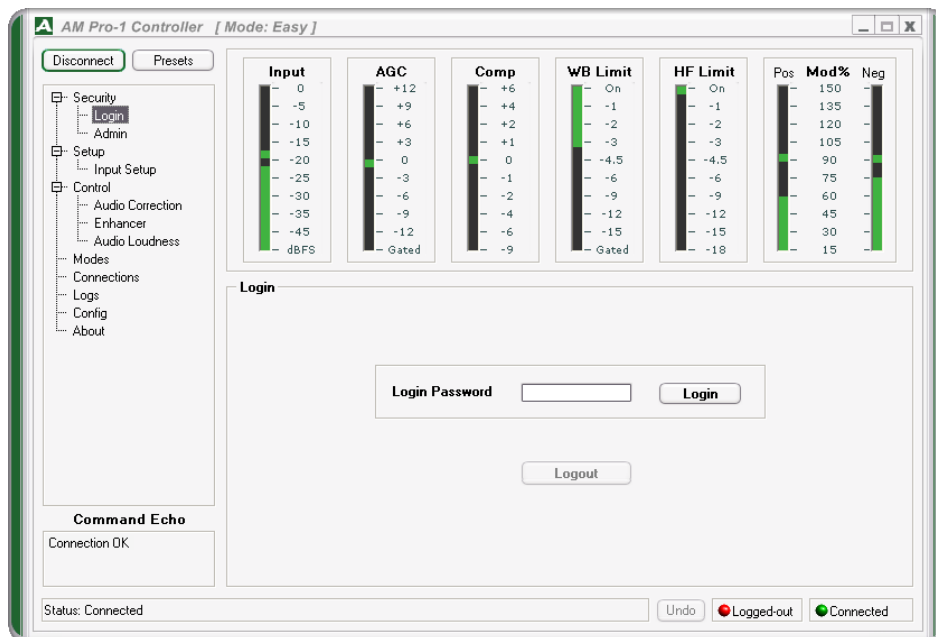


Audessence Controller Software

Installation & Operation Manual

AM PRO-1



Controller Manual AM PRO-1 [issue 1.0] 2013-07-29

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Installing the AM PRO-1 Controller Software

1. Install the software onto your PC **BEFORE** connecting the AM PRO-1 audio processor hardware to the PC via USB!
2. The software should auto-run directly from the CD after it is inserted.
3. The software is designed to run under Windows 2000/SP4, Windows XP, Windows Vista (best avoided) and Windows 7 (all versions) only.
4. If the installation does not start automatically, use the 'Run' option in your Windows 'Start' menu and select D:\setup.exe [where D is the letter of your CD or DVD drive]. This will install the AM PRO-1 Controller software, required runtime libraries and the USB drivers.

If you are using USB, *occasionally* the USB drivers may not load during installation setup, or automatically when you first connect the USB cable to your computer. In this case, follow the instructions in the Controller Appendices on the Audessence CD, 'Manually installing the USB Drivers', for Windows 2000 and Windows XP respectively.

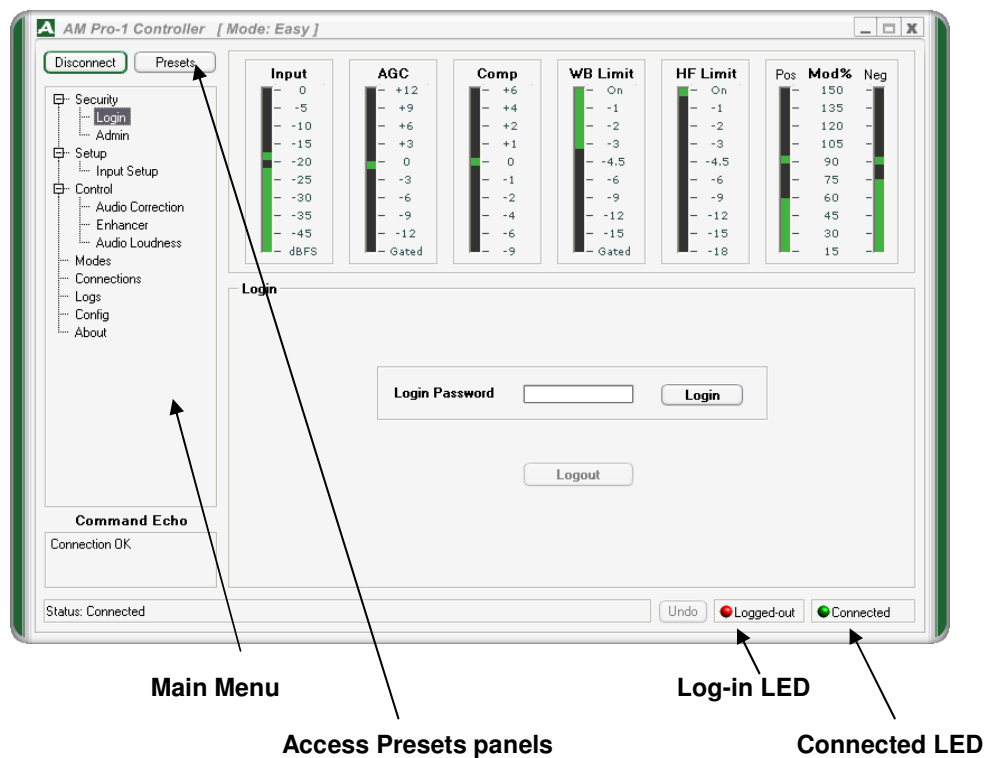
N.B. The USB drivers can be found in the \USB-Drivers folder on the Audessence CD.

Connecting and Configuring Audessence Controller

The following sections describe connecting the **AM PRO-1 Controller** to an **AM PRO-1 Processor** unit and how to change configuration settings.

Connecting and Logging-in

1. You can connect the AM PRO-1 Controller to the computer via a serial port or a USB port. The default serial port is COM1. Alternative serial ports can be chosen from the *Connections* panel available from the main menu. See the section on Port Settings, below, for instructions on using the *Connections* panel when changing the COM Port settings.

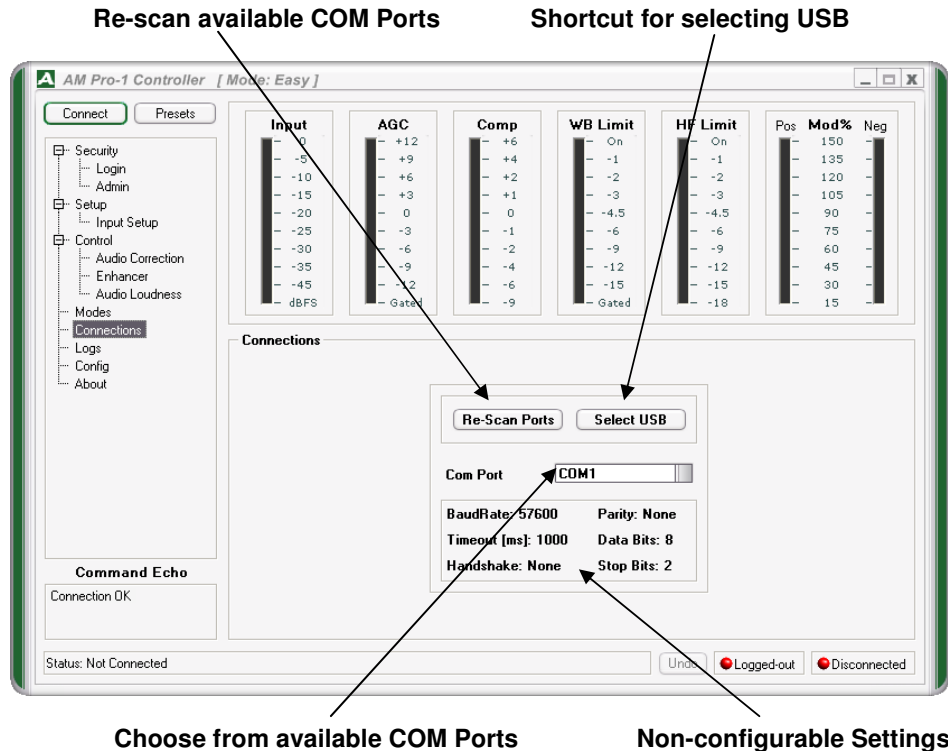


2. The metering bars should become active shortly after pressing the *Connect* button. You will need to log-in if you wish to make any changes to the AM PRO-1 Processor settings.
3. The default Login Password is **AAAA**. Click on the *Admin* menu option to change your Login Password when connected and logged- in. See the section entitled 'Changing Your User Password', below.
4. The AM PRO-1 Controller times-out after 30 minutes, silently logging-out the user. The Login LED will turn red next time you try to make a change after you have been logged out. You will have to log back in before making further changes.

5. N.B: If the processor is in Expert mode when a time-out occurs, or has been left in Expert Mode at the end of a previous session, then you will need to provide a separate 'Admin' password *before* you can log back in to the processor. The 'Admin' password can be found on the Test Sheet supplied with every unit. It is factory-set and cannot be changed. See the section on *Operational Modes*, below, for more details on this.

Port Settings

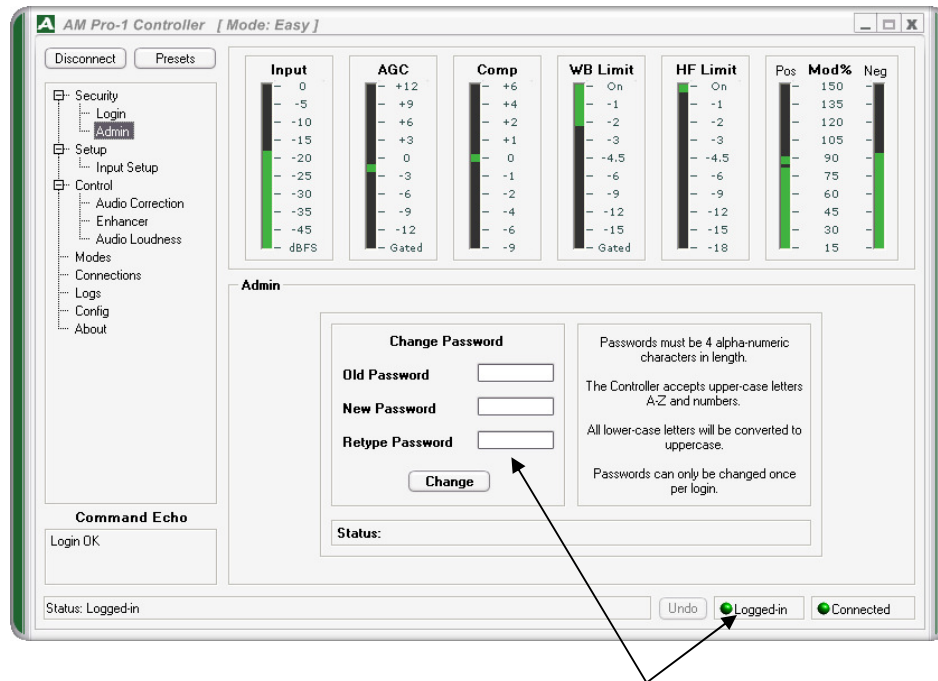
1. Connecting via USB creates a virtual COM Port, which is always the last available COM Port on your PC. The drivers should install automatically during Setup. If the "Found New Hardware Wizard" launches the first time you connect, or your connection isn't recognized, then follow the instructions in the Appendices.
2. Click the *Select USB* button to connect via USB. You may have to *Rescan Ports* if you connected the USB lead after starting the AM PRO-1 Controller.



3. You can alter the port used for connecting to the Processor from the drop-down **COM Port** list, which displays all available COM Ports.
4. If you are using RS232 serial port, Baud rate will be set by the software to 57600, Data Bits to 8, Parity: None, Handshake: None, Stop Bits: 2. These parameters are fixed and non-configurable.

Changing Your Login Password

1. You can change your 'Login' (User) password by selecting the *Admin* panel available from the main menu. You can only change your password once you have logged on to the Processor. Read the instructions carefully.

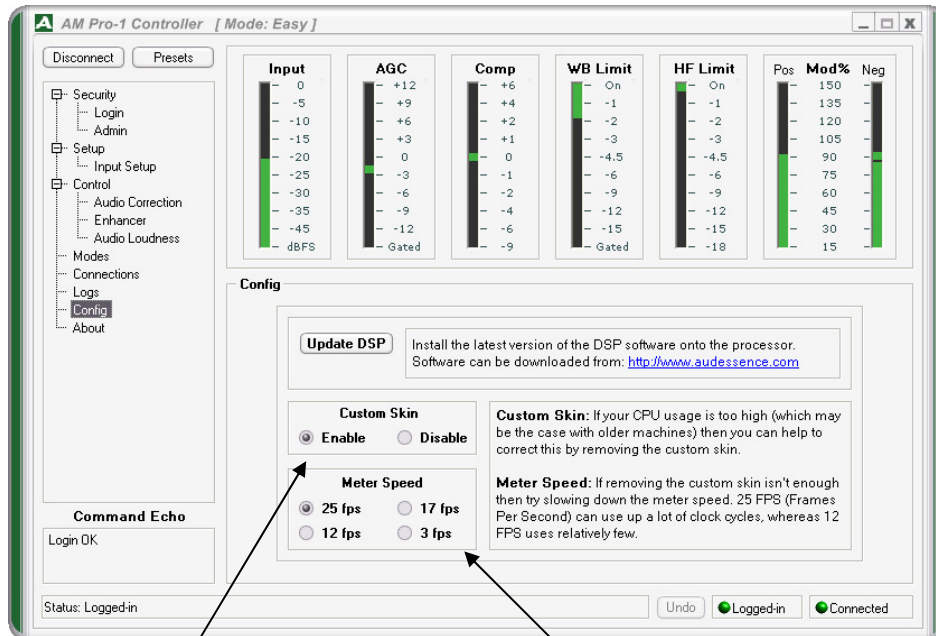


You must be logged-in to change your password

2. The Change Password window will become greyed-out once you have changed your password, because you are only allowed to change password once per log-in session.

Saving CPU cycles on very old computers

1. If you are using the AM PRO-1 controller on a very old computer, then you can save precious CPU cycles by removing the custom skin and using the standard Windows skin.
2. The controller has to be re-started if you decide to disable (or re-enable) the custom skin. If you are logged-in to the processor then your current working settings will be saved and you will be automatically logged-out.



Try disabling the custom skin ...

... before slowing down the meter speed

3. If removing the custom skin isn't enough then you can try slowing down the frame speed of the metering bars. The default setting is 25fps, 17 fps will still give a reasonably smooth display.

Note: You do not need to be logged into the processor to change these settings.

Operational Modes - Background

The following section describes using and swapping between Easy and Expert modes, the two different operational modes available on the AM PRO-1 controller.

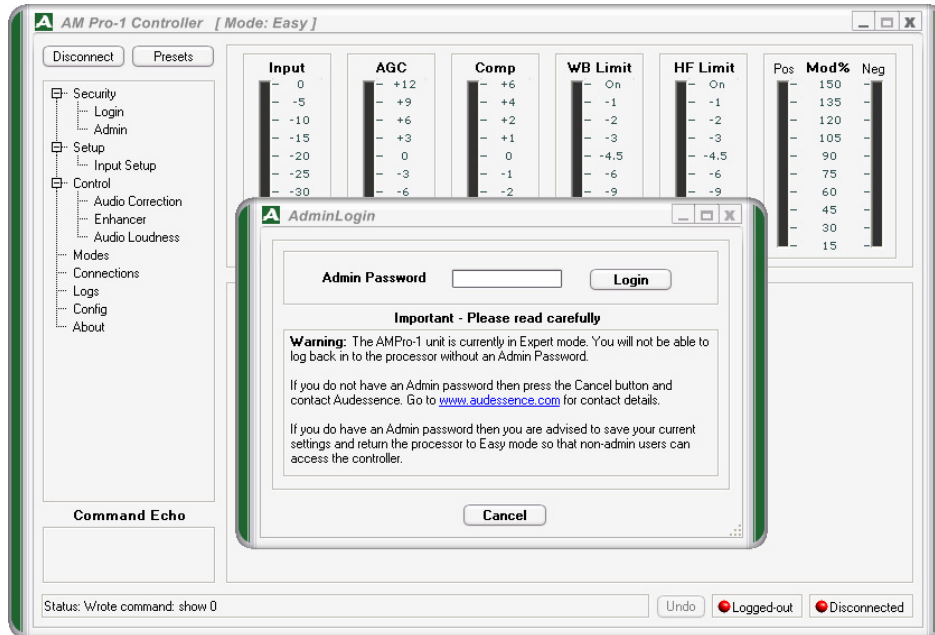
- Easy Mode is for every-day use and allows any user to setup the AM PRO-1 audio processing 'sound' with the minimum of fuss. Many less-used controls are hidden from view; others are ganged and driven automatically based on simplified controls that are easy to understand. In Easy Mode, all controls on both Setup (...input source and levels) and Control (...audio processing 'sound' controls) menu panels come with help-text designed to assist new users. Output parameters can never be accessed from Easy mode.
- Expert Mode for Output Setup (Expert Mode / Locked). Expert mode **has to be** selected for setting up the Output of the AM PRO-1; for example the Output level, low-pass filter cut-off and Tilt Corrector controls. Generally, the Output only has to be set once, to meet local broadcasting regulations and match the AM transmitter being used. After adjusting the Output settings, if you then go directly back to Easy Mode (without 'Unlocking'), you can remain in future using the familiar Easy Mode presets and controls.

It is designed like this so that parameters *of the transmission* which might be legally controlled, (like modulation percentage or spectral occupancy, which can cause real problems if they are set wrong), are protected from accidental change or change by someone not authorised - they are set up only by the Expert.

- As you might guess, Expert Mode 'Unlocked' is designed so that advanced ('Admin') users can have full access to all parameters of the audio processing. To get this complete freedom, first go to 'Expert Mode, then go to 'Unlock' menu and press 'Unlock'. In this way it can be used completely independently of Easy Mode for those who already know a lot about setting up audio processors. Remember though, that if you develop your own setting in Expert Mode, it is not possible to import it into Easy Mode. (On the other hand, settings can be carried from Easy Mode into Expert mode at any time).
- Expert Mode is accessed via an 'Admin password' (NB this is **not** the same as the 'User Password'). 'Admin Password' is 4 digits numeric. It is programmed at the factory and cannot be changed. You can find the Admin Password for your unit on the Test Sheet. If it gets lost or forgotten, contact Audessence with the serial number of your AM PRO-1, and we can look up the Admin Password for you. Email: tech@audessence.com for fast Audessence Tech Support.

Start-up Mode

1. The default start-up mode for the AM PRO-1 and controller is Easy mode. On pressing the *Connect* button, the controller should present the user with the Login panel. However, if the processor has been left 'Unlocked' in Expert mode (by a previous user) you will be asked to provide an admin password before being allowed to log-in:

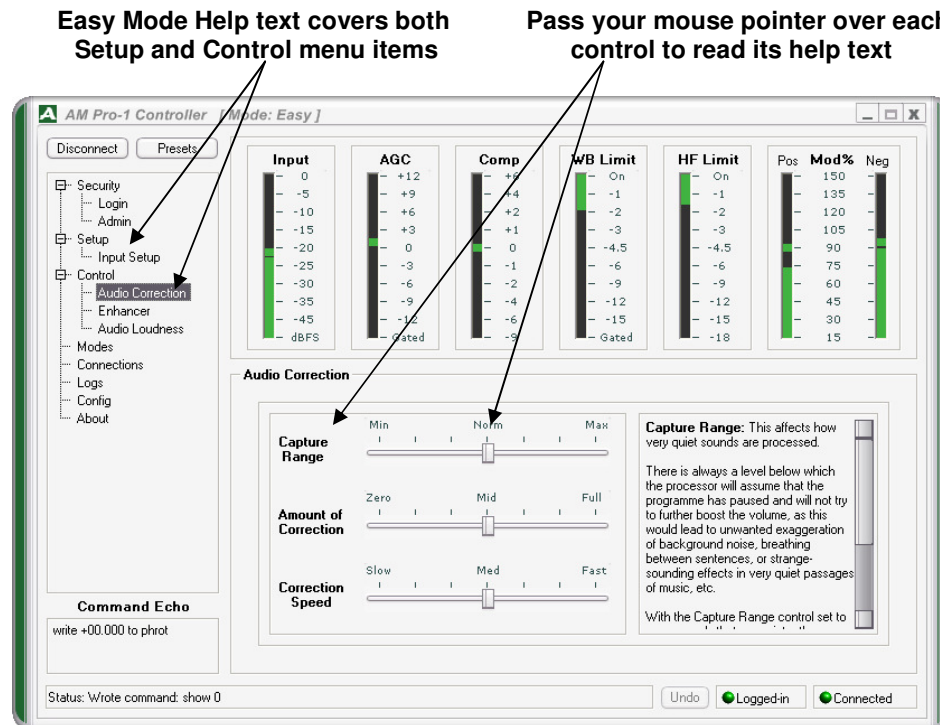


Modes-1: Admin Login Window

- If the unit was left in Expert mode after adjusting Setup parameters only, the controller will revert normally to Easy mode when re-started.
- If the session times-out (after 30 minutes of inactivity) and you try to change a setting, the Login LED will turn red and the Login panel will be displayed. If you were in expert mode when the processor timed out, you will first be asked for the admin password before being allowed to log in to the processor. If you cannot provide an admin password then press the Cancel button at the bottom of the Admin Login window and the controller will be disconnected from the processor. Now try re-connecting and the controller should start-up in Easy mode, but only if no changes (apart from setup parameters) were made while in Expert mode.
- If you still can't start the controller without an admin password, you will need to contact your administrator. If you *are* the administrator then contact Audessence - details can be found at the end of this document.

Easy Mode Help

1. Every Easy mode button and slider has its own help text (Figure Modes-2). Pass your mouse pointer over a control (including its title) and its help text will be displayed in the nearby text box.



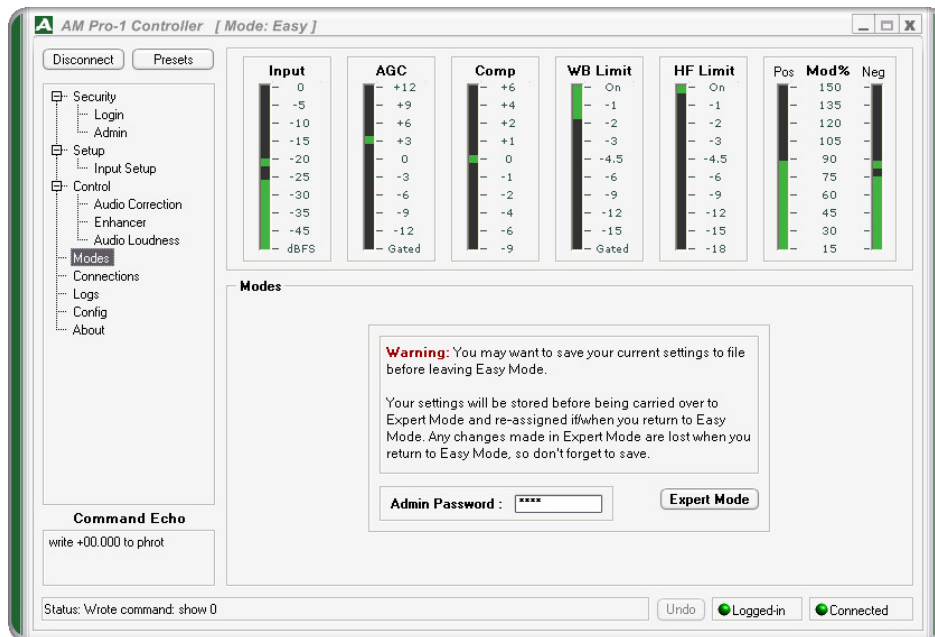
Modes-2: Easy mode Audio Correction window

Mode controls

1. In Easy mode, audio settings are adjusted with seven intuitive controls. These are Capture Range, Amount of Correction, Speed of Correction, Loudness, Enhancer EQ, Enhancer Frequency and Enhancer Range. Setup input options are similar to those provided by Expert mode, except that each has its own help text.
2. Expert mode (which is strictly for admin users) assumes a good working knowledge of audio processing and provides no help text for any of the controls. Refer to the AM PRO-1 Processor manual for a more detailed description of each control type.
3. The current mode is always visible on the Mode Indicator, located inside square brackets on the Title Bar of the controller.

Switching Between Modes

1. You can switch between Easy and Expert modes via the Modes window once you are logged-in (Figure Modes-3).
2. Note that you will need to provide an admin password before being allowed into expert mode:



Modes-3: Modes Window

'Admin Password' is 4 digits numeric. It is programmed at the factory and cannot be changed. You can find the Admin Password for your unit on the Test Sheet. If it gets lost or forgotten, contact Audessence with the serial number of your AM PRO-1, and we can look up the Admin Password for you. Email: tech@audessence.com for fast Audessence Tech Support.

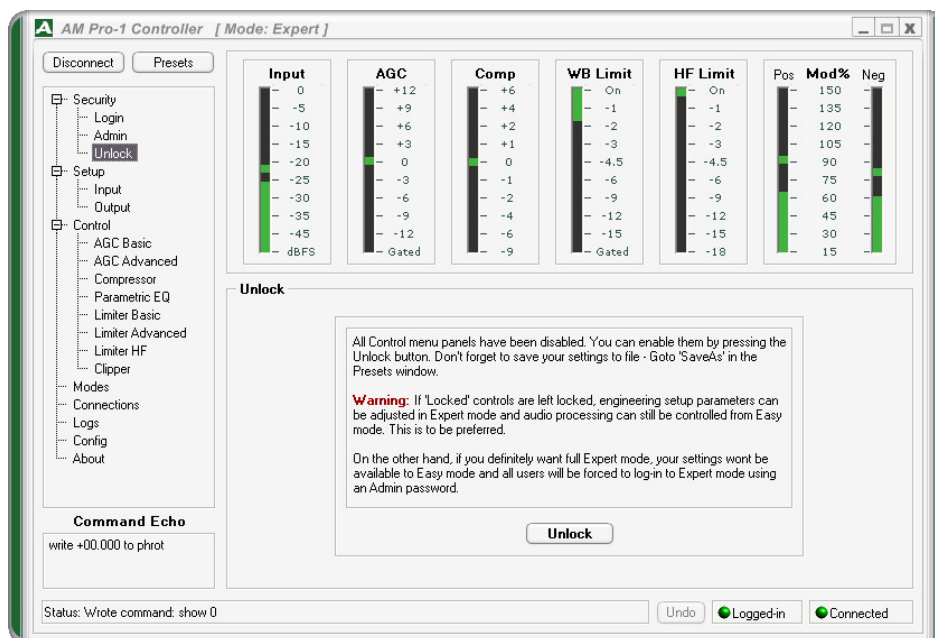
3. Switching between modes should be handled with some care. Easy mode settings are automatically carried over into Expert mode, where they can be worked on further. However, only Setup parameters are carried back *to* Easy mode *from* Expert mode. So any changes (other than changes to Setup parameters - Input and Output) will be lost when going *into* Easy Mode!

- For this reason, admin users have to 'Unlock' Control menu panels by pressing an Unlock button, which is accessed via the Unlock menu entry in the Security tab. (Figure Modes-4)

4. If you are switching from Expert mode to Easy mode, then the controller will load one of the following:

- The default Easy mode preset if entering Easy mode for the first time in the session. (This implies that the processor was left in Expert mode by an Admin user before starting the controller.)
- The last saved Easy mode state, saved when moved from Easy mode to Expert mode earlier in the same session.

Setup parameters (*Input* and *Output* parameters) are carried across both modes, from Easy to Expert and vice-versa.



Modes-4: Unlock panel

To summarise, only Setup parameters are carried back to Easy mode from Expert mode. If you make changes to any controls *other than* Setup controls, then those changes won't be copied back to Easy mode. The controller will re-load the Easy mode state *as it was* before you entered Expert mode - so all your (non-setup) changes will be lost unless you save them first.

Using Audessence Controller

The following section describes how to change processor settings and how to use presets, which are collections of pre-defined settings.

Adjusting Processor Settings

1. All controls are accessed via the main menu and are used in the same way for both Easy and Expert modes.
2. The sliders and writeable text boxes will not respond to commands if you are not connected and **logged-in**. Commands are echoed in the Command Echo box if successful, otherwise an error will be displayed in the Status Bar.



Status Bar

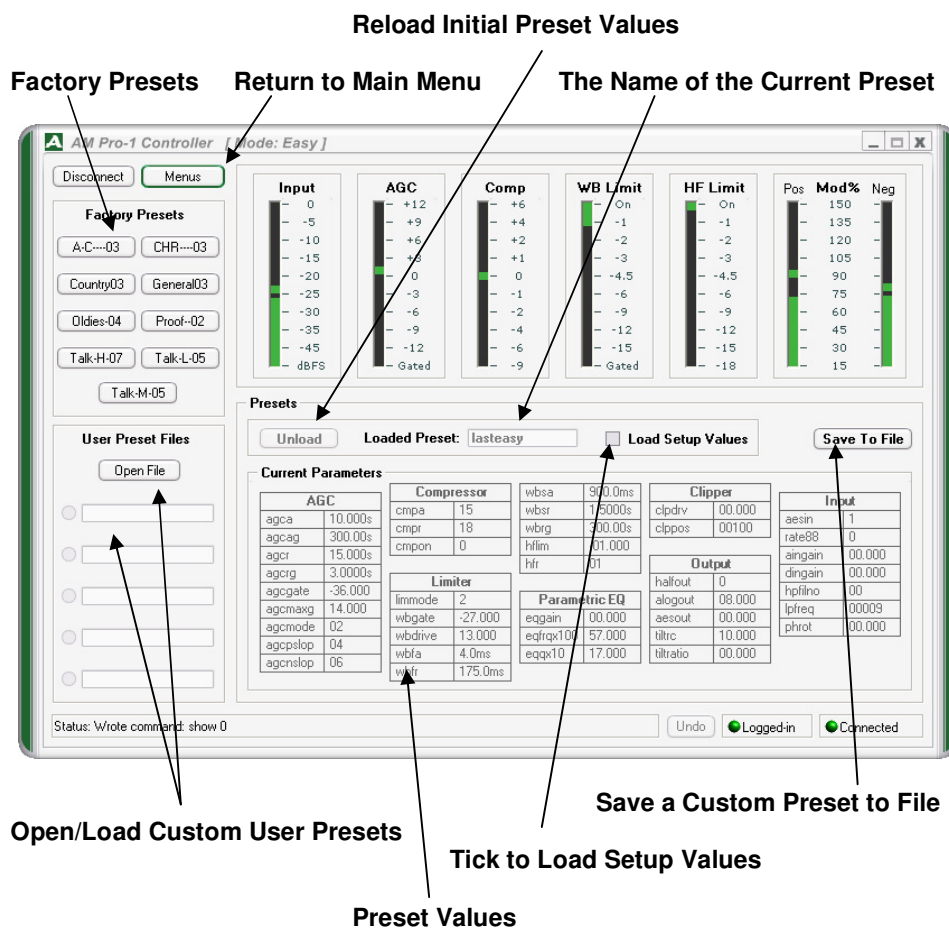
Send Commands to AM PRO-1

Command Echo from AM PRO-1

2. Some slider control text boxes are writable and some are read-only. Writable text boxes show print in a regular font, whereas read-only text boxes show print in bold grey. The pointer will not change when hovering over read-only text boxes.
3. If you enter an incorrect value into a writable text box, such as a value that falls outside the accepted range, then an error will appear in the Status bar.

Changing Presets

1. Click on the *Preset/Menu* button to view and load Factory/Custom presets into the Processor. A preset is a list, or collection, of control values for all Processor functions. A copy of the current working preset is stored in (PC) memory whenever you enter the Presets window, so if after trying presets you don't prefer any of them, you can get back to where you were before (see 5 below).
2. Press one of the Factory preset buttons to load a Factory preset into Processor memory. The preset can then be fine-tuned by returning to the main menu and adjusting individual controls.
 - Easy mode presets are named differently to distinguish them from Expert mode presets.

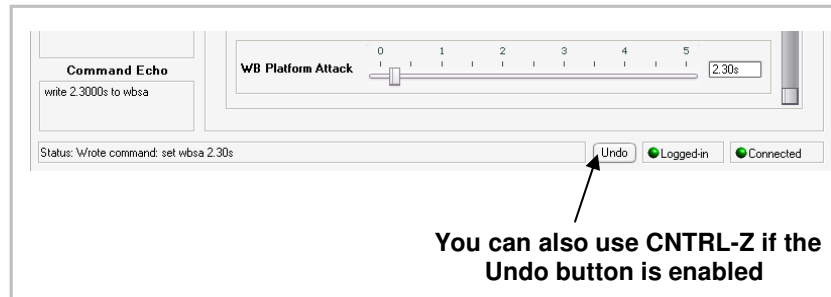


3. Preset values for each control are displayed in the window below the metering bars. The name of the currently loaded preset will appear in the *Loaded Preset* text box.
4. Preset *Setup* values (Input and Output settings) are **not** loaded by default. You have to tick the *Load Setup Values* checkbox to have them load with the preset.

5. Press the *Unload* button to unload any presets you might have loaded onto the processor since entering the Presets window. The settings you had **when entering the Presets window** will be re-loaded onto the processor.
 - Note that setup values held by the *unload* preset will not be re-loaded onto the processor unless the *Load Setup Values* checkbox is ticked.
6. Custom presets can be saved to file on PC for safe-keeping by pressing the *Save to File* button. They can be loaded into the Processor by pressing the *Open Preset File* button. Up to five custom preset files can be stored for use on the controller at any one time, loading a sixth custom preset will simply replace the first in the list.
 - To find out where the Custom presets are stored, see the Files section below.
 - *Easy* mode custom presets are carried over when switching to *Expert* mode and will appear on the custom preset list. [In other words, *Easy* mode custom presets will appear in both *Easy* and *Expert* mode custom preset lists.]
 - *Expert* mode presets are not carried over when switching back to *Easy* mode. Only setup values are carried back from *Expert* mode to *Easy* mode.
7. Preset values are automatically loaded into Processor non-volatile memory when you shut down the controller. Or you can use the 'Save' option in the main Menu list to save the current state to non-volatile memory.

Undo Operations

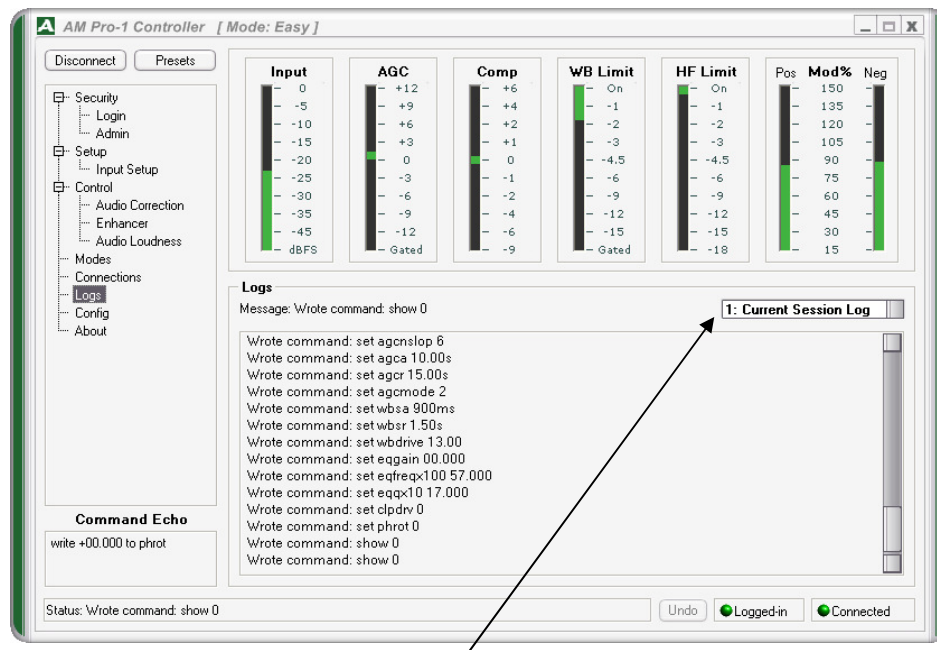
1. Press CNTRL-Z (or the *Undo* button) to undo previously applied settings in reverse sequence. The undo stack remains active between login sessions but will be lost when the Controller is shut down. Undo is not accessible unless you are connected and logged-in:
- 2.



3. The status field and Command Echo will update as you cycle back through your previous commands. You cannot use undo when in the Presets panels - you must return to the main menu for the Undo button (and CNTRL-Z) to become active.
4. Easy (and Expert) mode each have their own undo stacks. **N.B:** Both undo stacks are emptied whenever you move to a different mode.

Reading the Logs

1. Use the *Logs* menu link to read the last eight connection logs as well as the current working log.
 - To find out where the Log file is stored, see the Files section below.
2. Each log entry contains connection and command details, as well as any errors that were encountered.



Choose a log to read from the drop-down menu

3. All previous logs (not the working log) end with the state, or closing preset, of the processor when the controller was shut down. Useful if you want to check previous settings against current settings.

Updating the DSP software on AM PRO-1

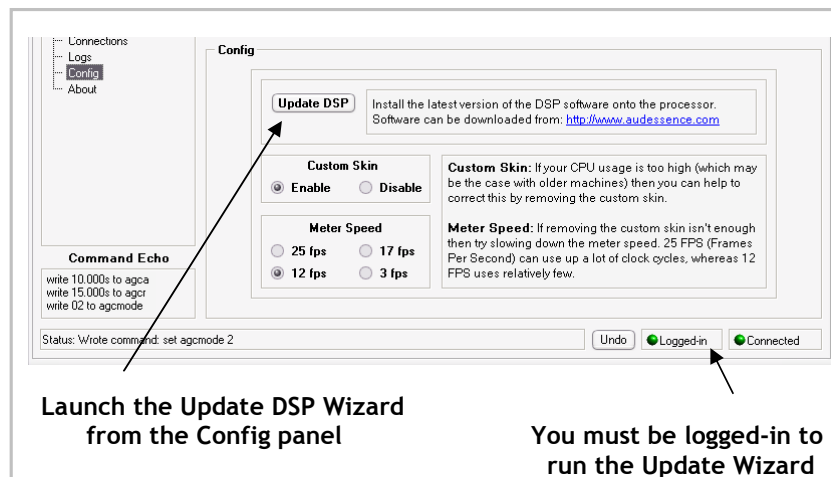
The following section describes how to upload new DSP software onto the AM PRO-1 processing unit.

Getting the Latest DSP Software

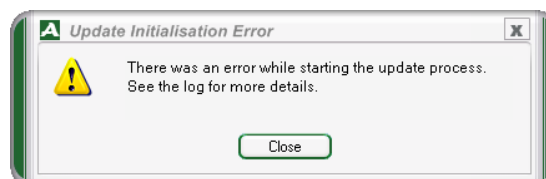
1. The latest version of the software is always shipped with the Audessence Controller software.
2. Bug-fix and enhancement releases of the DSP software can be downloaded from the Audessence website, when available. They are shipped as an installer (.exe) package. Go to www.audessence.com and follow the *Downloads* link. You will need to contact Audessence for *download* login and password if you don't already have them.

Using the Update DSP Wizard

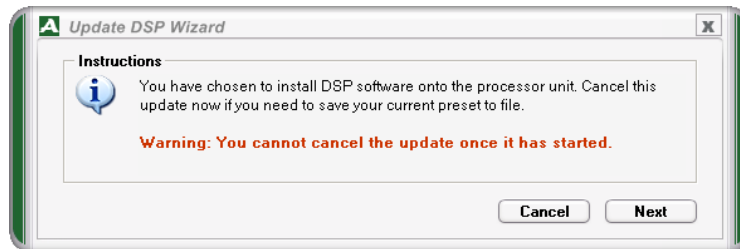
1. Launch the Update DSP Wizard to load the latest version of the DSP software onto the AM PRO-1 processing unit. You must first be connected and logged-in to the processor.



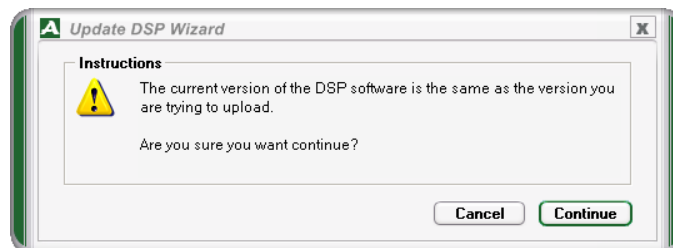
2. The wizard will launch with a closing message if it can't find the required files to upload, or if the files are corrupted. You will need to install (or perhaps re-install) the DSP upload files onto your computer.



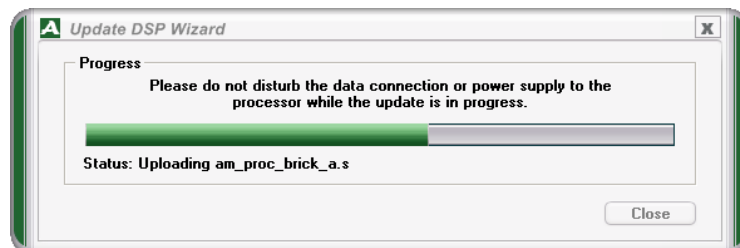
3. The Wizard will first warn you to save your current state (preset settings) before uploading the DSP software, as any changes to your settings will be lost once the update has completed.



4. You will be warned if the DSP software you are trying to upload is the same or older than the version currently installed on your AM PRO-1 processor. Just click 'Continue' if you wish to proceed.



5. The upload process takes several minutes. Once completed, you will be required to re-boot the processor before trying to re-connect the controller. This means turning the processor power supply off and back on again.



6. You cannot cancel the update once the upload has begun. If the power supply or cable connecting the processor to your PC is disconnected, then you must reboot the processor by turning the power supply off and back on again.

Files

Audessence Controller stores user defaults, Log files and Custom preset files in the My Documents folder.

- Logs:
-\\My Documents\\AM PRO-1-1 Controller\\ControllerLog.txt
- Custom expert mode preset files:
-\\My Documents\\AM PRO-1-1 Controller\\Presets\\myexpert.apf
- Custom easy mode preset files:
-\\My Documents\\AM PRO-1-1 Controller\\Presets\\EasyMode\\myeasy.aef

If the -\\My Documents\\AM PRO-1-1 Controller folder does not exist, it is created when the Controller is started for the first time.

On **Windows Vista**, the *AM PRO-1-1 Controller* folder is located in the 'Documents' folder, which replaces the 'My Documents' folder.

Contact Us

Please contact Martin Spencer if you have any questions, comments or suggestions regarding audio processing, setup of Audessence audio processors and operational considerations. Email: tech@audessence.com

Please contact Steve Webster if you have any questions, comments or suggestions regarding the Audessence Controller PC programme. Email: steve@audessence.com but please copy your email to tech@audessence.com also to ensure a fast response.

Please contact Graham Sloggett if you have any questions, comments or suggestions for the Sales department. Email: sales@audessence.com

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