

Adrienne Electronics Corporation

“INTRODUCTION”

For the AEC-uBOX-2 Product

Introduction:

Thank you and congratulations for purchasing one or more of our AEC-uBOX-2 LTC Reader products.

Current Info:

Refer to <www.adrielec.com> for the latest models, pricing, and support info, including information and application notes and drivers which may have changed since this CDROM was manufactured.

CDROM Organization:

This AEC-uBOX-2 test/demo/support CDROM is organized as follows:

- a) “Introduction” is the file you are reading now.
- b) The “Documentation” directory contains information which is of general use, such as the “AEC-uBOX-2 Instruction Manual” (PDF) file.
- c) The “PC Clock Setting” directory contains files which are needed if you will be jamming your PC's clock to match an external time code reference.
- d) The “Old TSR Files” directory contains miscellaneous files left over from older versions of this CDROM, including DOS files from the bootable floppy days and AEC-BOX-1/2/10/20 support (predecessors to the AEC-uBOX-2). It is possible that there might be something of use to some of you here.

Box Installation Overview (General):

- 1) Use the supplied custom power cable to connect a standard (+5V) USB port (or USB power adapter) to the threaded circular power connector on the AEC-uBOX-2. The green "STATUS" LED should come on immediately, confirming that your box is properly powered and that it is nominally fully operational.
- 2) Connect a known good analog LTC time code signal to the box's "LTC IN" connector. If the time code signal is OK, the STATUS LED will stop blinking off once per second, and will stay solid ON. This confirms that your time code input signal is OK.
- 3) Continue with either the RS-232 or RS-422 installation options below.

Box RS-232 Installation Overview:

- 1) Use the supplied custom RS-232 cable to connect the (non-standard pinout) serial port on the box to an available RS-232 serial port on the Host PC. If you use a standard RS-232 cable for this connection, it will not work, and it may damage something inside the box or inside your PC.
- 2) Boot your PC with the supplied test/demo CDROM installed. It is possible that you will have to change your PC's BIOS setup options to enable the "Boot to CDROM/DVD" option.
- 3) Enter the number of the COM port which the box is connected to (usually "1" on modern PC's with only one serial port), then press "Enter", and wait for the software to automatically find the current DIP switch settings, display them on-screen, and also display the time code. Once this step completes OK, it confirms that everything is properly connected and 100% operational.

Box RS-422 Installation Overview:

- 1) Use a standard "Sony Protocol" RS-422 cable to connect the (Sony-standard pinout) serial port on your box to a device which expects to see a real Sony video recorder on the other end of the cable. If the DIP switches inside our box are set to SW1-8 = 11110111, then Sony Protocol is enabled.
- 2) If the RS-422 cable is connected to something resembling a standard PC "COM" port, proceed with the bootable test/demo software as described in the RS-232 section above. Otherwise you will need to rely on the hardware and/or software supplied by your application software vendor to determine whether or not a good communications link exists between box and PC.

Box Opening Instructions:

In most cases we ship our AEC-uBOX-2 boxes to customers with the internal DIP switches already properly set for the desired application. If however you should need to open the AEC-uBOX-2 for DIP switch changing purposes, please proceed as follows:

- 1) Disconnect all cables.
- 2) Observe proper static electricity (ESD) handling precautions at all times.
- 3) Remove the two small Philips screws on the serial port end of the box.
- 4) Slide the board (and serial port end panel) out of the box as a unit.
- 5) Make changes as needed.
- 6) Carefully slide the board/panel assembly back into the box, using the second slot from the bottom of the box, and slightly depressing the side spring as needed so that things go together smoothly, without forcing anything.
- 7) Carefully reinstall the two screws without stripping the threads.

AEC-uBOX-2 Software Version Determination:

There are no labels on or inside the AEC-uBOX-2 which tell you which software version is installed. In some cases this is important, especially for determining whether or not custom software is installed. You will have to open up the box, change the DIP switches, and run the bootable test/demo software program as follows:

- 1) Obtain a v14.08 or newer AEC-uBOX-2 CDROM (see www.adrielec.com/downloads).
- 2) Carefully open your AEC-uBOX-2, using the instructions on the previous page, and write down the existing DIP switch settings. Otherwise you will not be able to return the box to its original state.
- 3) After writing down the existing DIP switch settings, change the DIP switches inside your box to SW1-8 = 00001000. In other words, SW5 is "1", and all the other switches are "0". This is exactly the opposite of the special but very common "Sony Protocol" DIP switch state.
- 4) Boot your PC with the AEC-uBOX-2 test/demo CDROM installed, wait perhaps a minute for the bootable software to automatically and slowly find the current DIP switch settings, then look at the discovered box software revision letter and number displayed on the screen. Write it down somewhere (on the bottom of the box??) so that you don't forget.
- 5) Change the DIP switches back to their original settings.
- 6) Carefully put the box back together per instructions on the previous page.

Special AEC-uBOX-2 Versions:

As of August 2014, there is at least one special version of the AEC-uBOX-2 which has a customized serial protocol which is different from our standard product. We can only ship custom versions of the AEC-uBOX-2 directly to the company which orders them from us, so please do not ask us to bypass the vendor (we cannot do that for ethical and business reasons). We understand that the vendors often charge more for what looks like exactly the same box, but the vendors are also developing custom software and taking on sales and customer support responsibilities, so they have to charge you more (sorry). Please remember that they are the ones who decided to use a non-standard box, not us, so please direct your displeasure (if any) accordingly.

Troubleshooting Difficulties:

In case of trouble, please proceed as follows:

- 1) Follow the installation overview paragraphs above. This will let you know that your box is installed properly and working properly. If you need more advanced installation information, refer to the "AEC-uBOX-2 Instruction Manual" (PDF) file in the "Documentation" section of the CDROM.
- 2) The AEC-uBOX-2 supports dozens of different serial communication parameters and protocols, as determined by the internal DIP switch settings. Unless these DIP switches are set to exactly match the protocol expected by your desired application, your application and our box will not communicate with each other properly. Our bootable test/demo software automatically finds the box no matter what the DIP switch settings, so the ability to read time code using this program does not mean that the box will work properly with your desired application.
- 3) Contact the application software vendor to determine the proper DIP switch settings in order to communicate properly with the Adrienne Electronics AEC-uBOX-2. There are hundreds of such applications in the world, most of which we have never seen, and we cannot support other people's software, so please do not expect us to do so.

Contact Information:

The best way to get in touch with us is via our website at <www.adrielec.com>. Alternatively you may call us at (575) 772-2572 (Mountain Time)(GMT-7), or send us an e-mail at <support@adrielec.com>.