

ADA

Converters

Operator's Manual



Software Version 1.0

ADA

Operator's Manual

Software Version

1.0

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ADA SAFETY INSTRUCTIONS

1. READ AND RETAIN INSTRUCTIONS

Read, understand, and follow all safety instructions. Keep safety and operating instructions for future reference.

2. HEED WARNINGS

Heed all warnings for the use of ADA® contained in the safety and operating instructions.

3. PREVENT OBJECT AND LIQUID ENTRY

To reduce the risk of electric shock, do not expose this device to dripping or splashing. Do not place bottles, cups, etc. containing liquids on or near the device.

4. ALLOW FOR VENTILATION

The device should be positioned so that proper ventilation can be maintained. There should be no objects or fabrics blocking any of the ventilation openings. Also, the device should not be placed inside a fully enclosed equipment rack or shelf unless the rack or shelf is well ventilated and the inside air temperature can be kept within the environmental conditions stated in the device specifications.

5. ABOUT SERVICING

The user should not attempt to service the device beyond what is described in the operating instructions. All other service should be referred to iZ Technology or performed under the guidance of qualified personnel.

6. REPLACING LITHIUM BATTERY (Motherboard CMOS Battery)

Replace only with the same or equivalent type.



CAUTION: Danger of explosion if battery is incorrectly replaced.

See www.izcorp.com Support Technical Memos for full instructions.

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SECTION 1

INTRODUCTION

Welcome to ADA. Please take a few minutes to familiarize yourself with this manual. It is a valuable resource that will provide the information needed to get the most out of ADA.

HOW TO USE THIS MANUAL

This manual is organized into the following sections:

1. *INTRODUCTION*
2. *SYSTEM SETUP*
3. *CONFIGURATION*
4. *OPERATIONS*
5. *TROUBLESHOOTING*
6. *REFERENCE*
7. *APPENDIX*
8. *ADDENDUMS*
9. *RELEASE NOTES*

The *SYSTEM SETUP* section goes through the physical placement and connection of the unit as well as configuration work that may be required to integrate ADA with additional equipment in a particular setup.

The *CONFIGURATION* section provides the necessary software settings required to integrate ADA with the rest of a particular system setup.

The *OPERATIONS* section provides all of the information necessary to quickly become an ADA power user.

The *TROUBLESHOOTING* section provides troubleshooting tips for ADA.

The *REFERENCE* section gives detailed descriptions of the menu structure and menu functions.

The *APPENDIX* section contains the index and any other ADA documents.

The *ADDENDUMS & RELEASE NOTES* sections are for adding any Addendums and Release Notes.

OTHER IZ TECHNOLOGY INFORMATION RESOURCES

Website

Additional resources are available at the iZ website, www.izcorp.com. Browse to the Support section for Support document downloads, software downloads and release notes, tech tips, etc.

iZ Forum

Please join the iZ Forum. It is a dynamic group of RADAR® users, ADA users, and iZ Staff. Use the forum to post and answer questions about RADAR or ADA, acquire and gain user tips & tricks, and communicate with the greater iZ community. Access the iZ Forum by going to www.izcorp.com and browsing to the Forum section of the site.

Contact IZ

For any questions about ADA please contact the iZ Technology Corporation Support Department, toll-free:

Email support@izcorp.com

North America 1-800-776-1356

International 800-2747-2744

Please note that an International Direct Dialing prefix must be entered before dialing the International contact phone number. For a complete list of IDD prefixes, browse to the www.izcorp.com Contact page.

CONVENTIONS

The following text conventions are used throughout this manual. This information applies to the front panel touchscreen or to a PC or Mac keyboard and mouse

- Touchscreen buttons: 
- Menu paths: **MENUS / SYNC MENU / VIDEO FORMAT**
- Menu selections and dialogs: **SAMPLE RATE: 48 KHZ**
- Enter or type the following: *for example user name*
- Object names: **MADI I/O**
- Back panel labels and connectors: **WORDCLOCK**
- Manual references: *OPERATIONS: SETUP SCREEN*

NOTE Symbols



IMPORTANT NOTE: This symbol is followed by important information.



TIP / TRICK: This symbol is followed by a tip or trick.



WARNING NOTE: This symbol is followed by a warning.

OVERVIEW

ADA is a multi-channel Analogue to Digital and Digital to Analogue converter that focuses on exceptional audio quality and ease of use.

Features:

- Superb analogue I/O using the iZ Technology 24-channel Classic 48 kHz, Nyquist 96 kHz or S-Nyquist 192 kHz converter card sets.
- 24-channel digital I/O using the iZ Technology **ADAT[®] Lightpipe** card, **MADI Optical/Coaxial** card, and **iZ Dual ProTools HD Interface** card.
- Integrated **LCD Touchscreen** and optional **VGA Video Output** provides I/O level information (Meters), Sync Source selection, Sample Rate selection, I/O Routing configuration and System configuration.
- Integrated **Gigabit Ethernet** for software updates and network control.
- Full compliment of professional sync options including Wordclock/Video Sync.

FRONT PANEL

ADA has a simple front panel layout containing only a power switch and LCD touchscreen.



ADA Front Panel Controls & Indicators

Power On/Off Switch

ADA units have an unmarked momentary soft power switch. To turn ADA on, push and release the top of the power switch briefly. To properly power down ADA hold the top of the power switch for 5 seconds until ADA powers off. This 5 second delay is a safety feature that prevents inadvertent power down.

LCD Touchscreen

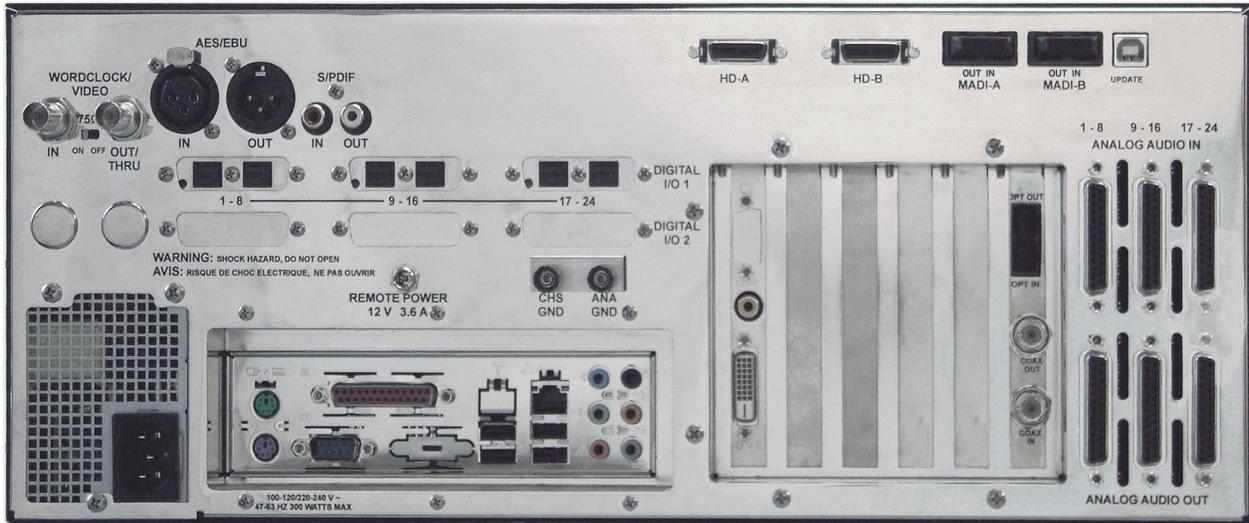
ADA units have an integrated 7" touchscreen that provides single touch commands for most operations. I/O level information (Meters), Sync Source selection, Sample Rate selection, I/O Routing Configuration and System Configuration can be viewed and configured using the touchscreen.



System software has been pre-installed on the internal hard disk. It is not necessary to re-install the supplied system software. Please keep the supplied **USB Flash Drive** in a safe place for software updates and in case it becomes necessary to re-install the system software in the future.

BACK PANEL

The back panel of ADA provides a wealth of professional sync and audio I/O options.



ADA Back Panel Labeling

(unit shown with optional ProTools HD Card and ADAT I/O)

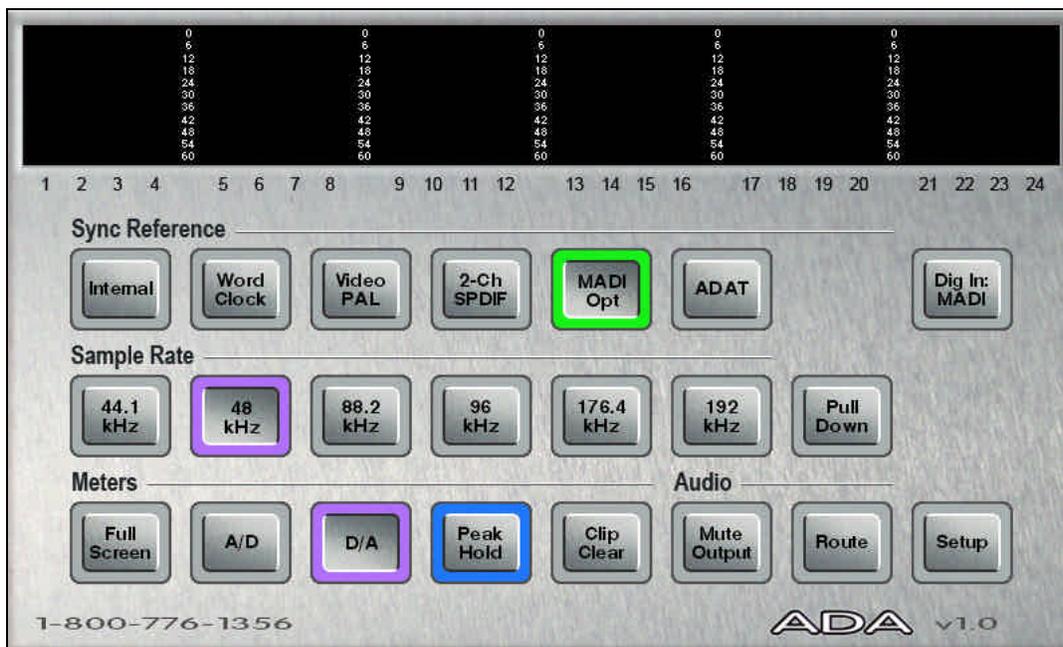
Sync Reference	Sync reference signals are input via the Wordclock/Video , the 2-channel AES/EBU or S/PDIF connector or the connectors of any installed multi-channel digital I/O boards. See CONFIGURATION: SYNC REFERENCE for detailed information.
Digital I/O	All ADA units are equipped with MADI format. Optional multi-channel I/O cards are available for the ADAT Lightpipe format, and ProTools HD . See CONFIGURATION: DIGITAL I/O for detailed information.
Card Cage	The card cage contains the MADI connectors and optional VGA. See SYSTEM SETUP: MAKING CONNECTIONS for detailed information.
Motherboard I/O	The motherboard includes onboard Gigabit Ethernet, (4) USB 2.0, (2) PS/2 connectors and (1) Serial remote port.
Analogue I/O	The analogue I/O boards use six female 25-pin D-Sub connectors to provide 24 channels of balanced audio I/O. See SYSTEM SETUP: MAKING CONNECTIONS for detailed information.

TOUCHSCREEN

ADA has an integrated 7" touchscreen that provides single touch commands and access to all of ADA's functions. ADA has 5 screen locations: Main Screen; Meters Screen; Routing Screen; Setup Screen; and System Configuration Screen.

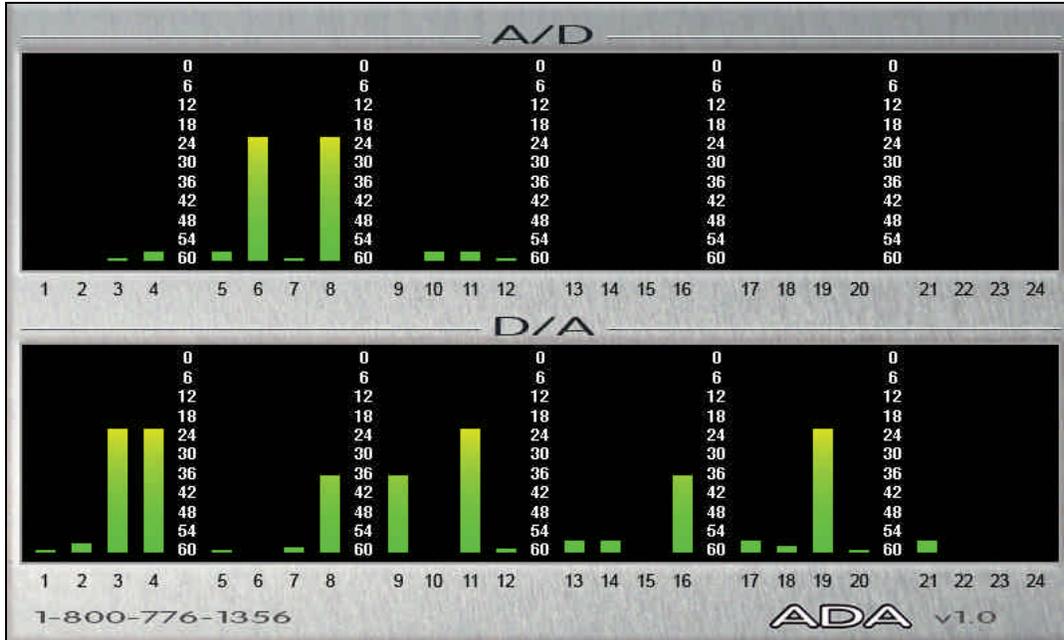
Main Screen

The Main Screen is the default screen, and is used for setting and viewing basic ADA parameters such as **SYNC REFERENCE**, **SAMPLE RATE** and **DIGITAL IN FORMAT**. The Main Screen is the main portal for entering ADA's other screens.



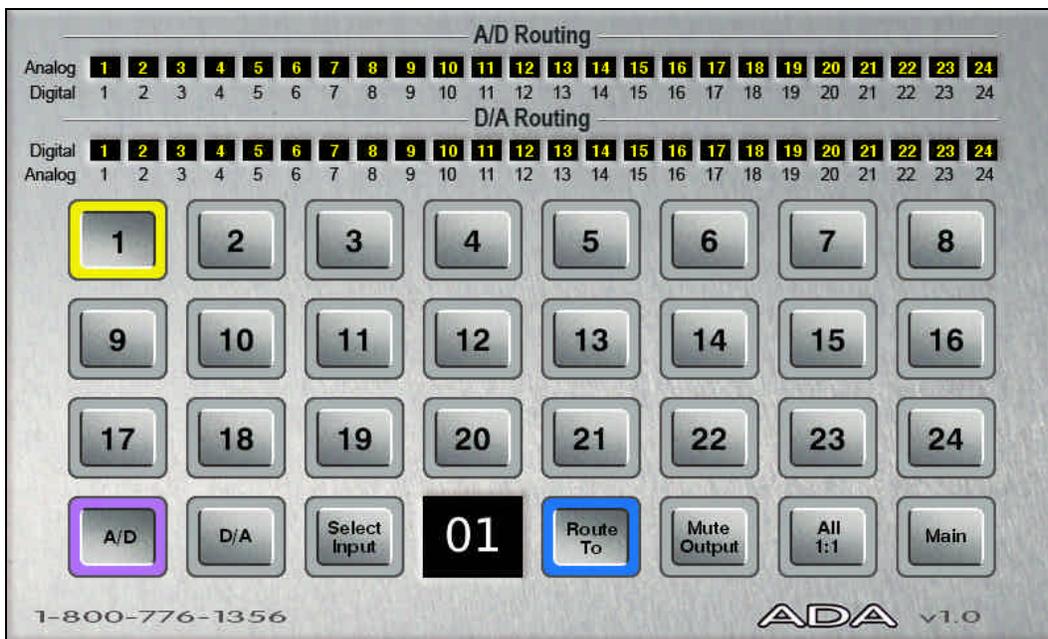
Meters Screen

The Meters Screen displays all A/D and D/A meters on continuous LCD meters with a scale ranging from below -60 to 0 dBFS (decibels Full Scale), which is the maximum input level.



Routing Screen

The Routing Screen allows user defined A/D and D/A routing.



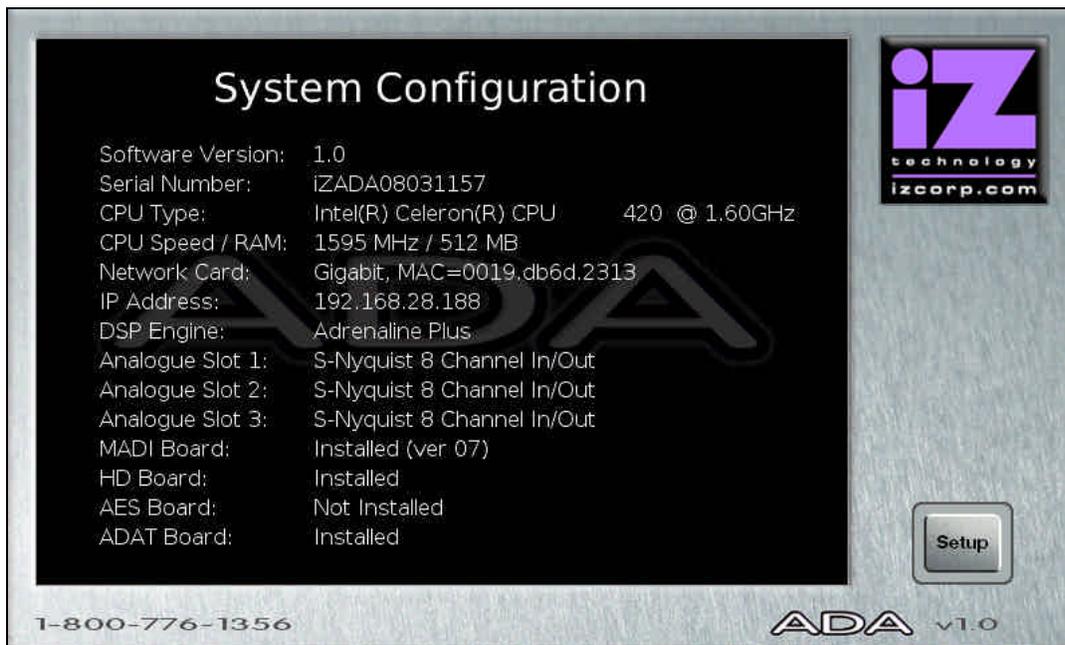
Setup Screen

The Setup Screen allows access to menus for advanced and initial setup settings on ADA.



System Configuration Screen

The System Configuration Screen is used to view ADA's hardware and software.



SECTION 2

SYSTEM SETUP

This section of the manual will help get ADA up and running as quickly as possible; it covers physical installation, making cable connections, and ProTools software setup.

INSTALLATION

Once the ADA is unpacked please make sure to keep the box and all of the associated packaging materials. In the event that the unit needs to be returned for service or repair, the use of the original shipping box will ensure that ADA returns to iZ in good condition.

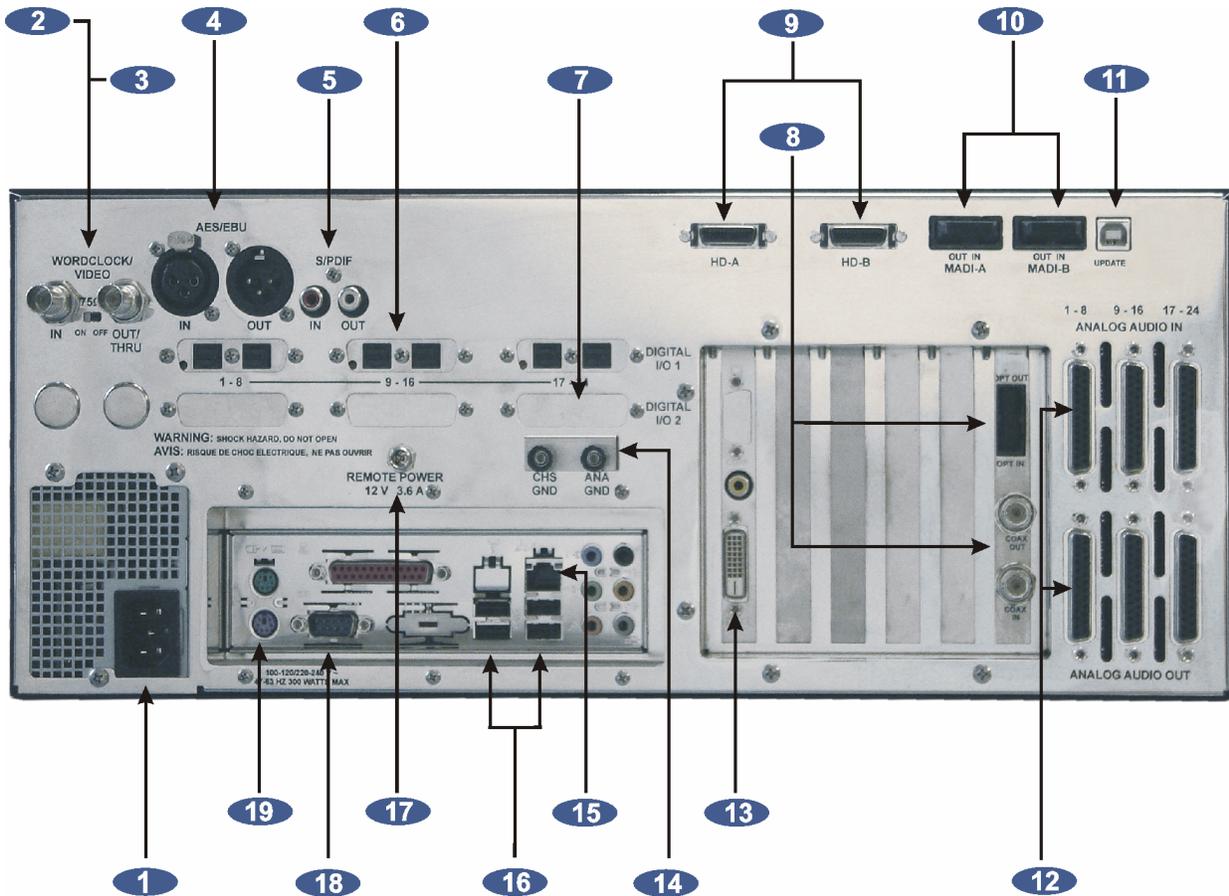
Make sure to consider the following before installation:

- Leave space around the front and the rear of the ADA to allow adequate air circulation.
- MADI digital lines can be run at a length of approximately 2000 meters with quality cabling.
- AES/EBU digital lines extension cable can be run at a length of approximately 33 meters.
- ADAT optical digital audio connections can be run at a length of approximately 10 meters.
- The maximum PT HD DigiLink cable lengths are as follows:
 - 48 kHz operation: 180 cm (6')
 - 96 kHz operation: 90 cm (3')
 - 192 kHz operation: 45 cm (1.5')
- If using the optional VGA Port, a VGA monitor and a high quality VGA extension cable will be required.
- Make sure that the ADA has a reliable, properly grounded AC power source. An Uninterruptible Power Supply (UPS) is highly recommended.

MAKING CONNECTIONS

High quality cabling can be obtained through a local dealer or from iZ Technology. Wiring diagrams for interfacing ADA are available on the Support section of the iZ Technology website at www.izcorp.com.

ADA BACK PANEL



- | | | |
|------------------------------------|-----------------------------------|--|
| 1 AC Power | 8 MADI Digital I/O | 15 Ethernet |
| 2 Wordclock Sync | 9 PT HD I/O | 16 USB |
| 3 Video Sync | 10 PT HD MADI I/O | 17 Remote Power |
| 4 AES/EBU 2-Ch. Sync | 11 PT HD USB Firmware Port | 18 Serial Port |
| 5 S/PDIF 2-Ch. Sync | 12 Analogue I/O | 19 PS/2 Port for Mouse & Keyboard |
| 6 ADAT Digital I/O | 13 Optional DVI/VGA Port | |
| 7 Optional Digital I/O Slot | 14 Ground Connectors | |

1 AC POWER

Connect ADA to the AC mains using the supplied power cord. The power switch is located on the left side of the front panel. See *INTRODUCTION: OVERVIEW: FRONT PANEL*.



The Power Supply in the ADA will internally auto-switch depending on the voltage output in one's region.

2 WORDCLOCK SYNC

The **WORDCLOCK / VIDEO IN BNC** connector accepts either a wordclock or a video sync source using a coaxial cable.

Wordclock is a clock signal running at the same frequency as the sampling frequency of the digital audio being converted. Syncing enables multiple digital devices to be locked together so that audio can be reproduced, transferred and recorded without any digital noise or interference.

Wordclock signal supplied to the **WORDCLOCK / VIDEO IN** can be passed on to other devices using the **WORDCLOCK / VIDEO OUT/THRU** connector. In situations where ADA should act as the clock master, wordclock can also be output from the **WORDCLOCK / VIDEO OUT/THRU** connector. The function of the **OUT/THRU** connector can be changed in the **MENUS / SYNC MENU / SYNC REF OUTPUT** setting.

To switch between wordclock out and thru:

- 1 From the Main Screen press **Setup** to enter the Setup Screen, then press **Sync**.
- 2 Locate **SYNC REF OUTPUT** using the **▲** and **▼** buttons. Press **Enter**.
- 3 Choose **WORDCLK** or **THRU** using the **◀** and **▶** buttons. Press **Enter**.

3 VIDEO SYNC

Video sync, also known as house sync or black burst, is used to ensure a known and accurate synchronization relationship exists between ADA and all the other devices in the studio, especially video equipment.

If syncing the ADA to video, connect a proper 75-Ohm cable from the video source output to the **WORDCLOCK / VIDEO IN** connector at the rear of the ADA.

The 75-Ohm switch provides video signal termination. This is only required to be **ON** if ADA is the last device in a video signal chain where a video signal and video sync are in use on the same cable.

Termination does **not** affect the video sync signal. If termination is **ON**, it is active even when the ADA is powered off.

4-5 AES/EBU 2-CHANNEL SYNC & S/PDIF 2-CHANNEL SYNC

The **AES/EBU** connectors or the **S/PDIF** connectors on the back panel are available to receive a clock signal from a master clock or another digital audio device as well as transmit the master clock signal. Only one set of connectors is enabled at a time.

To switch between AES/EBU 2-Channel and S/PDIF 2-Channel:

- 1 From the Main Screen press **Setup** to enter the Setup Screen, then press **Sync**.
- 2 Locate **DIG 2-CH OUTPUT** using the **▲** and **▼** buttons. Press **Enter**.
- 3 Choose **AES/EBU** or **S/PDIF** using the **◀** and **▶** buttons. Press **Enter**.

6 ADAT DIGITAL I/O OPTION CARD

ADAT Lightpipe is a standard for the transfer of digital audio via Toslink optical cables. The ADAT Digital I/O Card features:

- Audio and sync data streams
- Digital audio transfers of 24 channels @ up to 48 kHz.
- Connectivity of 8 channels per Toslink optical cable.
- Maximum cable lengths of 10m

ADAT Digital Audio

Lightpipe connections can be made with any optical fiber that is approved for use with the Alesis ADAT system. Each fiber carries eight channels of digital audio. Three input and three output Lightpipe fibers provide 24 channels of ADAT I/O at 48 kHz.

ADAT SYNC

The ADAT optical connectors on the rear panel can also be used to receive a clock signal from a master clock or another digital audio device as well as to transmit a master clock signal.



If there are no ADAT cards installed an alert dialog will state: **NO ADAT CARD INSTALLED.**

7 DIGITAL I/O OPTION SLOT

There are several digital I/O options available for ADA and each one has different cabling requirements.

8 MAD I DIGITAL I/O

MADI (Multi-Channel Audio Digital Interface) is the standard digital I/O format on ADA. A fully professional digital format, MADI features:

- Audio and sync data streams
- Digital audio transfers of 24 channels @ up to 96 kHz or 16 channels @ 192 kHz
- Single-cable connectivity
- Coaxial and optical connectors for increased cabling flexibility
- Maximum cable lengths of 200 meters (coaxial) and 2000 meters (optical)

MADI Digital Audio

The MADI format can transfer 24 channels of digital audio at sample rates of up to 96 kHz or 16 channels at 192 kHz. Audio information is transferred through either MADI coaxial or MADI optical connectors. The coaxial I/O uses a 75-Ohm, BNC terminated cable which has a maximum length of 200 meters. The optical I/O uses a MADI optical cable which has a maximum length of 2000 meters.

MADI Sync

MADI data streams include sync information. Sync information is transferred in the same way that audio information is transferred – through either MADI coaxial or MADI optical connectors. The coaxial I/O uses a 75-Ohm, BNC terminated cable which has a maximum length of 200 meters. The optical I/O uses a MADI Optical cable which has a maximum length of 2000 meters. Either interface can be used to receive a clock signal from a master clock or another digital audio source. Both MADI Optical and MADI Coaxial will always output clock and data.

To switch between MADI Optical and MADI Coaxial Sync input format:

- 1 From the Main Screen press  to enter the Setup Screen, then press .
- 2 Locate **MADI COAX / OPTICAL IN** using the  and  buttons. Press .
- 3 Choose **COAXIAL** or **OPTICAL** using the  and  buttons. Press .

MADI Sample Rates and I/O Mapping High Speed Mode and SMUX Mode

Sampling frequencies of up to 48 kHz are designated as being in the *NFS range* (from NFs, Normal Frequency sample). Sampling frequencies above 48 kHz and up to 96 kHz are in the "DFS range" (from DFs, Double Frequency sample). Sampling frequencies above 96 kHz and up to 192 kHz are in the "QFS range" (from QFs, Quadruple Frequency sample).

At high sample rates (i.e., sample rates in the DFS and QFS ranges), the MADI interface can operate in either of two modes, High Speed (**NATIVE**) or SMUX 2 (**LEGACY**).

DFS Range (88.2 kHz to 96 kHz)

The MADI interface can operate in High Speed mode (**NATIVE**) or SMUX2 mode (**LEGACY**). In **NATIVE** mode, the MADI-embedded reference signal has a frequency of 88.2 kHz to 96 kHz. In **LEGACY** mode, the frequency is 44.1 kHz to 48 kHz.

QFS Range (176.4 kHz to 192 kHz)

The MADI interface can operate in High Speed mode (**NATIVE**) or SMUX2 (**LEGACY**) mode. In **NATIVE** mode, the MADI-embedded reference signal has a frequency of 176.4 kHz to 192 kHz. In **LEGACY** mode, the frequency is 88.2 kHz to 96 kHz.

To switch ADA's MADI I/O between High Speed mode (**NATIVE**) or SMUX2 mode (**LEGACY**) at 96 kHz:

- 1 From the Main Screen press  to enter the Setup Screen, then press .
- 2 Locate **MADI SETTINGS** using the  and  buttons. Press .
- 3 Locate **96 kHz FRAMING** using the  and  buttons. Press .
- 4 Choose **NATIVE** or **LEGACY** using the  and  buttons. Press .

To switch ADA's MADI I/O between High Speed mode (**NATIVE**) or SMUX2 mode (**LEGACY**) at 192 kHz:

- 1 From the Main Screen press  to enter the Setup Screen, then press .
- 2 Locate **MADI SETTINGS** using the  and  buttons. Press .
- 3 Locate **192 kHz FRAMING** using the  and  buttons. Press .
- 4 Choose **NATIVE** or **LEGACY** using the  and  buttons. Press .

192 kHz Channels

The MADI format can transfer **16 (EXTENDED)** or **12 (STANDARD)** channels at 192 kHz

To switch ADA's MADI I/O between **16 (EXTENDED)** or **12 (STANDARD)** channels at 192 kHz:

- 1 From the Main Screen press  to enter the Setup Screen, then press .
- 2 Locate **MADI SETTINGS** using the  and  buttons. Press .
- 3 Locate **192 kHz CHANNELS** using the  and  buttons. Press .
- 4 Choose **16 (EXTENDED)** or **12 (STANDARD)** using the  and  buttons. Press .

9-11 iZ DUAL PROTOOLS HD INTERFACE

The optional **iZ Dual ProTools HD Interface** allows multi-channel audio transfer directly to and from the ProTools HD core card. Audio is transferred using DigiLink cables and is clocked through any **SYNC REFERENCE** on ADA. The **iZ Dual ProTools HD Interface** does not contain any sync information. The **iZ Dual ProTools HD Interface** has the following ports:

9. ProTools HD I/O port x 2
10. ProTools HD MAD1 optical I/O port x 2
11. ProTools HD USB firmware port x 1

9 ProTools HD I/O

The **iZ Dual ProTools HD Interface** allows multi-channel audio transfer directly to and from ProTools HD. The maximum DigiLink cable lengths are as follows:

- 48 kHz operation: 180 cm (6')
- 96 kHz operation: 90 cm (3')
- 192 kHz operation: 45 cm (1.5')

In a typical setup, connect the Primary Port A of the **iZ Dual ProTools HD Interface** to the Primary Port of the **HD Core** card with a DigiLink cable. Connect Primary Port B of the **iZ Dual ProTools HD Interface** to the Primary Port of the first HD Accel card in the HD system with a DigiLink cable.

Technically, any Primary Port of the **iZ Dual ProTools HD Interface** is compatible with any Primary Port of a ProTools HD system. However, connecting Primary Ports A and B of the **iZ Dual ProTools HD Interface** to consecutively numbered Primary Ports of the ProTools HD system is preferable in order to maintain clarity when working in the I/O Setup page of the ProTools or ADA software.

For ProTools software setup instructions, see *PROTOOLS SOFTWARE SETUP*, at the end of this section.



The **iZ Dual ProTools HD Interface HD-B** port is used to output a second ADA for an additional 24 I/O to ProTools.



Do not connect or disconnect the **iZ Dual ProTools HD Interface** to/from the ProTools cards while the ProTools software is running.

10 ProTools HD MADI I/O

There are two optical MADI I/O ports on the iZ Dual ProTools Option Card: MADI A and MADI B. Connect the **iZ Dual ProTools HD Interface MADI A Optical In** port to the ADA MADI digital I/O Optical Out port and connect the iZ Dual ProTools HD Interface MADI A optical OUT port to the ADA MADI digital I/O optical IN port.



The **iZ Dual ProTools HD Interface MADI B** optical port is used to connect a second ADA unit's MADI ports for an additional 24 I/O out of the HD-B port.



The **Optical MADI I/O** between the ADA **MADI card** and the **iZ Dual ProTools HD Interface** must be connected for the **iZ Dual ProTools HD Interface** to function.

11 ProTools HD USB Firmware Port

The ProTools HD USB firmware port is provided for future ADA functionality and compatibility.

ProTools HD Sample Rates and I/O Mapping High Speed Mode and SMUX Mode

Sampling frequencies up to 48 kHz are designated as being in the "NFS range" (from NFs, Normal Frequency sample). Sampling frequencies above 48 kHz and up to 96 kHz are in the "DFS range" (from DFs, Double Frequency sample). Sampling frequencies above 96 kHz and up to 192 kHz are in the "QFS range" (from QFs, Quadruple Frequency sample).

At high sample rates (i.e., sample rates in the DFS and QFS ranges), the ProTools HD Interface can operate in either of two modes, High Speed (**NATIVE**) or SMUX 2 (**LEGACY**).

DFS Range (88.2 kHz to 96 kHz)

The **iZ Dual ProTools HD Interface** can operate in High Speed mode (**NATIVE**) or SMUX2 (**LEGACY**) mode. In **NATIVE** mode, the iZ Dual ProTools HD Interface embedded reference signal has a frequency of 88.2 kHz to 96 kHz. In **LEGACY** mode, the frequency is 44.1 kHz to 48 kHz.

QFS Range (176.4 kHz to 192 kHz)

The **iZ Dual ProTools HD Interface** can operate in High Speed mode (**NATIVE**) mode only. In **NATIVE** mode, the iZ Dual ProTools HD Interface embedded reference signal has a frequency of 176.4 kHz to 192 kHz.

To switch ADA's **iZ Dual ProTools HD Interface** between High Speed mode (**NATIVE**) or SMUX2 mode (**LEGACY**) at 96 kHz:

- 1 From the Main Screen press  to enter the Setup Screen, then press .
- 2 Locate **MADI SETTINGS** using the  and  buttons. Press .
- 3 Locate **96 kHz FRAMING** using the  and  buttons. Press .
- 4 Choose **NATIVE** or **LEGACY** using the  and  buttons. Press .
- 5 In ProTools Software, go to Hardware Setup and select the **ANALOG OUT 1-8** tab. Set Output Trims on Channel 3 to either High Speed mode (**NATIVE**) (**B**) or SMUX2 mode (**LEGACY**) (**A**)



To change between High Speed mode (**NATIVE**) or SMUX2 (**LEGACY**) mode at 96 kHz on ProTools software, see the section [REMOTE CONTROL OF PROTOOLS HD INTERFACE SETTINGS](#)

12 ANALOGUE I/O

Analogue cables for ADA use the Tascam format, and share the same wiring scheme as analogue cables for Digidesign's ProTools and other popular modular digital multi-track recorders. The ADA end of each analogue cable is a 25-pin D-sub connector that carries eight independent, balanced, line level audio signals. Six cables will be required for a 24 Channel ADA system, three for input and three for output.

The other end of each analogue cable typically breaks out to individual XLR or TRS connectors for connection to a console's Tape Inputs and Buss Outputs. Another often-used approach is to wire directly into a patch bay for the ultimate in routing flexibility.

13 OPTIONAL DVI/VGA PORT

Any standard VGA monitor can be attached directly to the ADA. The monitor connection is a 15-pin D-sub connector located on the far left of the card cage section on the back panel.



The default resolution is 800 x 480



Only the VGA DB-15 output is active. The S-Video and DVI outputs are not active.

14 GROUND CONNECTORS

These ground posts may be needed in situations where AC power is not properly grounded. Otherwise they do not need to be connected.

15 ETHERNET

ADA ships with a Gigabit Ethernet port built into the Motherboard which can be used to update software and for network control via a Mac or PC. Use any standard Ethernet cable for connecting ADA directly to a PC/MAC or to a networked router.

16 USB

ADA ships with 4 USB 2.0 ports built into the Motherboard. These USB ports are used for connecting the **iZ Software USB key** for software updates or saving debug logs. The USB ports can also be used for connecting a mouse or keyboard. Please note that the ADA's USB ports cannot be used for inputting digital audio data.

17 REMOTE POWER

This barrel connector is included for future ADA functionality.

18 SERIAL PORT

This 9-pin connector allows for serial port connectivity for future ADA functionality.

19 PS/2 PORTS

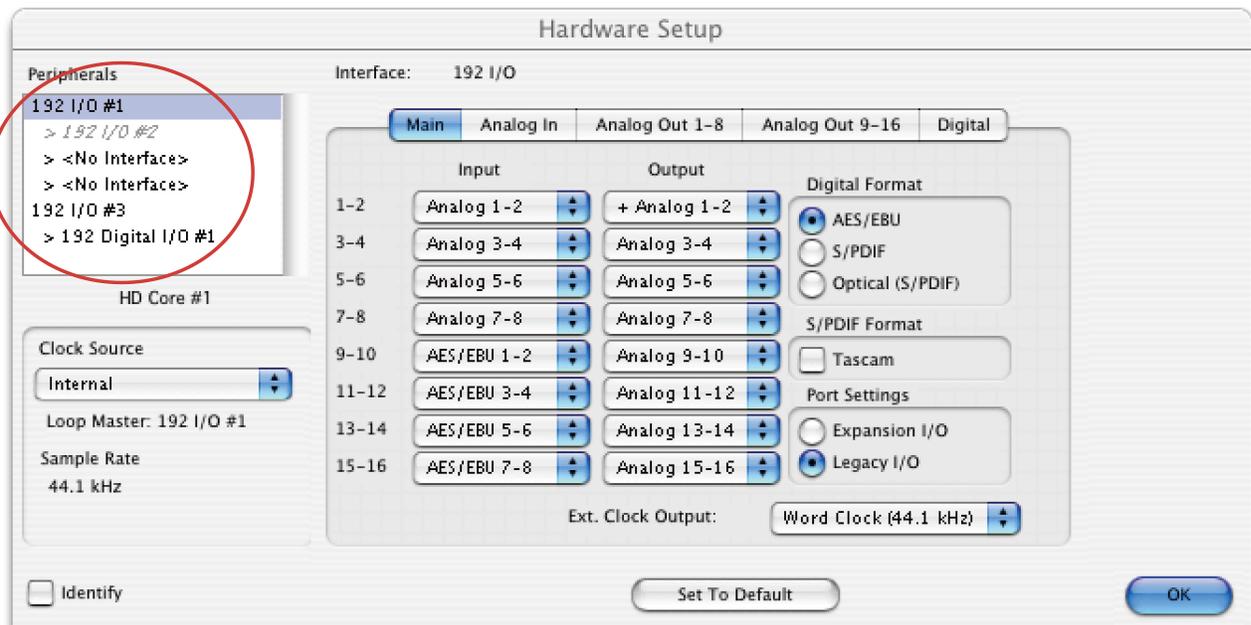
Connect any standard PS/2 mouse or keyboard to ADA using the PS/2 mouse and keyboard ports.

PROTOOLS SOFTWARE SETUP

The **iZ Dual ProTools HD Interface** can work with ProTools HD systems running on a Windows PC or Mac OS X computer. Using the **iZ Dual ProTools HD Interface** with ProTools software is generally straightforward. However, there are a few points to be aware of:

- The ADA appears in the ProTools software as four Digidesign 192 I/O units, except when operating at 176.4 or 192 kHz, in which case it appears as two Digidesign 192 I/O units.
- The ADA analogue inputs and outputs appear in the ProTools software as analogue or digital (AES/EBU or ADAT) inputs and outputs belonging to these four Digidesign 192 I/O units. Therefore, no ADA-specific inputs or outputs will be listed in the Hardware Setup page of the ProTools software under **MENU/SETUP/HARDWARE**. Please use the inputs and outputs that are listed, regardless of their denomination — they are really the ADA inputs and outputs — and do not select **NONE**.

The screenshot below was made using a ProTools HD2 system with a single **iZ Dual ProTools HD Interface**. It shows as 192 I/O peripherals (top left). All the inputs and outputs that are listed belong to this single unit:



Remote Control of ProTools HD Interface Settings

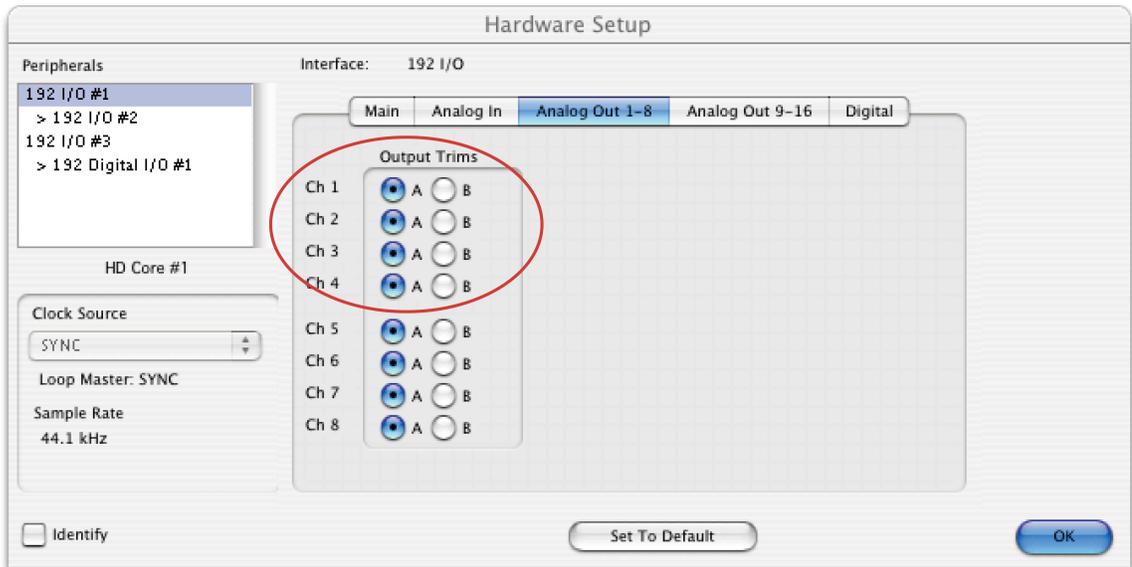
Some **iZ Dual ProTools HD Interface** settings can be controlled via the **ANALOG OUT** tab on the ProTools software's Hardware Setup window (**MENU/SETUP/HARDWARE**):

The **OUTPUT TRIM** settings are irrelevant to the **iZ Dual ProTools HD Interface** because its inputs and outputs are all digital. Therefore, they can be used to set various **iZ Dual ProTools HD Interface** parameters such as:

- MADI number of channels 56/28/14 64/32/16
- MADI NFS mode Normal Special
- MADI DFS/QFS mode SMUX High Speed
- Wordclock input/Wordclock Frame Clock (48 kHz /44.1 kHz)
- Sample rate deviation Narrow (*1) Wide (*2)

(*1) Narrow sample rate deviation: typically used for Audio editing. Correct sample rate when within +/-0.5% (the Lock LED must be lit solid).

(*2) Wide sample rate deviation: typically used for Video editing. Correct sample rate when within +/-4.2% (the Lock LED must be lit solid). When operating at 48/96/192 kHz, this positive deviation can only be obtained when also operating with 56/28/14 MADI channels.



These options can be used to set various ADA's **iZ Dual ProTools HD Interface** parameters as follows:

Channel Number	Parameter	If "A" is selected	If "B" is selected
1	Number of MADi channels	56/28/14	64/32/16
2	MADi NFS mode	Normal	Special
3	MADi DFS/QFS mode	SMUX	High Speed
4	Wordclock input	Wordclock	Frameclock (48 kHz /44.1 kHz)

Known Issues

When the ProTools software starts up, it uses the settings defined during the previous session, e.g., number and type of Audio Interfaces, I/O setup, etc.

If a Legacy Audio Interface (defined through **MENU/ SETUP/HARDWARE**) had been used, and then replaced with the **iZ Dual ProTools HD Interface**, the ProTools software will display the following error message...: *DAE error -1125 was encountered*

This is because the Legacy Audio Interface cannot be detected anymore. After clicking **OK**, the ProTools software will close without allowing any change to the Hardware setup. An easy way to get around this problem is to startup ProTools with the ADA switched **OFF**.

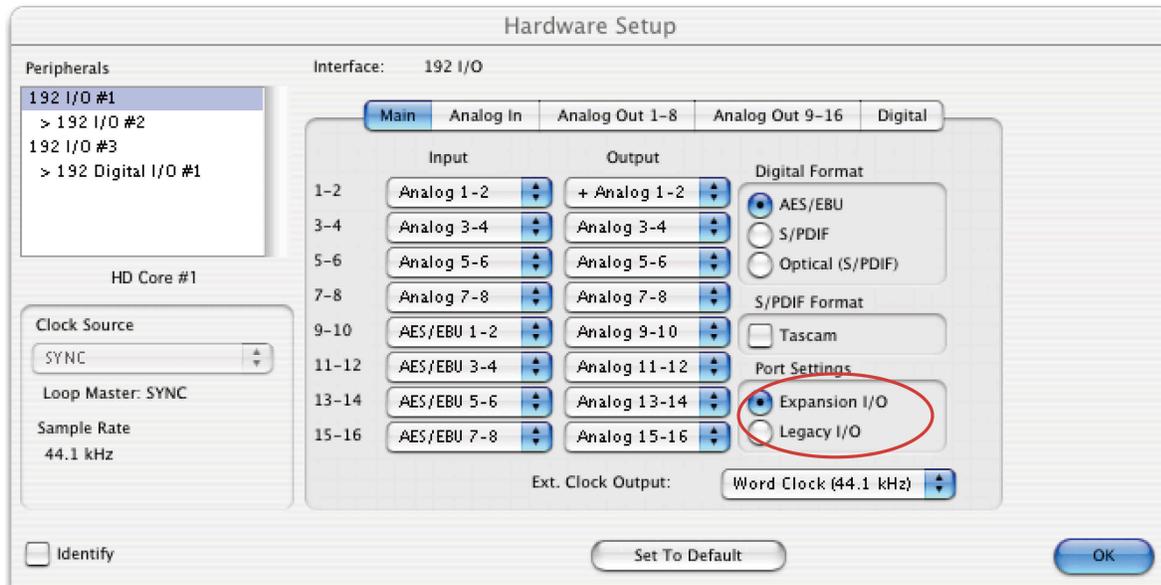
The following message will eventually be displayed: *Unable to find an Audio Interface attached to...*

At this point, power up the ADA and click **OK**. ProTools will then continue its start up procedure.



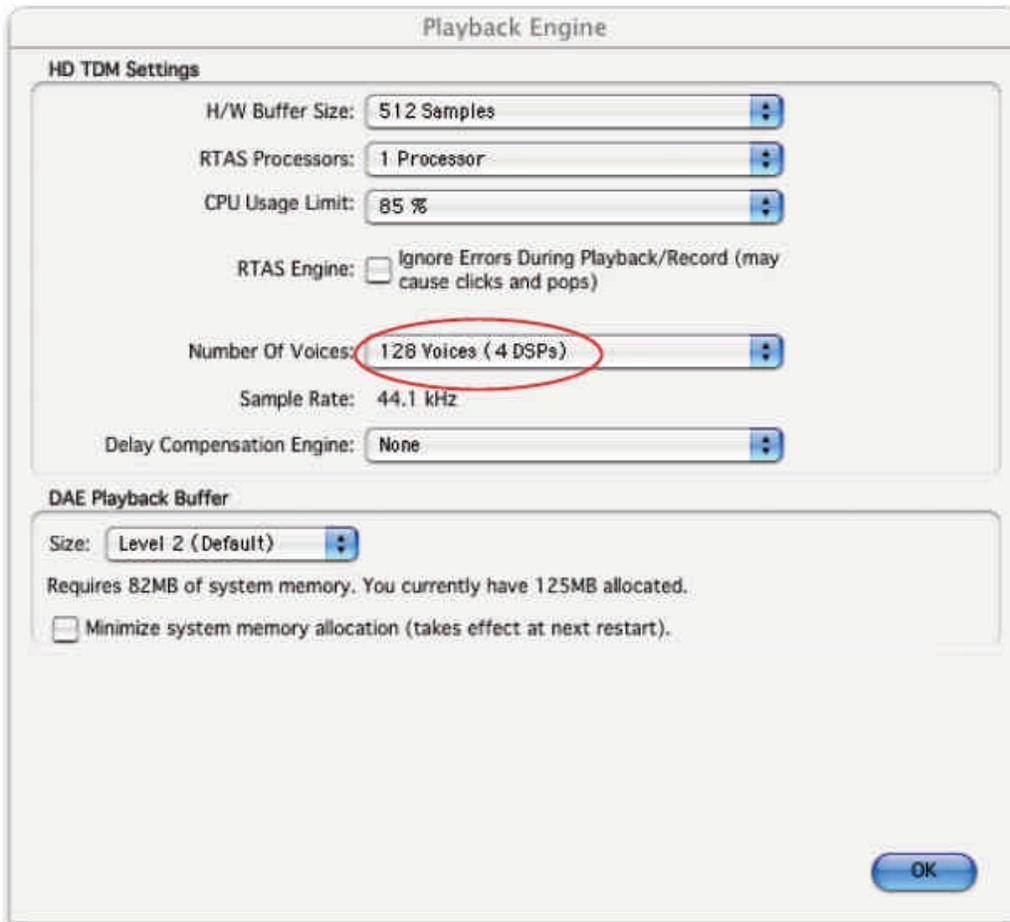
Another way to solve this problem is to delete the file *DigiSetup.OSX* and directory *DAE prefs* in the *Library\Preferences* directory on your Mac. This will force ProTools to start up using the default configuration (48 kHz, limited "Voices", no Hardware knowledge)

Once ready, go to **MENU/SETUP/HARDWARE** and make sure all Legacy Interfaces are removed from the **PERIPHERALS** list. The best way to do this is to click the name of a Legacy Audio Interface (e.g., 882/20 or 888/24) and to select **NO INTERFACES** from the **INTERFACE** drop down box. After the Legacy Interfaces have been removed, select the **192 I/O** device, click the **MAIN** tab and select **EXPANSION I/O** in the **PORT SETTINGS** section. The second **192 I/O** device will appear in the **PERIPHERALS** list.



Playback Engine

The **iZ Dual ProTools HD Interface** provides up to 48 input and output channels using two ADA units. Therefore, the number of voices for the Playback Engine may need to be increased. For instance, in order to play back and record 64 tracks simultaneously at 96 kHz, go to **MENU/SETUP/PLAYBACK ENGINE** and select **128 VOICES**.



SECTION 3

CONFIGURATION

This section is a guide to configuring system settings and ensuring they are set correctly. Settings can vary depending on the studio setup. The configuration settings covered in this section are: Operating Level, Sample Rate, Sync Reference, Digital I/O, Networking, and Software.

OPERATING LEVEL

The input and output levels of ADA can be matched with the input and output levels of other pieces of equipment in the studio. Although the inputs and outputs can be adjusted independently, all inputs share the same operating level. The same holds true for all of the outputs.

Because a zero meter reading on a digital recorder represents the absolute maximum level (dBFS – decibel Full Scale) that can be recorded, a much lower nominal level should be specified.

With analogue VU meters, 0 VU (+4dBu) represents this nominal level and above that is *headroom*, which allows for dynamic surges and peak transients.

Setting ADA's analogue audio input and output levels can be done by setting the level in dBu at which ADA will reach full scale (0 dBFS). It can also be set by the level in dBFS that a 0 VU (+4dBu) signal will meter on ADA's meters. The **ANALOGUE I/O LEVEL** dialog in the **I/O MENU**, will have a prompt of either **0 dBFS** or **+4 dBu** as the reference.

Choosing a reference of **0 dBFS** will display a prompt for setting the full scale input and output levels (0 dBFS) as a dBu value between +18 and +24 dBu.

Choosing a reference of **+4 dBu** will display a prompt for setting where a signal at +4dBu will register on ADA's meters in dBFS. This will be a value between -14 and -20 dBFS. This value is commonly referred to as *headroom*.

To set the input and output operating levels:

- 1 From the Main Screen press  to enter the Setup Screen.
- 2 Press  then navigate to **ANALOGUE LEVELS** using  and . Press .
- 3 Reference either **0 dBFS** or **+4 dBu** using  and . Press .
- 4 Select the desired input operating level using  and . Press .
- 5 Select the desired output operating level use  and . Press .



If a reference of **0 dBFS** is selected, the prompt will ask to set the full scale input and output levels as a dBu value between +18 and +24 dBu.

If a reference of **+4 dBu** is selected, the prompt will ask to set the value between -14 and -20 dBFS. This value is commonly referred to as headroom.

SAMPLE RATE

The Sample Rate in ADA must match the sample rates of the devices connected digitally to ADA. All ADA units ship standard with a MADi Digital I/O Card; however, there are three Analogue I/O options. The Classic, Nyquist and S-Nyquist analogue cards allow up to 48 kHz, 96 kHz, and 192 kHz sample rates respectively. There can be up to three 8-channel analogue cards in ADA for a total of 24 channels of analogue I/O.

The standard sample rates available on ADA are: 44.1, 48, 88.2, 96, 176.4, and 192 kHz. ADA also offers Pull Down sample rates for proper syncing to Video. Pull Down sample rates are: 44.056, 47.952, 88.112, 95.904, 176.224, and 191.808 kHz.

To set the Sample Rate in ADA:

- 1 From the Main Screen beneath the **SAMPLE RATE** header, press the desired sample rate button selecting from      . A green ring will flash around the selected sample rate button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.



If the selected sample rate is not supported by the installed Analogue card(s), ADA will switch to the Setup Screen and display the message **NO ANALOG I/O AT XXX kHz**.

Press the  button to return to the Main Screen.

To set the Pull Down sample rate in ADA:

- 1 From the Main Screen press the  button. The available sample rates will switch to:

44.056 kHz	47.952 kHz	88.112 kHz	95.904 kHz	176.224 kHz	191.808 kHz
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 Press the desired sample rate button. A green ring will flash around the selected sample rate. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.

SYNC REFERENCE

Sync (clock) reference is one of the keys to reliable digital audio interfacing. There are many possible formats that can be used as ADA's clock source. The sync format depends on which multi-channel digital I/O card is installed in ADA. The available sync formats are displayed on the Main Screen, beneath the **SYNC REFERENCE** heading.

The sync reference setting will vary widely depending on the application and the configuration of a system. It will also depend on whether or not ADA is the master or slave in a particular setup. Access the sync settings by pressing  from the Setup Screen.

A reliable clock source is necessary for digital audio transfers to a digital mixer or to other digital audio devices. Without proper data synchronization digital audio will exhibit pops, clicks and other undesirable artifacts.

In a film or video post environment video sync is usually distributed to all the video, audio and clock devices in the studio to ensure that everything is synchronous with the video signal right down to the sample level.

To configure ADA as the digital audio sync master using the wordclock output:

- 1 Ensure that a wordclock cable is connected to the **WORDCLOCK/VIDEO OUT/THRU** connector.
- 2 From the Main Screen beneath the **SYNC REFERENCE** heading, press . A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the button will be solid.
- 3 Press the  button at the bottom left of the screen to enter the Setup Screen.
- 4 Press the  button then navigate to **SYNC REF OUTPUT** using  and . Press .
- 5 Select **WORDCLK** using  and . Press .

To slave ADA to external wordclock:

- 1 Ensure that a wordclock source is connected to the **WORDCLOCK/VIDEO IN** connector.
- 2 From the Main Screen beneath the **SAMPLE RATE** heading, verify that the selected sample rate matches the incoming wordclock frequency.
- 3 Beneath the **SYNC REFERENCE** heading, press . A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.

If wordclock will be passing through the ADA make sure that the function of the **OUT/THRU** connector is set to **THRU**.

To set ADA throughput external wordclock:

- 1 From the Main Screen press  to enter the Setup Screen.
- 2 Press  then locate **SYNC REF OUTPUT** using the  and  buttons. Press .
- 3 Choose **THRU** using  and . Press .



The wordclock frequency value is determined by the **SAMPLE RATE** set in the Main Screen **not** the rate of the incoming wordclock signal.



When locked, the green ring around the selected **SYNC REFERENCE** button will be solid.

To slave ADA to external video sync:

- 1 Ensure that a video sync source is connected to the **WORDCLOCK/VIDEO IN** connector.
- 2 From the Main Screen beneath the **SAMPLE RATE** heading, verify that the selected sample rate matches the incoming audio sample rate.
- 3 Press the  button at the bottom left of the screen to enter the Setup Screen.
- 4 Press the  button then navigate to **VIDEO FORMAT** using  and . Press .
- 5 Select either **NTSC** or **PAL** using  and . Press .
- 6 From the Main Screen beneath the **SYNC REFERENCE** heading, press  or  (depending which was selected in the previous step). A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.



The video sync frequency value is determined by the **VIDEO RATE** set in the **SYNC MENU** not the rate of the incoming video sync signal.

To slave ADA to an external AES/EBU clock source:

- 1 Connect an AES/EBU source to the **AES/EBU IN** connector using an XLR terminated digital audio cable.
- 2 From the Main Screen press  to enter the Setup Screen.
- 3 Press  then navigate to **DIG 2-CH FORMAT** using  and . Press .
- 4 Select **AES/EBU** using  and . Press .
- 5 From the Main Screen beneath the **SYNC REFERENCE** heading, press . A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.

To slave ADA to an external S/PDIF clock source:

- 1 Connect the S/PDIF source to the **S/PDIF IN** connector using an RCA terminated digital audio cable.
- 2 From the Main Screen press  to enter the Setup Screen.
- 3 Press  then navigate to **DIG 2-CH FORMAT** using  and . Press .
- 4 Select **S/PDIF** using  and . Press .
- 5 From the Main Screen beneath the **SYNC REFERENCE** heading, press . A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.

To slave ADA to an external ADAT clock source:

- 1 Connect the ADAT source to the desired optical **ADAT IN** connector using a light pipe cable.
- 2 From the Main Screen beneath the **SYNC REFERENCE** heading, press . A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.



If ADAT cards are not installed then a dialog will display: **NO ADAT CARD INSTALLED.**

To slave ADA to an external MADI clock source:

- 1 Connect the MADI source to either the **BNC** or the **OPTICAL CABLE** connector using the appropriate digital audio cable.
- 2 Press the  button at the bottom left of the screen to enter the Setup Screen. Press the  button then navigate to **MADI COAX/OPT IN** using  and . Press .
- 3 Select either **COAX** or **OPTICAL** using  and . Press .
- 4 From the Main Screen beneath the **SYNC REFERENCE** heading, press  or  (depending which was selected in the previous step). A green ring will flash around the button. Press the button again to confirm the selection. When locked, the green ring around the selected button will be solid.

DIGITAL I/O

The digital I/O formats available for selection will depend on the type and number of digital interface options installed in ADA. All units ship with multi-channel MADI digital I/O. The 24 channel digital I/O options available include: ADAT, and ProTools HD

It is important to note that once a digital format is selected, an appropriate clock source must be selected as well. Many times they are one and the same thing, but not always. For instance, a MADI transfer may be required but the sync reference for all digital devices in the studio may be a wordclock generator referenced to video sync. ADA may also act as clock master and all other digital equipment will clock to ADA in which case **SYNC REFERENCE** would be set to internal.

MADI

Each BNC connector or Optical connector carries 24 channels of audio. You must choose either **COAXIAL** or **OPTICAL** under **DIG IN** depending on the inputs/outputs of the external device. This format is unidirectional so one input and one output MADI cable will be required for 24 channels of MADI I/O.

To select MADI as the digital I/O format:

- 1 Make sure that all cabling is connected properly.
- 2 From the Main Screen press the  button (MADI is displayed by default).
- 3 Select **MADI** as the digital format using  and . Press .
- 4 Select **OPTICAL** or **COAXIAL** using  and . Press .

ADAT

Lightpipe optical fibers carry eight channels of digital audio. This format is unidirectional so three input and three output Lightpipe “cables” will be required for 24 channels of ADAT I/O.

To select ADAT as the digital I/O format:

- 1 Make sure that all cabling is connected properly.
- 2 From the Main Screen press the  button (MADI is displayed by default).
- 3 Select **ADAT** as the digital format using  and . Press .

iZ Dual ProTools HD Interface

This option allows multi-channel audio transfer directly to and from a ProTools HD core card. Audio is transferred using DigiLink cables and clocked through any sync reference on ADA. The **iZ Dual ProTools HD Interface** does not contain any sync information.

To select Pro Tools HD as the digital I/O format:

- 1 Make sure that all cabling is connected properly.
- 2 From the Main Screen press the  button (MADI is displayed by default).
- 3 Select **PT HD VIA MADI** as the digital format using  and . Press .

NETWORKING

ADA ships with a Gigabit Ethernet interface built onto the motherboard. This allows for ADA software updates and debug logs to be sent through the network.

The goal of ADA networking is to configure the unit for integration into an existing network or for connection to a personal computer. Networking can be very extensive; this section of the manual only addresses basic networking configuration settings to be used with ADA. Please refer additional networking questions to the iZ Support department.



DISCLAIMER: iZ Technology cannot offer advice on networking and security issues that do not directly pertain to the ADA system. For further assistance please consult a networking professional or make use of the extensive resource materials available on the Internet.

ADA IP Address Setup

ADA can connect to a PC or Mac via Ethernet with the appropriate cabling and software.

To setup ADA for networking:

- 1 From the Main Screen press  to enter the Setup Screen, then press .
- 2 Navigate to **NETWORK PREFS** using  and . Press . Select **INTERFACE PREFS**. Press .

- 3 At the **INTERFACE PREFS:** dialogue, select **HOST NAME** using  and . Press .
- 4 At the **HOST NAME:** prompt, use a QWERTY keyboard to enter a unique name for ADA. Press .
- 5 At the **DHCP SERVER:** dialogue, **ENABLE** or **DISABLE DHCP** using  and . Press . If **DHCP** is enabled, steps 6-11 can be skipped. Do NOT enable **DHCP** when using a crossover cable to connect directly with a Mac or Windows-based computer.
- 6 At the **LOCAL IP ADDRESS:** prompt, enter a unique IP address using the numeric keypad displayed on the screen and  and . Press . When using a crossover cable to connect directly with a Windows or Mac-based computer, ADA's IP address should have the same first three numbers but the last number has to be different. E.g., Windows computer IP is 192.168.1.1 therefore the ADA IP can be 192.168.1.2 or 192.168.1.3 or 192.168.1.4, etc.

The Internet Assigned Numbers Authority has set certain IP address ranges for use in private networking applications:

Class A 10.0.0.0—10.255.255.255

Class B 172.16.0.0—172.31.255.255

Class C 192.168.0.0—192.168.255.255

In a self-contained peer-to-peer network that never sees the outside world any IP address range may be used. However, care should be taken when assigning IP addresses to avoid potential security risks and IP address conflicts. For further information visit the Internet Assigned Numbers Authority site at <http://www.iana.org>.

- 7 At the **SUBNET MASK:** prompt, enter a **SUBNET MASK** value using the numeric keypad and  and . Press . The standard default is 255.255.255.0. The **SUBNET MASK** value **must** match the subnet mask value of the computer/server the ADA is connecting to.
- 8 A **GATEWAY** entry is only required when connected to a WAN (wide area network) such as the Internet. At the **GATEWAY:** prompt, enter a gateway IP address using the numeric keypad and  and  Press .

- 9 The **PRIMARY DNS** address for the server is only required for connecting to a client-server network. At the **PRIMARY DNS:** prompt, enter a **PRIMARY DNS** value using the numeric keypad and  and . Press .
- 10 The **SECONDARY DNS** address only applies if there is a secondary server on a client-server network. At the **SECONDARY DNS:** prompt, enter a **SECONDARY DNS** value using the numeric keypad and  and . Press .
- 11 The **SMTP HOST** setting is sometimes required to allow email of debug logs via a specific Internet Service Provider. At the **SMTP HOST:** prompt, type a **SMTP HOST** using a QWERTY keyboard (i.e. *mail.smtp.com*).

FTP

FTP stands for File Transfer Protocol. It is used to transfer data from one computer to another.

ADA has a built in FTP (File Transfer Protocol) client. This feature enables ADA software updates from PC, Mac or iZ Technology's website.

ADA FTP Client Network Setup with Windows 2000/XP/Vista Server

For Mac setup instructions skip to the next section.

These instructions are for setting up a Network between ADA and a PC (Windows).

ADA has a built-in FTP Client . PC computers, however, do not generally come with installed FTP Client or FTP Server programs. In order to network ADA, 3rd party FTP Client and FTP Server software must be installed on the PC. Downloadable FTP software options include: FTP Server software: FileZilla Server



Software Updates via FTP will not be possible unless FTP Server software is installed on the destination PC.

Once the PC has been equipped with an FTP Server, connect an Ethernet *crossover cable* between ADA and the PC. Crossover cables are available at most computer stores. A crossover Ethernet cable is different from a standard (straight through) Ethernet cable, as the crossover cable has different wiring. Crossover cables are usually yellow in colour. If ADA and the PC are connected through a router, standard Ethernet cables may be used. ADA can also be integrated into a network environment; contact the network administrator for specific settings.

PC IP Address and Firewall setup for Windows Vista:

- 1 Click the **START** menu and click **CONTROL PANEL**.
- 2 Click on **WINDOWS FIREWALL** then click the **GENERAL TAB** shut off the Firewall and click the **OK** button.
- 3 In the **CONTROL PANEL** click on **NETWORK AND INTERNET**, then **NETWORK AND SHARING CENTER** and click to select **MANAGE NETWORK CONNECTIONS** from the list of tasks.
- 4 Right click on **LOCAL AREA CONNECTION** and choose **PROPERTIES**.
- 5 Select **USE THE FOLLOWING IP ADDRESS** and enter a unique IP Address (*i.e. 192.168.12*)
- 6 For **SUBNET MASK** enter: *255.255.255.0*.
- 7 Leave all other fields blank.
- 8 Click the **OK** button.

PC IP Address and Firewall setup for Windows XP:

- 1 Click the **START** menu and click **CONTROL PANEL**.
- 2 Click on **WINDOWS FIREWALL** then click the **GENERAL TAB** shut off the Firewall and click the **OK** button.
- 3 Click on **NETWORK CONNECTIONS** in **CONTROL PANEL**.
- 4 Right click on **LOCAL AREA CONNECTION** and choose **PROPERTIES**.
- 5 Click on **INTERNET PROTOCOL (TCP/IP)** and then click **PROPERTIES**.
- 6 Click **USE THE FOLLOWING IP ADDRESS** and enter a unique IP Address (*i.e. 192.168.1.2*).
- 7 For **SUBNET MASK** enter: *255.255.255.0*
- 8 Leave all other fields blank.
- 9 Click the **OK** button.

PC FTP Server Username and Password:

- 1 Open FTP Server.
- 2 Click on **EDIT** then click **USERS**.
- 3 Click the **GENERAL** tab and then click **ADD**.
- 4 Type in a *username* and *password*.
- 5 Click the **SHARED FOLDERS** tab and add a drive or directory to import/export to.
- 6 Highlight the **DIRECTORY** added and check all the boxes under **FILES AND DIRECTORIES**.

ADA FTP client setup:

- 1 Press  from the Main Screen and press . Use  and  and press  on **NETWORK PREFS** then again on **SERVER PREFS**.
- 2 At the **NETWORK PROTOCOL:** prompt, press the  on **FTP**.
- 3 At the **SERVER IP ADDR:** prompt, use the numeric keypad displayed on the ADA screen and  and  to enter the PC's server IP address and press . (*i.e.* 192.168.1.2)
- 4 At the **SERVER NAME:** prompt, use a QWERTY keyboard to enter a name for the FTP Server. (*i.e.* Win XP) (Note: This is display only, and should not impact functionality.)
- 5 At the **SAVE CHANGES:** prompt, press  on **YES**.



Once FTP/CIFS Server Information has been entered it is a good idea to test the connection. From the Main Screen press  and then press . Use  and  to select **PING IP ADDRESS** and press . This provides a way to test communication by sending small packets of data across the network. By default the **SERVER IP** will be entered in this field. Press  at the **PING IP ADDRESS:** prompt. **REPLY RECEIVED** means the Server is reachable. If the message **NO REPLY** is displayed, recheck the networking settings on both the ADA and Server.

ADA FTP Client Network Setup with a Mac OS X server

These instructions are for setting up a Network between ADA and a Mac (OS X). To use ADA's FTP client, a 3rd party FTP Server is recommended such as *Pure FTP Manager*. This allows greater flexibility such as multiple users and unique paths.

Connect an Ethernet cable between ADA and the Mac. ADA can also be integrated into a network environment; contact the network administrator for specific settings.

Mac IP Address setup:

- 1 Open **SYSTEM PREFERENCES** and then click on **NETWORK**.
- 2 At **SHOW**, select **BUILT IN ETHERNET** and select the **TCP/IP** tab.
- 3 At **CONFIGURE IPV4**: choose **MANUALLY**.
- 4 On **IP ADDRESS** enter a unique **IP ADDRESS** (*i.e. 192.168.1.2*).
- 5 For **SUBNET MASK** enter: *255.255.255.0*
- 6 Click **APPLY NOW**.

Mac FTP Server setup:

- 1 Open **SYSTEM PREFERENCES**.
- 2 Click on **SHARING**.
- 3 Click on the **SERVICES** tab.
- 4 Click on the **FTP** check box.
- 5 Click on the **FIREWALL** tab.
- 6 Click the **STOP** button.

Mac FTP Server Username and Password:

- 1 Open **SYSTEM PREFERENCES**.
- 2 Click on **ACCOUNTS**.
- 3 The **FTP USER NAME** is the **MY ACCOUNT'S, SHORT NAME**.
- 4 The **FTP USER NAME** is the **MY ACCOUNT'S, PASSWORD**.

ADA FTP client setup:

- 1 Press  from the Main Screen and press . Use  and  and then press  on **NETWORK PREFS** then again on **SERVER PREFS**.
- 2 At the **NETWORK PROTOCOL:** prompt, press  on **FTP**.
- 3 At the **SERVER IP ADDR:** prompt, use the numeric keypad displayed on the ADA screen and the  and  to enter the PC's server IP address and press . (i.e. 192.168.1.2)
- 4 At the **SERVER NAME:** prompt, use a QWERTY keyboard to enter a name for the FTP Server. (i.e., *Mac Pro*) (Note: This is display only, and should not impact functionality.)
- 5 At the **SAVE CHANGES:** prompt, press  on **YES**.



Once FTP/CIFS Server Information has been entered it is a good idea to test the connection. From the Main Screen press  and then press . Use  and  to select **PING IP ADDRESS** and press . This provides a way to test communication by sending small packets of data across the network. By default the **SERVER IP** will be entered in this field. Press  at the **PING IP ADDRESS:** prompt. **REPLY RECEIVED** means the Server is reachable. If the message **NO REPLY** is displayed, recheck the networking settings on both the ADA and Server.

SOFTWARE

Although ADA is shipped with the latest version of ADA software, it can be kept up to date by downloading new versions of the software as they become available. iZ is constantly working to add new features and to improve the performance and reliability of ADA. Software updates and downloading instructions are available from the following: iZ website at www.izcorp.com, an iZ authorized dealer, and iZ Technology.

Install Procedure

- 1 Copy the *ADA_vX.X.X* file installer to either a USB 2.0 (FAT 32) drive or to a N:Network drive.
- 2 From the Main Screen press **Setup** to enter the Setup Screen, then press **System**
- 3 Locate **UPDATE SOFTWARE** using **▲** and **▼**. Press **Enter**
- 4 At the **UPDATE S/W FROM:** prompt, select either **WEB:IZCORP.COM** (WAN Access Required), **N:NETWORK** or **E:USB DRIVE** using **▲** and **▼**. Press **Enter**. If updating through the web or USB Drive skip to step 7.
- 5 At the **USER NAME:** prompt, enter the PC/Mac's FTP user name (case sensitive) using a QWERTY keyboard.
- 6 At the **USER PASSWORD:** prompt, enter the PC/Mac's FTP password (*case sensitive*).
- 7 Once connected, navigate to the ADA software installer file using **Enter** to go into a folder, and **Menu Prev** to back out of a folder level. Once in the appropriate folder, use the **▲** and **▼** to select *ADA_vX.X.X* and press **Enter** to select the software installer file.
- 8 At the **INSTALL VER X.XX?:** prompt, select **YES** using **◀** and **▶**. Press **Enter**. **+INSTALLING+** will display while the ADA application is being installed.
- 9 When **REBOOT ADA TO COMPLETE INSTALL** is displayed, power off ADA and power back on. Once rebooted the software install will be complete.

SECTION 4

OPERATIONS

This section of the manual provides information about operating and navigating through ADA's touchscreen interface.

POWERING ADA ON AND OFF

ADA units have an unmarked momentary soft power switch. To turn ADA on, push and release the top of the power switch briefly. To properly power down ADA hold the top of the power switch for 5 seconds until ADA powers off. This 5 second delay is a safety feature that prevents inadvertent power down.

When ADA powers up, a power on self test (POST) is performed, and proceeds to load the ADA application. During the ADA application launch, the iZ logo will appear followed by a black screen for a few seconds, followed by the ADAView operating screen.

ADAVIEW DISPLAY

With the built-in LCD touchscreen, ADA lets users control settings and preferences with a single touch. As an option, ADA may be controlled remotely by attaching a VGA monitor and mouse using either the USB or PS/2 ports.

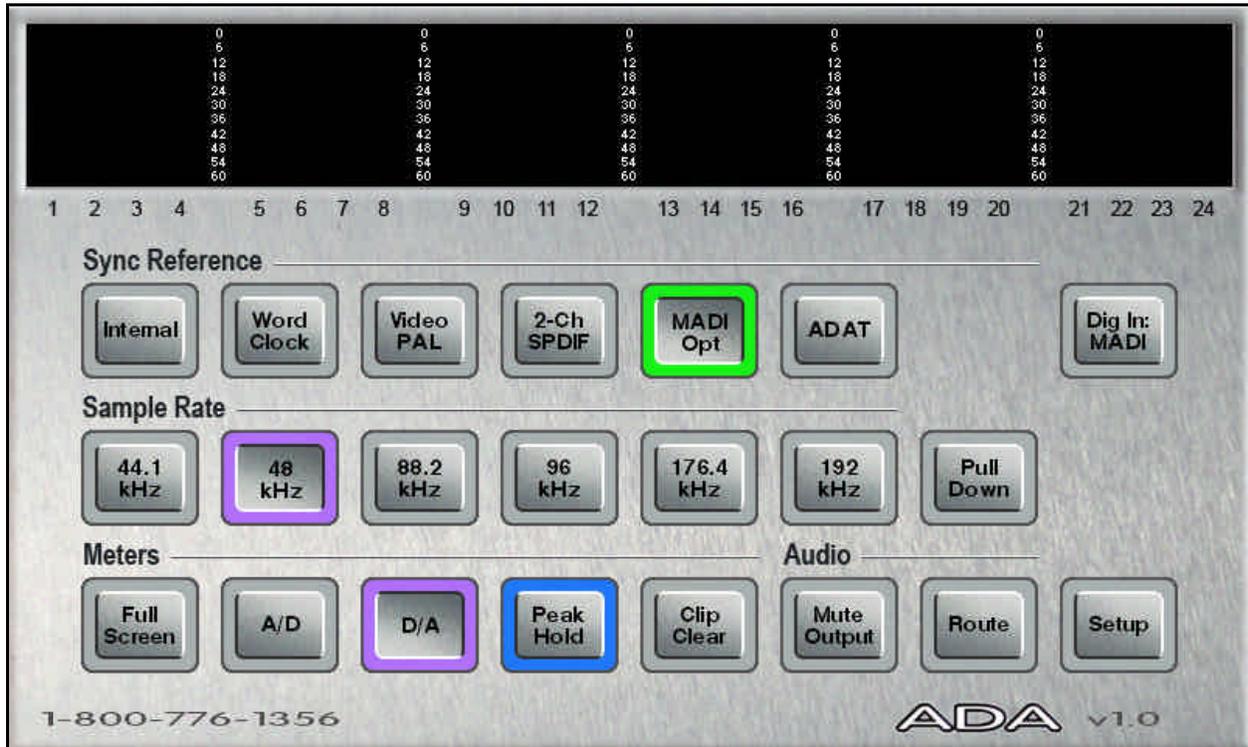
ADAView has a total of six screens:

- Main Screen
- Routing Screen
- System Configuration Screen
- Setup Screen
- Meters Screen
- Debug Screen

Each screen shows the ADA software version at the bottom right and the iZ Technology Support toll free phone number (North America) at the bottom left.

MAIN SCREEN

The Main Screen is used for setting basic ADA parameters such as **SYNC REFERENCE** and **SAMPLE RATE**; it is also used for selecting Meter views and preferences. The Main Screen is the main portal for entering ADA's other five screens.



GETTING TO THE MAIN SCREEN

The Main Screen is ADA's default main screen – it is the screen that will be displayed upon ADA startup.

To get to the Main Screen:

- From the Setup Screen, press **Main** located at the bottom right of the screen.
- From the Routing Screen, press **Main**.
- From the Meters Screen, tap the screen once.
- From the System Configuration Screen, press **Setup** then **Main**.
- From the Debug Screen, press **Setup** then **Main**.

MAIN SCREEN SECTIONS

Sync Reference

Use the **SYNC REFERENCE** buttons to set the sync source on ADA. Select from , , , , , ,  and . To set ADA's **SYNC REFERENCE**:

- 1 Press the desired Sync Source button. A green ring will flash around the selected button.
- 2 Press the button again to confirm the selection. When locked, the green ring around the selected Sync Source will be solid.

Dig In

Use the  shortcut button to select the digital format to be input into ADA.

- 1 Press  to be taken directly to the **DIGITAL IN** menu on the Setup Screen.
- 2 Select the desired digital in format using  and . Press .
- 3 Press  located at the bottom right of the Setup Screen to return to the Main Screen.

Sample Rate

Use these buttons to set ADA's sample rate. Select from , , , ,  and . Press  to select from the pull down sample rates of , , , ,  and .

To use the **SAMPLE RATE** buttons:

- 1 Press the desired sample rate button. A purple light will flash around the selected button.
- 2 Press the button again to confirm the selection. When locked, the purple ring will be solid around the selected sample rate.

To use the **PULL DOWN SAMPLE RATE** buttons:

- 1 Press the  button. The **SAMPLE RATE** buttons will change to their pull down values.
- 2 Press the desired sample rate button. A purple light will flash around the selected button.
- 3 Press the button again to confirm the selection. When locked, the purple ring will be solid around the selected sample rate.

Meters

Use these buttons to set ADA meter options. Use the , , , , and  buttons to set the viewing preferences for the D/A and A/D meters.

-  Press once to enter the Meters Screen. This screen displays both A/D and D/A meters simultaneously. Tap the screen at anytime to return to the Main Screen.
-  Press once to view the A/D meters at the top of the Main Screen. When selected, a purple ring will be solid around this button.
-  Press once to view the D/A meters at the top of the Main Screen. When selected, a purple ring will be solid around this button.
-  Press once to enable peak hold on all meters. The maximum meter value will remain on the displayed meters for the time designated in the Preferences menu. When selected, a blue ring will be solid around this button.
-  Press once to clear the clip lights on the ADA meters. This is a momentary button and does not lock.

Audio

Use the Audio buttons to control ADA's audio signals.

-  Press once to mute all analogue inputs and outputs. When selected, a red ring will flash around this button.
-  Press this button once to go directly to ADA's Routing Screen. See Routing following for operating instructions for the Routing page.

SETUP SCREEN

The Setup Screen is used for accessing ADA's advanced settings and preferences via the ADA software menu.



GETTING TO THE SETUP SCREEN

The Setup Screen is one of ADA's three secondary level screens and is accessible from the Main Screen. The Setup Screen is the portal screen for the System Configuration and Debug screens. To enter the Setup Screen:

- From the Main Screen, press **Setup** located at the bottom right of the screen.
- From the Routing Screen, press **Main** then **Setup**.
- From the Meters Screen, tap the screen once to enter the Main Screen, then press **Setup**.
- From the System Configuration Screen, press **Setup**.
- From the Debug Screen, press **Setup**.

ADA SOFTWARE MENU OPTIONS

The Setup Screen allows users to navigate through ADA software's menu tree and to set advanced system preferences. ADA software has five main menus: **SYSTEM**, **SYNC**, **I/O**, **PREFERENCES**, and **DIAGNOSTICS**. The main menus contain sub-menus, some containing multiple menu layers. Upon arriving at the end of any given menu tree, the user will be prompted to enter a numeric value or to select one of a number of given options. Values can be entered using any of ADA's data entry methods including the numeric keys, arrow keys or by using a standard PC keyboard.

Example:

- 1 From the Main Screen press **SYSTEM**.

SYSTEM MENU:
SET TIME & DATE

- 2 Then press  twice to access the **HELP** within the **SYSTEM MENU**.

SYSTEM MENU:
HELP

- 3 Finally, press  to access the **HELP** section.

HELP DOCUMENTS:
MANUAL

For a complete ADA menu tree and an overview of each menu item, please go to the [REFERENCE](#) section.

SYSTEM MENU

This menu is used to access ADA system settings such as **SET TIME & DATE**, **UPDATE SOFTWARE** and the **HELP** menu.

To access the **SYSTEM MENU**:

- 1 From the Setup Screen press .
- 2 Select the desired menu item using  and . Press . Use  and  to move between the menu fields of any given menu level. Use  and  or the numeric keypad to change a given field's value.
- 3 Press  to confirm the selection.



Use the  button to back out one level of any menu. See the [REFERENCE](#) section for ADA Menu Tree.

To SET TIME & DATE:

- 1 From the Setup Screen press . Select **SET TIME & DATE** using  and . Press .
- 2 Use  and  to move between the fields. Use  and  or the numeric keypad to change the field's value.
- 3 Press  to confirm the selection.

To UPDATE SOFTWARE: See *CONFIGURATION: SOFTWARE***To access the HELP MENU:**

- 1 From the Setup Screen press .
- 2 Select help using  and . Press .
- 3 Select **RELEASE NOTES** or **MANUAL** using  and . Press .
- 4 A PDF Viewer will open ADA **RELEASE NOTES** or **MANUAL**. Use a mouse or touchscreen to navigate through the documents. Click or tap the iZ Logo in the top left hand corner of the screen to return to ADA Setup Screen.

SYNC MENU

This menu is used to access ADA sync settings and preferences

To access the **SYNC MENU**:

- 1 From the Setup Screen press .
- 2 Select the desired menu item using  and . Press .

MADI COAX/OPT IN Select this option to choose **MADI COAX** or **MADI OPTICAL** as the digital in format.

VIDEO FORMAT Select this option to choose **NTSC** or **PAL** as the video format.

DIG 2-CH FORMAT Select this option to choose **2-CH AES** or **2-CH S-PDIF** as the 2 channel format.

IGNORE AES FLAGS Select this option to have ADA ignore AES flags. This may be useful in situations with older devices that do not indicate sample rate when sending digital data.

SYNC REF OUTPUT Select this option to choose **WORDCLOCK** or **THRU** as the sync reference output.

SYNC SETTINGS See *CONFIGURATION: SYNC REFERENCE*

I/O MENU

This menu is used to access ADA I/O settings and preferences.

To access the **I/O MENU**:

- 1 From the Setup Screen press .
- 2 Select the desired menu item using  and . Press .

ANALOGUE LEVELS See *CONFIGURATION: OPERATING LEVEL*

DIG IN FORMAT See *CONFIGURATION: DIGITAL I/O*

MADI SETTINGS See *REFERENCE: I/O MENU/MADI SETTINGS*

ADAT SETTINGS See *REFERENCE: I/O MENU/ADAT SETTINGS*

PREFERENCES MENU

This menu is used to access ADA software, meter and networking preferences.

To access the **PREFERENCES MENU**:

- 1 From the Setup Screen press .
- 2 Select the desired menu item using  and . Press .

Peak Hold Time

This preference determines how long the meters will hold a peak level indication. This is specified in seconds with a maximum of 999 seconds. To hold level peaks indefinitely, enter a value of *-1* and disable by setting to *0*.

To set **PEAK HOLD TIME**:

- 1 From the Setup Screen press .
- 2 Select **PEAK HOLD TIME** using  and . Press .
- 3 Change the field's value using  and  or the numeric keypad.
- 4 Press  to confirm the selection.

Clip Hold Time

This preference determines how long the meters will hold a clip indication. This is specified in seconds with a maximum of 999 seconds. To hold clip indications indefinitely, enter a value of *-1* and disable by setting to *0*. This preference by default is set to *-1*.

To set **CLIP HOLD TIME**:

- 1 From the Setup Screen press .
- 2 Select **CLIP HOLD TIME** using  and . Press .
- 3 Change the field's value using  and  or the numeric keypad.
- 4 Press  to confirm the selection.

Noise Floor

This dialogue sets the minimum signal level threshold for meter display. Noise and other signals below the noise floor setting will not be displayed. The threshold value can be modified in 5-decibel increments between -90.0 and -60.0 db.

To set **NOISE FLOOR**:

- 1 From the Setup Screen press .
- 2 Select **NOISE FLOOR** using  and . Press .
- 3 Change the field's value using  and  or the numeric keypad.
- 4 Press  to confirm the selection.

Screen Saver Delay

The default screen saver delay is 60 seconds. Delays up to 999 seconds are possible. Setting the value to 0 will disable it.

To set **SCRN-SAVER DELAY**:

- 1 From the Setup Screen press .
- 2 Select **SCRN-SAVER DELAY** using  and . Press .
- 3 Change the field's value using  and  or the numeric keypad.
- 4 Press  to confirm the selection.

To set **NETWORKING PREFS**: See *CONFIGURATION: NETWORKING*

DIAGNOSTICS MENU

This menu is used to access ADA's diagnostic features.

To access the **DIAGNOSTICS MENU**:

- 1 From the Setup Screen press .
- 2 Select the desired menu item using  and . Press .

Show Audio Level

This function provides an accurate digital read-out of the dBFS audio level on any selected tracks. It will display A/D or D/A depending what is set on the Main Screen.

To **SHOW AUDIO LEVEL**:

- 1 From the Setup Screen press .
- 2 Select **SHOW AUDIO LEVEL** using  and . Press .
- 3 Change the channel number using  and .
- 4 Press  to confirm the selection.

Audio Ref Level

This function will display a white audio reference line on ADA's meters for -18.0 dB calibration of incoming signal. When incoming signal is between -18.1 dB and 17.9 dB the entire meter bar will turn purple. To enable **AUDIO REF LEVEL**:

- 1 From the Setup Screen press .
- 2 Select **AUDIO REF LEVEL** using  and . Press .
- 3 Choose **ENABLE** using  and . Press .

Show Cursor

This function will display a cursor on ADAView when using the touchscreen or optional VGA monitor and mouse. To enable **SHOW CURSOR**:

- 1 From the Setup Screen press .
- 2 Select **SHOW CURSOR** using  and . Press .
- 3 Choose **ENABLE** using  and . Press .

Networking Preferences

To set **NETWORKING PREFS**: See *CONFIGURATION: NETWORKING*

Configure Debug

This function determines the information included in the debug log.

To **CONFIGURE DEBUG**: See *OPERATIONS: ADA DEBUG SCREEN*.

Save Debug

This option allows the user to save debugs and forward them to iZ Support. Select from current log, the last 5 logs, last 20 logs, all logs, or select which logs to be saved. These logs are saved as a zip file to any disk or network drive.

To **SAVE DEBUG**: *SEE OPERATIONS: ADA DEBUG SCREEN*.

Email Debug

This function allows the debug log to be emailed directly to iZ Support via Ethernet.

To **EMAIL DEBUG**: See *OPERATIONS: ADA DEBUG SCREEN*.

Factory Settings

This function resets ADA settings to the factory defaults.

To set **FACTORY SETTINGS**:

- 1 From the Setup Screen press .
- 2 Select **FACTORY SETTINGS** using  and . Press .
- 3 Change the field's value using  and  or the numeric keypad.
- 4 Press  to confirm the selection.

Install Previous Version

This option will give a list of all software versions that have been previously installed. Select **OTHER** to install an older version through the network or USB key.

To install **PREV VER**: See *CONFIGURATION: SOFTWARE*.

Support Email

Displays the iZ Support email for emailing debug logs. To set Support email:

- 1 From the Setup Screen press .
- 2 Select **SUPPORT EMAIL** using  and . Press .
- 3 Change the field's value using  and , the numeric keypad, or a PC keyboard.
- 4 Press  to confirm the selection.

Sales Email

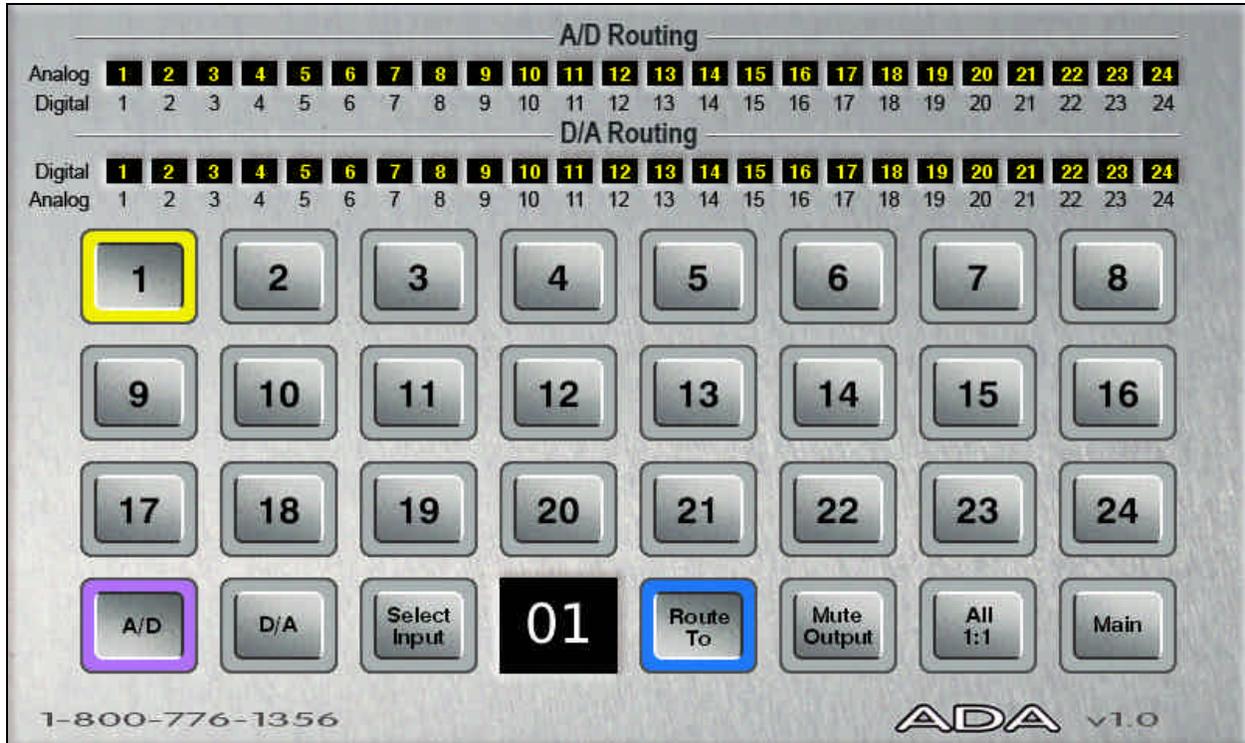
Displays the iZ Sales email for emailing upgrade requests.

To set **SALES EMAIL**:

- 1 From the Setup Screen press **Diag**.
- 2 Select **SALES EMAIL** using **▲** and **▼**. Press **Enter**.
- 3 Change the field's value using **▲** and **▼**, the numeric keypad, or a PC keyboard.
- 4 Press **Enter** to confirm the selection.

ROUTING SCREEN

ADA allows the user to define the input-output routing assignment. Aside from the one-to-one default routing, the user may choose to route an input to a different output or multiple outputs, or to route a specific input to a different output. However, routing multiple inputs to one output is not an option.



GETTING TO THE ROUTING SCREEN

The Routing Screen is one of ADA's three secondary level screens and is accessible only from the Main Screen. To enter the Routing Screen:

- From the Main Screen, press  located beneath the Audio heading.
- From the Setup Screen, press  then .
- From the Meters Screen, tap the screen once to enter the Main Screen, then press .
- From the System Configuration Screen, press  then . Press .
- From the Debug Screen, press  then . Press .

USING THE ROUTING SCREEN

A/D Routing

To assign a specific physical analogue input to a digital output(s):

- 1 From the Main Screen press .
- 2 Press the  button. It will be highlighted in purple.
- 3 Press the  button.
- 4 Use the numeric buttons to select the physical analogue input (source) number. The selected physical analogue input will have a yellow ring around the numeric button.
- 5 Press the  button.
- 6 Use the numeric buttons to select the destination digital output(s). The selected physical digital outputs will have a yellow ring around the numeric button.



Only one physical input can be selected at once. Multiple digital outputs can be selected.



Reset the routing at anytime in the routing screen by pressing the **ALL 1:1**.

D/A Routing

To assign a specific physical digital input to an analogue output(s):

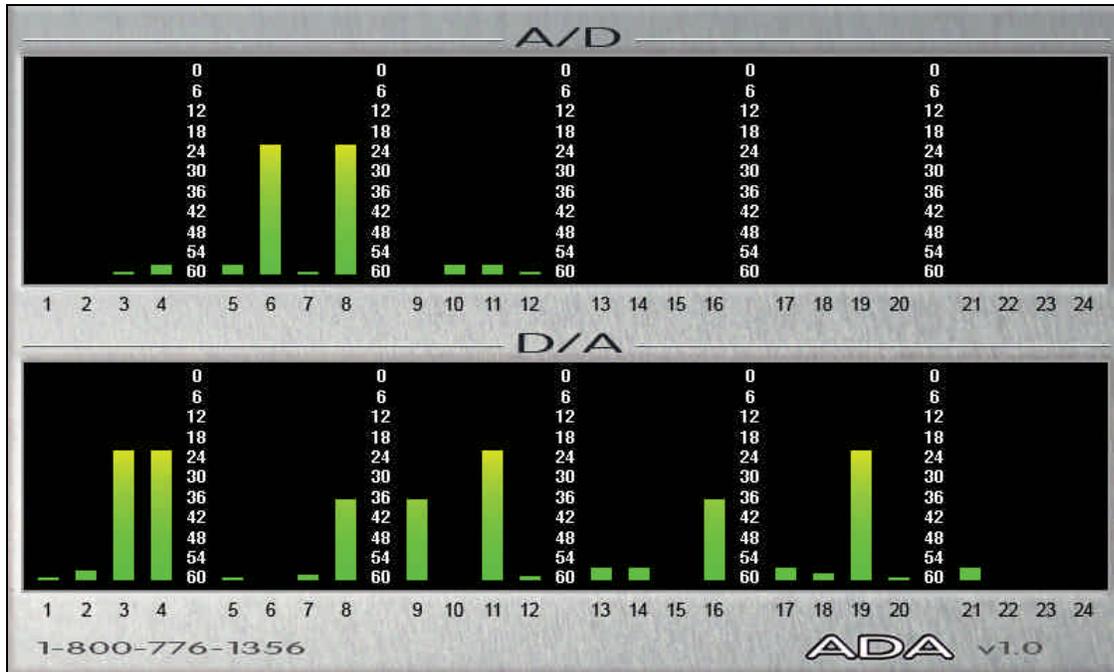
- 1 From the Main Screen press .
- 2 Press the  button. It will be highlighted in purple.
- 3 Press the  button.
- 4 Use the numeric buttons to select the physical digital input (source) number. The selected physical digital input will have a yellow ring around the numeric button.
- 5 Press the  button.
- 6 Use the numeric buttons to select the destination analogue output(s). The selected physical analogue outputs will have a yellow ring around the numeric button.



Only one physical input can be selected at once. Multiple digital outputs can be selected.

METERS SCREEN

The Meters Screen is used to view both A/D and D/A meters. Input signal is displayed on continuous LCD meters with a scale ranging from below -60 to 0 dBFS (decibels Full Scale), which is the maximum input level. A clip LED with variable hold time is also provided to help warn off impending digital distortion. The clip LED hold time setting can be changed in the **PREFERENCES** menu from the ADA Setup Screen.



GETTING TO THE METERS SCREEN

The Meters Screen is one of ADA’s three secondary level screens and is accessible from the Main Screen. The Meters Screen is also set as ADA’s screensaver – set the screensaver preferences using the **PREFERENCES** menu on the Setup Screen.

To enter the Meters Screen:

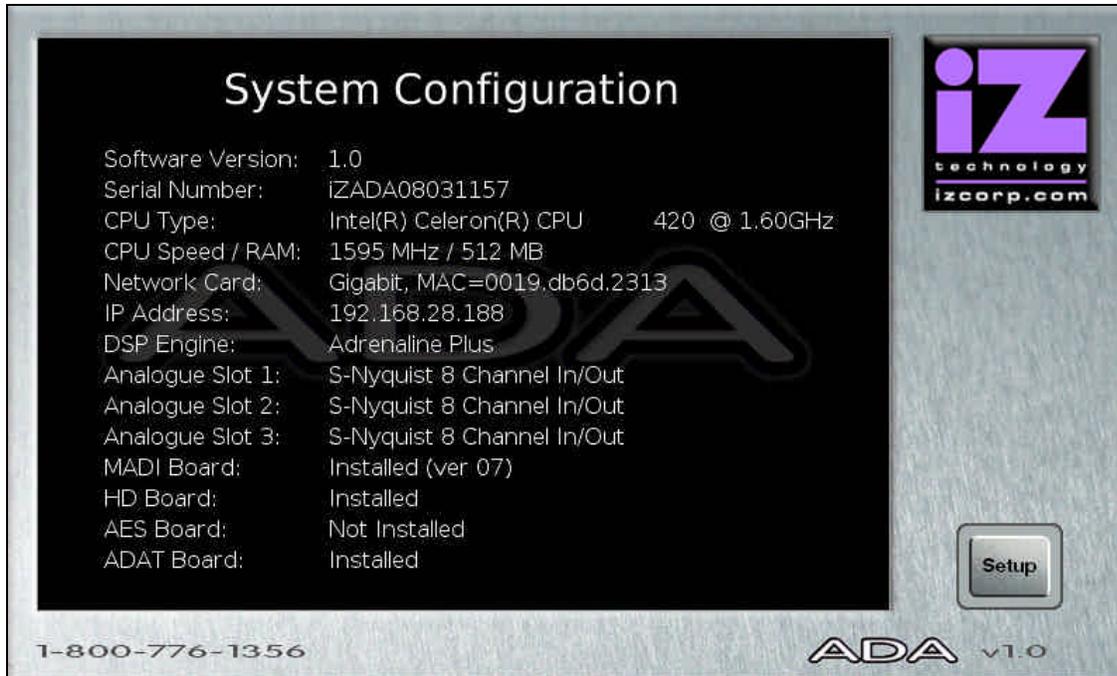
- From the Main Screen, press **Full Screen** located beneath the Meters heading.
- From the Setup Screen, press **Main** then press **Full Screen**.
- From the Routing Screen, press **Main** then press **Full Screen**.
- From the System Configuration Screen, press **Setup** then **Main**. Press **Full Screen**.
- From the Debug Screen, press **Setup** then **Main**. Press **Full Screen**.

To exit the Meters Screen:

- 1 Tap the screen once to return to the Main Screen.

SYSTEM CONFIGURATION SCREEN

The System Configuration Screen is used for viewing ADA's hardware and software information.



GETTING TO THE SYSTEM CONFIGURATION SCREEN

The System Configuration Screen is one of ADA's two tertiary level screens and is only accessible from the Setup Screen. To enter the System Configuration Screen:

- From the Main Screen, press **Setup** then press **Config**.
- From the Setup Screen, press **Config**.
- From the Routing Screen, press **Main** then **Setup** then press **Config**.
- From the Meters Screen, tap the screen once to enter the Main Screen. Press **Setup** then press **Config**.
- From the Debug Screen, press **Setup** then press **Config**.

DEBUG SCREEN

The Debug Screen is used for ADA Debug log information. ADA creates a new debug log every time it is turned on. This log contains a significant amount of user and system information and is very useful when diagnosing a problem with ADA.



GETTING TO THE DEBUG SCREEN

The Debug Screen is one of ADA's two tertiary level screens and is only accessible from the Setup Screen. To enter the Debug Screen:

- From the Main Screen, press **Setup** then double tap the **System** button.
- From the Setup Screen, double tap the **System** button.
- From the Routing Screen, press **Main** then double tap the **System** button.
- From the Meters Screen, tap the screen once to enter the Main Screen. Press **Setup** then double tap the **System** button.
- From the Configuration Screen, press **Setup** then double tap the **System** button.

Navigating the Debug Screen

To scroll through the debug line by line, press  and . To scroll through the debug page by page, press  and .

Configure Debug

The configure debug dialogue has options to filter the data that is output to the debug files. This is provided to isolate problems on ADA by filtering out unnecessary data.

The available filtering options are:

```
SYSTEM:Y    FILE:N
LIN:020K    SYNC:N
```

SYSTEM Include or exclude system data (default set to yes).

FILE Include or exclude File data.

LIN:020K Set the maximum number of lines in the debug file. The default setting is 20,000 lines.

SYNC Include or exclude sync data.

To configure the debug output:

- 1 From the Main Screen press , use  and  to select **CONFIGURE DEBUG** and press .
- 2 Use  and  to move between the fields and  and  buttons to change the field's value. Selecting **Y** for a filtering field includes that data in the debug file output.
- 3 Press  to confirm the selection(s).

Save Debug

The **SAVE DEBUG** option in the **DIAGNOSTICS MENU** allows the user to select the current log, the last 5 logs, last 20 logs, all logs, or selections of logs. These logs are saved as a zip file to a FAT32 USB drive or network drive.

To **SAVE DEBUG**:

- 1 From the Main Screen press , select **SAVE DEBUG** using  and . Press .
- 2 At the **SAVE DEBUG:** prompt, choose **SELECTED, CURRENT LOG, LAST 5 LOGS, LAST 20 LOGS, ALL LOGS** using  and . Press .
- 3 At the **SAVE TO:** prompt, select the device using  and . Press . This list will include any **N:NETWORK** or **E:USB DRIVE** connected to the ADA.
- 4 At the **SELECT FOLDER:** prompt, select the destination folder using  and  then press .

Email Debug Logs

If ADA is connected to the internet, the logs can be sent directly to iZ Technology Support using the **EMAIL DEBUG** option. To assist the support process, ADA's serial number, current software version, and information about the installed memory and processor will automatically be included in the email.

To **EMAIL DEBUG**:

- 1 From the Main Screen press , select **EMAIL DEBUG** using  and . Press .
- 2 At the **EMAIL DEBUG:** prompt, choose **SELECTED, CURRENT LOG, LAST 5 LOGS, LAST 20 LOGS, ALL LOGS** using  and . Press .
- 3 At the prompt for **DESCRIPTION**, enter a description of the problem that occurred and press .
- 4 Follow the other prompts and fill in:
ENTER YOUR NAME
PHONE NUMBER
COMPANY NAME
LOCATION

- 5 At the prompt for **REPLY EMAIL** enter an email address that an iZ Support Agent can reply to.



A QWERTY keyboard is required to type in any text information.

- 6 At the **SEND EMAIL NO/YES**, select **YES** and press .
- 7 A confirmation email will be sent to the **REPLY EMAIL** address that the email has been sent.

SECTION 5

TROUBLESHOOTING

Below are some basic troubleshooting tips for ADA systems. Please contact iZ Support or your iZ Dealer if you are having any problems with your ADA system. ADA does not contain any user serviceable parts. Do not remove the lid or attempt to repair or replace any components without authorization from iZ Technology.

CONDITION	CAUSE	SOLUTION
ADA does not power on	<ul style="list-style-type: none"> - AC power cable unplugged - Power not switched on - No power to outlet 	<ul style="list-style-type: none"> - Check AC cable, connection, and outlet
No display on optional VGA Monitor	<ul style="list-style-type: none"> - Check video cable and monitor - Not using the correct video ports 	<ul style="list-style-type: none"> - Connect a different monitor and cable - Plug VGA monitor into the optional VGA port, and not the DVI, S-Video, or Composite
No signal on Analog Input	<ul style="list-style-type: none"> - Faulty Cable or incorrect pin out - ADA Sync not locked 	<ul style="list-style-type: none"> - See Wiring Diagrams on www.izcorp.com - If Sync light is flashing, check sync source, or set ADA as master
No signal on Digital Input	<ul style="list-style-type: none"> - Faulty Cable or incorrect pin out - ADA Sync not locked - Digital Input format not set 	<ul style="list-style-type: none"> - See Wiring Diagrams on www.izcorp.com - If Sync light is flashing check sync source, or set ADA as master - Check correct Digital format in the I/O menu.

CONDITION	CAUSE	SOLUTION
No Signal on Analog Output	<ul style="list-style-type: none"> – Faulty Cable or incorrect pin out – ADA Sync not locked – Digital Input format not set 	<ul style="list-style-type: none"> – See Wiring Diagrams on www.izcorp.com – If Sync light is flashing check sync source, or set ADA as master – Check correct Digital format in the I/O menu.
No signal on Digital Output	<ul style="list-style-type: none"> – Faulty Cable or incorrect pin out – ADA Sync not locked 	<ul style="list-style-type: none"> – See Wiring Diagrams on www.izcorp.com – If Sync light is flashing check sync source, or set ADA as master
Pop and Clicks on Ins/Outs	<ul style="list-style-type: none"> – ADA Sync not locked or faulty – Not enough ventilation for ADA 	<ul style="list-style-type: none"> – If Sync source selected is flashing green check source, or set ADA as master – Allow adequate airflow and cooling for ADA
ProTools does not detect ADA via DigiLink Cable	<ul style="list-style-type: none"> – DigiLink cable too long or not connected 	<ul style="list-style-type: none"> – See Section 2: <i>SYSTEM SETUP: iZ DUAL PRO TOOLS HD INTERFACE</i>
ProTools software displays “A Timeout occurred interacting with an audio interface”	<ul style="list-style-type: none"> – Check PT HD DigiLink Cable Length 	<p>Correct Cable Length should be:</p> <ul style="list-style-type: none"> – 48 kHz operation: 180 cm (6') – 96 kHz operation: 90 cm (3') – 192 kHz operation: 45 cm (1.5')
ProTools software displays the following error message...: DAE error - 1125 was encountered	<ul style="list-style-type: none"> – Legacy Audio Interface cannot be detected anymore by Pro Tools 	<ul style="list-style-type: none"> – See Section 2: System Setup: Remote Control of ProTools HD Interface Settings

CONDITION	CAUSE	SOLUTION
<p>ProTools software has reduced track count at high sample rates</p>	<ul style="list-style-type: none"> - ProTools Playback Engine may need to be increased 	<ul style="list-style-type: none"> - On ProTools Software, go to <i>MENU/SETUP/PLAYBACK ENGINE</i> and select 128 VOICES.
<p>No signal in or out of ProTools via the DigiLink cable</p>	<ul style="list-style-type: none"> - Sample rates do not match on ADA and ProTools - MADI cables not connected between PT HD MADI and ADA MADI 	<ul style="list-style-type: none"> - Set the same sample rate on ADA and ProTools - See Section 2: <i>SYSTEM SETUP: iZ DUAL PRO TOOLS HD INTERFACE</i>

SECTION 6

REFERENCE

MENU TREE OVERVIEW

This section provides an overview of the ADA menu structure.

SYSTEM MENU ▼

- SET TIME & DATE
- UPDATE SOFTWARE
- HELP ▼
 - RELEASE NOTES
 - MANUAL

SYNC MENU ▼

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ADA SOFTWARE MENU

SETUP SCREEN QUICK REFERENCE

From the Main Screen, press **Setup** to enter the Setup Screen. To enter the sub-menu structure of the currently selected menu item or accept a selection or value in a menu dialogue, press **Enter**.

SYSTEM MENU (**System**)

SYSTEM MENU: SET TIME & DATE	Allows the user to specify local time and date. The time should be set to local time upon receiving ADA.
SYSTEM MENU: UPDATE SOFTWARE	Allows the user to update the software from any media attached to ADA (USB, Network or the Web). Follow the prompts to verify a proper installation disk before rebooting ADA.
SYSTEM MENU: HELP	Allows the user to access ADA help options.
HELP DOCUMENTS: RELEASE NOTES	<p>Launches the PDF viewer and displays the current release notes.</p> <p>For complete details refer to <i>OPERATIONS: SYSTEM MENU</i>.</p>
HELP DOCUMENTS: MANUAL	<p>Launches the PDF viewer and displays the current manual.</p> <p>For complete details refer to <i>OPERATIONS: SYSTEM MENU</i>.</p>

SYNC MENU (Sync)

<p>SYNC MENU: MADI COAX/OPT IN</p>	<p>Use this dialogue to switch between COAXIAL and OPTICAL MADI formats.</p>
<p>SYNC MENU: VIDEO FORMAT</p>	<p>Use this dialogue to switch between NTSC and PAL video formats.</p>
<p>SYNC MENU: DIG 2-CH FORMAT</p>	<p>ADA supports both the AES/EBU and S/PDIF 2-channel I/O formats. Use this dialogue to switch between the two formats.</p>
<p>SYNC MENU: IGNORE AES FLAGS</p>	<p>The incoming AES digital signal has the capability of indicating the sample rate of the source. ADA is capable of interpreting this indicative flag. There are some cases where the incoming AES source doesn't indicate the sample rate which causes ADA to mistakenly display a XXX kHz ILLEGAL error message. Enabling the IGNORE AES FLAGS will remove this error message.</p>
<p>SYNC MENU: SYNC REF OUTPUT</p>	<p>Use this dialogue to switch the back panel SYNC REFERENCE OUTPUT between WORDCLOCK and THRU. THRU outputs the signal from the back panel SYNC REFERENCE INPUT.</p>

I/O MENU (I/O)

<p>I/O MENU: ANALOGUE LEVELS</p>	<p>REFERENCE TO: 0 dBFS +4 dBu</p>	<p>This setting determines the ANALOG LEVELS relative to the reference of 0 dBFS or +4 dBu. Below are the level settings available depending on reference selection.</p> <table data-bbox="748 443 1284 564"> <tr> <td>0 dBFS = +24 dBu</td> <td>+4 dBu = -20 dBFS</td> </tr> <tr> <td>+22 dBu</td> <td>-18 dBFS</td> </tr> <tr> <td>+20 dBu</td> <td>-16 dBFS</td> </tr> <tr> <td>+18 dBu</td> <td>-14 dBFS</td> </tr> </table>	0 dBFS = +24 dBu	+4 dBu = -20 dBFS	+22 dBu	-18 dBFS	+20 dBu	-16 dBFS	+18 dBu	-14 dBFS
0 dBFS = +24 dBu	+4 dBu = -20 dBFS									
+22 dBu	-18 dBFS									
+20 dBu	-16 dBFS									
+18 dBu	-14 dBFS									
<p>I/O MENU: DIG IN FORMAT</p>	<p>Shortcut keys:</p> <p>Main Screen Dig In: MADI</p> <p>This dialogue determines which digital format ADA will use for the D-A audio inputs. The currently selected digital I/O format is displayed on the Dig In: MADI button on the ADAView™ Main Screen display. The selections in this dialogue are:</p> <ul style="list-style-type: none"> ● MADI ● PT HD VIA MADI ● ADAT 									
<p>I/O MENU: ADAT SETTINGS (IF ADAT CARD PRESENT)</p>	<p>This menu allows ADAT I/O specific settings and display for interfacing with other ADAT I/O.</p> <p>This dialogue sets the input group that the ADAT clock information will be derived from. The settings are:</p> <ul style="list-style-type: none"> ● AUTOMATIC ● FIBER C ● FIBER B ● FIBER A <p>For most situations the AUTOMATIC setting will be the best choice. ADA will detect any incoming clock from the fiber ports and automatically make the ADAT IN CLOCK assignment.</p>									

<p>ADAT SETTINGS: ADAT IN WIDTH</p>	<p>These settings can be used to compensate for poor quality optical transceivers that alter the usable pulse width of the digital audio signal. Compensation can be set independently for each fiber port. Increments are displayed in positive and negative hexadecimal units 0 through F.</p>
<p>ADAT SETTINGS: ADAT IN SMPL PT</p>	<p>Used in conjunction with ADAT IN WIDTH and ADAT OUT WIDTH, ADAT IN SMPL PT can help establish a solid link using Lightpipe by shifting the point in the recovered waveform that ADA interprets the data value. Increments are displayed as hexadecimal units, with each unit delaying the sample point by 10 nanoseconds.</p>
<p>ADAT SETTINGS: ADAT OUT WIDTH</p>	<p>As in ADAT IN WIDTH, these settings can be used to compensate for poor quality optical transceivers that alter the usable pulse width of the digital audio signal. Compensation can be set independently for each fiber port. Increments are displayed in positive and negative hexadecimal units 0 through F.</p>
<p>ADAT SETTINGS: ADAT OUT USERBIT</p>	<p>The default setting, ENABLED, conforms to the ADAT output specification regarding the userbit (U2) when 96kHz or 192 kHz are selected. However, if experiencing noise when outputting ADAT from ADA, try the DISABLED setting.</p>
<p>ADAT SETTINGS: FACTORY DEFAULTS</p>	<p>Use this function to return all of the ADA's ADAT SETTINGS to the factory default.</p>
<p>I/O MENU: MADI SETTINGS</p>	<p>This menu allows MADI I/O specific settings and display for interfacing with other MADI I/O.</p>
<p>MADI SETTINGS: SAMPLE RATE IN</p>	<p>This dialogue reads the indicator flag for the selected input pair. Use  and  to select a MADI input pair with a valid signal and the sample rate will be displayed in the dialogue.</p>

<p>MADI SETTINGS: EMPHASIS IN</p>	<p>In the early days of digital, emphasis was used to artificially boost the level of high frequency signal content so that it could be quantized at a higher resolution. The EMPHASIS IN dialogue indicates if the incoming MADI signal is using emphasis or not.</p>
<p>MADI SETTINGS: EMPHASIS OUT</p>	<p>Use this dialogue to turn emphasis flag on and off for the MADI output signal. When it is turned on it indicates to the receiving device that the digital audio stream has been recorded with emphasis and it should be decoded accordingly.</p> <p>Since ADA does not decode emphasis nor store the emphasis flag for audio recorded with emphasis, the emphasis flag should be turned ON if the digital audio recorded has previously been encoded with emphasis.</p> <p>Emphasis is rarely, if ever, used in the industry today and these options are included primarily for dealing with legacy recordings.</p>
<p>MADI SETTINGS: 96 kHz FRAMING</p>	<p>Allows the user to select MADI modes. NATIVE (96 kHz) mode is true 96 kHz. LEGACY (48 kHz) is SMUX 2 mode.</p>
<p>MADI SETTINGS: 192 kHz FRAMING</p>	<p>Allows the user to select MADI modes. NATIVE (192 kHz) mode is true 192 kHz. LEGACY (96 kHz) is SMUX 2 mode.</p>
<p>MADI SETTINGS: 192 kHz CHANNELS</p>	<p>Allows the user to select between 12 (STANDARD) channels mode and 16 (EXTENDED) channels mode at 192 kHz.</p>
<p>MADI SETTINGS: INSTALL FIRMWARE</p>	<p>Allows the user to update MADI firmware.</p> <div data-bbox="756 1711 1430 1879" style="border: 1px solid gray; padding: 10px;">  <p>This function should only be performed on the instruction of iZ Technology.</p> </div>

PREFERENCES MENU (Prefs)

<p>PREFS MENU: PEAK HOLD TIME</p>	<p>This preference determines how long the meters will hold a peak level indication. The duration is specified in seconds, with a maximum value of 999 seconds. To hold level peaks indefinitely, enter a value of -1 for this setting. To disable the feature altogether, enter a value of 0.</p>
<p>PREFS MENU: CLIP HOLD TIME</p>	<p>This preference determines how long the clip LEDs will hold a clip indication. The duration is specified in seconds, with a maximum value of 999 seconds. To hold clip indications indefinitely, enter a value of -1 for this setting. To disable the feature altogether, enter a value of 0.</p>
<p>PREFS MENU: NOISE FLOOR</p>	<p>This dialogue sets the minimum signal level threshold for meter display. Noise and other signals below the noise floor setting will not be displayed. The threshold value can be modified in 5-decibel increments between -90.0 and -60.0.</p>
<p>PREFS MENU: SCRN-SAVER DELAY</p>	<p>The default screen saver delay is 60 seconds. Delays up to 999 seconds are possible. Setting the value to 0 will disable the screen saver feature.</p>
<p>PREFS MENU: NETWORK PREFS</p>	<p>For detailed information on networking please refer to CONFIGURATION: NETWORKING.</p>
<p>NETWORK PREFS: INTERFACE PREFS</p>	<p>The following interface preferences allow the ADA to be configured for FTP and/or file sharing.</p>
<p>INTERFACE PREFS: HOST NAME</p>	<p>Create a network name for ADA.</p>
<p>INTERFACE PREFS: DHCP SERVER</p>	<p>Enable or disable DYNAMIC HOST CONFIGURATION PROTOCOL.</p>

INTERFACE PREFS: LOCAL IP ADDRESS	Define the local IP ADDRESS of the ADA (if DHCP disabled).
INTERFACE PREFS: SUBNET MASK	Define the local SUBNET MASK of the ADA (if DHCP disabled).
INTERFACE PREFS: GATEWAY	Enter the IP ADDRESS of the router (if DHCP disabled).
INTERFACE PREFS: PRIMARY DNS	Enter the PRIMARY DNS ADDRESS (if DHCP disabled).
INTERFACE PREFS: SECONDARY DNS	Enter the SECONDARY DNS ADDRESS (if DHCP disabled).
INTERFACE PREFS: SMTP HOST	Enter the SMTP HOST (if required). Blank uses the default iZ Technology host.
NETWORK PREFS: SERVER PREFS	Before ADA can share files via Ethernet it must be configured with information about the computer/server it will be connected with. Use the following preferences to input the required information.
SERVER PREFS: NETWORK PROTOCOL	Select the NETWORK PROTOCOL as either FTP or CIFS .
SERVER PREFS: SERVER IP ADDR	Enter the unique IP address of the server/computer ADA is connecting to.

<p>SERVER PREFS: SERVER NAME</p>	<p>If using FTP: Enter the unique computer name of the server/computer.</p> <div data-bbox="755 321 1429 468" style="border: 1px solid gray; padding: 5px;">  <p>This name is for indicative purposes only and will not affect connectivity.</p> </div> <p>If using CIFS: Enter the unique computer name of the server/computer ADA is connecting to.</p> <div data-bbox="755 598 1429 745" style="border: 1px solid gray; padding: 5px;">  <p>This is a case sensitive parameter.</p> </div>
<p>SERVER PREFS: SERVER SHARE</p>	<p>If using CIFS: Enter the unique shared folder name found on the server/computer ADA is connecting to.</p> <div data-bbox="755 888 1429 1056" style="border: 1px solid gray; padding: 5px;">  <p>This is a case sensitive parameter.</p> </div>
<p>SERVER PREFS: CLIENT WORKGROUP</p>	<p>If using CIFS: Enter the client workgroup of the server/computer ADA is connecting to.</p>
<p>NETWORK PREFS: EMAIL PREFS</p>	<p>The following email preferences are for designating the reply information when emailing debugs directly from the ADA.</p>
<p>EMAIL PREFS: COMPANY NAME</p>	<p>Enter the company name to be included with all emailed debug logs.</p>
<p>EMAIL PREFS: LOCATION</p>	<p>Enter the location name to be included with all emailed debug logs.</p>
<p>EMAIL PREFS: REPLY EMAIL</p>	<p>Enter the reply email to be included with all emailed debug logs.</p>

DIAGNOSTICS MENU ()

<p>DIAG MENU: SHOW AUDIO LEVEL</p>	<p>This function provides an accurate digital read-out of the dBFS audio level on any selected tracks.</p>
<p>DIAG MENU: AUDIO REF LINE</p>	<p>This function will display an audio reference line on ADA's meters for -18 dB calibration of incoming signal.</p>
<p>DIAG MENU: SHOW CURSOR</p>	<p>This function will display a cursor on ADAView when using the touchscreen or optional VGA monitor and mouse.</p>
<p>DIAG MENU: PING IP ADDRESS</p>	<p>This provides a way to test network communication by sending small packets of data across the network.</p> <div data-bbox="756 831 1425 1003" style="border: 1px solid gray; padding: 10px; margin-top: 10px;">  <p>The default IP address is the server IP address set in the SERVER PREFS.</p> </div>
<p>DIAG MENU: CONFIGURE DEBUG</p>	<p>This function determines the information included in the debug log. See OPERATIONS: ADA DEBUG SCREEN for more information.</p>
<p>DIAG MENU: SAVE DEBUG</p>	<p>This option allows the user to save debugs to be forwarded to iZ Support. Select from CURRENT LOG, THE LAST 5 LOGS, LAST 20 LOGS, ALL LOGS, or SELECT which logs to be saved. These logs can be saved in text format or as a zip file to a FAT32 USB drive or network drive.</p> <p>See OPERATIONS: ADA DEBUG SCREEN for more information.</p>
<p>DIAG MENU: EMAIL DEBUG</p>	<p>This function allows the debug log to be emailed directly to iZ Support. See OPERATIONS: ADA DEBUG SCREEN for more information.</p>

<p>DIAG MENU: FACTORY SETTINGS</p>	<p>This function resets ADA settings to the factory defaults.</p>
<p>DIAG MENU: SET SERIAL NUM</p>	<p>Allows the user to reset the serial number designated on the back of the ADA in case of system of recovery or system drive replacement.</p>
<p>DIAG MENU: INSTALL PREV VER</p>	<p>This will option will give a list of all software versions that have been previously installed, or select OTHER to install an older version through the network or USB key.</p> <div data-bbox="753 659 1427 835" style="border: 1px solid gray; padding: 10px; margin-top: 10px;">  <p>This function should only be performed on the instruction of iZ Technology.</p> </div>
<p>DIAG MENU: SUPPORT EMAIL</p>	<p>Displays the iZ Support email for emailing debug logs.</p>
<p>DIAG MENU: SALES EMAIL</p>	<p>Displays the iZ Sales email for emailing upgrade requests.</p>

APPENDIX A

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