Analog I/O Card** – This card provides 8 tracks of analog input and output. It can be used to connect the 02R to an analog multitrack recorder or to expand the analog inputs and outputs of the mixer. Conversion is performed in 20-bit linear. The sampling frequency is the same as the current wordclock master on the 02R.
- **Cascade I/O Card** – This card allows you to connect the bus lines 1 through 8, two pairs of the auxiliary buses 1 through 8 to the cascade card's AUX A and AUX B buses, the STEREO bus, and the SOLO bus of two or more 02R's. One 02R is the cascade master, the others are slaves.

The following table lists the I/O cards available:

Card	Format	Product	Size & Location
Digital I/O	AES/EBU	CD8-AE	double – slots 1 or 2 (max 2 cards – 16 ch)
		CD8-AE-S	single – all slots 1 through 4 (max 4 cards – 32 ch)
	ADAT	CD8-AT	single – all slots 1 through 4 (max 4 cards – 32 ch)
	TDIF-1	CD8-TDII	single – all slots 1 through 4 (max 4 cards – 32 ch)
	YAMAHA	CD8-Y	single – all slots 1 through 4 (max 4 cards – 32 ch)
Analog I/O	AD/DA	CD8-AD	double – slots 1 or 2 (max 2 cards – 16 ch)
Cascade Kit		CD8-CS	single – kit incl. 2 cards & connecting cable. slots 1 through 4 (normally 3 or 4)

Peak Meter Bridge

The Peak Meter Bridge (MB02) displays the levels for all the input, output, and bus channels of the 02R, plus it duplicates the stereo output signal levels. The meter bridge duplicates the information shown in the METER display function in a much more convenient form.

Memory Expansion Kit

The memory expansion kit (ME4M) expands the 02R automation system memory from the standard 512 Kbytes to either 1.5 Mbytes or 2.5 Mbytes.

Note: *You cannot install the Memory Expansion Kit ME4M without invalidating the warranty. Take your 02R to your YAMAHA dealer or authorized service centre for installation of the ME4M kit.*

Wooden Side Panels

These Wooden Side Panels (W02SP) attach to either side of the 02R to give it an attractive appearance.

Installing 02R Options

Single Slot Cards

1. Turn OFF the power to the 02R by pressing the POWER switch on the back panel.

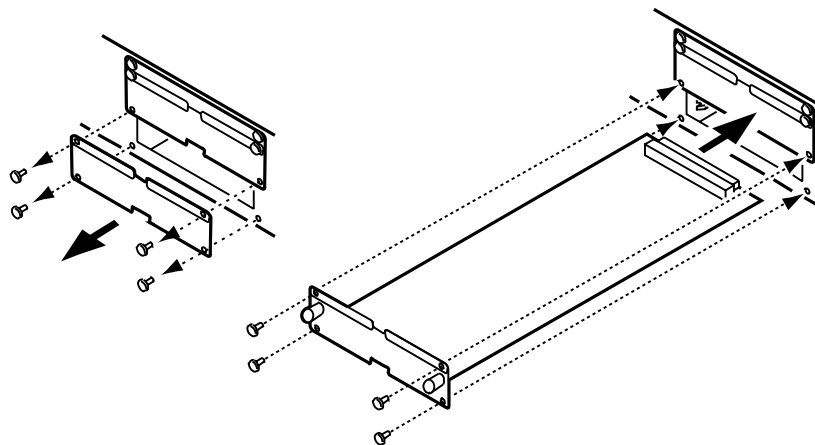
TO PREVENT ELECTRICAL SHOCK, ENSURE THE 02R IS POWERED OFF BEFORE YOU OPEN ANY OF THE OPTIONAL SLOT COVERS!

Note: Before you install a card in the 02R, be certain to turn the power off. Not only do you risk electrical shock, you can also damage either the 02R or the optional card. You will also invalidate any warranties for the Digital Recording Console 02R or the optional cards.

2. Remove the cover plate from the slot in which you intend to insert the optional card.

Note: You should save the cover plates for possible later use. You should also never operate the 02R with one of the slots uncovered. This disrupts the flow of air through the power supply and other components and can cause premature failure of internal components.

3. Insert the optional card as shown in the diagram:



When you insert the card, press it firmly into the slot to make certain the connector on the card edge seats firmly on the bus slot inside the 02R. Make sure the card is properly secured with the screws that held the cover plate in place.

4. Turn ON the power to the 02R.

Verify that the card has been recognized by the system software by pressing the [DIGITAL I/O] button until the “Word Clock Select” screen appears (see “Word Clock Select” on page 154 of the *User’s Guide*). If the card was installed properly, the system software should correctly identify it in the appropriate slot.

Double Slot Cards

1. Turn OFF the power to the 02R by pressing the POWER switch on the back panel.

TO PREVENT ELECTRICAL SHOCK, ENSURE THE 02R IS POWERED OFF BEFORE YOU OPEN ANY OF THE OPTIONAL SLOT COVERS!

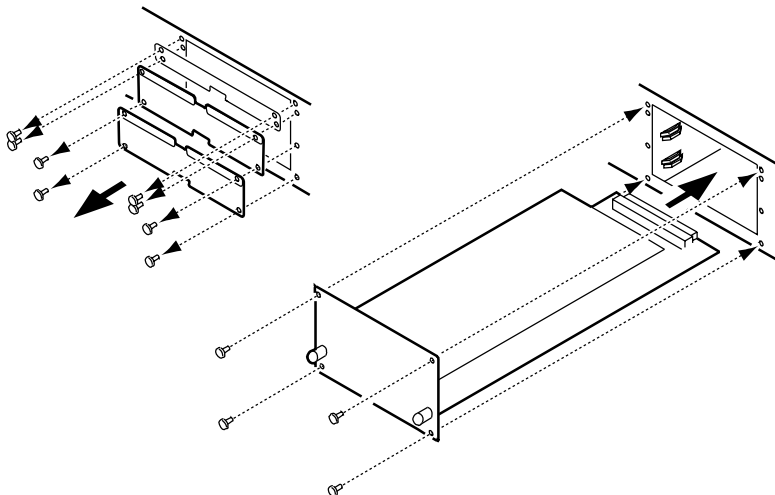
Note: Before you install a card in the 02R, be certain to turn the power off. Not only do you risk electrical shock, you can also damage either the 02R or the optional card. You will also invalidate any warranties for the Digital Recording Console 02R or the optional cards.

2. Remove the cover plate from the slot in which you intend to insert the optional card as well as the slot over top

The double slot cards can only be installed in SLOT1 and/or SLOT2.

Note: You should save the cover plates for possible later use. You should also never operate the 02R with one of the slots uncovered. This disrupts the flow of air through the power supply and other components and can cause premature failure of internal components.

3. Insert the optional card as shown in the diagram:



When you insert the card, press it firmly into the slot to make certain the connector on the card edge seats firmly on the bus slot inside the 02R. Make sure the card is properly secured with the screws that held the cover plate in place.

4. Turn ON the power to the 02R.

Verify that the card has been recognized by the system software by pressing the [DIGITAL I/O] button until the "Word Clock Select" screen appears. If the card was installed properly, the system software should correctly identify it in the appropriate slot.

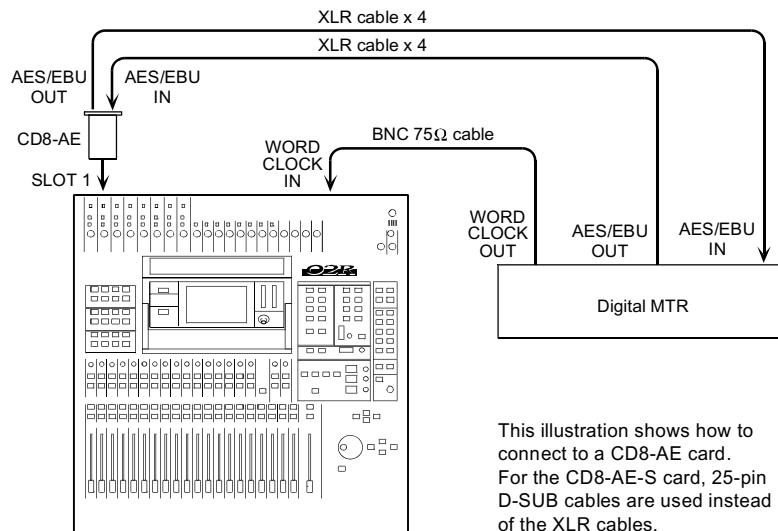
Digital I/O Card – AES/EBU (CD8-AE/CD8-AE-S)

The AES/EBU digital I/O cards (CD8-AE/CD8-AE-S) are used to connect AES/EBU compatible multitrack digital recorders or other similar digital devices to the 02R.

Installing the CD8-AE/CD8-AE-S

The CD8-AE card is a double slot card (see “Double Slot Cards” on page 176). The CD8-AE-S card is a single slot card (see “Single Slot Cards” on page 175).

1. Connect the AES/EBU compatible multitrack digital recorder to the 02R using the appropriate connectors.



Use high quality 110Ω digital connecting cables to connect to the CD8-AE card. Use 25-pin D-SUB cables that are suitable for digital audio use to connect to the CD8-AE-S card.

2. If your AES/EBU compatible multitrack digital recorder has a dedicated wordclock output connector, plug it into the WORD CLOCK – IN connector on the back of the 02R and turn the 75Ω terminator switch on.

If there is no dedicated wordclock output, you can obtain the wordclock signal required from one of the digital interconnect lines.

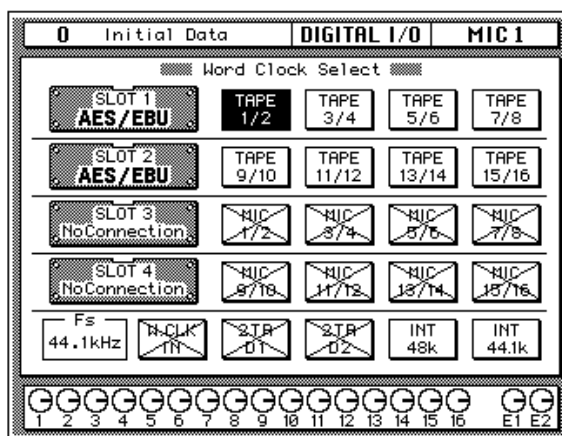
Note: A dedicated wordclock line will give you the best wordclock synchronization results.

Wordclock Selection

1. Power on your AES/EBU compatible multitrack digital recorder and then the 02R.

It is always important to observe the correct order for powering up equipment in a studio. Start with the AES/EBU compatible multitrack and mastering recorders and the signal processors, then the 02R, and finally the monitoring amplifiers and other downstream gear.

2. Press the (DIGITAL I/O) button until the “Word Clock Select” screen appears.



If the card was installed properly, the system software should correctly identify it in the appropriate slot.

3. Use the CURSOR buttons to select the wordclock source.

If your AES/EBU compatible multitrack digital recorder has a dedicated wordclock output connector, use the CURSOR buttons to select the W.CLK IN box and press the [ENTER] button. If the multitrack digital recorder does not have a dedicated wordclock output, select the TAPE 1/2 box – the first box in the SLOT1 row – and press the [ENTER] button.

4. When you select the wordclock source, the appropriate icon should be inverted in reverse video.

See “Word Clock Select” on page 154 of the *User’s Guide* for further details.