

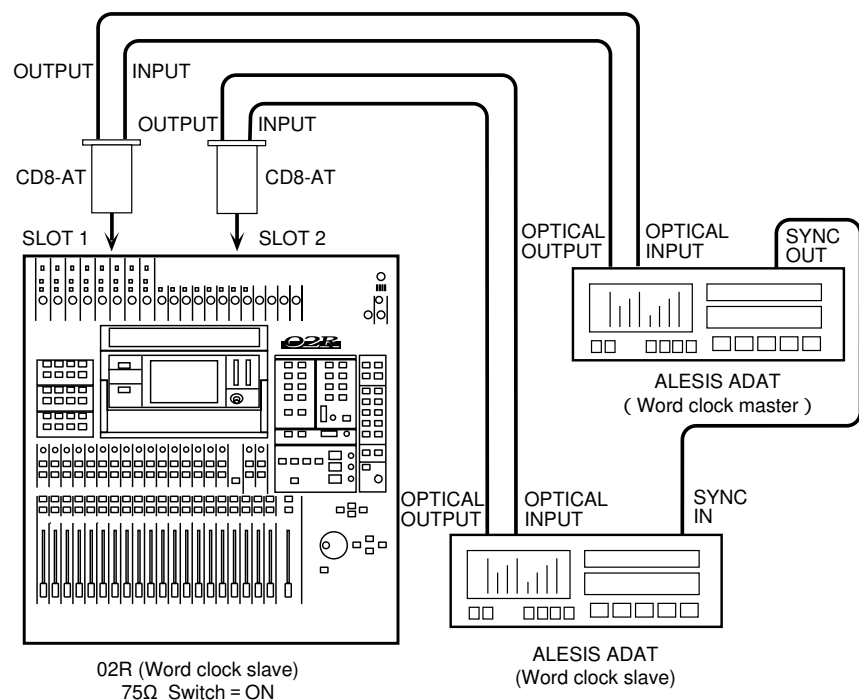
## Digital I/O Card – ADAT (CD8-AT)

The ADAT digital I/O card (CD8-AT) is used to connect Alesis ADAT compatible modular digital multitrack recorders to the 02R.

### Installing the CD8-AT

The ADAT digital I/O card (CD8-AT) is a single slot card. For installation instructions, see “Single Slot Cards” on page 175 of the *User’s Guide*.

1. **Connect the ADAT modular digital multitrack recorder to the 02R using the appropriate connectors.**



Use the special ADAT optical cables to plug the IN connector of the CD8-AT to the OPTICAL OUT connector of the ADAT modular digital multitrack recorder. Plug the OUT connector of the CD8-AT to the OPTICAL IN connector of the ADAT recorder.

If you have installed more than one CD8-AT in the 02R and have more than one ADAT recorder, connect it in the same manner as the first unit.

2. **The Alesis ADAT modular digital multitrack recorder does not have a dedicated wordclock output connector. If you are using the BRC ADAT remote controller, you can use the 48kHz OUT connector and an appropriate cable to 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 the digital interconnect line.

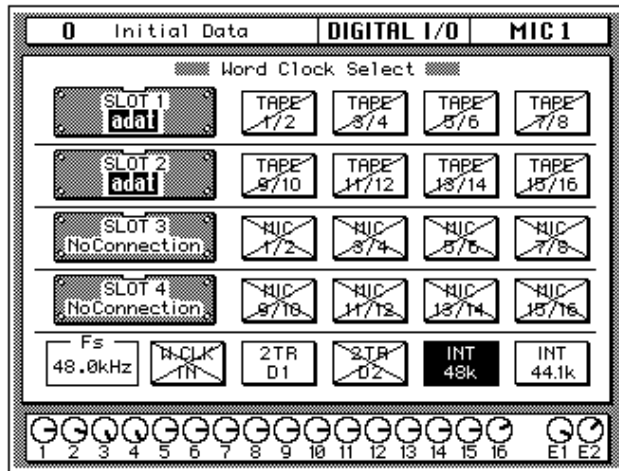
**Note:** A dedicated wordclock line will give you the best wordclock synchronization results.

### Wordclock Selection

1. Power on your ADAT modular digital multitrack recorder and then the 02R.

It is always important to observe the correct order for powering up equipment in a studio. Start with the ADAT 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. The ADAT digital I/O card (CD8-AT) can be installed in any slot. You should install the first two cards in SLOT1 and SLOT2 in order to access the direct out lines.

**Note:** If the W.CLK IN box or the TAPE1/2 box is not showing a proper wordclock input (no discrepancy between the input and selected wordclock frequencies), check the connections between the ADAT modular digital multitrack recorder and the 02R. Check that the ADAT recorder is powered on.

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

If you are using the 48kHz OUT connector from the BRC ADAT remote controller plugged into the WORD CLOCK – IN connector, use the CURSOR buttons to select the W.CLK IN box and press the [ENTER] button. If you are just using an ADAT modular digital multitrack recorder, 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.

## Word Clock Select

1. Press the (DIGITAL I/O) button.



A DIGITAL I/O display function appears. The “Word Clock Select” screen is the first of many screens in this function.

**Note:** *The 02R always recalls the last function visited (and the screen of that function) even after you turn the power off and back on again.*

You may have to press the (DIGITAL I/O) button repeatedly to get to the “Word Clock Select” screen.

2. Use the CURSOR buttons to select a wordclock source and press the (ENTER) button.

The Digital Recording Console 02R processes audio data at 44.1 kHz or 48 kHz using its internal clock, and can run at any frequency from 32 kHz -6% to 48 kHz +6% when an external wordclock is applied.

### Wordclock

When you connect a number of digital audio devices together, all the devices should synchronize to one device – the wordclock master. The wordclock master generates a sync pulse which allows the other devices connected to it to determine where the start of each digital word is. Although most digital interconnect protocols are self-clocking, it is more reliable to use a dedicated line for your wordclock signal. This is especially important in a multitrack environment where up to eight channels of digital data may be multiplexed on one cable.

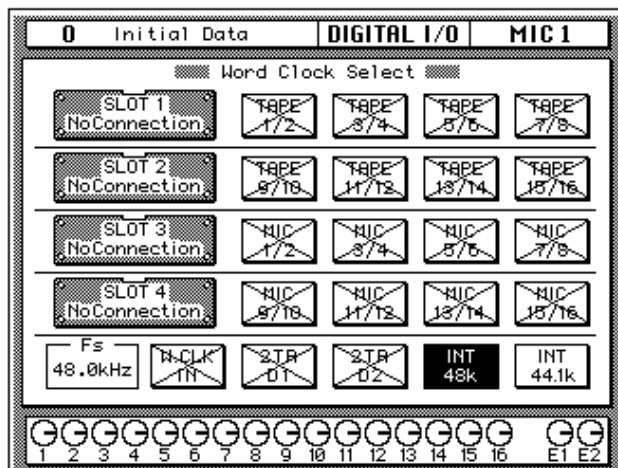
When you are using a digital device – such as a DAT mastering recorder or a modular digital multitrack recorder – connected to the 02R, all the digital devices in the system, including the 02R, should synchronize the wordclock being supplied by one master device. If any device does not synchronize to the system wordclock, dropout and/or other noise may occur.

In Section 13, “Installing Options” on page 171 of the *User’s Guide*, there are examples of connecting external digital devices to the 02R and setting the appropriate wordclock selection. Refer to this section for details for each of the optional digital I/O cards.

**Note:** *Wordclock is not required if you use the analog I/O card (CD8-AD) to connect to an analog multitrack recorder.*

### Display Screen

Shown below is the first DIGITAL I/O display function – the Word Clock Select screen:



The left side of the display is a list of the cards in the four option slots of the 02R. The indication varies depending on the type of optional card being used:

- Cascade (CD8-CS)
- ADAT (CD8-AT)
- TDIF-1 (CD8-TDII)
- AES/EBU (CD8-AE/CD8-AE-S)
- YAMAHA (CD8-Y)
- Analog AD/DA (CD8-AD)
- No Connection

Beside each optional slot indicator is a row of four boxes defining the connections to the card inserted in the corresponding slot.

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**Note:** *When a cascade card is inserted in any slot, the boxes defining the connections remain on the screen. However, you cannot select any of these items.*

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Across the bottom of the display are boxes for the external wordclock (W.CLK IN), the digital inputs (2TR D1 and 2TR D2), and the internal wordclock (INT 48k and INT 44.1k). To the left of the boxes are the wordclock indicators.

There is also an indicator – inside the “Fs” box – that shows the current wordclock frequency or status.

### Wordclock indicators



No wordclock input.



Wordclock input. However, the input wordclock frequency is different from that of the selected wordclock.



Wordclock input. No discrepancy between the input and selected wordclock frequencies.



Wordclock input is selected. The 02R is synchronized to the input wordclock frequency.



The wordclock input is selected, but the wordclock signal is inappropriate.



# 02R with One ADAT (Timecode on Tape Track)

This application shows how the 02R can be used with one Alesis ADAT to create a 24-input, 8-track digital recording system. As shown in Figure 1, track eight of the ADAT has been striped with SMPTE timecode. This is then fed to the 02R's SMPTE TIMECODE input using a phone jack to phono cable.

The eight digital tape returns and 24 Mic/Line inputs provide up to 32 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

## Connections

- The ADAT (CD8-AT) cards must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADATs are connected together using Optical Cables. Press the **DIGITAL IN** button on the ADAT to use the DIGITAL IN.
- The ADAT is connected to Slot **1** of the 02R. These tape inputs correspond to tracks one through eight.
- ADAT track eight is striped with SMPTE timecode. ADAT track eight analog out (phone jack) is connected directly to the 02R's SMPTE TIMECODE input (phono).

## 02R Wordclock Setup

An ADAT (CD8-AT) card is installed in Slot **1**, so any one of the first 8 tape inputs can be selected as the wordclock source on the DIGITAL I/O menu.

In Figure 1 the ADAT is shown as wordclock master. However, it could alternatively be used as wordclock slave with the 02R as master. In this case, the ADAT would be set to "digi". This can be confirmed by pressing the DIGITAL IN and SET LOCATE buttons together. The internal clock can then be set on the 02R

## ADAT Wordclock Setup

The ADAT should be set as wordclock master. To confirm this, press the SET LOCATE and DIGITAL IN buttons together. The display should show "int", meaning internal wordclock. The ADAT sampling rate can be set to either 48 kHz or 44.1 kHz. Use Fixed mode for 48 kHz and Variable mode for 44.1 kHz (using the PITCH DOWN button, set to -147 cents. At which point "-146, 44.1, -148" appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

## Notes

- Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.

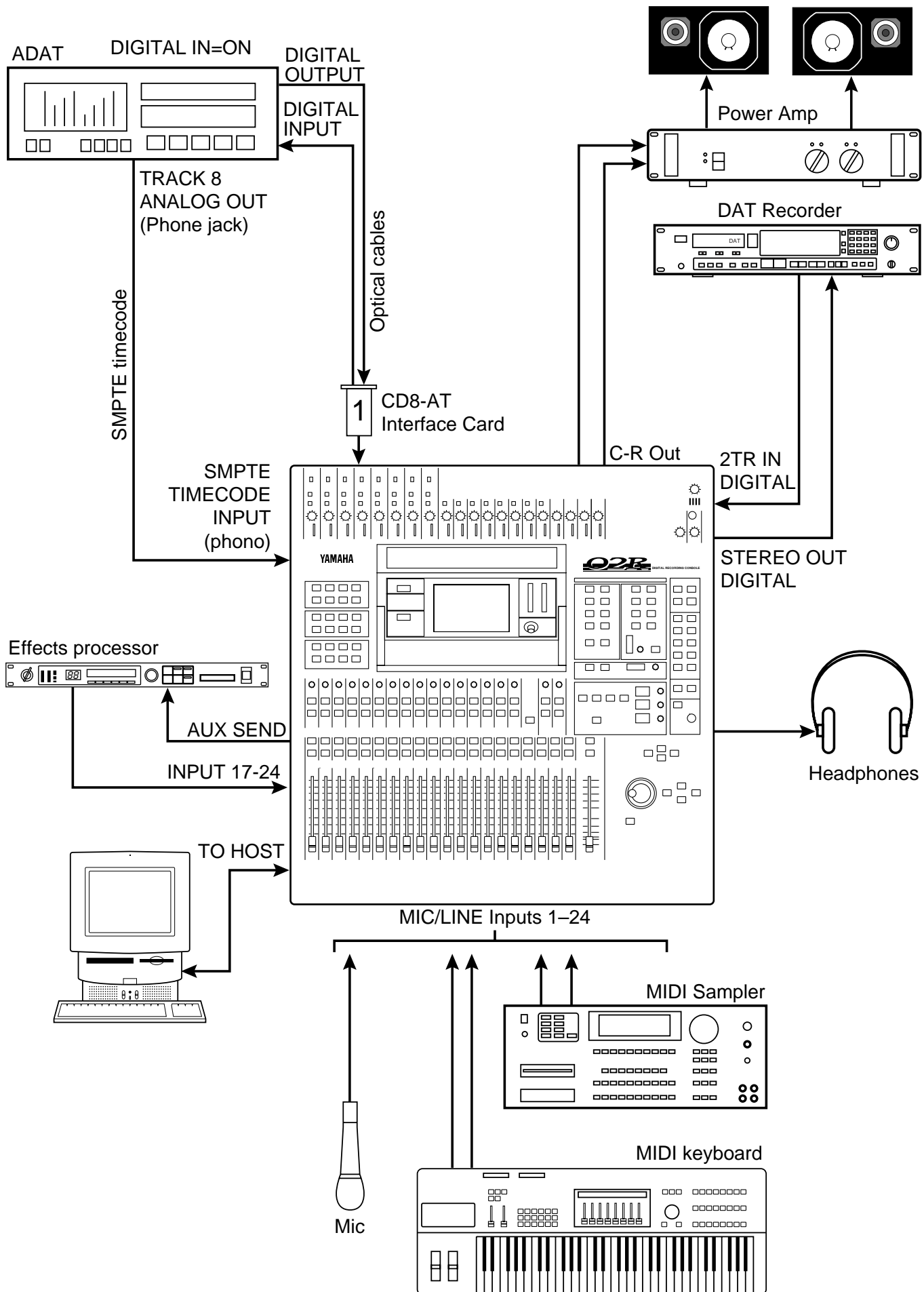


Figure 1 O2R with One ADAT (Timecode on Tape Track)

# 02R with ADAT & JL Cooper Datasync-2

This application shows how the 02R can be used with a JL Cooper Datasync-2 Synchronizer to create a 24-input, 8-track digital recording system. The JL Cooper Datasync-2 Synchronizer is a cost-effective device for setting up a synchronized 02R and ADAT system. The eight digital tape returns and 24 Mic/Line inputs provide up to 32 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to MIDI timecode.

## Connections

- The ADAT (CD8-AT) card must be screwed securely in place. Do not leave the screws out after installation as the card will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADAT are connected together using Optical Cables. Press the DIGITAL IN button on the ADAT to use the DIGITAL IN.
- The ADAT's eight tracks connect to 02R slot **1**, tape inputs one through eight.
- The JL Cooper Datasync-2 Synchronizer converts the ADAT's internal timecode to MIDI timecode or SMPTE timecode.
- A 9-pin Sync cable for connecting the ADAT and Datasync-2 is available from Alesis.

## 02R Wordclock Setup

The ADAT (CD8-AT) card is installed in Slot **1**, so any pair of the first eight tape inputs can be selected as the wordclock source on the DIGITAL I/O menu.

## ADAT Wordclock Setup

The ADAT should be set as wordclock master. To confirm this, press the SET LOCATE and DIGITAL IN buttons together. The display should show "int", meaning internal wordclock. The ADAT sampling rate can be set to either 48 kHz or 44.1 kHz. Use Fixed mode for 48 kHz and Variable mode for 44.1 kHz (using the PITCH DOWN button, set to -147 cents. At which point "-146, 44.1, -148" appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

In Figure 2 the ADAT is shown as wordclock master. However, it could alternatively be used as wordclock slave with the 02R as master. In this case, the ADAT would be set to "digi". This can be confirmed by pressing the DIGITAL IN and SET LOCATE buttons together. The internal clock can then be set on the 02R.

## Notes

- Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.

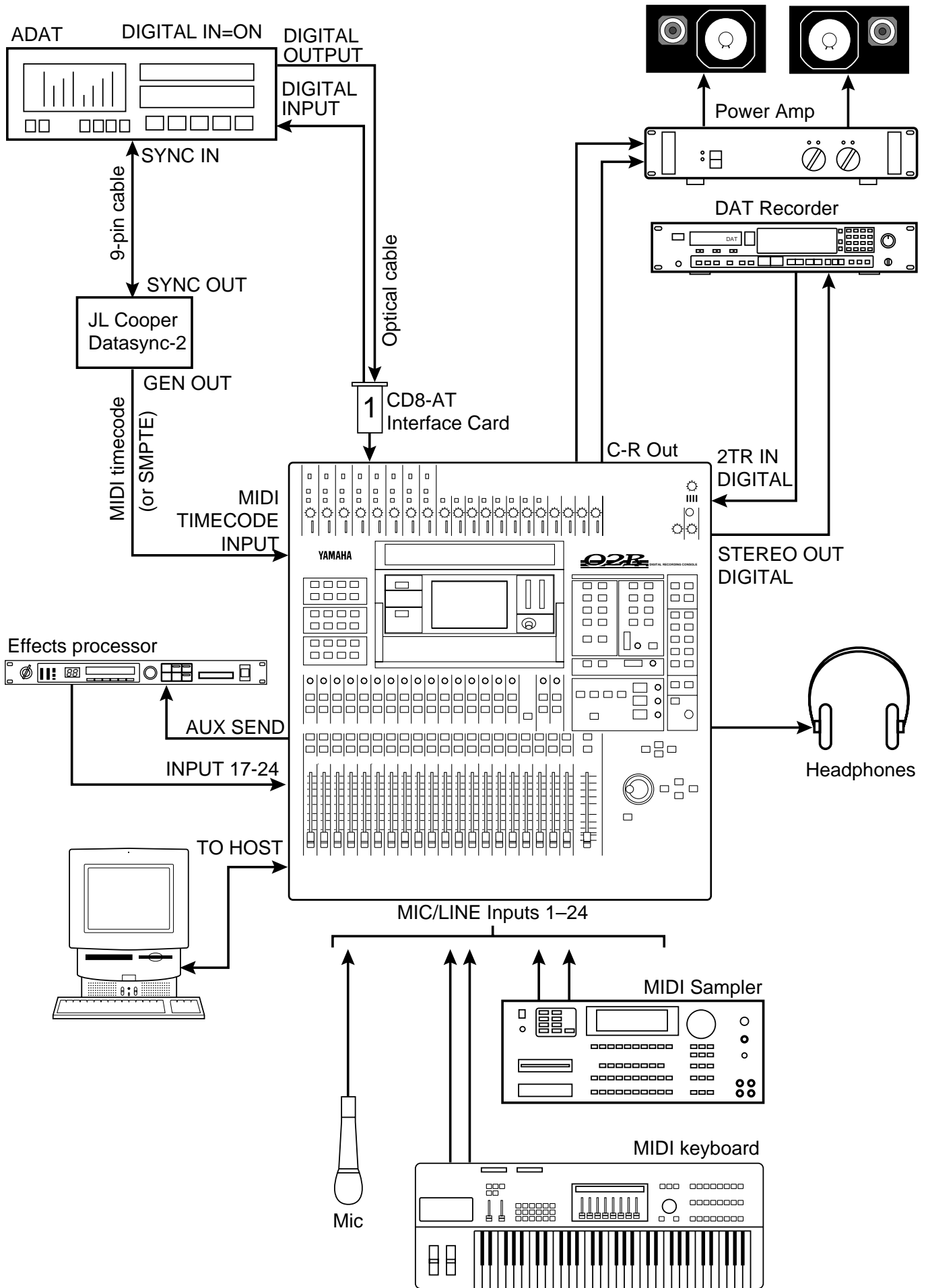


Figure 2 O2R with ADAT & JL Cooper Datasync-2



# 02R with Two ADATs & JL Cooper Datasync-2

This application shows how the 02R can be used with two Alesis ADATs and JL Cooper Datasync-2 Synchronizer to create a 24-input, 16-track digital recording system. The JL Cooper Datasync-2 Synchronizer is a cost-effective device for setting up a synchronized 02R and ADAT system.

The 16 digital tape returns and 24 Mic/Line inputs provide up to 40 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to MIDI timecode.

## Connections

- The ADAT (CD8-AT) cards must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADAT are connected together using Optical Cables. Press the **DIGITAL IN** buttons on the ADATs to use the DIGITAL INs.
- ADAT-A is connected to Slot **1** of the 02R and the tape inputs correspond to tracks one through eight.
- ADAT-B is connected to Slot **2** of the 02R and the tape inputs correspond to tracks nine through sixteen.
- The JL Cooper Datasync-2 Synchronizer converts the ADAT's internal timecode to MIDI timecode or SMPTE timecode.
- 9-pin Sync cables for connecting the ADATs and Datasync-2 are available from Alesis.

## 02R Wordclock Setup

ADAT (CD8-AT) cards are installed in Slot **1** and Slot **2**, so any pair of the tape inputs can be selected as the wordclock source on the DIGITAL I/O menu.

## ADAT Wordclock Setup

ADAT-A should be set as wordclock master. To confirm this, press the SET LOCATE and DIGITAL IN buttons together. The display should show "int", meaning internal wordclock. The ADAT sampling rate can be set to either 48 kHz or 44.1 kHz. Use Fixed mode for 48 kHz and Variable mode for 44.1 kHz (using the PITCH DOWN button, set to -147 cents. At which point "-146, 44.1, -148" appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

## Notes

- Press the DIGITAL IN buttons on the ADATs to use the DIGITAL INPUTs.
- ADAT-B must be powered up before ADAT-A, because when ADAT-A is powered up it checks how many ADATs are connected, allocates them device numbers, and automatically sets the system word clock. ADAT-A works as Control Master.

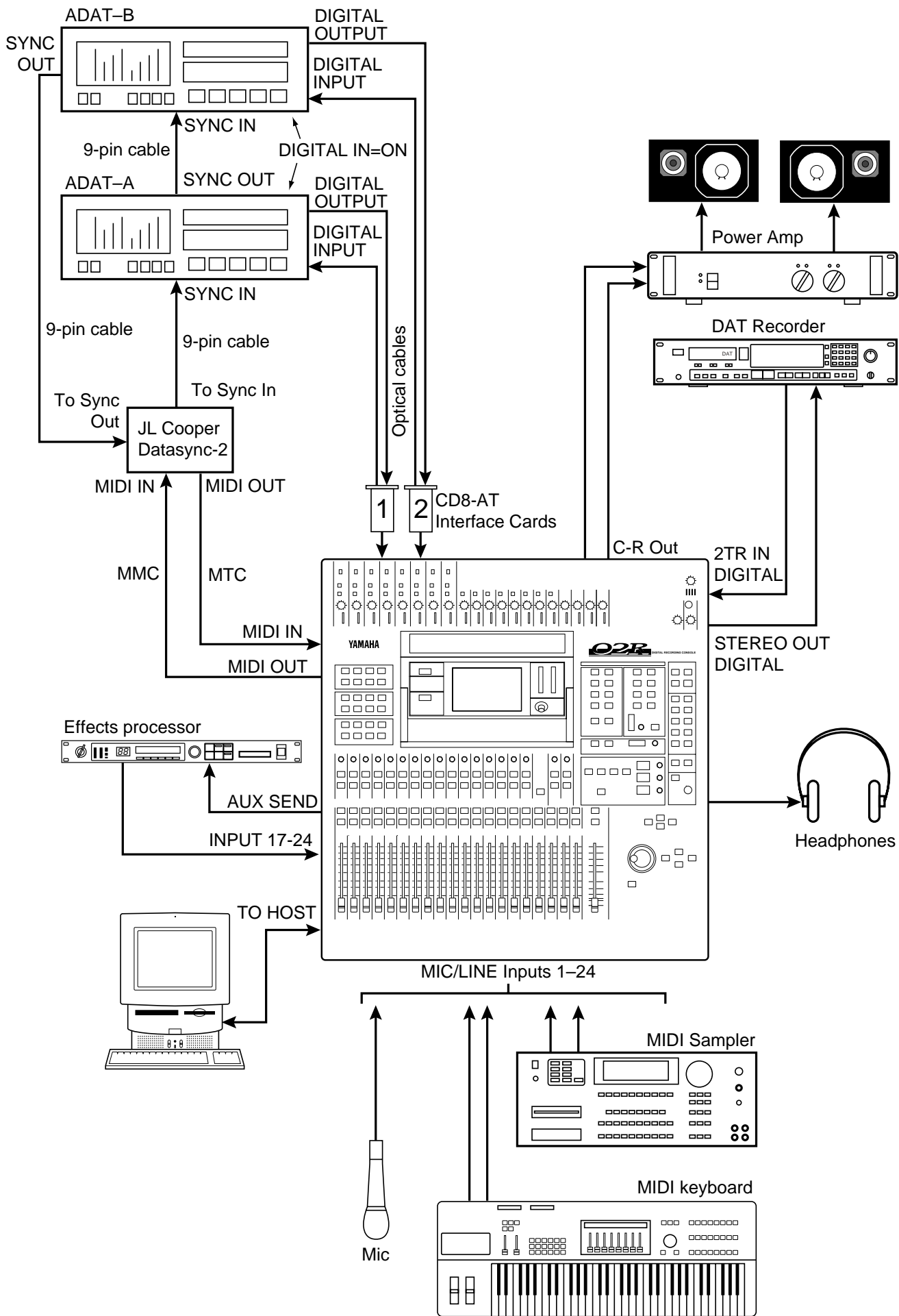


Figure 3 O2R with Two ADATs & JL Cooper Datasync-2

# 02R with ADAT & BRC

This application shows how the 02R can be used with an Alesis ADAT and BRC Master Remote Control to create a 24-input, 8-track digital recording system. The eight digital tape returns and 24 Mic/Line inputs provide up to 32 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

## Connections

- The ADAT (CD8-AT) card must be screwed securely in place. Do not leave the screws out after installation as the card will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADAT are connected together using Optical Cables. Press the DIGITAL IN button on the ADAT to use the DIGITAL IN.
- The ADAT's eight tracks connect to 02R slot **1**, tape inputs one through eight.
- The Alesis BRC Master Remote Control can control up to 16 ADATs (i.e. 128 tracks).
- A 9-pin sync cable for connecting the ADAT and BRC is available from Alesis.
- The BRC provides ADAT timecode to SMPTE timecode conversion. In addition, a timecode offset can be specified, so the automix start time can be adjusted.
- The 75 ohm wordclock termination switch on the back of the 02R is set to ON.

## 02R Wordclock Setup

On the DIGITAL I/O menu, the wordclock source should be set to W.CLK.

## ADAT & BRC Wordclock Setup

The BRC works as wordclock master and the ADAT locks to it automatically via the 9-pin sync cable. The sampling rate can be set to either 48 kHz or 44.1 kHz. Use Fixed mode for 48 kHz and Variable mode for 44.1 kHz (using the PITCH DOWN button, set to -147 cents. At which point "-146, 44.1, -148" appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

## Notes

- Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.
- The ADAT must be powered up before the BRC, because when the BRC is powered up it checks how many ADATs are connected, allocates them device numbers, and automatically sets the system wordclock.
- To generate timecode on the BRC, press the GEN SYNC button.
- On the BRC, set the DIGITAL I/O button to OFF. This function is for direct ping-pong between multiple ADATs. If this is turned ON while connected to an 02R, bus assignments will produce unexpected results. Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.

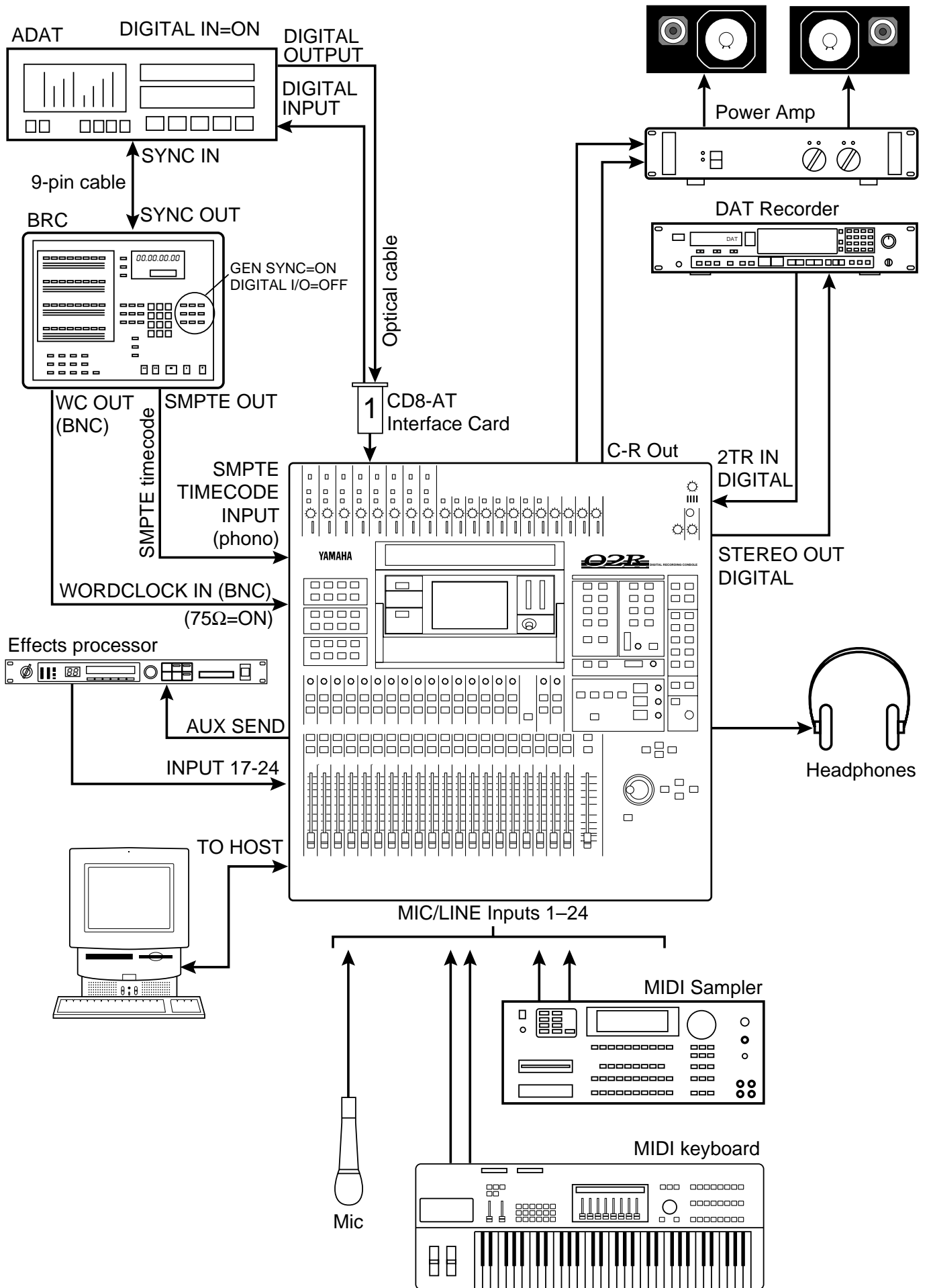


Figure 4 O2R with ADAT & BRC

# 02R with Two ADATs & BRC

This application shows how the 02R can be used with two Alesis ADATs and a BRC Master Remote Control to create a 24-input, 16-track digital recording system. The 16 digital tape returns and 24 Mic/Line inputs provide up to 40 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

## Connections

- The ADAT (CD8-AT) cards must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADAT are connected together using Optical Cables. Press the DIGITAL IN buttons on the ADATs to use the DIGITAL IN.
- ADAT-A is connected to Slot **1** of the 02R and the tape inputs correspond to tracks one through eight.
- ADAT-B is connected to Slot **2** of the 02R and the tape inputs correspond to tracks nine through sixteen.
- The Alesis BRC Master Remote Control can control up to 16 ADATs (i.e. 128 tracks).
- A 9-pin sync cable for connecting the ADAT and BRC is available from Alesis.
- The BRC provides ADAT timecode to SMPTE timecode conversion. In addition, a timecode offset can be specified, so the automix start time can be adjusted.
- The 75 ohm wordclock termination switch on the back of the 02R is set to ON.

## 02R Wordclock Setup

On the DIGITAL I/O menu, the wordclock source should be set to W.CLK.

## ADAT & BRC Wordclock Setup

The BRC works as wordclock master and the two ADATs locks to it automatically via the 9-pin sync cables. The sampling rate can be set to either 48 kHz or 44.1 kHz. Use Fixed mode for 48 kHz and Variable mode for 44.1 kHz (using the PITCH DOWN button, set to -147 cents. At which point “-146, 44.1, -148” appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

## Notes

- The ADATs must be powered up before the BRC and in the following order: B then A. This is because when the BRC is powered up it checks how many ADATs are connected, allocates them device numbers, and automatically sets the system clock.
- To generate timecode on the BRC, press the GEN SYNC button.
- On the BRC, set the DIGITAL I/O button to OFF. This function is for direct ping-pong between multiple ADATs. If this is turned ON while connected to an 02R, bus assignments will produce unexpected results. Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.

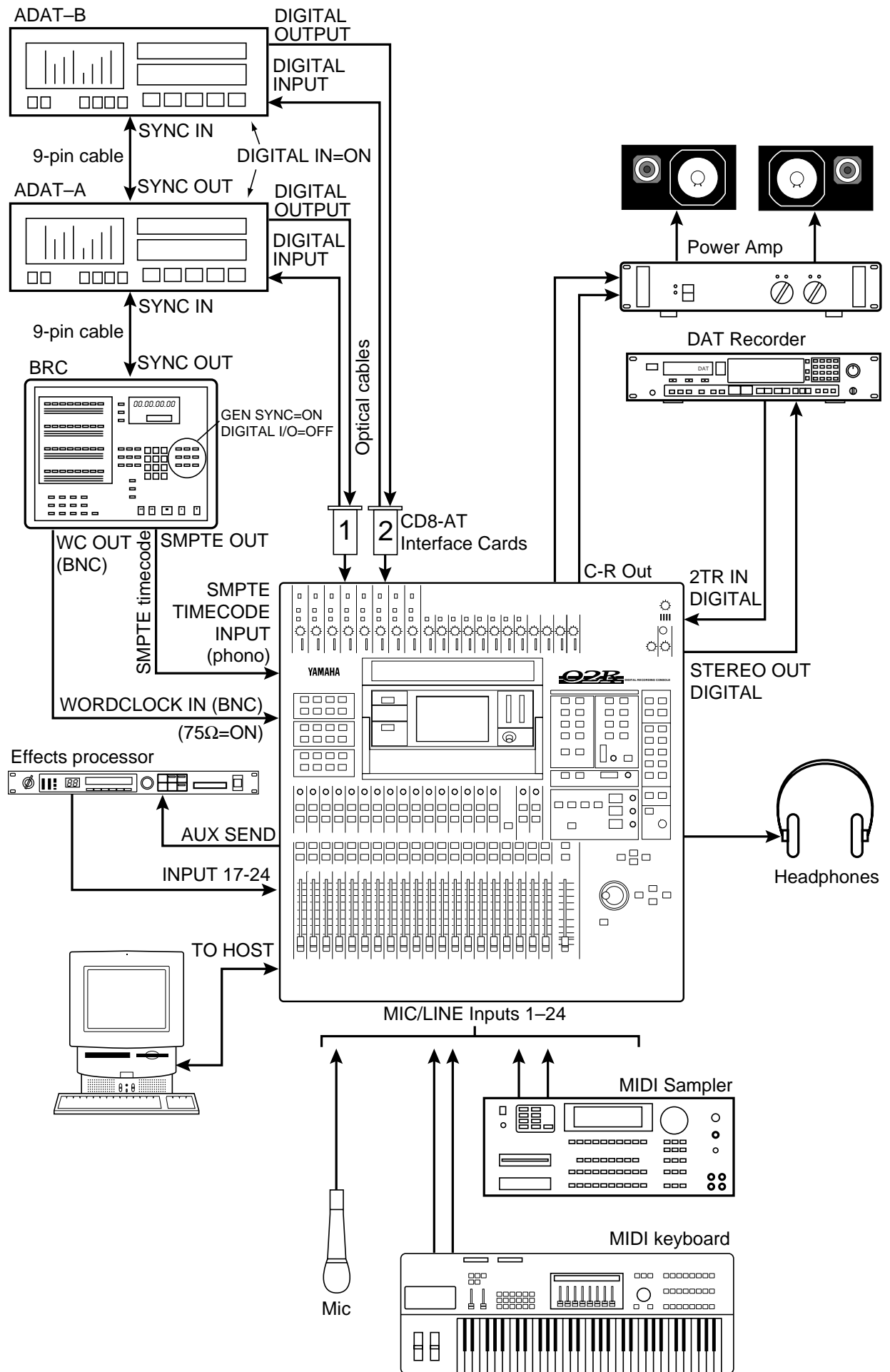


Figure 5 O2R with Two ADATs & BRC

# Two 02Rs with Four ADATs & BRC

This application shows how two 02Rs can be used with four Alesis ADATs and a BRC Master Remote Control to create a 48-input, 32-track digital recording system. The 32 digital tape returns and 48 Mic/Line inputs provide up to 80 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

The two 02Rs are cascaded together using a 25-pin straight cable and two Cascade (CD8-CS) cards, which are installed in Slot **3** of each 02R (could be Slot **4**). The cascade connection carries the eight buses, any four of the eight AUX buses, Stereo bus, and Solo bus. This allows both consoles to work together as one large 80-input mixing console. The master section of 02R-B is used for monitoring and two-track operations. The studio monitors and two-track recording equipment are also connected to this 02R.

## Connections

- The ADAT (CD8-AT) and Cascade (CD8-CS) cards must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADAT are connected together using the Optical Cable. Press the **DIGITAL IN** buttons on the ADATs to use the **DIGITAL IN**.
- ADAT-A is connected to Slot **1** of 02R-A and the tape inputs correspond to tracks one through eight. ADAT-B is connected to Slot **2** of 02R-A and the tape inputs correspond to tracks nine through sixteen. ADAT-C is connected to Slot **1** of 02R-B and the tape inputs correspond to tracks 17 through 24. ADAT-D is connected to Slot **2** of 02R-B and the tape inputs correspond to tracks 25 through 32.
- The Alesis BRC Master Remote Control can control up to 16 ADATs (i.e. 128 tracks).
- The BRC provides ADAT timecode to SMPTE timecode conversion. In addition, a timecode offset can be specified, so the automix start time can be adjusted.
- The 75 ohm wordclock termination switches on both 02Rs is set to ON.

## 02R Wordclock Setup

On the **DIGITAL I/O** menu, the wordclock source should be set to **W.CLK**.

## ADAT & BRC Wordclock Setup

The BRC works as wordclock master and the four ADATs follows it automatically via the 9-pin sync cables. The sampling rate can be set to either 48 kHz or 44.1 kHz. Use **Fixed** mode for 48 kHz and **Variable** mode for 44.1 kHz (using the **PITCH DOWN** button, set to -147 cents. At which point “-146, 44.1, -148” appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

## Notes

- The ADATs must be powered up before the BRC and in the following order: D, C, B, A. This is because when the BRC is powered up it checks how many ADATs are connected, allocates them device numbers, and automatically sets the system clock.
- The rear of the Cascade (CD8-CS) cards have an **IN/OUT** switch. On 02R-A is set to **OUT**. On 02R-B it is set to **IN**.
- To generate timecode on the BRC, press the **GEN SYNC** button.
- The optional CD8-CS kit contains two CD8-CS cards and one 25-pin straight cable.

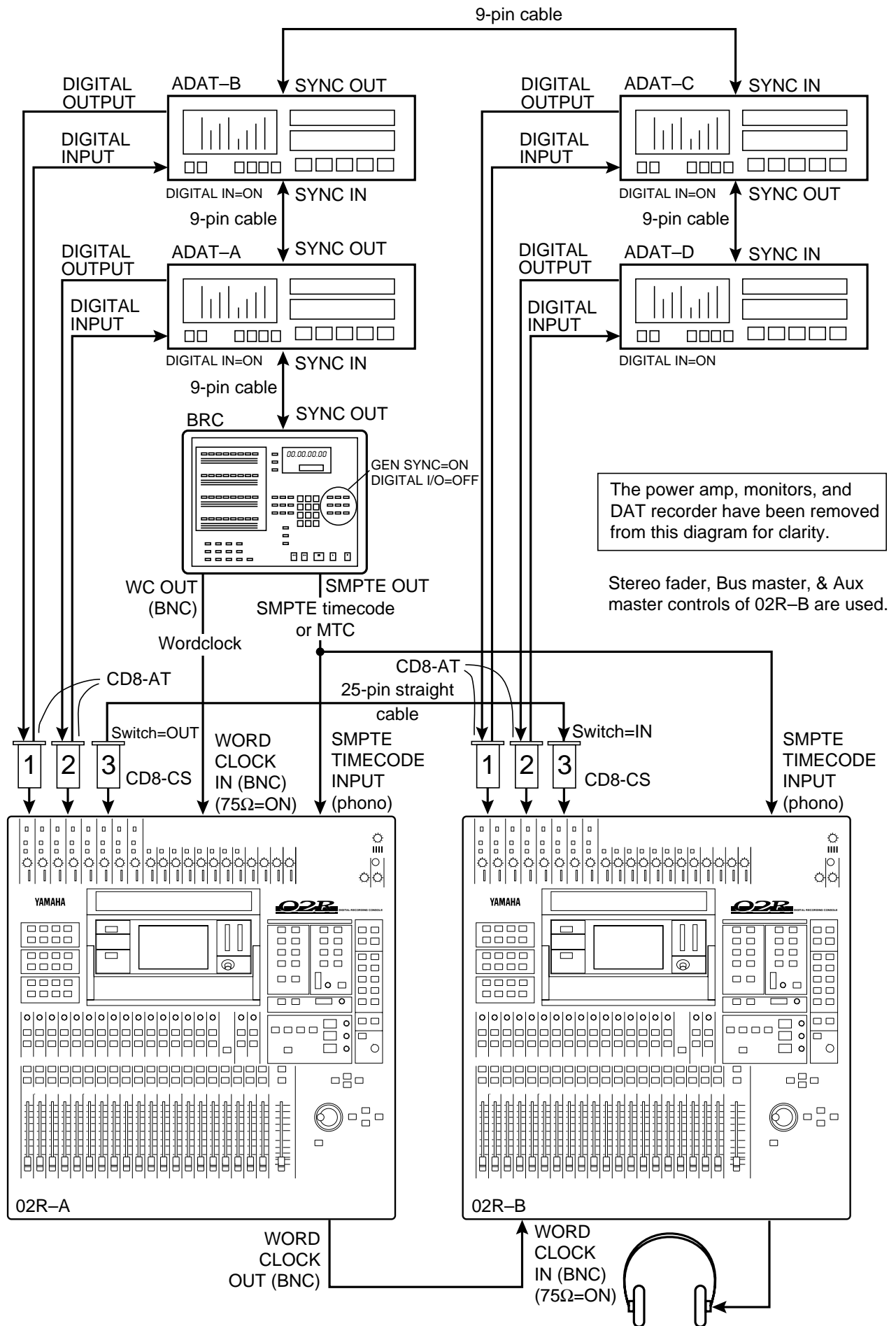


Figure 6 Two O2Rs with Four ADATs & BRC



# 02R with Two ADATs (Timecode on Tape Track)

This application shows how the 02R can be used with two Alesis ADATs to create a 24-input, 16-track digital recording system. As shown in Figure 7, track eight of ADAT–A has been striped with SMPTE timecode. This is then fed to the 02R’s SMPTE TIMECODE input using a phone jack to phono cable.

The 16 digital tape returns and 24 Mic/Line inputs provide up to 40 inputs at mixdown. In addition, the 02R’s built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

## Connections

- The ADAT (CD8-AT) cards must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The Digital In/Out connectors on the 02R and ADATs are connected together using Optical Cables. Press the DIGITAL IN buttons on the ADATs to use the DIGITAL IN.
- ADAT–A is connected to Slot **[1]** of the 02R. These tape inputs correspond to tracks one through eight.
- ADAT–B is connected to Slot **[2]** on the 02R. These tape inputs correspond to tracks nine through sixteen.
- ADAT track eight is striped with SMPTE timecode. ADAT track eight analog out (phone jack) output is connected directly to the 02R’s SMPTE TIMECODE input (phono).

## 02R Wordclock Setup

ADAT (CD8-AT) cards are installed in Slot **[1]** and Slot **[2]**, so any one of the first 16 tape inputs can be selected as the wordclock source on the DIGITAL I/O menu.

## ADAT Wordclock Setup

ADAT–A should be set as wordclock master. To confirm this, press the SET LOCATE and DIGITAL IN buttons together. The display should show “int”, meaning internal wordclock. The ADAT sampling rate can be set to either 48 kHz or 44.1 kHz. Use Fixed mode for 48 kHz and Variable mode for 44.1 kHz (using the PITCH DOWN button, set to –147 cents. At which point “–146, 44.1, –148” appears on the display). The newer ADAT-XT has dedicated switches for selecting these two sampling rates.

## Notes

- Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.
- ADAT–B must be powered up before ADAT–A, because when ADAT–A is powered up it checks how many ADATs are connected, allocates them device numbers, and automatically sets the system word clock. ADAT–A works as Control Master.

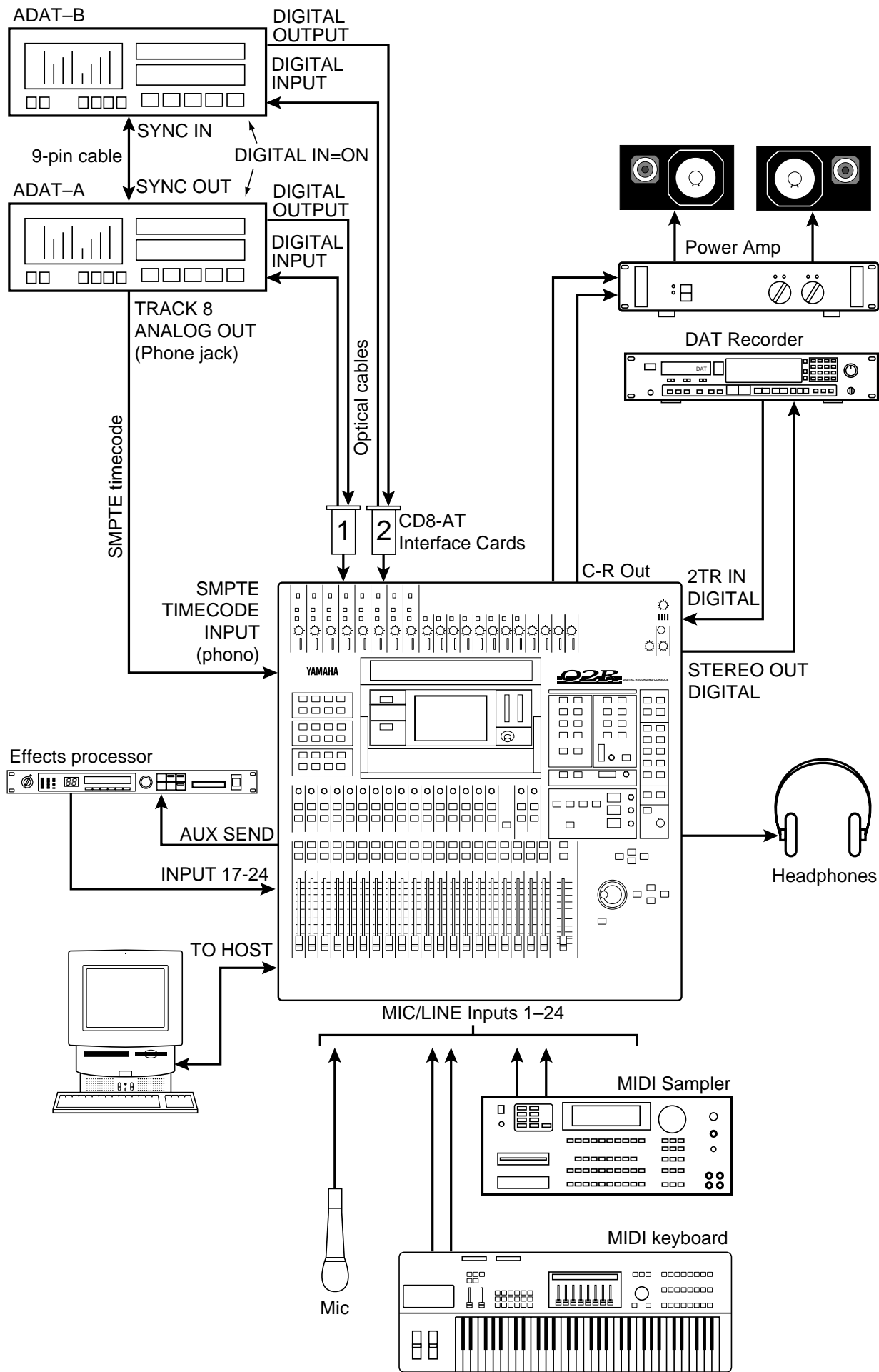


Figure 7 O2R with Two ADATs (Timecode on Tape Track)

# 02R with ADAT & RD-8

This application shows how the 02R can be used with one Alesis ADAT and one Fostex RD-8 to create a 24-input, 16-track digital recording system. RD-8 is an ADAT compatible digital recorder made by Fostex. The 16 digital tape returns and 24 Mic/Line inputs provide up to 32 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

## Connections

- The ADAT (CD8-AT) must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The Digital In/Out connectors on the 02R, ADAT, and RD-8 are connected together using Optical Cables. Press the **DIGITAL IN** buttons on the ADAT and RD-8 to use the DIGITAL INs.
- The RD-8 is connected to Slot **1** of the 02R. These tape inputs correspond to tracks one through eight. The ADAT is connected to Slot **2** of the 02R. These tape inputs correspond to tracks nine through sixteen.
- A 9-pin Sync cable for connecting the ADAT and RD-8 is available from Alesis or Fostex.
- The RD-8 can output SMPTE timecode. In addition, a timecode offset can be specified, so the 02R automix start time can be adjusted.
- The 75 ohm wordclock termination switch on the back of the 02R is set to ON.

## 02R Wordclock Setup

On the DIGITAL I/O menu, the wordclock source should be set to W.CLK.

## ADAT & RD-8 Wordclock Setup

The RD-8 works as wordclock master and the ADAT locks to it automatically via the 9-pin sync cable. The sampling rate can be set to either 48 kHz or 44.1 kHz on the RD-8 menu.

## Notes

- Press the DIGITAL IN button on the ADAT to use the DIGITAL INPUT.
- The ADAT must be powered up before the RD-8, because when the RD-8 is powered up it checks how many ADATs are connected, allocates them device numbers, and automatically sets the system word clock. RD-8 works as Control Master.

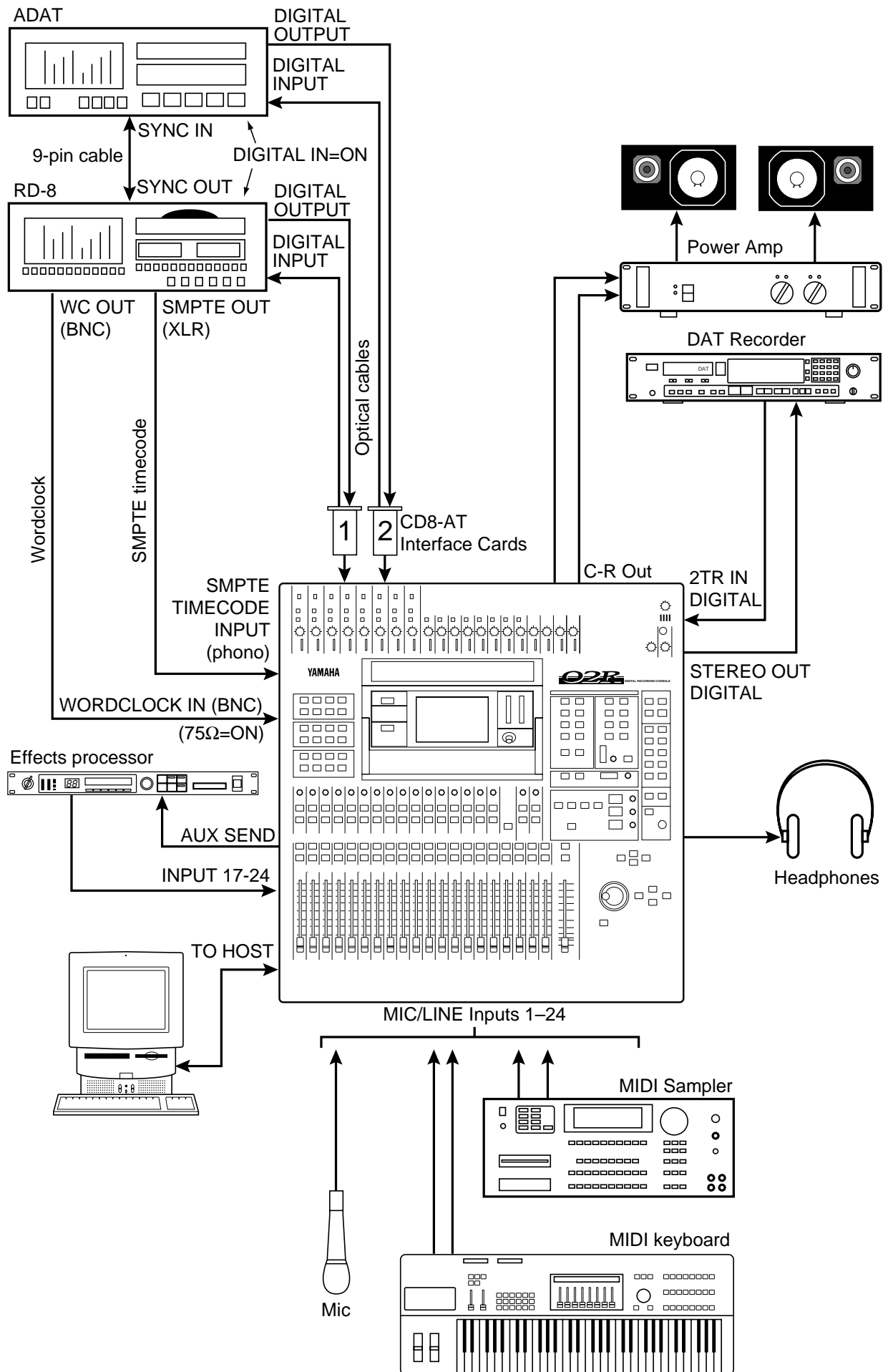


Figure 8 O2R with ADAT & RD-8

# 02R with Akai DR8 Hard Disk Recorder

This application shows how the 02R can be used with an Akai DR8 Hard Disk Recorder to create a 24-input, 8-track digital recording system. The eight digital tape returns and 24 Mic/Line inputs provide up to 32 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

## Connections

- The ADAT (CD8-AT) card must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The DR8 is fitted with an optional ADAT (IB-804A) interface card. For MTC operation, the DR8 requires an optional MIDI (IB803M) interface card. For SMPTE operation, an optional SMPTE (IB802T) interface card.
- The Digital In/Out connectors on the 02R and DR8 are connected together using Optical Cables.
- The DR8 is connected to Slot **1** of the 02R. These tape inputs correspond to tracks one through eight.

## 02R Wordclock Setup

The 02R works as wordclock slave. An ADAT (CD8-AT) card is installed in Slot **1**, so any pair of the tape inputs from 1 to 8 can be selected as the wordclock source on the DIGITAL I/O menu.

## DR8 Wordclock Setup

The DR8 works as wordclock master.

## Notes

- When a track is armed for recording, the DR8 will normally try to take its wordclock source from that track's input. To prevent this, in the Digi submenu set Auto Sync to Off. Note that the Auto Sync setting is not memorized when the DR8 is turned off, although it can be stored as part of a project.

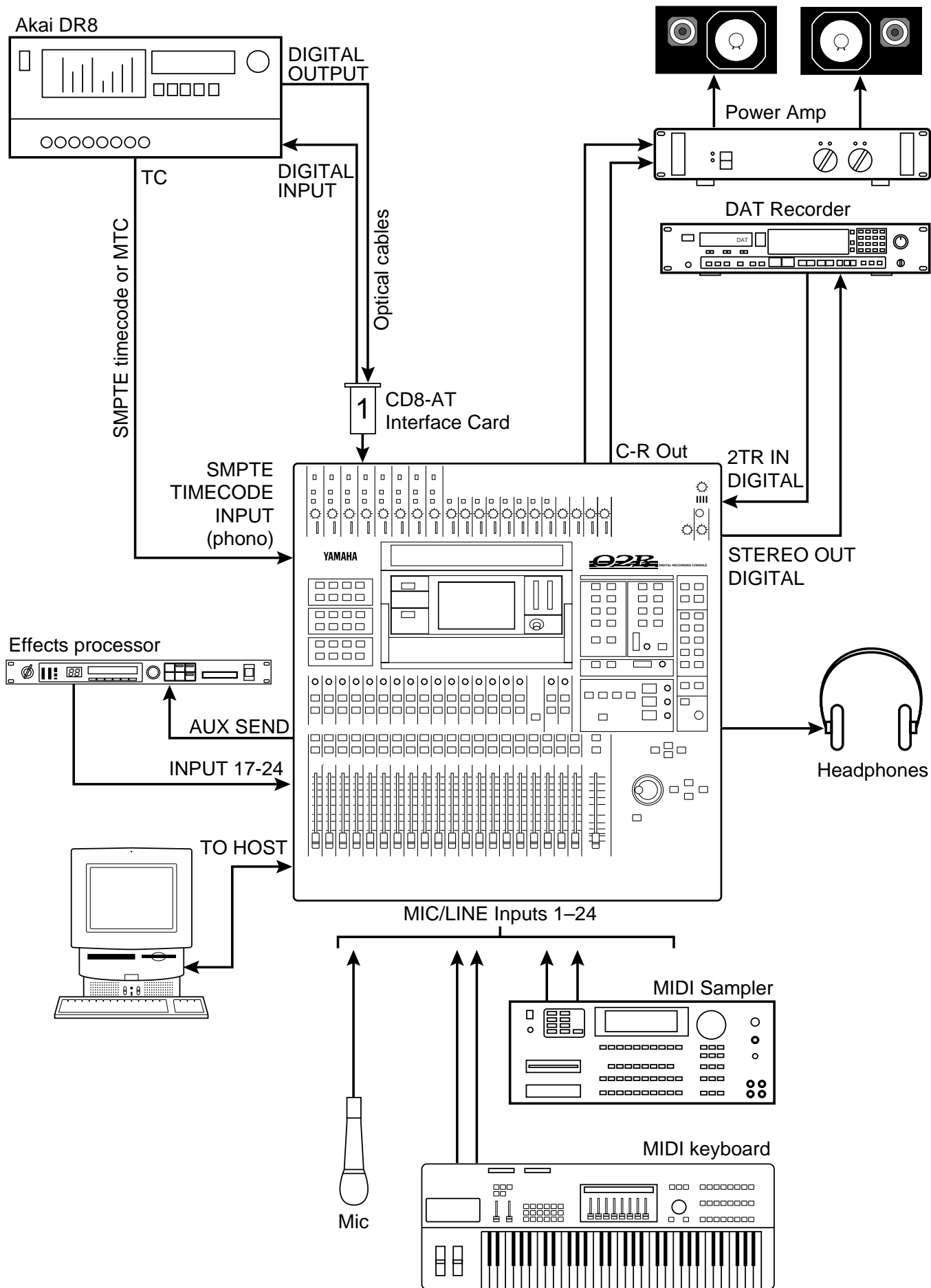


Figure 13 O2R with Akai DR8 Hard Disk Recorder

# 02R with Akai DR16 Hard Disk Recorder

This application shows how the 02R can be used with an Akai DR16 Hard Disk Recorder to create a 24-input, 16-track digital recording system. The 16 digital tape returns and 24 Mic/Line inputs provide up to 40 inputs at mixdown. In addition, the 02R's built-in automation and scene memory systems provide both dynamic and static mix automation referenced to timecode.

The DR16 is a 16-track hard disk recorder featuring 8-track recording and 16-track playback. The ADAT (IB804AEX) interface card provides eight digital inputs and 16 digital outputs.

## Connections

- The ADAT (CD8-AT) cards must be screwed securely in place. Do not leave the screws out after installation as the cards will not be grounded correctly.
- The DR16 is fitted with the following options: ADAT (IB804AEX) interface card and MIDI (IB803M) interface card.
- The Digital In/Out connectors on the 02R and DR16 are connected together using Optical Cables.
- The DR16 digital output connected to Slot **1** of the 02R corresponds to tracks one through eight, while the DR16 digital output connected to Slot **2** corresponds to tracks nine through sixteen.

## 02R Wordclock Setup

The 02R works as wordclock slave. With ADAT (CD8-AT) cards installed in Slot **1** and Slot **2**, any pair of the first 16 tape inputs can be selected as the wordclock source on the DIGITAL I/O menu.

## DR16 Wordclock Setup

The DR16 works as wordclock master.

## Notes

- When a track is armed for recording, the DR16 will normally try to take its wordclock source from that track's input. To prevent this, in the Digi submenu set Auto Sync to Off. Note that the Auto Sync setting is not memorized when the DR16 is turned off, although it can be stored as part of a project.

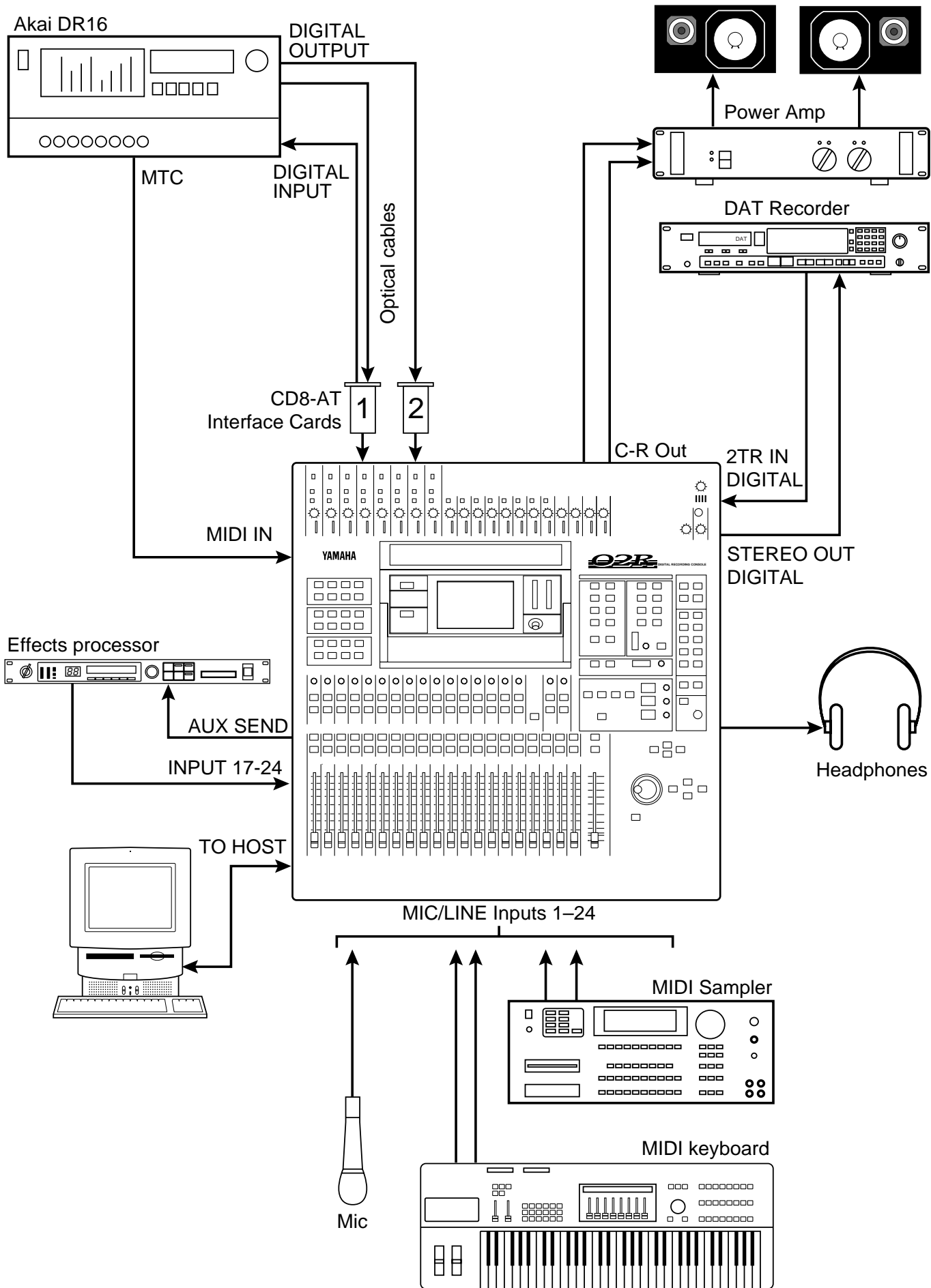


Figure 14 O2R with Akai DR16 Hard Disk Recorder