

**OTARI**<sup>®</sup>

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# FS-96

## Format & Sample Rate Converter

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# Applications Guide



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# FS-96

## Format & Sample Rate Converter

### Applications Guide

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#### Foreword

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##### ❖ About FS-96

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The FS-96 is a State-of-the-Art, Digital Audio Format and Sample Rate Converter, capable of converting digital audio formats as well as the sampling frequency. The FS-96 can handle up to 24 channels, 96 kHz / 24 bit with a single unit. The FS-96 can also work as a digital audio router, whereas, every input channel can be easily routed to any output channel.

Digital sync may be derived in more than one way for a given set of devices. This is true for most digital audio formats, and the intention of this application guide is to give you the most straight-forward means of obtaining flawless digital sync, and sample accurate audio for your work environment.

The FS-96 Digital Audio Formats:

- AES (AES/EBU)
- TDIF-1
- ADAT (Fiber optical)
- SDIF-2
- MADI (Optional)
- IEEE1394 Audio and Music Data Transmission Protocol (Optional)

**NOTE:** MADI option and IEEE1394 option cannot be installed at the same time.

##### ❖ Product Highlights

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- > **Selectable Input Audio Formats:** The audio data from the selected input format is converted, and fed to all outputs at the same time. If the sample rate converter is on, the input signal does not have to be synchronized with respect to the output sample rate.
- > **TDIF/AES Bi-directional Conversion:** When connecting a TDIF machine (DA-88 for example), to an AES based mixing console, the FS-96's bi-directional conversion capability provides a smart solution for this common, yet complex configuration.
- > **Expandability:** Multiple FS-96s can be linked, with sample-accuracy, for large format application with more than 24 channels.
- > **Free from Synchronization Problems:** The FS-96 provides a solution for synchronization of sampling frequency/clock problems within the digital domain. Its state-of-the-art sample rate conversion mode offers an easy, and reliable interface.
- > **Connectivity:** High-end Equipment to Consumer Gear The FS-96's optional MADI module provides connectivity between all digital formats, at the lowest cost. MADI is an easy way to transmit high volume digital audio, but can be very expensive to implement. The FS-96 connects MADI equipment with non-MADI, dedicated or PC/Mac based equipment without the use of high-end digital consoles.
- > **Future networking capability:** The FS-96 provides network connectivity for legacy equipment as well. The optional IEEE1394 module will give users the capability of joining future digital audio networks.

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# FS-96 Setup Instructions

## Basic Setup Instructions

**NOTE:** The < > marks below indicate a selected menu item.

### 1. Press **SETUP** Button, to access menu items below.

---

### 2. Select **INPUT FORMAT (ADAT, <AES>, BDIR, MADI, TDIF, SDIF)**.

---

- Channel Grouping: All digital formats above are grouped in 8 channel group except for SDIF-2 which is grouped in a single 24 channel group on a 50-pin connector (Group A: 1-8, Group B: 9-16, Group C: 17-24).
- Clocks (sync) for ADAT, AES, BDIR, and TDIF are imbedded in the audio bitstreams for their respective formats (i.e. no BNC clock cable needed).
- For synchronizing SDIF-2, use the SYNC BNC connectors on the rear panel of the FS-96 (SYNC Input or SYNC Output), located to the right of the 50 pin SDIF-2 connectors.

### 3. Select **OUTPUT SYNC (<INTERNAL>, EXTERNAL, INPUT)**.

---

- BNC Sync connectors: The Word Clock IN and OUT BNC connectors are for OUTPUT SYNC only.
- If OUTPUT SYNC = INTERNAL
  - Select FS SETTING (sample rate = 32K, 44.1K, <48K>, 64K, 88K, 96K)
- If OUTPUT SYNC = INPUT
  - If Input Format = AES (Select Sync Group choice: <CH1/2>, CH3/4, or CH5/6...CH23/24)
  - If Input Format = ADAT, TDIF, BDIR (Select Sync Group choice: <GRPA>, GRPB, or GRPC)

### 4. Select **SAMPLE RATE CONVERT <ON>**, for sample rate conversion.

---

### 5. Select **OUTPUT RESOLUTION (16BITS, 20BITS, <24BITS>)**.

---

### 6. Select **DITHER** as required (**ON**, <**OFF**>).

---

- This is usually used for down-conversion of sample rates (such as down-converting from 48k to 44.1k).

### 7. Set **OUTPUT STATUS: 0** as required

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- The following settings are possible.
  - AES/EBU EMPH.: (OFF, <THRU>, 5010, CCIT)
  - AES/EBU FREQ.: (48K, <THRU>, 32K, 44K)
  - SDIF EMPH.: (OFF, <THRU>, ON)
  - TDIF EMPH.: (OFF, <THRU>, ON)
  - TDIF BIT RES.: (16, <THRU>, 20, 24)
  - TDIF FREQ.: (48K, THRU <OTHER >, 32K, 44K)

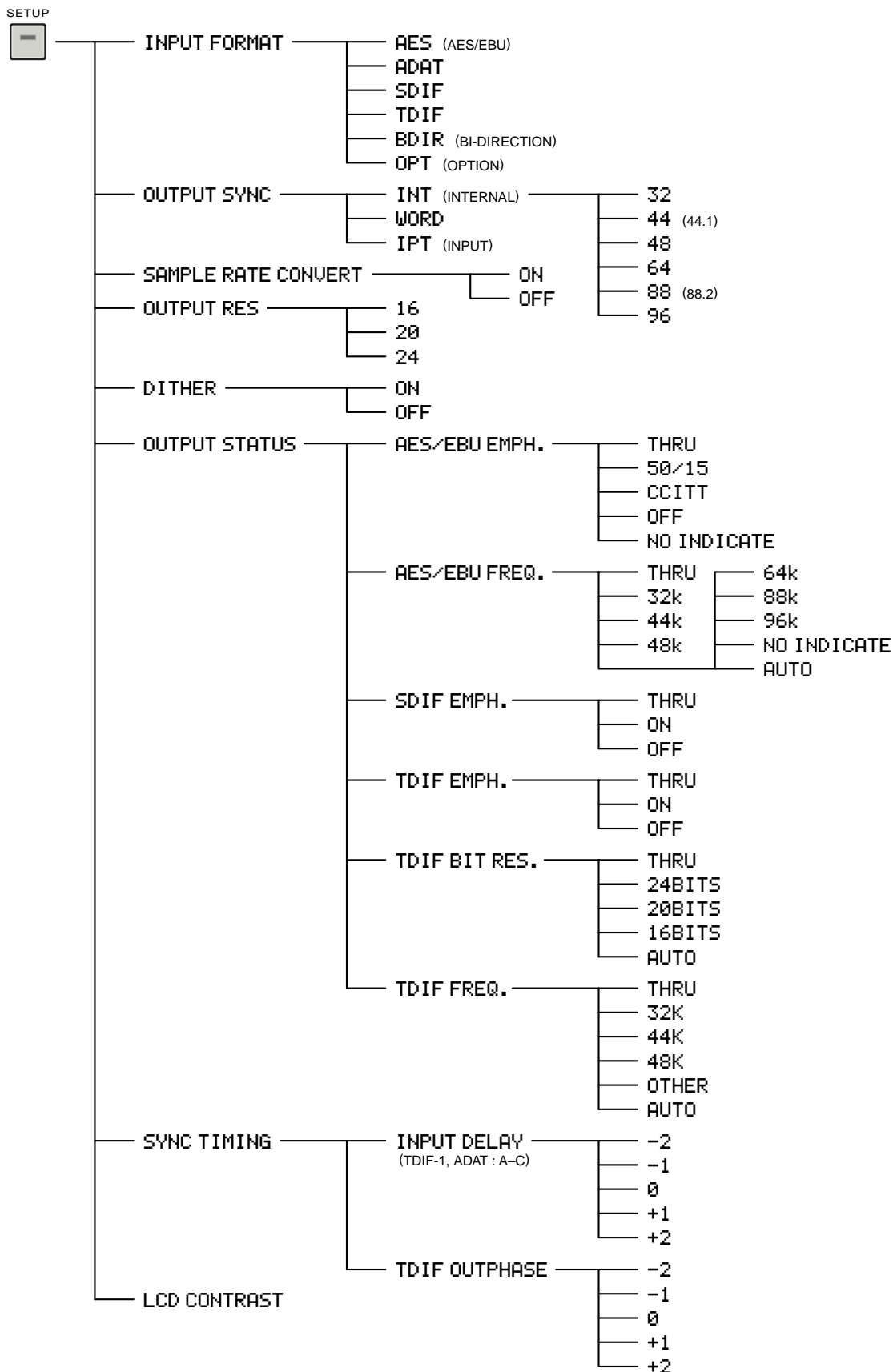
### 8. Set **SYNC TIMING: 0** as required for digital lock

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- INPUT DELAY A, B, or C (-2, -1, 0, +1, +2) to adjust clock reference
- TDIF OUTPHASE: 0 (-2, -1, 0, +1, +2) to adjust LRCK framing.

# FS-96 Setup Instructions

## Setup Mode Menu Tree



# FS-96 Setup Instructions

## Some Helpful Hints

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### ❖ TDIF/ADAT Devices

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- In the following sections, there are certain products such as the Mackie D8B, and MOTU 2408, which include both TDIF and ADAT interfaces, and therefore, format conversion is not required. The setups shown for these devices are only shown for cases where sample rate conversion is required, or for convenience, should the user desire not to use the alternate digital format.

### ❖ ADAT BRC Sync

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- Be sure to use a reliable, low jitter external sync source (such as an Aardsync-II) when using a BRC remote with ADAT units, as the BRC clock can be quite jittery causing digital sync problems.
- Interconnect multiple ADATs via the 9-pin Sync In to 9-pin Sync Out connectors on the ADAT units.
- When the ADAT is the FS-96 audio input source, the BRC is normally used as Time Code Master as the time code number relates to a sample number on the ADAT, however, TC is shown in a generic fashion for reference purposes. This applies to all recorders in the following sections, which are transferring audio via the FS-96 to other recorders or digital recording consoles.

### ❖ Sony 3348 and 3348HR

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- The PCM-3348HR can record and playback in 16-bit recording mode for creating recordings that can be played back on existing DASH format 16-bit recorders such as the earlier 3348 machines. Existing DASH 16-bit recordings can also be played back on the PCM-3348HR DASH PLUS recorder insuring full compatibility.
- The FS-96 "SRC" feature (sample rate conversion) is only required when converting from 16-bit to a higher bit rate (e.g. 24-bit), or of course when converting sample rates. This applies to all recorders in the following sections, which are transferring audio via the FS-96 to other recorders or digital recording devices.
- When down converting to 16-bit, DITHER may be added by selecting the FS-96 DITHER feature in the FS-96 menu (see next page for menu details).

### ❖ A Note about Dither

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- Dither is used to solve the audible effects of Quantization Error. By superimposing dither noise on the audio waveform, it allows the system to encode amplitudes below the least significant bit (LSB). The dither algorithm used in the FS-96 is very advanced, and can be used reliably for down-conversion of sample rates (e.g. 24-bit to 16-bit), while retaining low signal-to-noise numbers, and reducing quantization error significantly.

### ❖ Same Format Sample Rate Conversion

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- Whenever audio is input in a given format, such as AES/EBU, the output for that same format is also available, and it can be sample rate converted to the same output format if needed! If you wish to transfer AES 44.1k INPUT and sample rate convert to AES 48k, just set the SRC function <ON>, and set the OUTPUT STATUS 0 setting to the desired AES output sample rate, which in this case would be 48k.



# Setup Diagrams

## 1. AMS-NEVE DFC (Digital Film Console) : AES

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
1.1 Alesis ADAT/BRC ADAT	AES	AES	ADAT	INT	Word Out	
1.2 Mackie D8B ADAT	AES	AES	ADAT	INT	Word Out	
1.3 Mackie D8B TDIF	AES	AES	TDIF	INT	Word Out	
1.4 MOTU 2408 TDIF	AES	AES	TDIF	INT	Word Out	
1.5 Otari RADAR® I ADAT	AES	AES	ADAT	INT	Word Out	
1.6 Otari RADAR® II TDIF	AES	AES	TDIF	INT	Word Out	
1.7 ProTools: Digidesign ADAT Bridge	AES	AES	ADAT	INT	Word Out	
1.8 Sony 3348 SDIF-2	AES	AES	SDIF2	INT	SDIF2 Sync Out	
1.9 TASCAM DA-38/88/98 TDIF	AES	AES	TDIF	INT	Word Out	
1.10 TASCAM DA-78	AES	AES	TDIF	INT	Word Out	
1.11 TASCAM MMR-8 TDIF	AES	AES	TDIF	INT	Word Out	
1.12 TASCAM MX-2424 TDIF	AES	AES	TDIF	INT	Word Out	
1.13 YAMAHA O2R ADAT	AES	AES	ADAT	INT	Word Out	
1.14 YAMAHA O2R TDIF	AES	AES	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

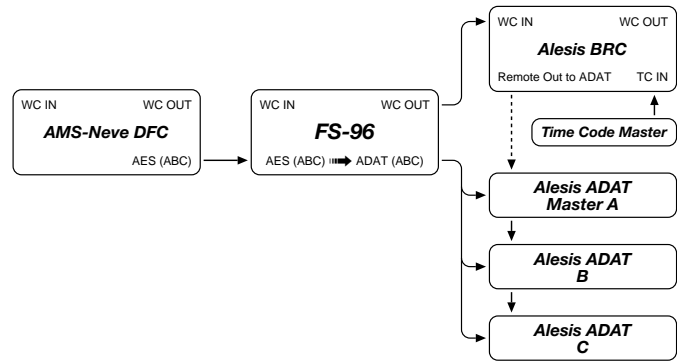
## 1. AMS-NEVE DFC : AES

Continued

Conversion to:

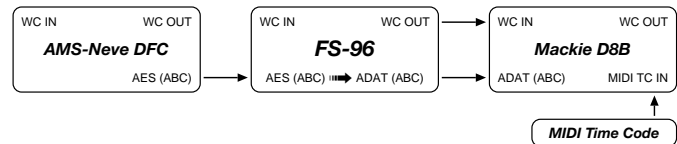
### 1.1 Alesis ADAT/BRC ADAT

1. See p.9 for menu settings
2. Transfer audio from DFC to ADAT units in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC. Interconnect ADATs via Sync In to Sync Out
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



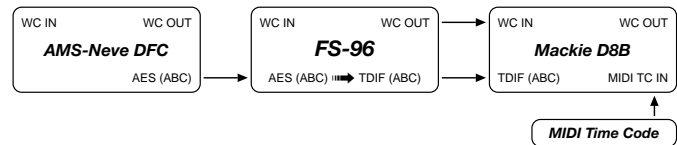
### 1.2 Mackie D8B ADAT

1. See p.9 for menu settings
2. Transfer audio from DFC to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. To Display TC on Mackie D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
6. Mackie D8B set to 48k EXT sync (or other desired sample rate)



### 1.3 Mackie D8B TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. To Display TC on Mackie D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
6. Mackie D8B set to 48k EXT sync (or other desired sample rate)



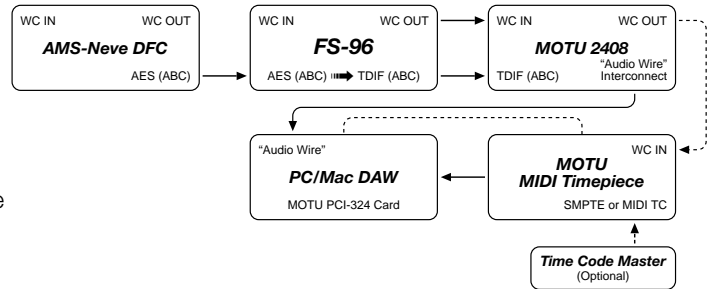
## 1. AMS-NEVE DFC : AES

Continued

Conversion to:

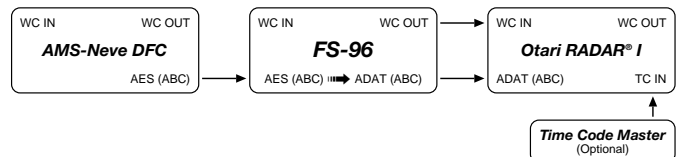
### 1.4 MOTU 2408 TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to MOTU 2408 TDIF in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. See p.9 for menu settings
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Transfer audio from DFC console AES to MOTU 2408 TDIF in 8 channel groups (A,B,C)
7. Use DFC AES imbedded clock as FS-96 Input Clock Source
8. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
9. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
10. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 1.5 Otari RADAR® I ADAT

1. See p.9 for menu settings
2. Transfer audio from DFC to RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN, or MIDI IN on the RADAR® I (optional)
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. RADAR® I set to 48k EXT sync (or other desired sample rate)
8. RADAR® I is 16 bit sample resolution. Set FS-96 to OUTPUT RESOLUTION:16BIT



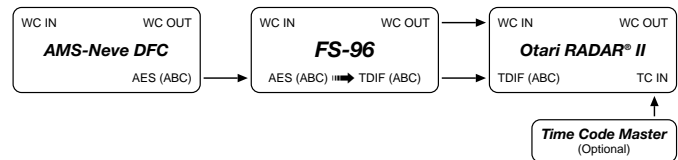
## 1. AMS-NEVE DFC : AES

Continued

Conversion to:

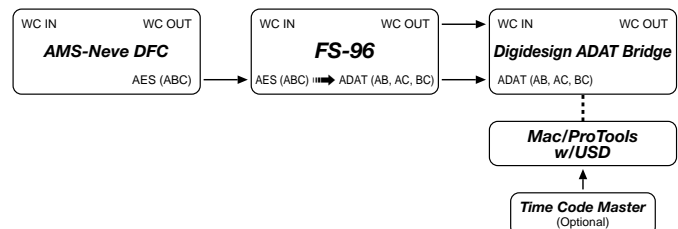
### 1.6 Otari RADAR® II TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN, or MIDI IN on the RADAR® II (set RADAR® II time code to EXTERNAL)
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. RADAR® II set to 48k EXT sync (or other desired sample rate)
8. RADAR® II is 24 bit sample resolution unless recorded or restored 16 bit.



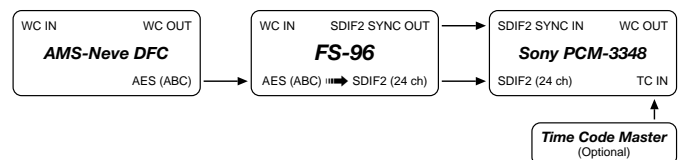
### 1.7 ProTools: Digidesign ADAT Bridge

1. See p.9 for menu settings
2. Transfer audio from DFC to Digidesign ADAT Bridge in 8 channel groups (A,B). Only 16 channels can be received by the ADAT Bridge. For more channels, add another FS-96.
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.



### 1.8 Sony 3348 SDIF-2

1. See p.9 for menu settings
2. Transfer audio from DFC to Sony 3348, 24 channels SDIF-2
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN on the Sony 3348 (optional)
6. To Chase TC, set re-chase to OFF, (Free Mode), and sync to SDIF SYNC
7. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation.
8. Sony 3348 set to 48k EXT sync (or other desired sample rate)



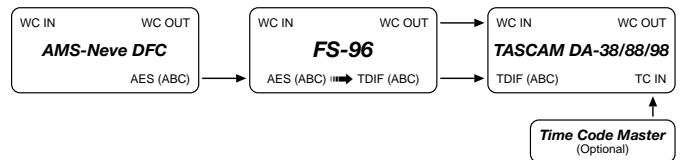
## 1. AMS-NEVE DFC : AES

Continued

Conversion to:

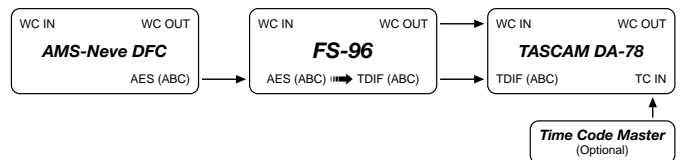
### 1.9 TASCAM DA-38/88/98 TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to TASCAM DA-38/88/98 TDIF units in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN on the DA-38/88/98 (optional)
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC (check DIP sw.)
7. DA-38/88/98 set to 48k EXT sync (or other desired sample rate)
8. DA-38/88/98 machines range from 16 to 24 bit sample resolution.



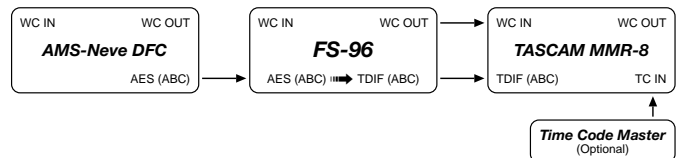
### 1.10 TASCAM DA-78 TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to TASCAM DA-78 TDIF units in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN on the DA-78 (optional)
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. DA-78 set to 48k EXT sync (or other desired sample rate)
8. DA-78 has 24 bit sample resolution.



### 1.11 TASCAM MMR-8 TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to TASCAM MMR-8 TDIF units in 8 channel groups (A,B,C).
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN on the TASCAM MMR-8 (optional)
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. MMR-8 set to 48k EXT sync (or other desired sample rate)



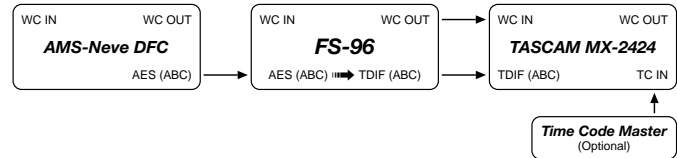
## 1. AMS-NEVE DFC : AES

Continued

Conversion to:

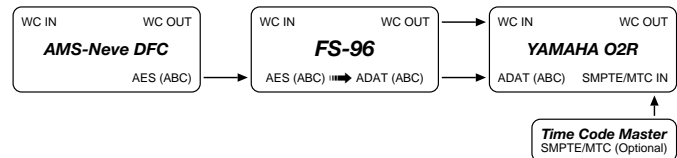
### 1.12 TASCAM MX-2424 TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to TASCAM MX-2424 TDIF in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master out to SMPTE IN on the TASCAM MMR-8 (optional).
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. MMR-8 set to 48k EXT sync (or other desired sample rate)



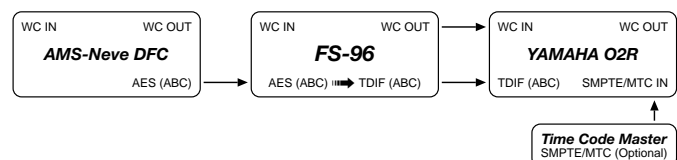
### 1.13 YAMAHA O2R ADAT

1. See p.9 for menu settings
2. Transfer audio from DFC to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. To Display TC on O2R, connect SMPTE or MIDI (MTC) OUT from the TC Master, to SMPTE or MIDI IN on the O2R (optional)
6. YAMAHA O2R set to 48k EXT sync (or other desired sample rate)



### 1.14 YAMAHA O2R TDIF

1. See p.9 for menu settings
2. Transfer audio from DFC to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use DFC AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. To Display TC on O2R, connect SMPTE or MIDI (MTC) OUT from the TC Master, to SMPTE or MIDI IN on the O2R (optional).
6. YAMAHA O2R set to 48k EXT sync (or other desired sample rate).



## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
2.1 AMS-NEVE DFC AES	ADAT	ADAT	AES	INT	Word Out	
2.2 Mackie D8B AES	ADAT	ADAT	AES	INT	Word Out	
2.3 Mackie D8B TDIF	ADAT	ADAT	TDIF	INT	Word Out	
2.4 MOTU 2408 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
2.5 ProTools: Digidesign 888/24 AES	ADAT	ADAT	AES	INT	Word Out	
2.6 Otari RADAR® II AES	ADAT	ADAT	AES	INT	Word Out	
2.7 Otari RADAR® II TDIF	ADAT	ADAT	TDIF	INT	Word Out	
2.8 Sony DMXR100 AES	ADAT	ADAT	AES	INT	Word Out	
2.9 Sony 3348 SDIF-2	ADAT	ADAT	SDIF2	INT	SDIF2 Sync Out	
2.10 TASCAM DA-38/88/98 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
2.11 TASCAM DA-78 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
2.12 TASCAM MMR-8 AES	ADAT	ADAT	AES	INT	Word Out	
2.13 TASCAM MMR-8 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
2.14 TASCAM MX-2424 AES	ADAT	ADAT	AES	INT	Word Out	
2.15 YAMAHA O2R AES	ADAT	ADAT	AES	INT	Word Out	
2.16 YAMAHA O2R TDIF	ADAT	ADAT	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

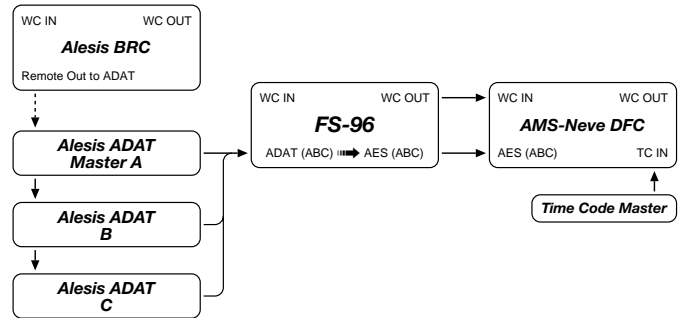
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

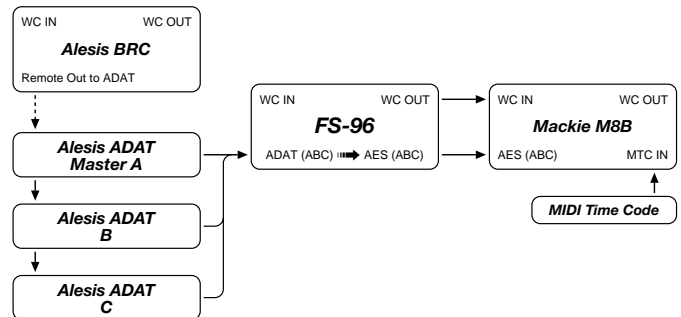
### 2.1 AMS-NEVE DFC AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to DFC in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the DFC
7. DFC set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to DFC AES 24BIT



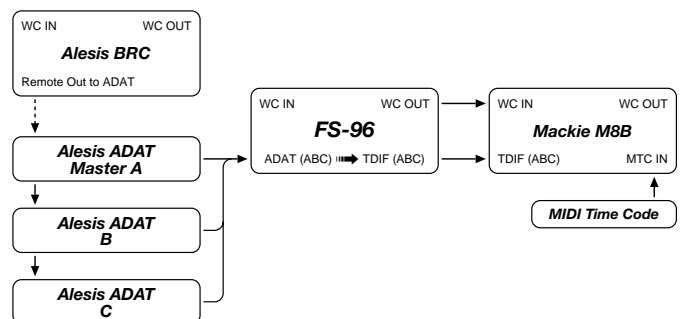
### 2.2 Mackie D8B AES

1. See p.15 for menu settings
2. Transfer audio from Alesis ADAT units to Mackie D8B AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source.
4. Interconnect ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
7. D8B set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to D8B AES 24BIT



### 2.3 Mackie D8B TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
7. D8B set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to D8B TDIF 24BIT





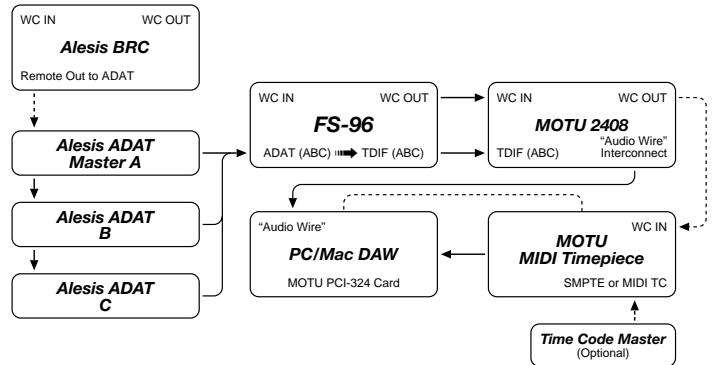
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

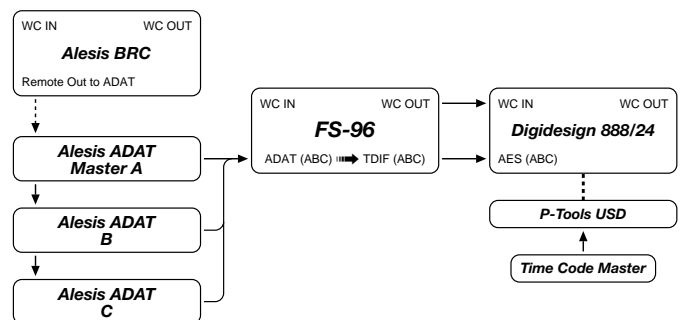
### 2.4 MOTU 2408 TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to MOTU 2408 TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. To Display TC on MOTU 2408 TDIF, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
7. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV
8. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details
9. MOTU 2408 set to 48k EXT sync (or other desired sample rate)
10. D8B set to 48k EXT sync (or other desired sample rate)
11. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to D8B TDIF 24BIT



### 2.5 ProTools: Digidesign 888/24 AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to Digidesign 888/24 AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on ProTools Universal Slave Driver or sync device
7. Digidesign 888/24 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to Digi-888 AES 24BIT



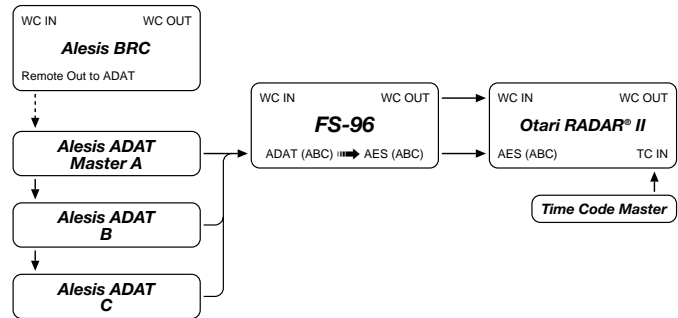
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

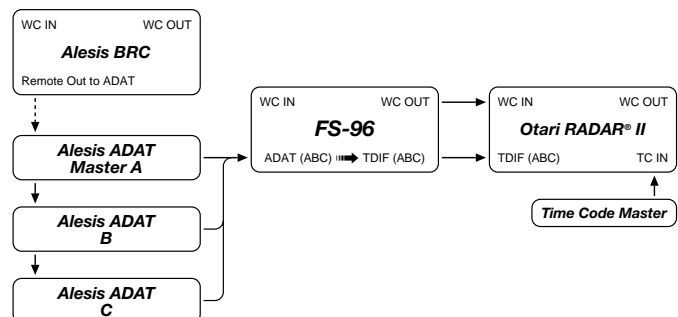
### 2.6 Otari RADAR® II AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to RADAR® II AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the Otari RADAR® II (set RADAR® II time code to EXTERNAL)
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. RADAR® II set to 48k EXT sync (or other desired sample rate)
9. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to RADAR® II AES 24BIT



### 2.7 Otari RADAR® II TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the Otari RADAR® II (set RADAR® II time code to EXTERNAL)
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. RADAR® II set to 48k EXT sync (or other desired sample rate)
9. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to RADAR® II TDIF 24BIT



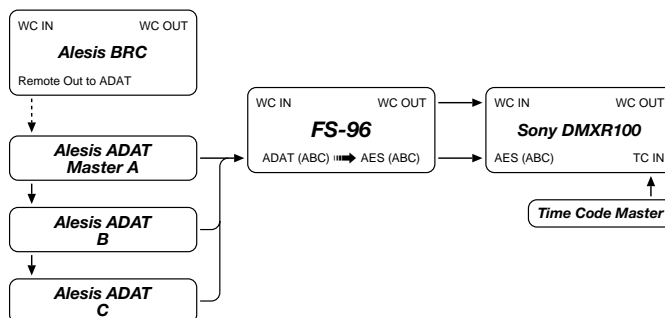
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

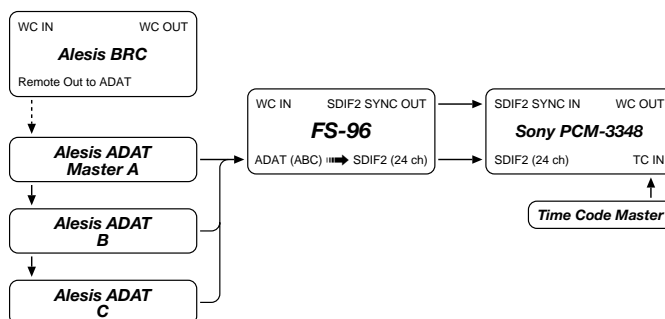
### 2.8 Sony DMXR100 Console AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to Sony DMXR100 AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the Sony DMXR100
7. Sony DMXR100 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to Sony DMXR100 AES 24BIT



### 2.9 Sony 3348 SDIF-2

1. See p.15 for menu settings
2. Transfer audio from ADAT units to Sony 3348 SDIF-2 in a 24 channel groups
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL, and sync to SDIF SYNC
6. TC Master Out to TC In on the Sony 3348
7. Sony 3348 set to 48k EXT sync (or other desired sample rate)
8. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation.
9. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to Sony 3348 SDIF-2, 20-24BIT



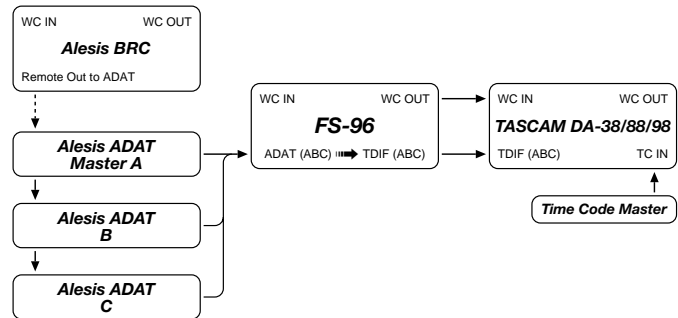
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

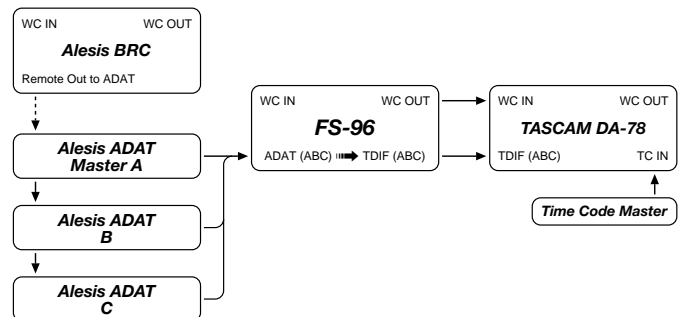
### 2.10 TASCAM DA-38/88/98 TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the TASCAM DA-38/88/98
7. TASCAM DA-38/88/98 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to DA-38/88/98 TDIF 24BIT



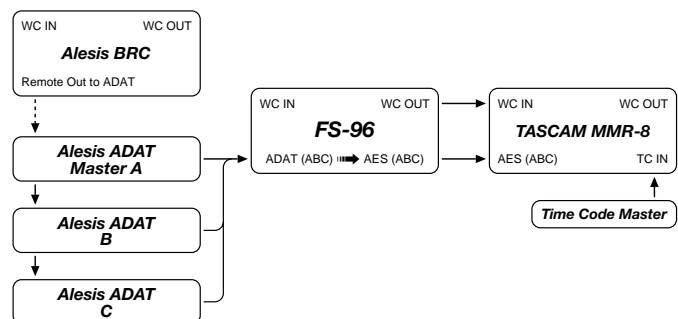
### 2.11 TASCAM DA-78 TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the TASCAM DA-78
7. TASCAM DA-78 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to TASCAM DA-78 TDIF 24BIT



### 2.12 TASCAM MMR-8 AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to TASCAM MMR-8 AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the TASCAM MMR-8
7. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to TASCAM MMR-8 AES 24BIT



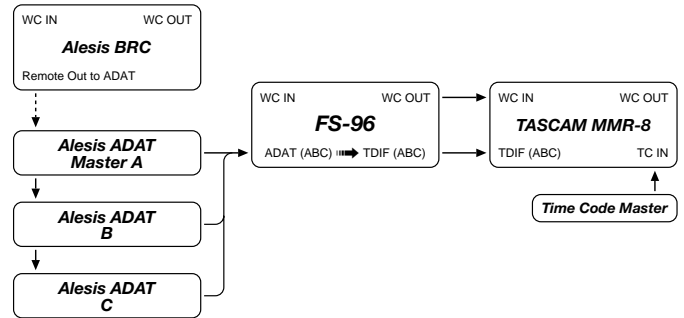
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

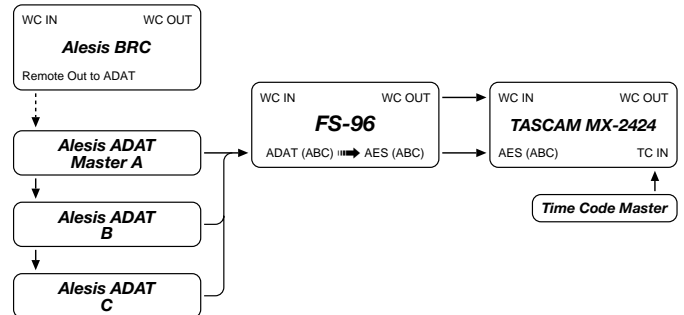
### 2.13 TASCAM MMR-8 TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the TASCAM MMR-8
7. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to TASCAM MMR-8 TDIF 24BIT



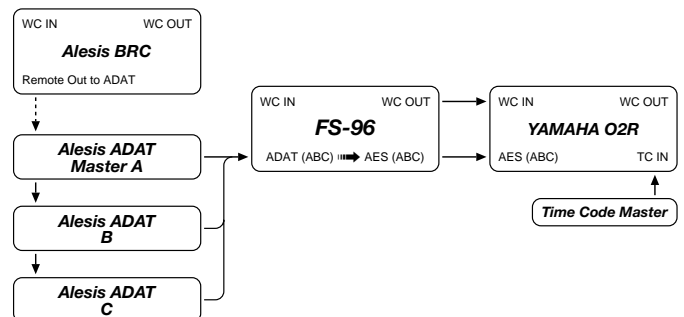
### 2.14 TASCAM MX-2424 AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to TASCAM MX-2424 AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the TASCAM MX-2424
7. TASCAM MX-2424 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to TASCAM MX-2424 AES 24BIT



### 2.15 YAMAHA O2R AES

1. See p.15 for menu settings
2. Transfer audio from ADAT units to YAMAHA O2R AES in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the YAMAHA O2R
7. YAMAHA O2R set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to YAMAHA O2R AES 24BIT.



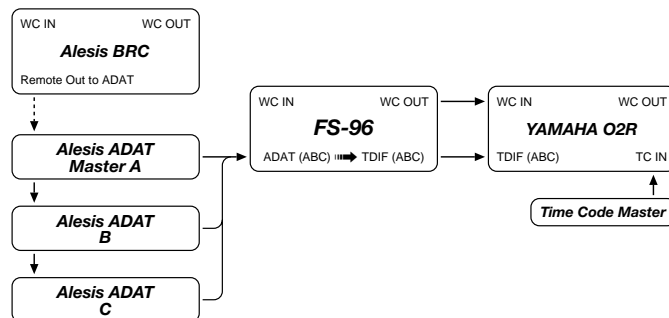
## 2. Alesis ADAT/BRC : ADAT Optical (16 bit)

Continued

Conversion to:

### 2.16 YAMAHA O2R TDIF

1. See p.15 for menu settings
2. Transfer audio from ADAT units to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use ADAT imbedded clock as FS-96 Input Clock Source
4. Interconnect multiple ADATs via ADAT Sync In to Sync Out 9 pin connectors
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. TC Master Out to TC In on the TASCAM MMR-8
7. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)
8. Set FS-96 SRC (sample rate convert) ON. ADAT 16BIT to TASCAM MMR-8 TDIF 24BIT.



## 3. Mackie D8B : TDIF

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
3.1 AMS-NEVE DFC AES	TDIF	TDIF	AES	INT	Word Out	
3.2 Alesis ADAT/BRC ADAT	TDIF	TDIF	ADAT	INT	Word Out	
3.3 MOTU 2408 ADAT	TDIF	TDIF	ADAT	INT	Word Out	
3.4 Otari RADAR® I ADAT	TDIF	TDIF	ADAT	INT	Word Out	
3.5 Otari RADAR® II AES	TDIF	TDIF	AES	INT	Word Out	
3.6 ProTools: Digidesign ADAT Bridge	TDIF	TDIF	ADAT	INT	Word Out	
3.7 ProTools: Digidesign 888/24 AES	TDIF	TDIF	AES	INT	Word Out	
3.8 Sony DMXR100 AES	TDIF	TDIF	AES	INT	Word Out	
3.9 Sony 3348 SDIF-2	TDIF	TDIF	SDIF2	INT	SDIF2 Sync Out	
3.10 TASCAM MMR-8 AES	TDIF	TDIF	AES	INT	Word Out	
3.11 TASCAM MX-2424 AES	TDIF	TDIF	AES	INT	Word Out	
3.12 YAMAHA O2R ADAT	TDIF	TDIF	ADAT	INT	Word Out	
3.13 YAMAHA O2R AES	TDIF	TDIF	AES	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

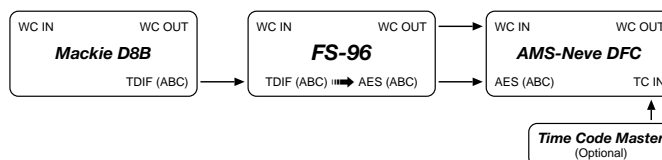
## 3. Mackie D8B : TDIF

Continued

Conversion to:

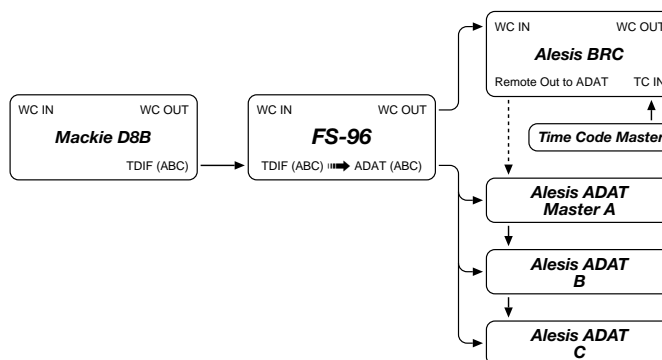
### 3.1 AMS-NEVE DFC AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B to DFC console in 8 channel groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the DFC console



### 3.2 Alesis ADAT/BRC ADAT

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B console units to ADAT in 8 channel groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. ADAT set to 48k EXT sync (or other desired sample rate)
7. Set FS-96 SRC (sample rate convert) ON. TDIF 24BIT to ADAT 16BIT.



### 3.3 MOTU 2408 ADAT

1. See p.23 for menu settings Note: The only time that this setup is needed is for sample rate / bit depth conversion, as the Mackie D8B console includes both ADAT and TDIF interfaces.
2. Transfer audio from Mackie D8B console to MOTU 2408 ADAT in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. ADAT set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) ON. TDIF 24BIT to ADAT 16BIT.





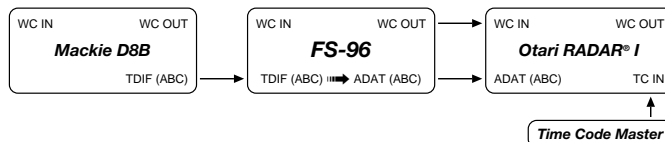
## 3. Mackie D8B : TDIF

Continued

Conversion to:

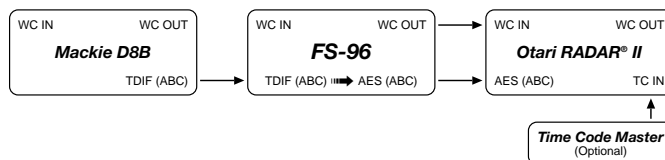
### 3.4 Otari RADAR® I ADAT

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B console to Otari RADAR® I ADAT in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Otari RADAR® I set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) ON. TDIF 24BIT to ADAT 16BIT.
7. TC Master Out to TC In on the Otari RADAR® I (set RADAR® I time code to EXTERNAL)
8. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC



### 3.5 Otari RADAR® II AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B to Otari RADAR® II AES in 8 channel groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II (set RADAR® II time code to EXTERNAL)
5. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC



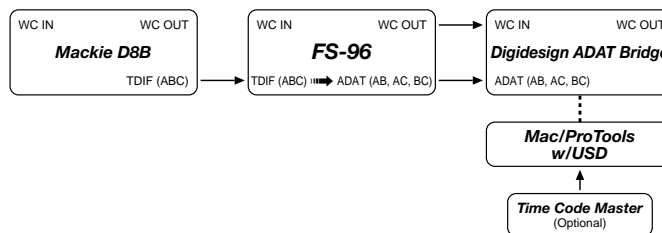
## 3. Mackie D8B : TDIF

Continued

Conversion to:

### 3.6 ProTools: Digidesign ADAT Bridge

1. See p.23 for menu settings Note: The only time that this setup is needed is for sample rate / bit depth conversion, as the Mackie D8B console includes both ADAT and TDIF interfaces.
2. Transfer audio from Mackie D8B console to Digidesign ADAT Bridge in 8 ch. groups but only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer.
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



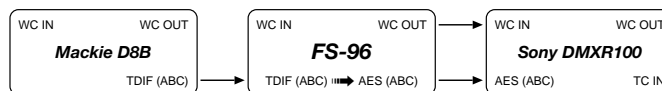
### 3.7 ProTools: Digidesign 888/24 AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to Otari RADAR® II AES in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Digi 888/24 set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) as needed.



### 3.8 Sony DMXR100 AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to Sony DMXR100 AES in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Sony DMXR100 set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) as needed.



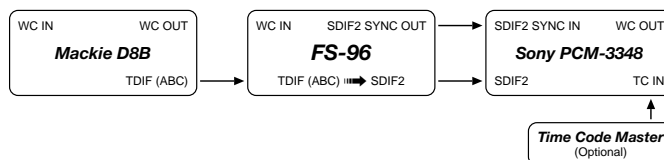
## 3. Mackie D8B : TDIF

Continued

Conversion to:

### 3.9 Sony 3348 SDIF-2

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation.
7. Set FS-96 SRC (sample rate convert) as needed.



### 3.10 TASCAM MMR-8 AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to TASCAM MMR-8 AES in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) as needed.



### 3.11 TASCAM MX-2424 AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to TASCAM MX-2424 AES in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TASCAM MX-2424 set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) as needed.



## 3. Mackie D8B : TDIF

Continued

Conversion to:

### 3.12 YAMAHA O2R ADAT

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to YAMAHA O2R ADAT in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. YAMAHA O2R ADAT set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) as needed.



### 3.13 YAMAHA O2R AES

1. See p.23 for menu settings
2. Transfer audio from Mackie D8B TDIF to YAMAHA O2R AES in 8 ch. groups (A,B,C)
3. Use Mackie D8B TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. YAMAHA O2R AES set to 48k EXT sync (or other desired sample rate)
6. Set FS-96 SRC (sample rate convert) as needed.



## 4. Mackie D8B : AES

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
4.1 Alesis ADAT/BRC ADAT	AES	AES	ADAT	INT	Word Out	
4.2 MOTU 2408 TDIF	AES	AES	TDIF	INT	Word Out	
4.3 Otari RADAR® I ADAT	AES	AES	ADAT	INT	Word Out	
4.4 Otari RADAR® II TDIF	AES	AES	TDIF	INT	Word Out	
4.5 ProTools: Digidesign ADAT Bridge	AES	AES	ADAT	INT	Word Out	
4.6 Sony 3348 SDIF-2	AES	AES	SDIF2	INT	SDIF2 Sync Out	
4.7 TASCAM DA-38/88/98 TDIF	AES	AES	TDIF	INT	Word Out	
4.8 TASCAM DA-78 TDIF	AES	AES	TDIF	INT	Word Out	
4.9 TASCAM MMR-8 TDIF	AES	AES	TDIF	INT	Word Out	
4.10 TASCAM MX-2424 TDIF	AES	AES	TDIF	INT	Word Out	
4.11 YAMAHA O2R ADAT	AES	AES	ADAT	INT	Word Out	
4.12 YAMAHA O2R TDIF	AES	AES	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

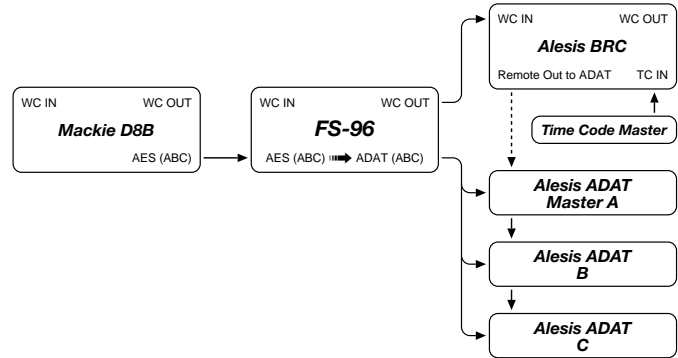
## 4. Mackie D8B : AES

Continued

Conversion to:

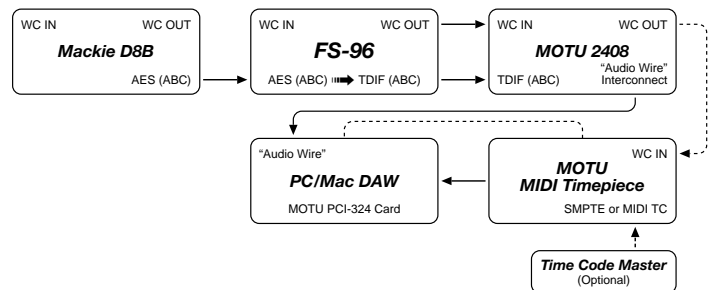
### 4.1 Alesis ADAT/BRC ADAT

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to ADAT units in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



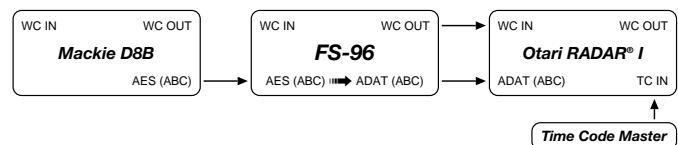
### 4.2 MOTU 2408 TDIF

1. See p.29 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Mackie D8B AES to MOTU 2408 TDIF in 8 channel groups (A,B,C)
4. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 4.3 Otari RADAR® I ADAT

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the Otari RADAR® I
6. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. Otari RADAR® I set to 48k EXT sync (or other desired sample rate)



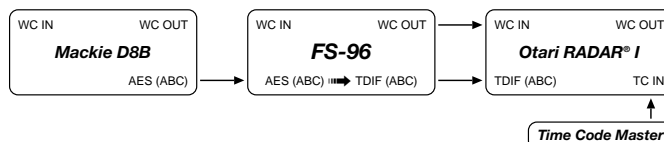
## 4. Mackie D8B : AES

Continued

Conversion to:

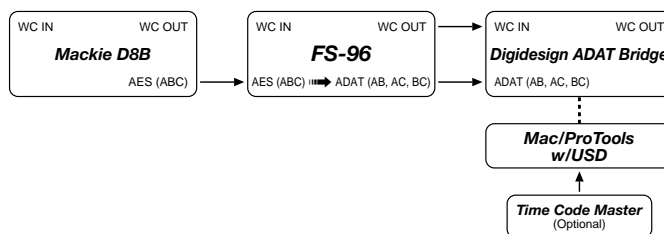
### 4.4 Otari RADAR® II TDIF

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to RADAR® I TDIF in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the Otari RADAR® II
6. Otari RADAR® II set to Chase. RADAR® II can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. Otari RADAR® II set to 48k EXT sync (or other desired sample rate)



### 4.5 ProTools: Digidesign ADAT Bridge

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B console to Digidesign ADAT Bridge in 8 ch. groups but only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C)
3. Use Mackie D8B AES imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer.
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



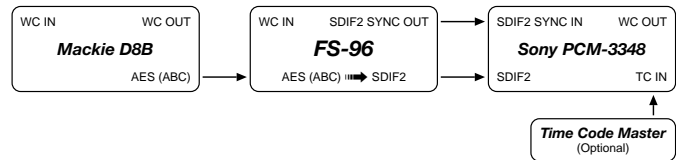
## 4. Mackie D8B : AES

Continued

Conversion to:

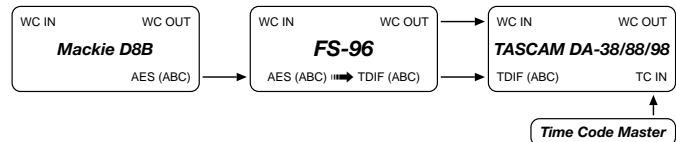
### 4.6 Sony 3348 SDIF-2

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



### 4.7 TASCAM DA-38/88/98 TDIF

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to TASCAM DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the TASCAM DA-38/88/98
6. TASCAM DA-38/88/98 set to Chase. DA-38/88/98 can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. TASCAM DA-38/88/98 set to 48k EXT sync (or other desired sample rate)





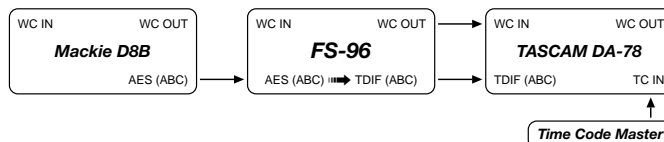
## 4. Mackie D8B : AES

Continued

Conversion to:

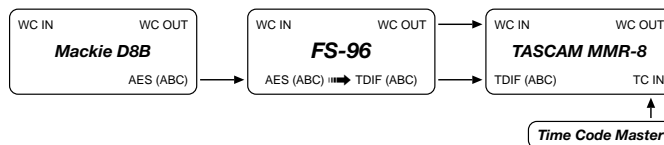
### 4.8 TASCAM DA-78 TDIF

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the TASCAM DA-78
6. TASCAM DA-78 set to Chase. DA-78 can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. TASCAM DA-78 set to 48k EXT sync (or other desired sample rate)



### 4.9 TASCAM MMR-8 TDIF

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the TASCAM MMR-8
6. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)



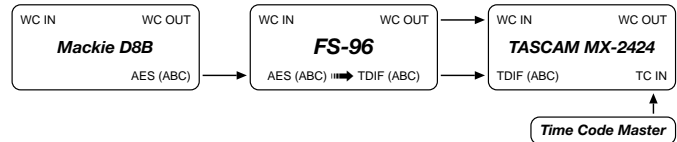
## 4. Mackie D8B : AES

Continued

Conversion to:

### 4.10 TASCAM MX-2424 TDIF

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to TASCAM MX-2424 TDIF in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the TASCAM MX-2424
6. TASCAM MX-2424 set to Chase. TASCAM MX-2424 can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. TASCAM MX-2424 set to 48k EXT sync (or other desired sample rate)



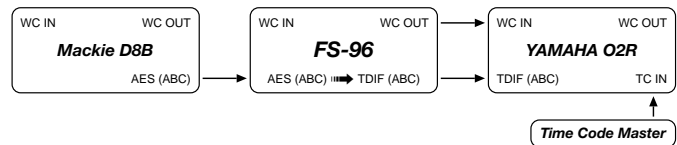
### 4.11 YAMAHA O2R ADAT

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. YAMAHA O2R ADAT set to 48k EXT sync (or other desired sample rate)



### 4.12 YAMAHA O2R TDIF

1. See p.29 for menu settings
2. Transfer audio from Mackie D8B AES to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Mackie D8B AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TASCAM MX-2424 set to 48k EXT sync (or other desired sample rate)



## 5. Otari RADAR® I : ADAT Optical

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
5.1 AMS-NEVE DFC AES	ADAT	ADAT	AES	INT	Word Out	
5.2 Mackie D8B AES	ADAT	ADAT	AES	INT	Word Out	
5.3 Mackie D8B TDIF	ADAT	ADAT	TDIF	INT	Word Out	
5.4 MOTU 2408 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
5.5 ProTools: Digidesign 888/24 AES	ADAT	ADAT	AES	INT	Word Out	
5.6 Otari RADAR® II AES	ADAT	ADAT	AES	INT	Word Out	
5.7 Otari RADAR® II TDIF	ADAT	ADAT	TDIF	INT	Word Out	
5.8 Sony DMXR100 AES	ADAT	ADAT	AES	INT	Word Out	
5.9 Sony 3348 SDIF-2	ADAT	ADAT	SDIF2	INT	SDIF2 Sync Out	
5.10 TASCAM DA-38/88/98 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
5.11 TASCAM DA-78 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
5.12 TASCAM MMR-8 AES	ADAT	ADAT	AES	INT	Word Out	
5.13 TASCAM MMR-8 TDIF	ADAT	ADAT	TDIF	INT	Word Out	
5.14 TASCAM MX-2424 AES	ADAT	ADAT	AES	INT	Word Out	
5.15 YAMAHA O2R AES	ADAT	ADAT	AES	INT	Word Out	
5.16 YAMAHA O2R TDIF	ADAT	ADAT	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

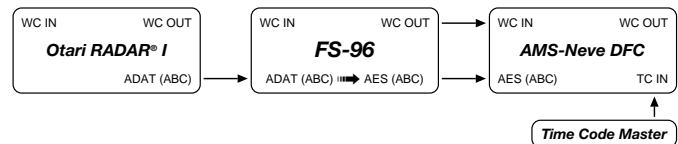
## 5. Otari RADAR® I : ADAT Optical

Continued

Conversion to:

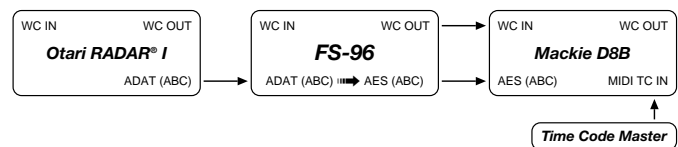
### 5.1 AMS-NEVE DFC AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to AMS-NEVE DFC AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. To Display TC on AMS-NEVE DFC, connect TC (LTC) OUT from the TC Master, to MIDI IN on the RADAR® I (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. AMS-NEVE DFC set to 48k EXT sync (or other desired sample rate)



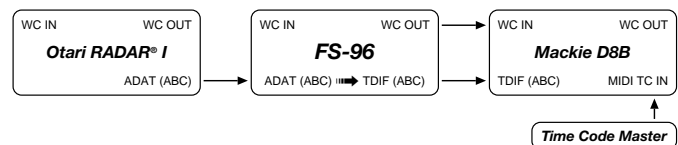
### 5.2 Mackie D8B AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Mackie D8B AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B AES set to 48k EXT sync (or other desired sample rate)



### 5.3 Mackie D8B TDIF

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



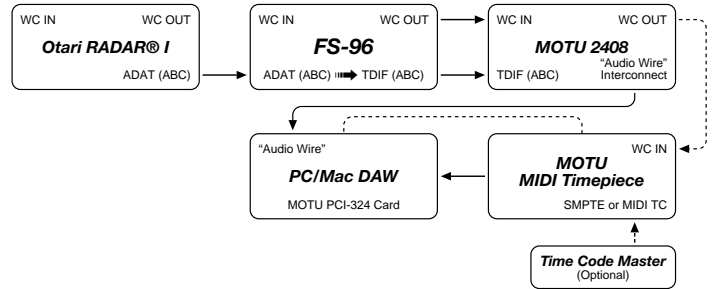
## 5. Otari RADAR® I : ADAT Optical

Continued

Conversion to:

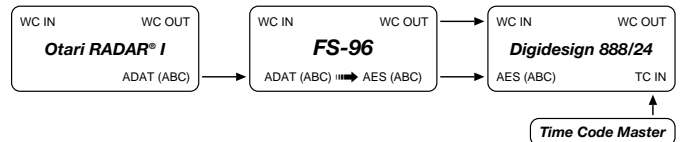
### 5.4 MOTU 2408 TDIF

1. See p.35 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Otari RADAR® I ADAT to MOTU 2408 TDIF in 8 channel groups (A,B,C)
4. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



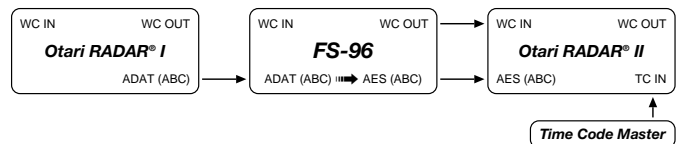
### 5.5 ProTools: Digidesign 888/24 AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Digidesign 888/24 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Digidesign 888/24 AES set to 48k EXT sync (or other desired sample rate)



### 5.6 Otari RADAR® II AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Otari RADAR® II AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II
5. Otari RADAR® II set to Chase. RADAR® II can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II AES set to 48k EXT sync (or other desired sample rate)



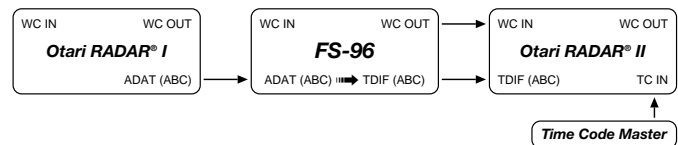
## 5. Otari RADAR® I : ADAT Optical

Continued

Conversion to:

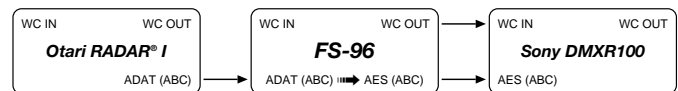
### 5.7 Otari RADAR® II TDIF

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Otari RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II
5. Otari RADAR® II set to Chase. RADAR® II can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II TDIF set to 48k EXT sync (or other desired sample rate)



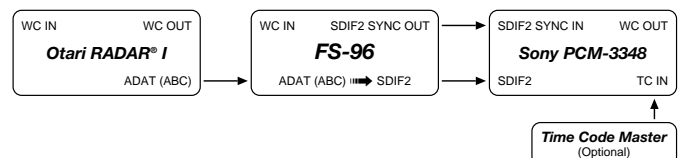
### 5.8 Sony DMXR100 AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Sony DMXR100 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. To Display TC on Sony DMX, connect TC OUT (LTC/MTC) from the TC Master, to MIDI IN on the RADAR® I (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Sony DMXR100 AES set to 48k EXT sync (or other desired sample rate)



### 5.9 Sony 3348 SDIF-2

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



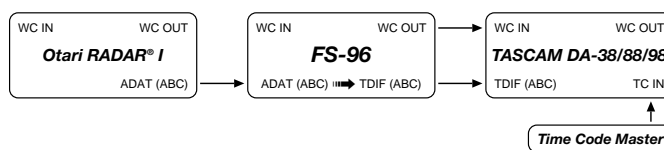
## 5. Otari RADAR® I : ADAT Optical

Continued

Conversion to:

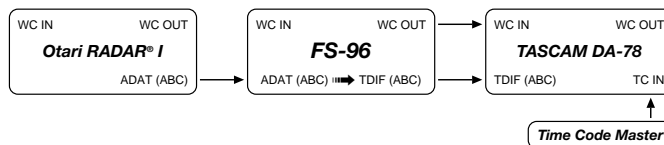
### 5.10 TASCAM DA-38/88/98 TDIF

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to TASCAM DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-38/88/98
5. TASCAM DA-38/88/98 set to Chase. TASCAM DA-38/88/98 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-38/88/98 TDIF set to 48k EXT sync (or other desired sample rate)



### 5.11 TASCAM DA-78 TDIF

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-78
5. TASCAM DA-78 set to Chase. TASCAM DA-78 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-78 TDIF set to 48k EXT sync (or other desired sample rate)



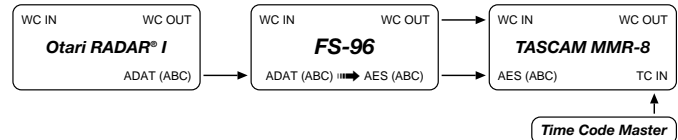
## 5. Otari RADAR® I : ADAT Optical

Continued

Conversion to:

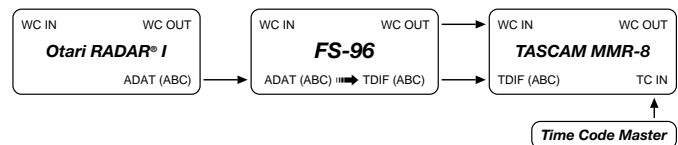
### 5.12 TASCAM MMR-8 AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to TASCAM MMR-8 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 AES set to 48k EXT sync (or other desired sample rate)



### 5.13 TASCAM MMR-8 TDIF

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 TDIF set to 48k EXT sync (or other desired sample rate)





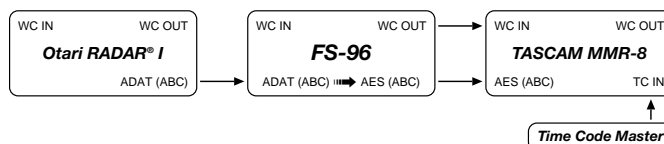
## 5. Otari RADAR® I : ADAT Optical

Continued

Conversion to:

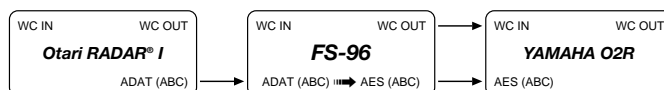
### 5.14 TASCAM MX-2424 AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to TASCAM MX-2424 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424
5. TASCAM MX-2424 set to Chase. TASCAM MX-2424 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 AES set to 48k EXT sync (or other desired sample rate)



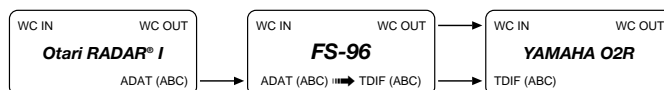
### 5.15 YAMAHA O2R AES

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to YAMAHA O2R AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the RADAR® I (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R AES set to 48k EXT sync (or other desired sample rate)



### 5.16 YAMAHA O2R TDIF

1. See p.35 for menu settings
2. Transfer audio from Otari RADAR® I ADAT to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® I ADAT imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the RADAR® I (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R TDIF set to 48k EXT sync (or other desired sample rate)



## 6. Otari RADAR® II : AES

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
6.1 Alesis ADAT/BRC ADAT	AES	AES	ADAT	INT	Word Out	
6.2 Mackie D8B ADAT	AES	AES	ADAT	INT	Word Out	
6.3 Mackie D8B TDIF	AES	AES	TDIF	INT	Word Out	
6.4 MOTU 2408 TDIF	AES	AES	TDIF	INT	Word Out	
6.5 Otari RADAR® I ADAT	AES	AES	ADAT	INT	Word Out	
6.6 Otari RADAR® II TDIF	AES	AES	TDIF	INT	Word Out	
6.7 ProTools: Digidesign ADAT Bridge	AES	AES	ADAT	INT	Word Out	
6.8 Sony 3348 SDIF-2	AES	AES	SDIF2	INT	SDIF2 Sync Out	
6.9 TASCAM DA-38/88/98 TDIF	AES	AES	TDIF	INT	Word Out	
6.10 TASCAM DA-78 TDIF	AES	AES	TDIF	INT	Word Out	
6.11 TASCAM MMR-8 TDIF	AES	AES	TDIF	INT	Word Out	
6.12 TASCAM MX-2424 TDIF	AES	AES	TDIF	INT	Word Out	
6.13 YAMAHA O2R ADAT	AES	AES	ADAT	INT	Word Out	
6.14 YAMAHA O2R TDIF	AES	AES	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

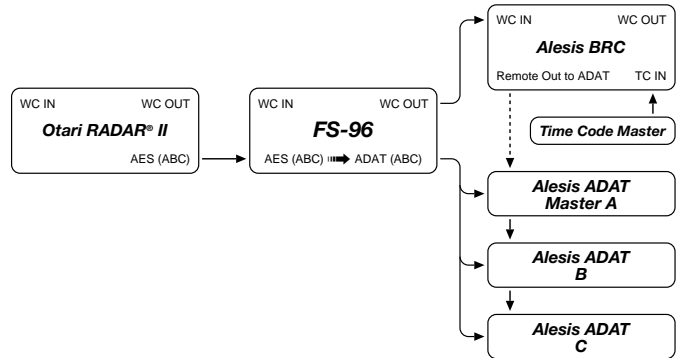
## 6. Otari RADAR® II : AES

Continued

Conversion to:

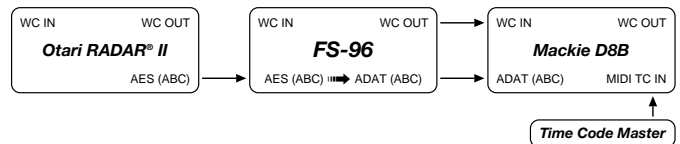
### 6.1 Alesis ADAT/BRC ADAT

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to ADAT units in 8 channel groups (A,B,C)
3. Use Otari RADAR® II imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



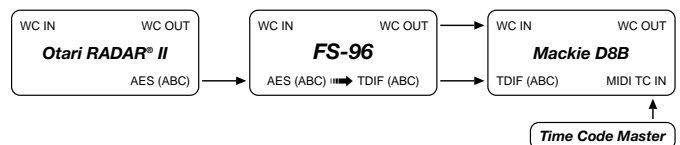
### 6.2 Mackie D8B ADAT

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



### 6.3 Mackie D8B TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



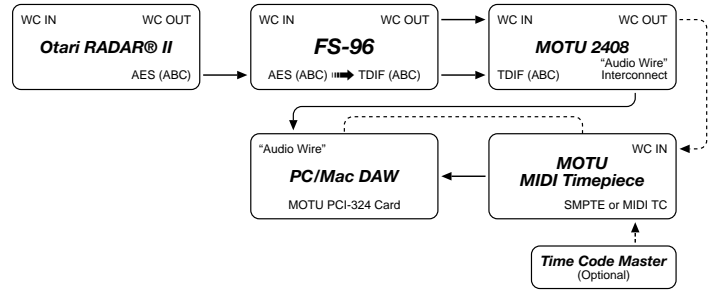
## 6. Otari RADAR® II : AES

Continued

Conversion to:

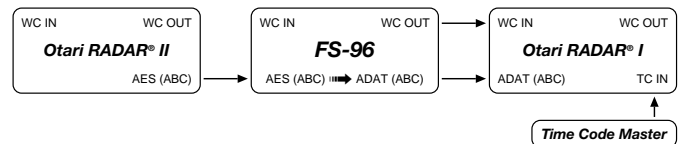
### 6.4 MOTU 2408 TDIF

1. See p.42 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Otari RADAR® II AES to MOTU 2408 TDIF in 8 channel groups (A,B,C)
4. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 6.5 Otari RADAR® I ADAT

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to Otari RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I ADAT set to 48k EXT sync (or other desired sample rate)



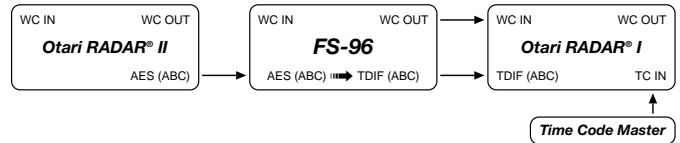
## 6. Otari RADAR® II : AES

Continued

Conversion to:

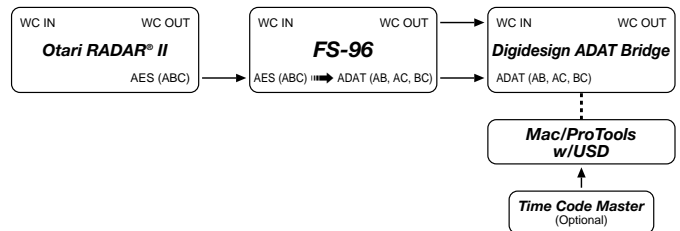
### 6.6 Otari RADAR® II TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to Otari RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II TDIF unit
5. Otari RADAR® II TDIF unit set to Chase. RADAR® II TDIF unit can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II TDIF set to 48k EXT sync (or other desired sample rate)



### 6.7 ProTools: Digidesign ADAT Bridge

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C).
3. Use Otari RADAR® II AES imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer.
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



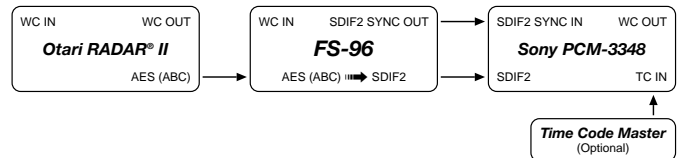
## 6. Otari RADAR® II : AES

Continued

Conversion to:

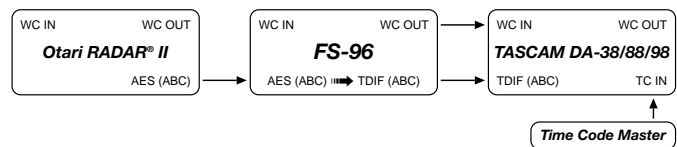
### 6.8 Sony 3348 SDIF-2

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Otari RADAR® II AES imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



### 6.9 TASCAM DA-38/88/98 TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to TASCAM DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-38/88/98 TDIF unit
5. TASCAM DA-38/88/98 unit set to Chase. TASCAM DA-38/88/98 unit can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-38/88/98 sync set to 48k EXT sync (or other desired sample rate)



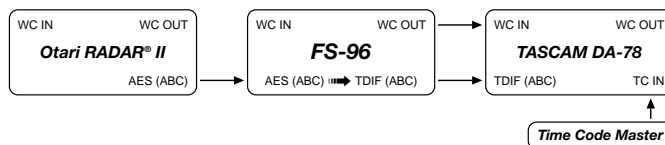
## 6. Otari RADAR® II : AES

Continued

Conversion to:

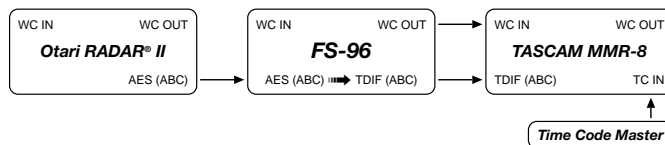
### 6.10 TASCAM DA-78 TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-78 TDIF unit
5. TASCAM DA-78 unit set to Chase. TASCAM DA-78 unit can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-78 sync set to 48k EXT sync (or other desired sample rate)



### 6.11 TASCAM MMR-8 TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8 TDIF unit
5. TASCAM MMR-8 unit set to Chase. TASCAM MMR-8 unit can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 sync set to 48k EXT sync (or other desired sample rate)



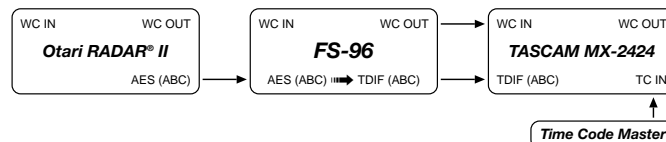
## 6. Otari RADAR® II : AES

Continued

Conversion to:

### 6.12 TASCAM MX-2424 TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to TASCAM MX-2424 TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424 TDIF unit
5. TASCAM MMR-8 unit set to Chase. TASCAM MX-2424 unit can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 sync set to 48k EXT sync (or other desired sample rate)



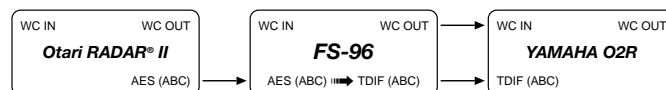
### 6.13 YAMAHA O2R ADAT

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Otari YAMAHA O2R ADAT set to 48k EXT sync (or other desired sample rate)



### 6.14 YAMAHA O2R TDIF

1. See p.42 for menu settings
2. Transfer audio from Otari RADAR® II AES to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Otari RADAR® II AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. YAMAHA O2R TDIF set to 48k EXT sync (or other desired sample rate)





## 7. Otari RADAR® II : TDIF

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
7.1 AMS-NEVE DFC AES	TDIF	TDIF	AES	INT	Word Out	
7.2 Alesis ADAT/BRC ADAT	TDIF	TDIF	ADAT	INT	Word Out	
7.3 Mackie D8B ADAT	TDIF	TDIF	ADAT	INT	Word Out	
7.4 Mackie D8B AES	TDIF	TDIF	AES	INT	Word Out	
7.5 MOTU 2408 ADAT	TDIF	TDIF	ADAT	INT	Word Out	
7.6 Otari RADAR® I ADAT	TDIF	TDIF	ADAT	INT	Word Out	
7.7 Otari RADAR® II AES	TDIF	TDIF	AES	INT	Word Out	
7.8 ProTools: Digidesign ADAT Bridge	TDIF	TDIF	ADAT	INT	Word Out	
7.9 ProTools: Digidesign 888/24 AES	TDIF	TDIF	AES	INT	Word Out	
7.10 Sony DMXR100 AES	TDIF	TDIF	AES	INT	Word Out	
7.11 Sony 3348 SDIF-2	TDIF	TDIF	SDIF2	INT	SDIF2 Sync Out	
7.12 TASCAM MMR-8 AES	TDIF	TDIF	AES	INT	Word Out	
7.13 TASCAM MX-2424 AES	TDIF	TDIF	AES	INT	Word Out	
7.14 YAMAHA O2R ADAT	TDIF	TDIF	ADAT	INT	Word Out	
7.15 YAMAHA O2R AES	TDIF	TDIF	AES	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

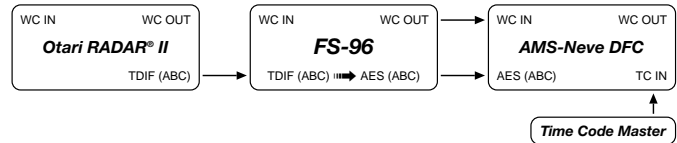
## 7. Otari RADAR® II : TDIF

Continued

Conversion to:

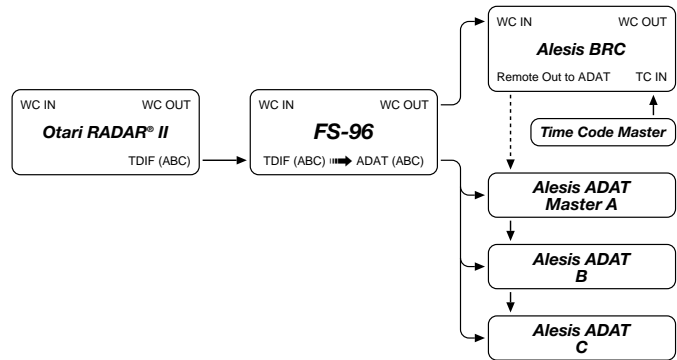
### 7.1 AMS-NEVE DFC AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to AMS-NEVE DFC AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. AMS-NEVE DFC set to 48k EXT sync (or other desired sample rate)



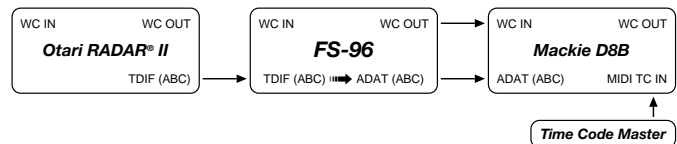
### 7.2 Alesis ADAT/BRC ADAT

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to ADAT units in 8 channel groups (A,B,C)
3. Use Otari RADAR® II imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



### 7.3 Mackie D8B ADAT

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



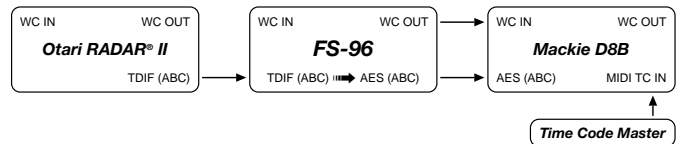
## 7. Otari RADAR® II : TDIF

Continued

Conversion to:

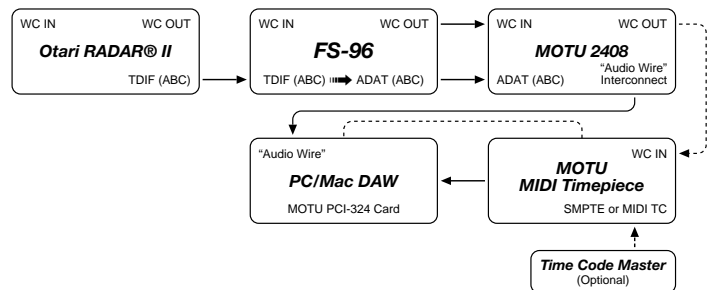
### 7.4 Mackie D8B AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Mackie D8B AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B sync set to 48k EXT sync (or other desired sample rate)



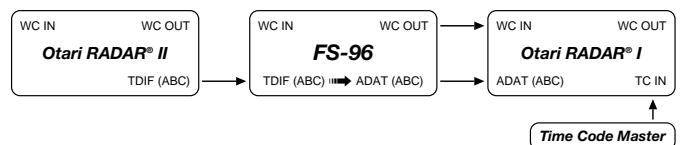
### 7.5 MOTU 2408 ADAT

1. See p.49 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Otari RADAR® II TDIF to MOTU 2408 ADAT in 8 channel groups (A,B,C)
4. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 7.6 Otari RADAR® I ADAT

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Otari RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I ADAT set to 48k EXT sync (or other desired sample rate)



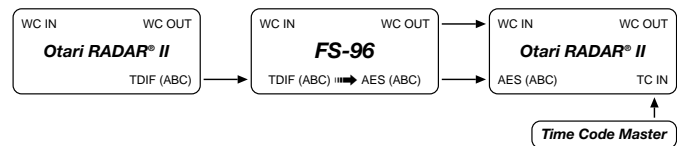
## 7. Otari RADAR® II : TDIF

Continued

Conversion to:

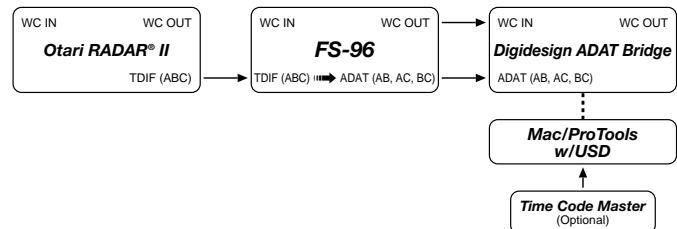
### 7.7 Otari RADAR® II AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Otari RADAR® II AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II AES unit
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II AES unit set to 48k EXT sync (or other desired sample rate)



### 7.8 ProTools: Digidesign ADAT Bridge

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C).
3. Use Otari RADAR® II TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



## 7. Otari RADAR® II : TDIF

Continued

Conversion to:

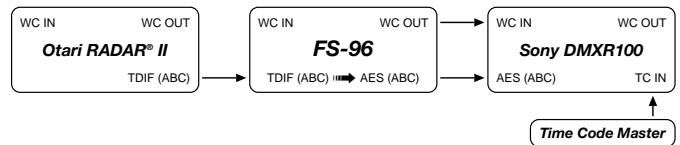
### 7.9 ProTools: Digidesign 888/24 AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Digidesign 888/24 AES in 8 ch. groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Digi 888/24 set to 48k EXT sync (or other desired sample rate)
6. TC Master Out to TC In on ProTools Universal Slave Driver or sync device
7. Set FS-96 SRC (sample rate convert) as needed.



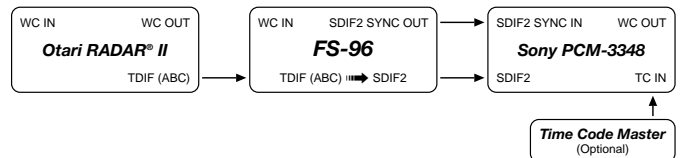
### 7.10 Sony DMXR100 AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Sony DMXR100 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on DMXR100, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the DMXR100 (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Sony DMXR100 sync set to 48k EXT sync (or other desired sample rate)



### 7.11 Sony 3348 SDIF-2

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Otari RADAR® II TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF2 SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



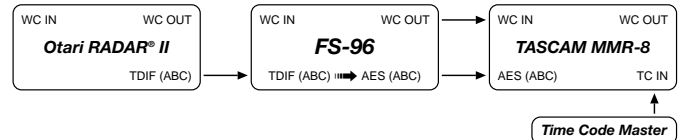
## 7. Otari RADAR® II : TDIF

Continued

Conversion to:

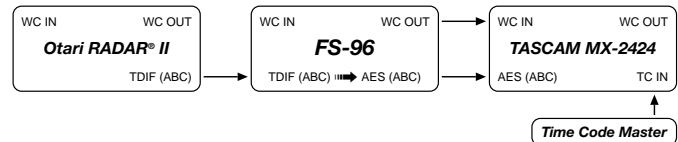
### 7.12 TASCAM MMR-8 AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to TASCAM MMR-8 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8 unit
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 AES unit set to 48k EXT sync (or other desired sample rate)



### 7.13 TASCAM MX-2424 AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to TASCAM MX-2424 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424 AES unit
5. MX-2424 AES set to Chase. MX-2424 AES can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 AES unit set to 48k EXT sync (or other desired sample rate)



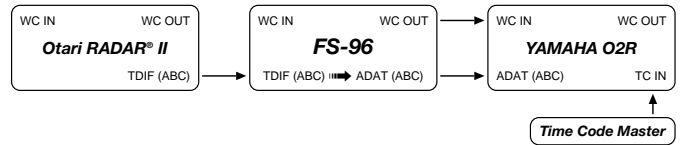
## 7. Otari RADAR® II : TDIF

Continued

Conversion to:

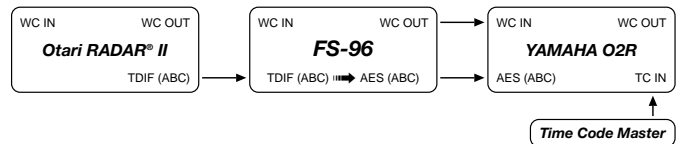
### 7.14 YAMAHA O2R ADAT

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R ADAT (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R ADAT sync set to 48k EXT sync (or other desired sample rate)



### 7.15 YAMAHA O2R AES

1. See p.49 for menu settings
2. Transfer audio from Otari RADAR® II TDIF to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R ADAT (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R ADAT sync set to 48k EXT sync (or other desired sample rate)



## 8. Sony DMXR100 : AES

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
8.1 Alesis ADAT/BRC ADAT	AES	AES	ADAT	INT	Word Out	
8.2 Mackie D8B ADAT	AES	AES	ADAT	INT	Word Out	
8.3 Mackie D8B TDIF	AES	AES	TDIF	INT	Word Out	
8.4 MOTU 2408 TDIF	AES	AES	TDIF	INT	Word Out	
8.5 Otari RADAR® I ADAT	AES	AES	ADAT	INT	Word Out	
8.6 Otari RADAR® II TDIF	AES	AES	TDIF	INT	Word Out	
8.7 ProTools: Digidesign ADAT Bridge	AES	AES	ADAT	INT	Word Out	
8.8 Sony 3348 SDIF-2	AES	AES	SDIF2	INT	SDIF2 Sync Out	
8.9 TASCAM DA-38/88/98 TDIF	AES	AES	TDIF	INT	Word Out	
8.10 TASCAM DA-78 TDIF	AES	AES	TDIF	INT	Word Out	
8.11 TASCAM MMR-8 TDIF	AES	AES	TDIF	INT	Word Out	
8.12 TASCAM MX-2424 TDIF	AES	AES	TDIF	INT	Word Out	
8.13 YAMAHA O2R ADAT	AES	AES	ADAT	INT	Word Out	
8.14 YAMAHA O2R TDIF	AES	AES	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.



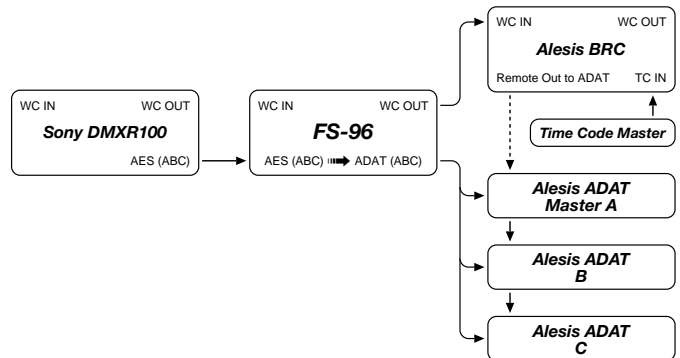
## 8. Sony DMXR100 : AES

Continued

Conversion to:

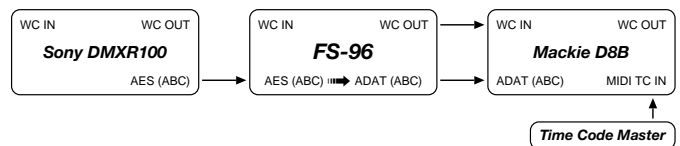
### 8.1 Alesis ADAT/BRC ADAT

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Alesis ADAT/BRC units in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



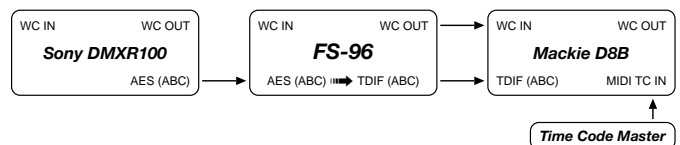
### 8.2 Mackie D8B ADAT

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B ADAT set to 48k EXT sync (or other desired sample rate)



### 8.3 Mackie D8B TDIF

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



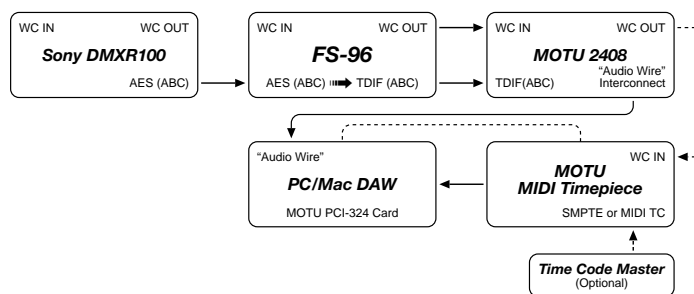
## 8. Sony DMXR100 : AES

Continued

Conversion to:

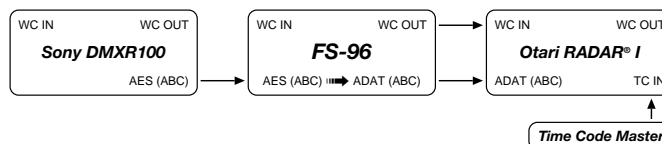
### 8.4 MOTU 2408 TDIF

1. See p.56 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Sony DMXR100 AES to MOTU 2408 TDIF in 8 channel groups (A,B,C)
4. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 8.5 Otari RADAR® I ADAT

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Otari RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I ADAT set to 48k EXT sync (or other desired sample rate)



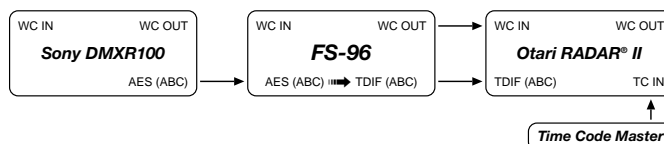
## 8. Sony DMXR100 : AES

Continued

Conversion to:

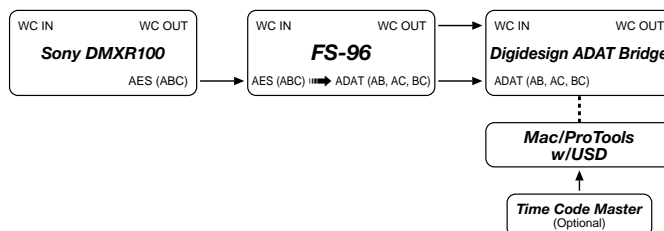
### 8.6 Otari RADAR® II TDIF

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Otari RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II AES unit
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II AES unit set to 48k EXT sync (or other desired sample rate)



### 8.7 ProTools: Digidesign ADAT Bridge

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C).
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



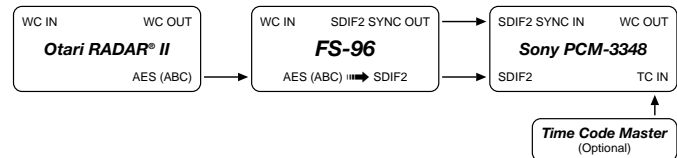
## 8. Sony DMXR100 : AES

Continued

Conversion to:

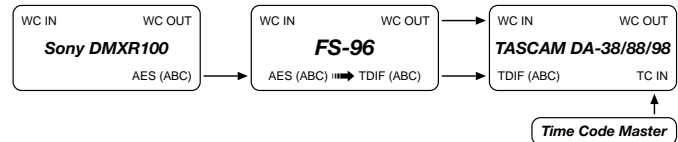
### 8.8 Sony 3348 SDIF-2

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Sony DMXR100 AES imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



### 8.9 TASCAM DA-38/88/98 TDIF

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to TASCAM DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the DA-38/88/98 TDIF AES unit
5. TASCAM DA-38/88/98 set to Chase. TASCAM DA-38/88/98 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. DA-38/88/98 TDIF unit set to 48k EXT sync (or other desired sample rate)



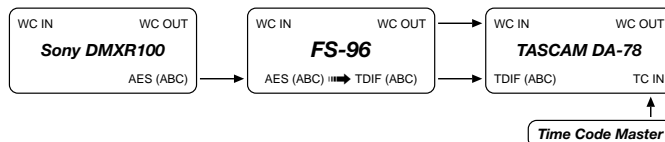
## 8. Sony DMXR100 : AES

Continued

Conversion to:

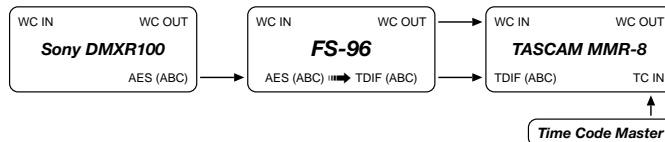
### 8.10 TASCAM DA-78 TDIF

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-78 TDIF AES unit
5. TASCAM DA-78 set to Chase. TASCAM DA-78 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-78 TDIF unit set to 48k EXT sync (or other desired sample rate)



### 8.11 TASCAM MMR-8 TDIF

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8 TDIF AES unit
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)



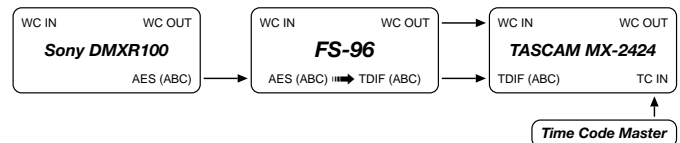
## 8. Sony DMXR100 : AES

Continued

Conversion to:

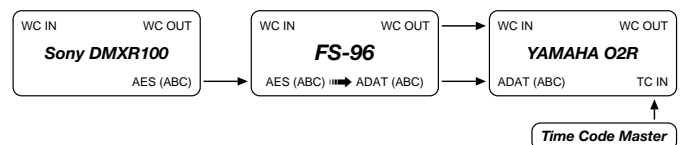
### 8.12 TASCAM MX-2424 TDIF

1. See p.56 for menu settings
2. Transfer audio from Sony DMXR100 AES to TASCAM MX-2424 TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424 unit
5. TASCAM MX-2424 set to Chase. TASCAM MX-2424 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 set to 48k EXT sync (or other desired sample rate)



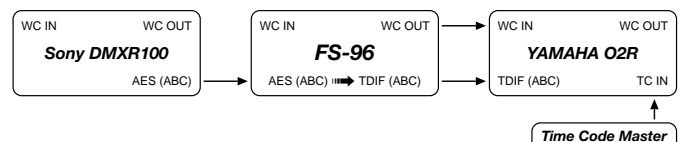
### 8.13 YAMAHA O2R ADAT

1. See p.56 for menu settings
2. Transfer audio from Otari Sony DMXR100 AES to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R ADAT (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



### 8.14 YAMAHA O2R TDIF

1. See p.56 for menu settings
2. Transfer audio from Otari Sony DMXR100 AES to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Sony DMXR100 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R ADAT (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



## 9. TASCAM DA-38/78/88/98 : TDIF

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
9.1 AMS-NEVE DFC AES	TDIF	TDIF	AES	INT	Word Out	
9.2 Alesis ADAT/BRC ADAT	TDIF	TDIF	ADAT	INT	Word Out	
9.3 Mackie D8B ADAT	TDIF	TDIF	ADAT	INT	Word Out	
9.4 Mackie D8B AES	TDIF	TDIF	AES	INT	Word Out	
9.5 MOTU 2408 ADAT	TDIF	TDIF	ADAT	INT	Word Out	
9.6 Otari RADAR® I ADAT	TDIF	TDIF	ADAT	INT	Word Out	
9.7 Otari RADAR® II AES	TDIF	TDIF	AES	INT	Word Out	
9.8 ProTools: Digidesign ADAT Bridge	TDIF	TDIF	ADAT	INT	Word Out	
9.9 ProTools: Digidesign 888/24 AES	TDIF	TDIF	AES	INT	Word Out	
9.10 Sony DMXR100 AES	TDIF	TDIF	AES	INT	Word Out	
9.11 Sony 3348 SDIF-2	TDIF	TDIF	SDIF2	INT	SDIF2 Sync Out	
9.12 TASCAM MMR-8 AES	TDIF	TDIF	AES	INT	Word Out	
9.13 TASCAM MX-2424 AES	TDIF	TDIF	AES	INT	Word Out	
9.14 YAMAHA O2R ADAT	TDIF	TDIF	ADAT	INT	Word Out	
9.15 YAMAHA O2R AES	TDIF	TDIF	AES	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

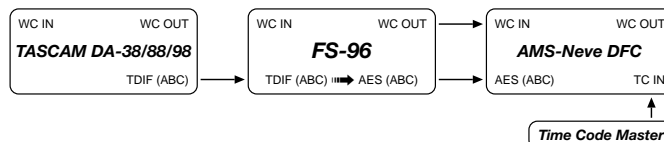
## 9. TASCAM DA-38/78/88/98 : TDIF

Continued

Conversion to:

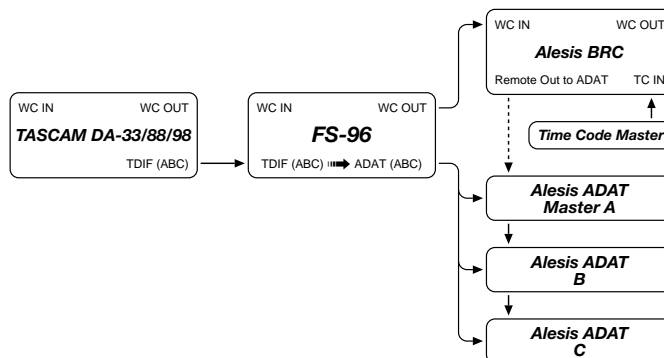
### 9.1 AMS-NEVE DFC AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to AMS-NEVE DFC AES in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. AMS-NEVE DFC set to 48k EXT sync (or other desired sample rate)



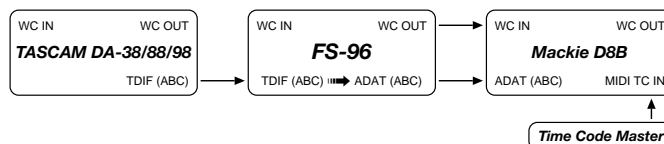
### 9.2 Alesis ADAT/BRC ADAT

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Alesis ADAT/BRC units in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



### 9.3 Mackie D8B ADAT

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B ADAT set to 48k EXT sync (or other desired sample rate)





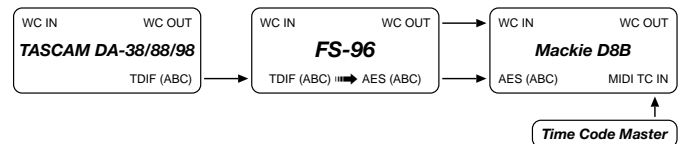
## 9. TASCAM DA-38/78/88/98 : TDIF

Continued

Conversion to:

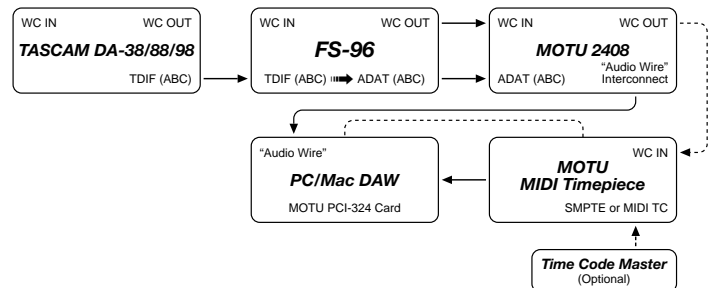
### 9.4 Mackie D8B AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Mackie D8B AES in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



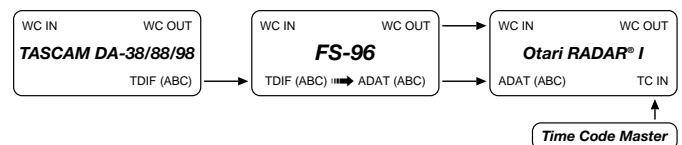
### 9.5 MOTU 2408 ADAT

1. See p.63 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from TASCAM DA-38/88/98 TDIF to MOTU 2408 ADAT in 8 channel groups (A,B,C)
4. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 9.6 Otari RADAR® I ADAT

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Otari RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I ADAT set to 48k EXT sync (or other desired sample rate)



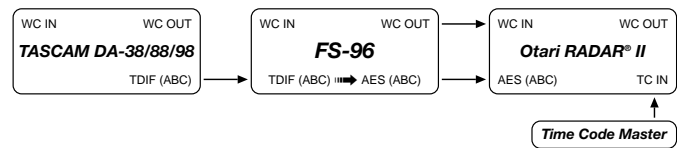
## 9. TASCAM DA-38/78/88/98 : TDIF

Continued

Conversion to:

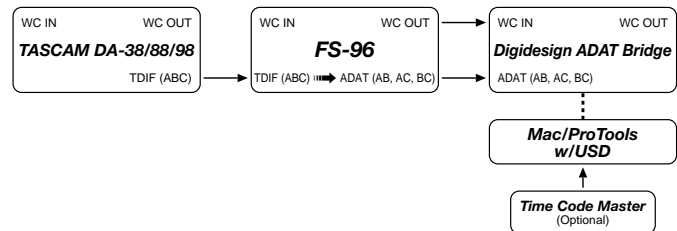
### 9.7 Otari RADAR® II AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Otari RADAR® II AES in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® II set to Chase. Otari RADAR® II can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II set to 48k EXT sync (or other desired sample rate)



### 9.8 ProTools: Digidesign ADAT Bridge

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C).
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



## 9. TASCAM DA-38/78/88/98 : TDIF

Continued

Conversion to:

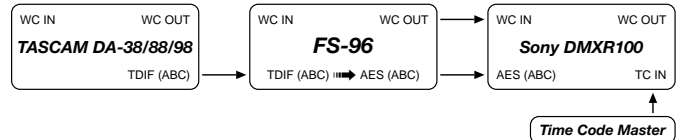
### 9.9 ProTools: Digidesign 888/24 AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Digidesign 888/24 AES in 8 ch. groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Digi 888/24 set to 48k EXT sync (or other desired sample rate)
6. TC Master Out to TC In on ProTools Universal Slave Driver or sync device
7. Set FS-96 SRC (sample rate convert) as needed.



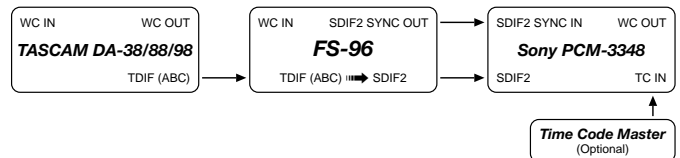
### 9.10 Sony DMXR100 AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Sony DMXR100 AES in 8 channel groups (A,B,C)
3. Use Otari RADAR® II TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Sony DMXR100 sync set to 48k EXT sync (or other desired sample rate)



### 9.11 Sony 3348 SDIF-2

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to Sony 3348 SDIF-2 in a 24 ch. group
3. Use TASCAM DA-38/88/98 TDIF imbedded LR clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF2 SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



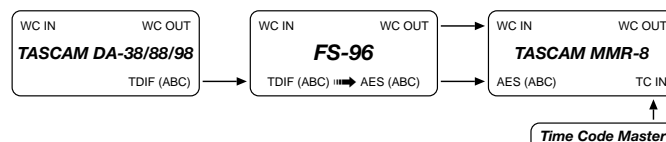
## 9. TASCAM DA-38/78/88/98 : TDIF

Continued

Conversion to:

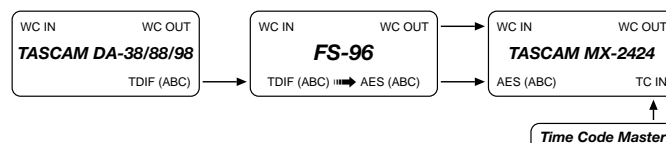
### 9.12 TASCAM MMR-8 AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to TASCAM MMR-8 AES in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8 AES unit
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 set to 48k EXT sync (or other desired sample rate)



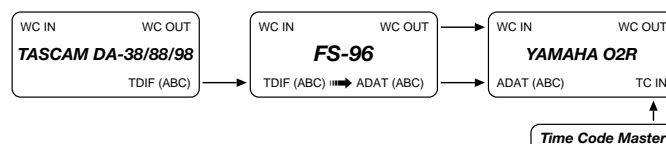
### 9.13 TASCAM MX-2424 AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to TASCAM MX-2424 AES in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424 AES unit
5. TASCAM MX-2424 set to Chase. TASCAM MX-2424 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 set to 48k EXT sync (or other desired sample rate)



### 9.14 YAMAHA O2R ADAT

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R ADAT (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



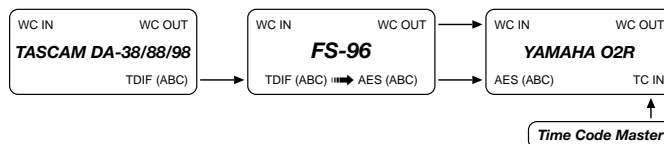
## 9. TASCAM DA-38/78/88/98 : TDIF

Continued

Conversion to:

### 9.15 YAMAHA O2R AES

1. See p.63 for menu settings
2. Transfer audio from TASCAM DA-38/88/98 TDIF to YAMAHA O2R AES in 8 channel groups (A,B,C)
3. Use TASCAM DA-38/88/98 TDIF imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R ADAT (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



## 10. Sony 3348 : SDIF-2

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
10.1 AMS-NEVE DFC AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.2 Alesis ADAT/BRC ADAT	SDIF2	SDIF2 Sync In	ADAT	INT	Word Out	
10.3 Mackie D8B AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.4 Mackie D8B TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	
10.5 MOTU 2408 TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	
10.6 ProTools: Digidesign 888/24 AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.7 ProTools: Digidesign ADAT Bridge	SDIF2	SDIF2 Sync In	ADAT	INT	Word Out	
10.8 Otari RADAR® I ADAT	SDIF2	SDIF2 Sync In	ADAT	INT	Word Out	
10.9 Otari RADAR® II AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.10 Otari RADAR® II TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	
10.11 Sony DMXR100 AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.12 Sony PCM-800 AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.13 TASCAM DA-38/88/98 TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	
10.14 TASCAM DA-78 TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	
10.15 TASCAM MMR-8 AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.16 TASCAM MMR-8 TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	
10.17 TASCAM MX-2424 AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.18 YAMAHA O2R AES	SDIF2	SDIF2 Sync In	AES	INT	Word Out	
10.19 YAMAHA O2R TDIF	SDIF2	SDIF2 Sync In	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

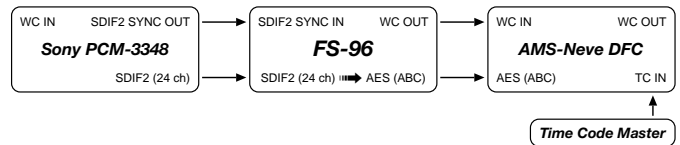
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

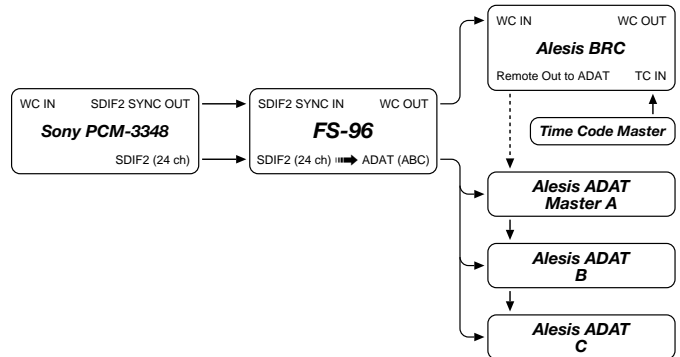
### 10.1 AMS-NEVE DFC AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to AMS-NEVE DFC AES in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. AMS-NEVE DFC sync set to 48k EXT sync (or other desired sample rate)



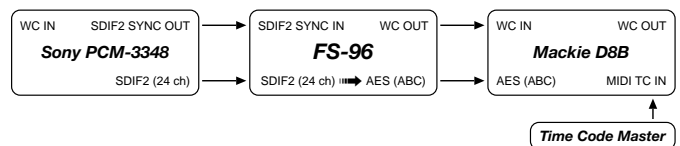
### 10.2 Alesis ADAT/BRC ADAT

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Alesis ADAT in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC sync set to 48k EXT sync (or other desired sample rate)



### 10.3 Mackie D8B AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Mackie D8B AES in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B sync set to 48k EXT sync (or other desired sample rate)



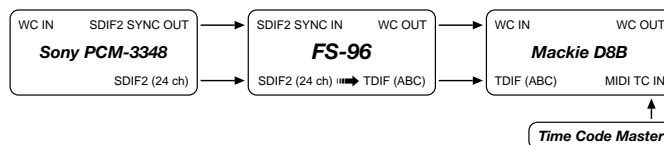
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

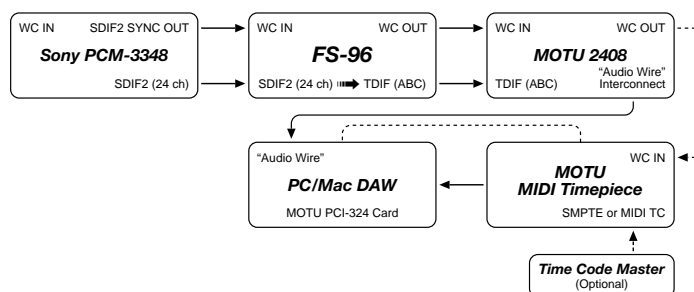
### 10.4 Mackie D8B TDIF

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B sync set to 48k EXT sync (or other desired sample rate)



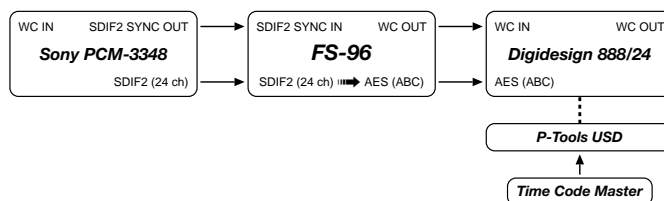
### 10.5 MOTU 2408 TDIF

1. See p.70 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Mackie D8B TDIF in 8 channel groups (A,B,C)
4. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 10.6 ProTools: Digidesign 888/24 AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Digidesign 888/24 AES in 8 ch. groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Digi 888/24 set to 48k EXT sync (or other desired sample rate)
6. TC Master Out to TC In on ProTools Universal Slave Driver or sync device
7. Set FS-96 SRC (sample rate convert) as needed.





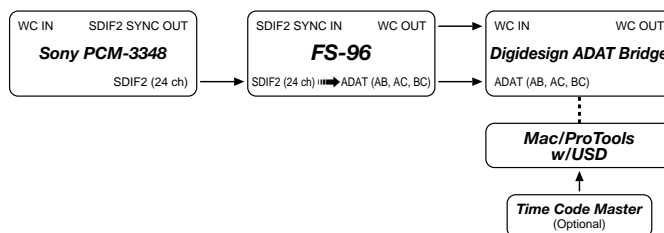
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

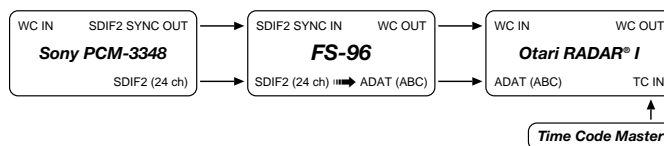
### 10.7 ProTools: Digidesign ADAT Bridge

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C).
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



### 10.8 Otari RADAR® I ADAT

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Otari RADAR® I ADAT in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I sync set to 48k EXT sync (or other desired sample rate)



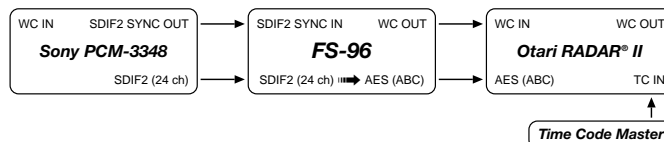
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

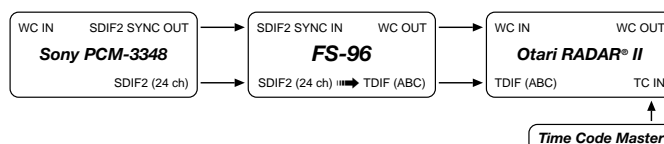
### 10.9 Otari RADAR® II AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Otari RADAR® II AES in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II
5. Otari RADAR® II set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II sync set to 48k EXT sync (or other desired sample rate)



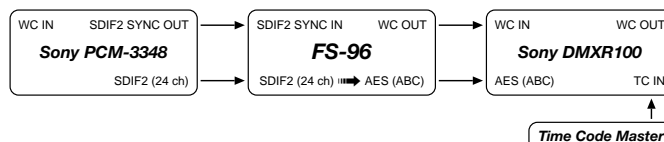
### 10.10 Otari RADAR® II TDIF

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Otari RADAR® II TDIF in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II
5. Otari RADAR® II set to Chase. RADAR® II can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II sync set to 48k EXT sync (or other desired sample rate)



### 10.11 Sony DMXR100 AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Sony DMXR100 AES in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. To Display TC on Sony DMXR100, connect SMPTE or MIDI (MTC) OUT from the TC Master, to MIDI IN on the Sony DMXR100 (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Sony DMXR100 sync set to 48k EXT sync (or other desired sample rate)



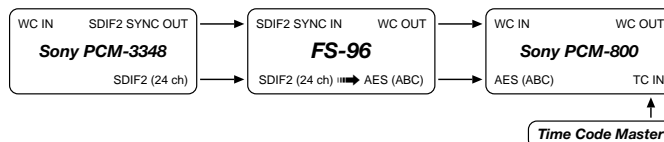
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

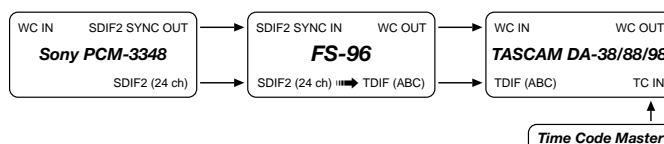
### 10.12 Sony PCM-800 AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to Sony PCM-800 AES in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the Sony PCM-800
5. Sony PCM-800 set to Chase. Sony PCM-800 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Sony PCM-800 sync set to 48k EXT sync (or other desired sample rate)



### 10.13 TASCAM DA-38/88/98 TDIF

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to TASCAM DA-38/88/98 TDIF in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-38/88/98
5. TASCAM DA-38/88/98 set to Chase. DA-38/88/98 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-38/88/98 sync set to 48k EXT sync (or other desired sample rate)



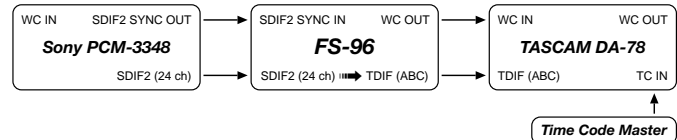
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

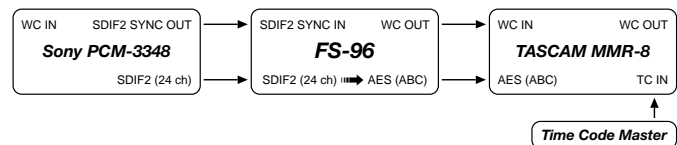
### 10.14 TASCAM DA-78 TDIF

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to TASCAM DA-78 TDIF in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-78
5. TASCAM DA-78 set to Chase. TASCAM DA-78 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-78 sync set to 48k EXT sync (or other desired sample rate)



### 10.15 TASCAM MMR-8 AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to TASCAM MMR-8 AES in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 sync set to 48k EXT sync (or other desired sample rate)



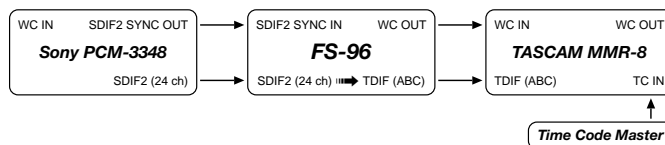
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

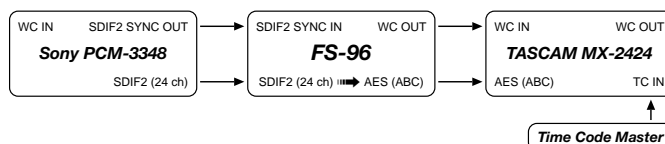
### 10.16 TASCAM MMR-8 TDIF

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to TASCAM MMR-8 TDIF in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 sync set to 48k EXT sync (or other desired sample rate)



### 10.17 TASCAM MX-2424 AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to TASCAM MX-2424 AES in 8 ch. groups.
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424
5. TASCAM MX-2424 set to Chase. TASCAM MX-2424 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 sync set to 48k EXT sync (or other desired sample rate)



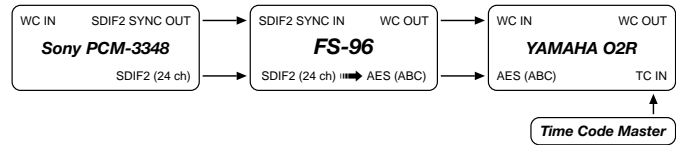
## 10. Sony 3348 : SDIF-2

Continued

Conversion to:

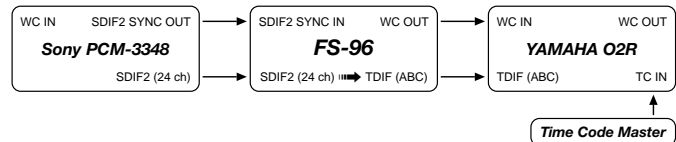
### 10.18 YAMAHA O2R AES

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to YAMAHA O2R AES in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect SMPTE or MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



### 10.19 YAMAHA O2R TDIF

1. See p.70 for menu settings
2. Transfer audio from Sony 3348 SDIF-2, in a 24 channel group to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Sony 3348 SDIF2 Input SYNC connector for the FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect SMPTE or MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



## 11. Sony PCM-800 : AES

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
11.1 Alesis ADAT/BRC ADAT	AES	AES	ADAT	INT	Word Out	
11.2 Mackie D8B ADAT	AES	AES	ADAT	INT	Word Out	
11.3 Mackie D8B TDIF	AES	AES	TDIF	INT	Word Out	
11.4 MOTU 2408 TDIF	AES	AES	TDIF	INT	Word Out	
11.5 Otari RADAR® I ADAT	AES	AES	ADAT	INT	Word Out	
11.6 Otari RADAR® II TDIF	AES	AES	TDIF	INT	Word Out	
11.7 ProTools: Digidesign ADAT Bridge	AES	AES	ADAT	INT	Word Out	
11.8 Sony 3348 SDIF-2	AES	AES	SDIF2	INT	SDIF2 Sync Out	
11.9 TASCAM DA-38/88/98 TDIF	AES	AES	TDIF	INT	Word Out	
11.10 TASCAM DA-78	AES	AES	TDIF	INT	Word Out	
11.11 TASCAM MMR-8 TDIF	AES	AES	TDIF	INT	Word Out	
11.12 TASCAM MX-2424 TDIF	AES	AES	TDIF	INT	Word Out	
11.13 YAMAHA O2R ADAT	AES	AES	ADAT	INT	Word Out	
11.14 YAMAHA O2R TDIF	AES	AES	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

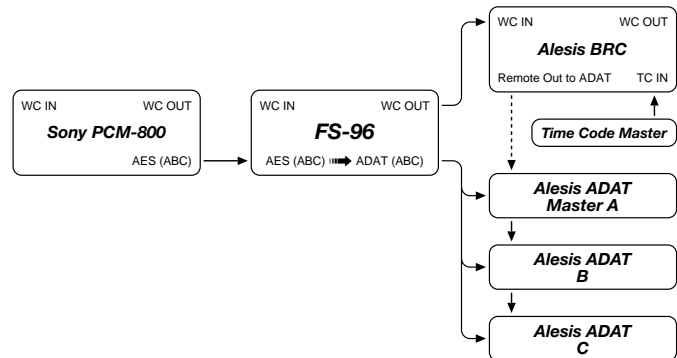
## 11. Sony PCM-800 : AES

Continued

Conversion to:

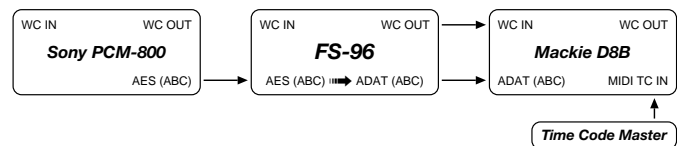
### 11.1 Alesis ADAT/BRC ADAT

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Alesis ADAT/BRC units in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



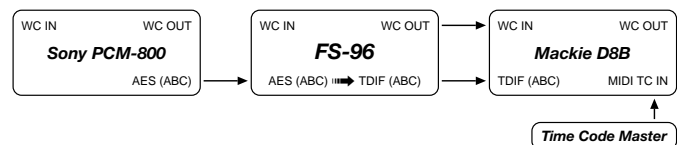
### 11.2 Mackie D8B ADAT

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B ADAT set to 48k EXT sync (or other desired sample rate)



### 11.3 Mackie D8B TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B ADAT set to 48k EXT sync (or other desired sample rate)





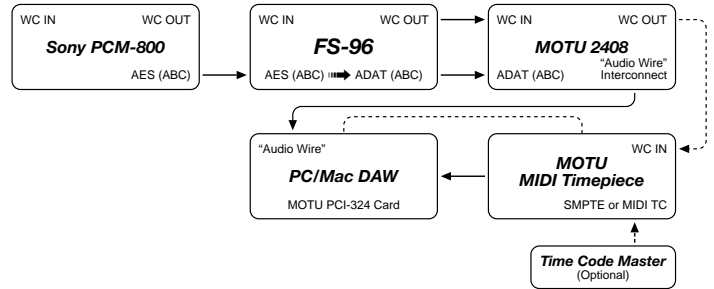
## 11. Sony PCM-800 : AES

Continued

Conversion to:

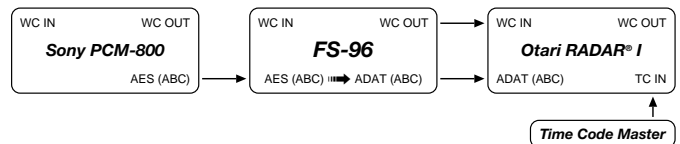
### 11.4 MOTU 2408 TDIF

1. See p.79 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Sony PCM-800 AES to MOTU 2408 TDIF in 8 channel groups (A,B,C)
4. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 11.5 Otari RADAR® I ADAT

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Otari RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I ADAT set to 48k EXT sync (or other desired sample rate)



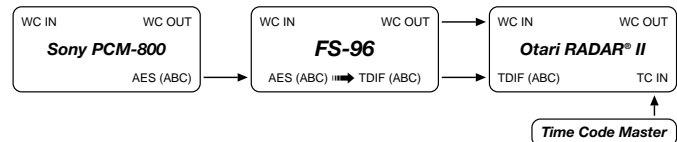
## 11. Sony PCM-800 : AES

Continued

Conversion to:

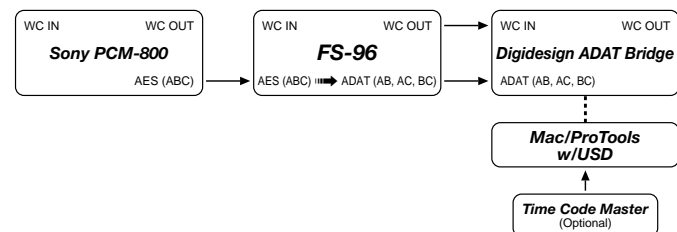
### 11.6 Otari RADAR® II TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Otari RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II
5. Otari RADAR® II set to Chase. Otari RADAR® II can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II sync set to 48k EXT sync (or other desired sample rate)



### 11.7 ProTools: Digidesign ADAT Bridge

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C).
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



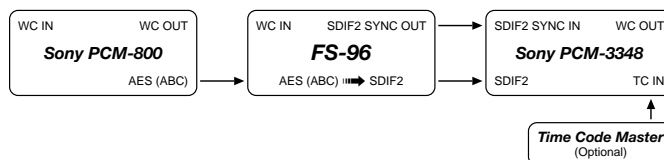
## 11. Sony PCM-800 : AES

Continued

Conversion to:

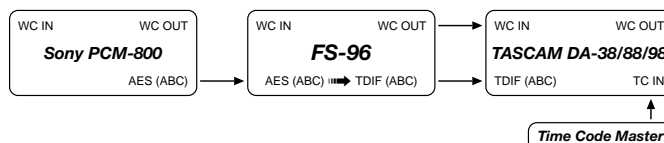
### 11.8 Sony 3348 SDIF-2

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



### 11.9 TASCAM DA-38/88/98 TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to TASCAM DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-38/88/98
5. TASCAM DA-38/88/98 set to Chase. TASCAM DA-38/88/98 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-38/88/98 sync set to 48k EXT sync (or other desired sample rate)



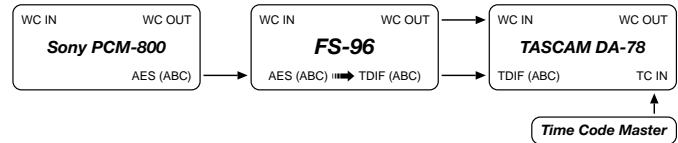
## 11. Sony PCM-800 : AES

Continued

Conversion to:

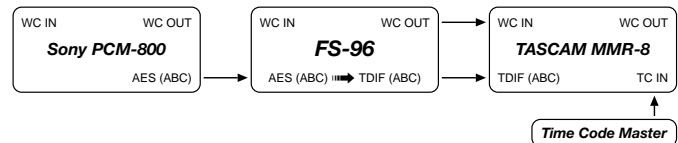
### 11.10 TASCAM DA-78 TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-78
5. TASCAM DA-78 set to Chase. TASCAM DA-78 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-78 sync set to 48k EXT sync (or other desired sample rate)



### 11.11 TASCAM MMR-8 TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8
5. TASCAM MMR-8 set to Chase. TASCAM MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 sync set to 48k EXT sync (or other desired sample rate)



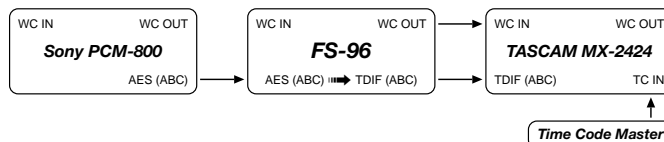
## 11. Sony PCM-800 : AES

Continued

Conversion to:

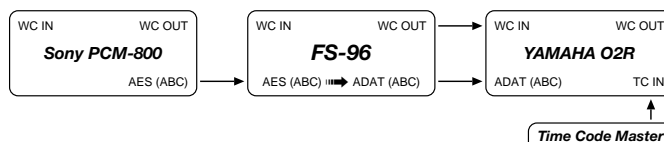
### 11.12 TASCAM MX-2424 TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to TASCAM MX-2424 TDIF in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424
5. TASCAM MX-2424 set to Chase. TASCAM MX-2424 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 sync set to 48k EXT sync (or other desired sample rate)



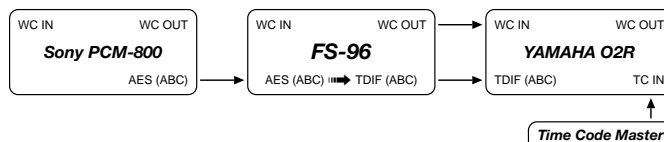
### 11.13 YAMAHA O2R ADAT

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



### 11.14 YAMAHA O2R TDIF

1. See p.79 for menu settings
2. Transfer audio from Sony PCM-800 AES to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Sony PCM-800 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



## 12. ProTools - Digidesign 888/24 : AES

### Input/Output Sync Interface Matrix

Conversion to:	Input Format	Input Sync	Output Status	Output Sync	Sync. Conn.	SRC
12.1 Alesis ADAT/BRC ADAT	AES	AES	ADAT	INT	Word Out	
12.2 Mackie D8B ADAT	AES	AES	ADAT	INT	Word Out	
12.3 Mackie D8B TDIF	AES	AES	TDIF	INT	Word Out	
12.4 MOTU 2408 TDIF	AES	AES	TDIF	INT	Word Out	
12.5 Otari RADAR® I ADAT	AES	AES	ADAT	INT	Word Out	
12.6 Otari RADAR® II TDIF	AES	AES	TDIF	INT	Word Out	
12.7 ProTools: Digidesign ADAT Bridge	AES	AES	ADAT	INT	Word Out	
12.8 Sony DMXR100 ADAT	AES	AES	ADAT	INT	Word Out	
12.9 Sony 3348 SDIF-2	AES	AES	SDIF2	INT	SDIF2 Sync Out	
12.10 TASCAM DA-38/88/98 TDIF	AES	AES	TDIF	INT	Word Out	
12.11 TASCAM DA-78 TDIF	AES	AES	TDIF	INT	Word Out	
12.12 TASCAM MMR-8 TDIF	AES	AES	TDIF	INT	Word Out	
12.13 TASCAM MX-2424 TDIF	AES	AES	TDIF	INT	Word Out	
12.14 YAMAHA O2R ADAT	AES	AES	ADAT	INT	Word Out	
12.15 YAMAHA O2R TDIF	AES	AES	TDIF	INT	Word Out	

**NOTES:** AES format designates 8, 16, or 24 channels of AES/EBU (a.k.a. AES3).  
Refer to the "Reference" section for the pin assignment of the AES/EBU format.

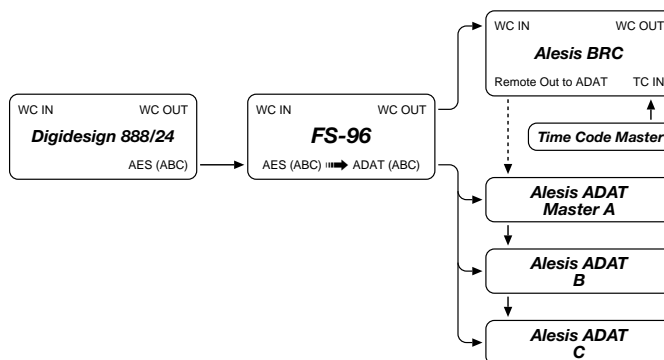
## 12. ProTools - Digidesign 888/24 : AES

Continued

Conversion to:

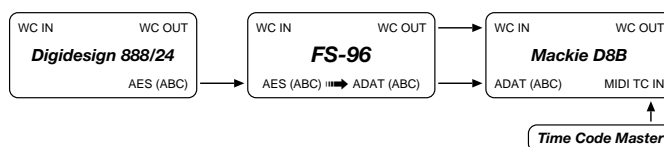
### 12.1 Alesis ADAT/BRC ADAT

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Alesis ADAT/BRC units in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. TC Master Out to TC In on the BRC
6. BRC set to Chase. BRC can be TC master, or TC slave
7. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
8. BRC set to 48k EXT sync (or other desired sample rate)



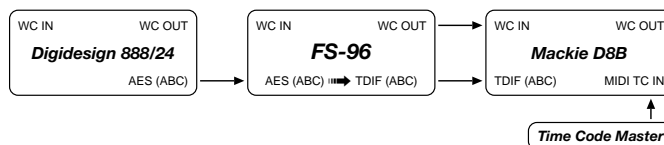
### 12.2 Mackie D8B ADAT

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Mackie D8B ADAT in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B ADAT set to 48k EXT sync (or other desired sample rate)



### 12.3 Mackie D8B TDIF

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Mackie D8B TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on D8B, connect MIDI (MTC) OUT from the TC Master, to MIDI IN on the D8B (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Mackie D8B TDIF set to 48k EXT sync (or other desired sample rate)



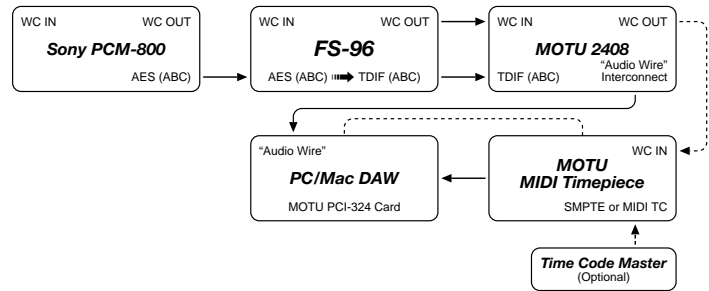
## 12. ProTools - Digidesign 888/24 : AES

Continued

Conversion to:

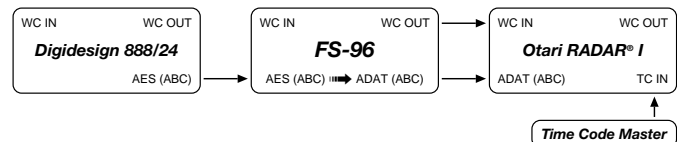
### 12.4 MOTU 2408 TDIF

1. See p.86 for menu settings
2. Set FS-96 OUTPUT SYNC to INTERNAL
3. Transfer audio from Digidesign 888/24 AES to MOTU 2408 TDIF in 8 channel groups (A,B,C)
4. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
5. Resolve 2408 to SMPTE TC with an optional MMC compatible ADAT/DA88 synchronizer, such as MOTU Digital Timepiece, or MIDI Timepiece AV.
6. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.
7. MOTU 2408 set to 48k EXT sync (or other desired sample rate)



### 12.5 Otari RADAR® I ADAT

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Otari RADAR® I ADAT in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® I
5. Otari RADAR® I set to Chase. RADAR® I can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® I ADAT set to 48k EXT sync (or other desired sample rate)





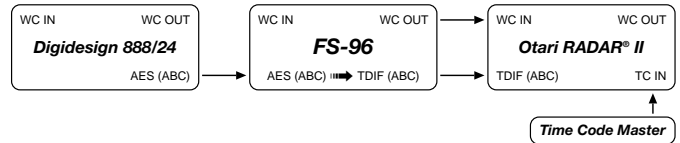
## 12. ProTools - Digidesign 888/24 : AES

Continued

Conversion to:

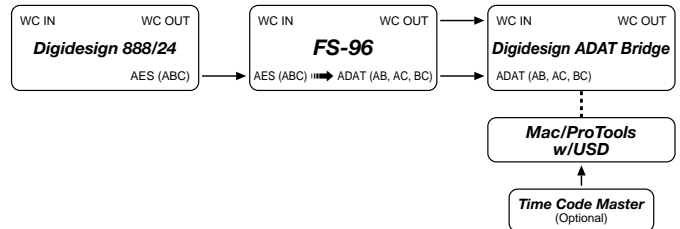
### 12.6 Otari RADAR® II TDIF

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Otari RADAR® II TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the Otari RADAR® II
5. Otari RADAR® II set to Chase. Otari RADAR® II can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. Otari RADAR® II sync set to 48k EXT sync (or other desired sample rate)



### 12.7 ProTools: Digidesign ADAT Bridge

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Digidesign ADAT Bridge in 8 ch. groups, but note that only 16 channels per ADAT Bridge card can be used at one time (maximum of two FS-96 groups of A,B or C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL
5. Set Digidesign ADAT Bridge to 48k EXT sync (or other desired sample rate), and set SRC ON as needed for sample rate conversion.
6. Resolve Digidesign ADAT Bridge to SMPTE TC with an optional USD synchronizer
7. To use optional MIDI or SMPTE TC with your DAW software via MMC (MIDI machine control), refer to your DAW documentation for details.



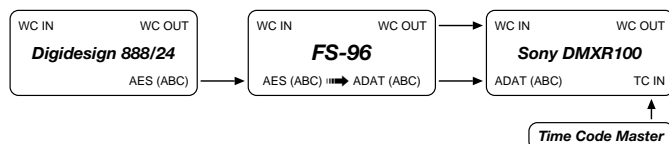
## 12. ProTools - Digidesign 888/24 : AES

Continued

Conversion to:

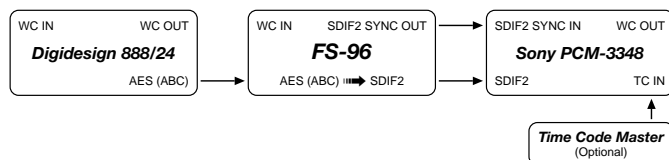
### 12.8 Sony DMXR100 ADAT

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Sony DMXR100 ADAT in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on Sony DMXR100, connect SMPTE or MIDI (MTC) OUT from the TC Master, to MIDI IN on the Sony DMXR100 (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. Sony DMXR100 sync set to 48k EXT sync (or other desired sample rate)



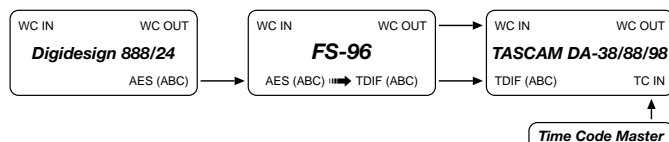
### 12.9 Sony 3348 : SDIF-2

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to Sony 3348 SDIF-2 in a 24 ch. group
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. Set FS-96 OUTPUT SYNC to INTERNAL, and use the SDIF2 SYNC connector
5. Sony 3348 set to 48k EXT sync (or other desired sample rate)
6. Use 2 FS-96 units, synchronized via SDIF SYNC, for 48 channel simultaneous operation
7. Set FS-96 SRC (sample rate convert) as needed.



### 12.10 TASCAM DA-38/88/98 TDIF

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to TASCAM DA-38/88/98 TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-38/88/98
5. TASCAM DA-38/88/98 set to Chase. TASCAM DA-38/88/98 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-38/88/98 sync set to 48k EXT sync (or other desired sample rate)



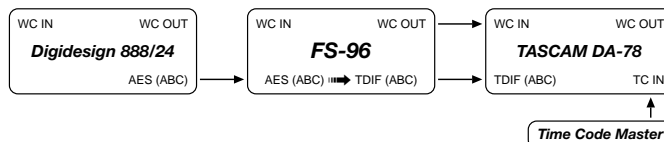
## 12. ProTools - Digidesign 888/24 : AES

Continued

Conversion to:

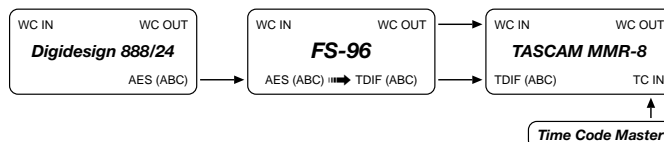
### 12.11 TASCAM DA-78 TDIF

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to TASCAM DA-78 TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM DA-78
5. TASCAM DA-78 set to Chase. DA-78 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM DA-78 sync set to 48k EXT sync (or other desired sample rate)



### 12.12 TASCAM MMR-8 TDIF

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to TASCAM MMR-8 TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MMR-8
5. TASCAM MMR-8 set to Chase. MMR-8 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MMR-8 sync set to 48k EXT sync (or other desired sample rate)



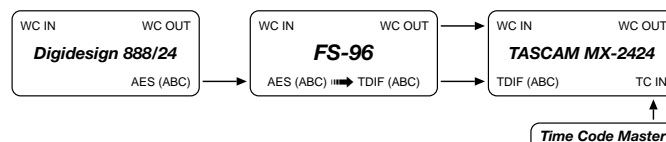
## 12. ProTools - Digidesign 888/24 : AES

Continued

Conversion to:

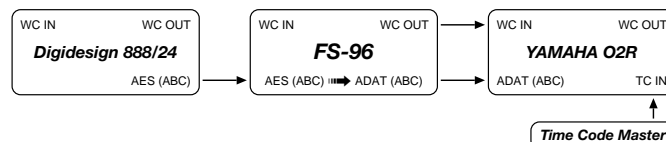
### 12.13 TASCAM MX-2424 AES

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to TASCAM MX-2424 TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. TC Master Out to TC In on the TASCAM MX-2424 TDIF
5. TASCAM MX-2424 TDIF set to Chase. MX-2424 can be TC master, or TC slave
6. To Chase TC, set re-chase to OFF, (lock and release), and sync to WC
7. Set FS-96 OUTPUT SYNC to INTERNAL
8. TASCAM MX-2424 sync set to 48k EXT sync (or other desired sample rate)



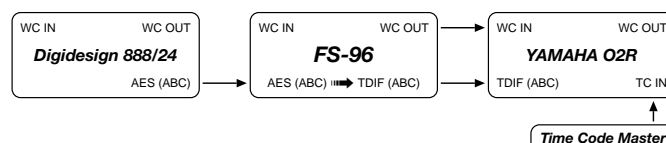
### 12.14 YAMAHA O2R ADAT

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to YAMAHA O2R ADAT in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect SMPTE or MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



### 12.15 YAMAHA O2R TDIF

1. See p.86 for menu settings
2. Transfer audio from Digidesign 888/24 AES to YAMAHA O2R TDIF in 8 channel groups (A,B,C)
3. Use Digidesign 888/24 AES imbedded clock as FS-96 Input Clock Source
4. To Display TC on YAMAHA O2R, connect SMPTE or MIDI (MTC) OUT from the TC Master, to MIDI IN on the YAMAHA O2R (optional)
5. Set FS-96 OUTPUT SYNC to INTERNAL
6. YAMAHA O2R sync set to 48k EXT sync (or other desired sample rate)



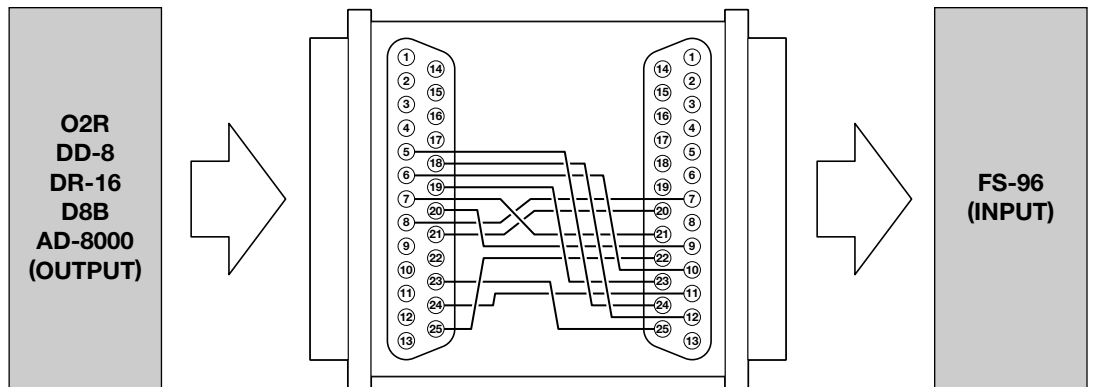
## AES/EBU Pinout Conversions

The AES/EBU interface has a wide variety of alternate-standards in the pin assignment of the D-sub connectors. Refer to this section when signal adapters are required.

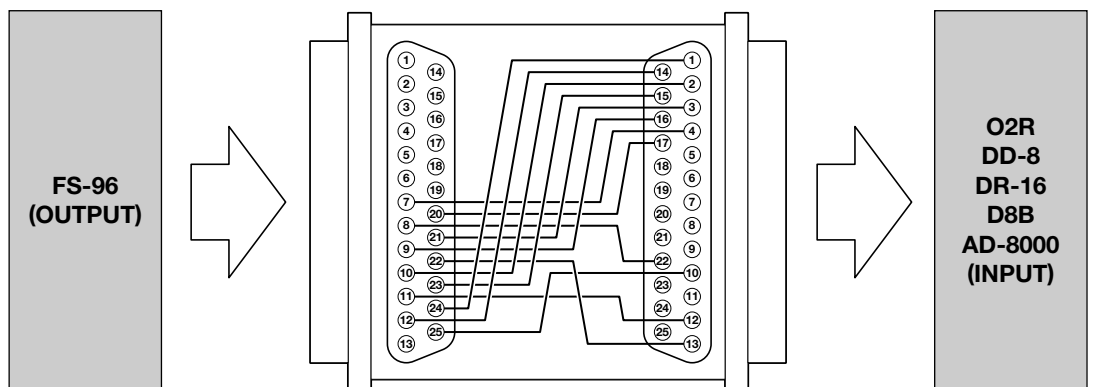
### ❖ Connecting with YAMAHA O2R, AKAI DD-8 / DR-16, Mackie D8B, Apogee AD-8000

#### ➤ Conversion Cable / Adapter Wirings:

Input to FS-96:



Output from FS-96:



## Pin Assignment

### FS-96

Input :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8
OPEN : 13				

Output :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8
OPEN : 13				

### YAMAHA O2R, AKAI DD-8 / DR-16, Mackie D8B, Apogee AD-8000

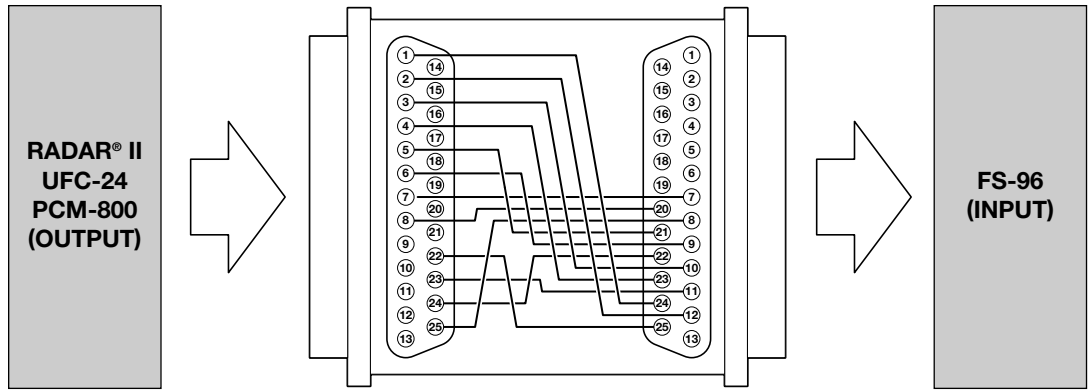
Input :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	1	14	10
	3-4	2	15	12
	5-6	3	16	13
	7-8	4	17	22
OPEN : 9, 11				

Output :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	5	18	23
	3-4	6	19	24
	5-6	7	20	25
	7-8	8	21	N.C.
OPEN : 9, 11				

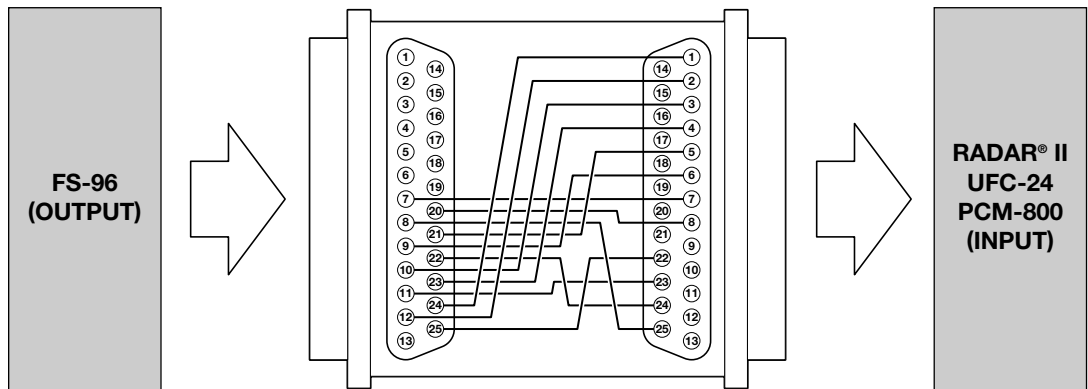
❖ **Connecting with Otari RADAR® II / UFC-24, Sony PCM-800**

➤ **Conversion Cable / Adapter Wirings:**

Input to FS-96:



Output from FS-96:



**Pin Assignment**

**FS-96**

Input :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8

OPEN : 13

Output :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8

OPEN : 13

**YAMAHA O2R, AKAI DD-8 / DR-16, Mackie D8B, Apogee AD-8000**

Input :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	1	2	22
	3-4	3	4	23
	5-6	5	6	24
	7-8	7	8	25

OPEN : 9

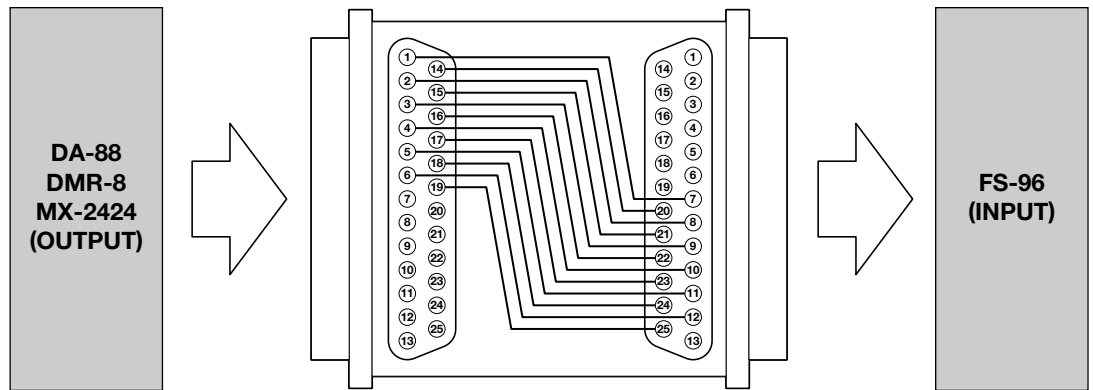
Output :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	1	2	22
	3-4	3	4	23
	5-6	5	6	24
	7-8	7	8	25

OPEN : 9

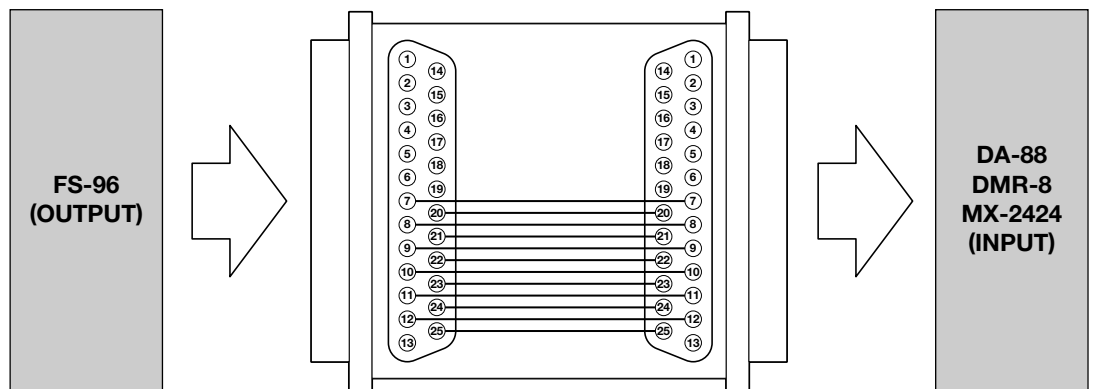
### ❖ Connecting with TASCAM DA-88 / DMR-8 / MX-2424

#### ➤ Conversion Cable / Adapter Wirings:

Input to FS-96:



Output from FS-96:



## Pin Assignment

### FS-96

Input :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8
	OPEN : 13			

Output :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8
	OPEN : 13			

### YAMAHA O2R, AKAI DD-8 / DR-16, Mackie D8B, Apogee AD-8000

Input :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	24	12	25
	3-4	10	23	11
	5-6	21	9	22
	7-8	7	20	8
	OPEN : 13			

Output :	CHANNEL PAIR	HOT +	COLD -	GND
	1-2	18	6	19
	3-4	4	17	5
	5-6	15	3	16
	7-8	1	14	2
	OPEN : 13			









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