

# Space Station UM-282

(VST2, VST3, AU, AAX)

produced by Luca Capozzi (Audiority Srls), January 2022

**Current Manual version: v1.2**

The **Space Station UM-282** is a faithful simulation of the Ursa Major Space Station SST-282, a late 70's echo and reverb unit. Unlike other reverberation devices from that era, the Space Station used delay techniques to transform a mono signal into a new reverberated stereo signal. Where traditional delay units of the past have only one or two taps, the Space Station has many: 8 taps are used for listening and the others are used to synthesize the reverberation. That's why the Space Station has been the secret weapon of many producers and engineers over the years.

Please, read carefully both product specifications and system requirements **before** purchasing any **Audiority** product.

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# Space Station UM-282

produced by Audiority, January 2022.

## Credits

Code & DSP: Luca Capozzi (Audiority Srls), Jan 2022

GUI Design: Luca Capozzi

Published by Audiority Srls

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## Specifications

- Single Multi-tap Delay Line
- 8 Audition Taps
- 16 Audition Delay Programs
- Up to 255ms delay time (extendable to 2.55 secs)
- Up to 3.5s reverb time
- Reduced bandwidth (20Hz-7kHz)
- Echo Sync
- Full Stereo Mode
- Echo Only Mode
- Delay Extension
- Ducking
- Resizable interface

## System Requirements

### PC

- Windows 7 64bit or later
- Intel i5 or equivalent
- 2 GB RAM
- Screen resolution: 1024×768
- VST2, VST3, AU 64-bit host
- PT11 or higher, AAX 64-bit host

### MAC (Intel)

- OSX 10.8 or later
- Intel i5 or equivalent
- 2 GB RAM
- Screen resolution: 1024×768
- VST2, VST3, AU 64-bit host
- PT11 or higher, AAX 64-bit host

### MAC (Silicon)

- macOS 11.0 or later
- M1 or higher
- 2 GB RAM
- Screen resolution: 1024×768
- VST2, VST3, AU 64-bit host
- PT11 or higher, AAX 64-bit host

## FILE LOCATIONS

### Mac

All presets, license, IR files and settings are located in:  
/Users/Shared/Audiority/

AAX and VST plugins will be placed in their own Audiority sub-folder located in:

AAX: /Library/Application Support/Avid/Audio/Plug-Ins/Audiority

VST: /Library/Audio/Plug-Ins/VST/Audiority

VST3: /Library/Audio/Plug-Ins/VST3/Audiority

### PC

All presets, license, IR files and settings are located to:  
C:\Users\Public\Public Documents\Audiority

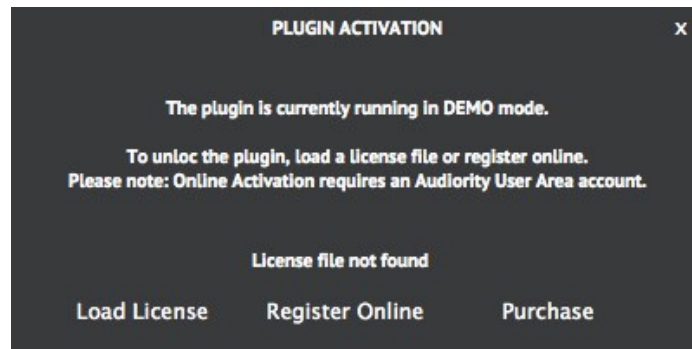
AAX and VST plugins will be placed in their own Audiority sub-folder, usually located in:

AAX: C:\Program Files\Avid\Audio\Plug-Ins\Audiority

VST: {Your VST Path}\Audiority

VST3: {Your VST3 Path}\Audiority

## PLUGIN ACTIVATION



Once you install and open the plugin for the first time, it will be in **Demo Mode** until a license file is loaded. In Demo Mode the plugin will output 3 seconds of silence every minute.

You can activate the plugin either OFFLINE or ONLINE.

### OFFLINE ACTIVATION

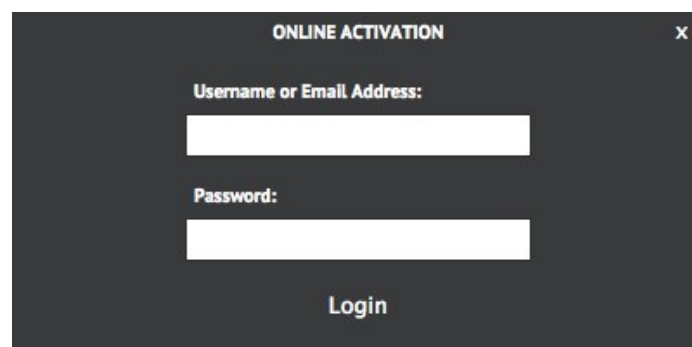
If you purchased the plugin from our site, you should have received an email to download the installers and the license file. Save the license file you got with your purchase email (or via our User Area) anywhere on your computer.

Then, to activate the plugin, click on the **Audiority** logo and select “**Register**”. The Registration window will pop up allowing you to load the license file you got while purchasing the plugin by clicking the “**Load License**” button. Alternatively, you can drag and drop the license file on the registration window.

**NOTE:** If you purchased the plugin from one of our dealers, please check the “**USER AREA AND REDEEM CODES**” section below.

### ONLINE ACTIVATION

If you are registered to our User Area, then you can activate the plugin online.



Insert your Username (or email address), your password and click the “**Login**” button. The license file will be automatically delivered in your computer and the plugin will be activated.

## USER AREA AND REDEEM CODES

If you purchased from one of our dealers, then you should have received an email with a redeem code. This code is required to deposit a license in your User Area account and let you download the license file or activate the plugin online.

If you don't have an User Area account yet, please follow these steps:

- 1) Go to <https://www.audiority.com/register> and fill out the signup form.

**IMPORTANT:** Please be sure to register with the **e-mail address you use for your purchases**, otherwise your products will not show. Since we use reCAPTCHA for registration only, please temporarily disable any ad blocker you are using.

**Username**

**First Name**

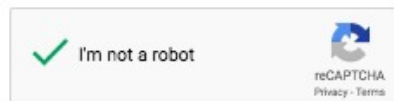
**Last Name**

**Purchase E-mail Address**

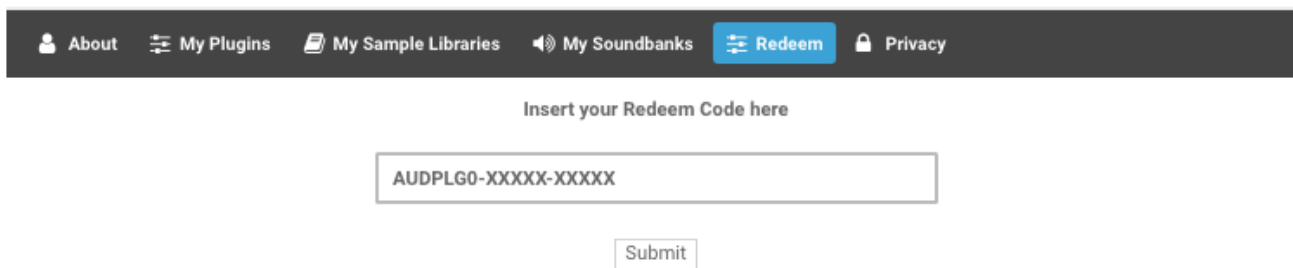
**Password**

**Confirm Password**

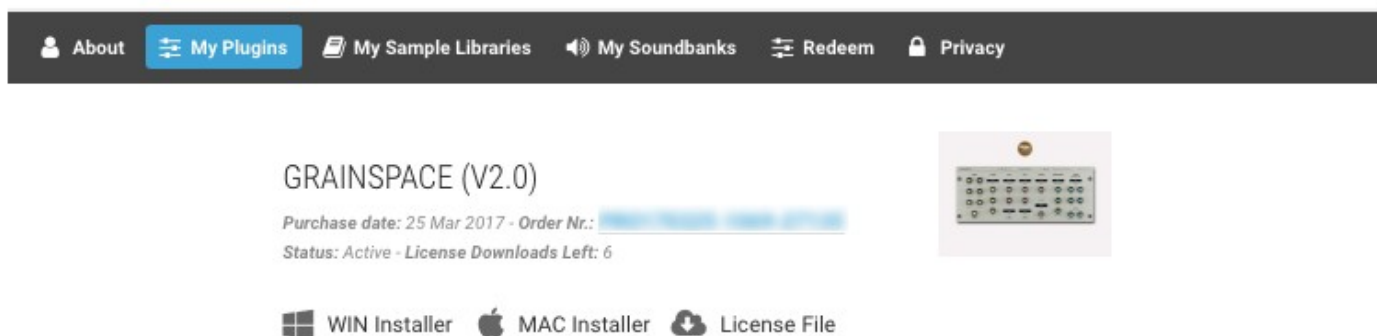
I read and agree to the Privacy Policy and Terms of Use



2) Once registered, log in to your account by clicking the User Area section of our site. Click the **REDEEM** section of your account and paste the code you received via email from our dealer.

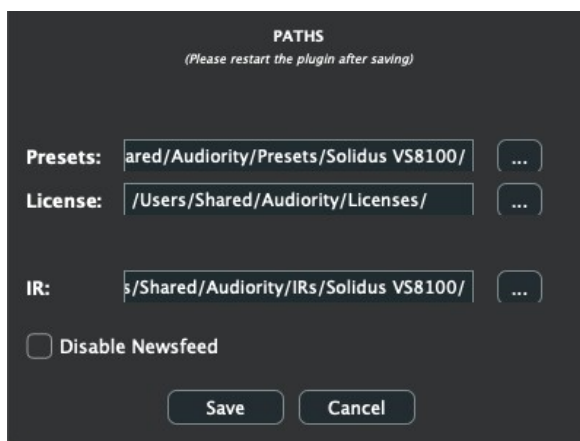


3) After submitting the code, a license will be deposited in your account and will be shown in “**MY PLUGINS**” section of your User Area.



4) Now you can click “License File” and save the license anywhere on your computer and ready to be loaded through the plugin registration window. You can also skip this part and activate your plugin online (see previous section of this manual).

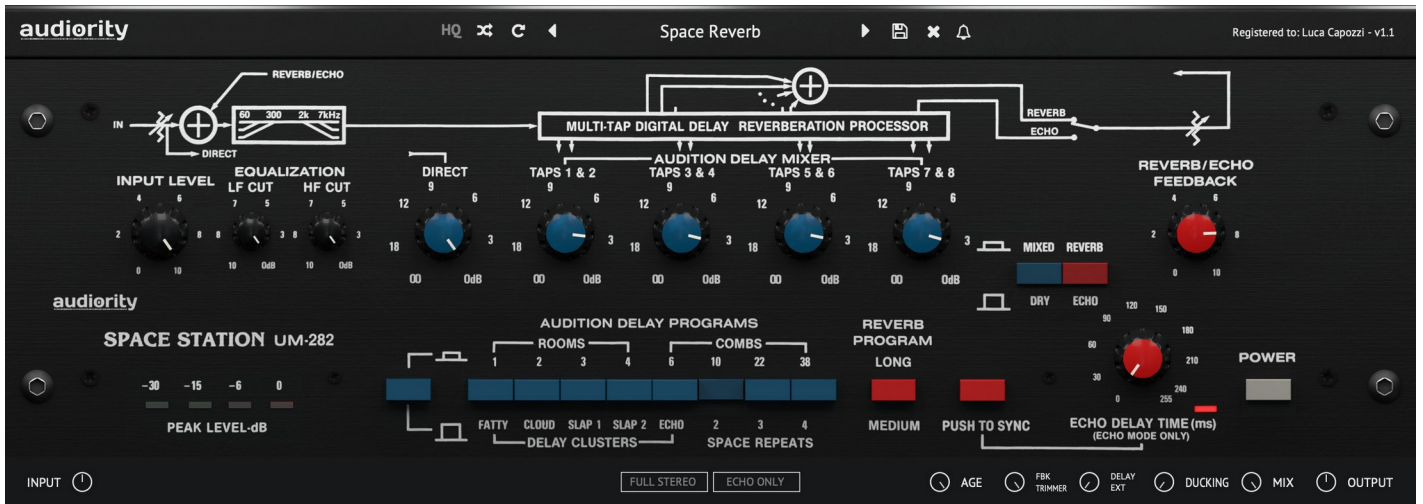
## USER PATHS SETTING



By selecting “**Settings**” from the logo menu, you can change the path for **Presets**, **License** and **IR** folders. You can also disable our Newsfeed from here.

**Note:** Please do not move the **Settings** folder from its default location.

# READ ME FIRST



## SIGNAL PATH

The Space Station uses a single delay line with multiple taps to generate echoes and reverberation. Eight taps are used as Audition Taps, while the others to synthesize the reverberation. The Echo signal comes from a dedicated tap that is mixed along with the Audition Taps. This means that you NEED at least one of the Audition Taps knobs to be above zero to actually get the Echo output. Enable the ECHO ONLY mode to bypass the Audition Taps. In this mode the Space Station will act as a regular delay unit. Input overload occurs with signals over 20V p-p in the machine, while on the plugin should be around +26dB over 0dBFS.

## AUDITION TAPS AND MIXER

The Space Station internal processor has one input, fed from a mixer, where direct and fed-back signals are combined, but has many outputs, named taps. Eight of these taps are called Audition Delay Taps because their sole function is for mixing into the final signal that is returned to the unit. The Audition Taps are never recirculated and have no role in reverberation or echo feedback. The 8 taps are paired and each pair (1&2, 3&4, etc) is returned to a knob in the AUDITION DELAY MIXER. The odd numbered taps are mixed together and sent to the left output, while the even numbered goes to the right output. The DIRECT signal goes to both channels. Use the MIXED / DRY button to mute all the Audition Taps while leaving only the DIRECT signal.

The Audition Taps are set to various delay times by the AUDITION DELAY PROGRAMS buttons. You have several families of programs, ranging from Rooms, Space Echoes up to weird comb filters. Usually, in all programs, the lower number taps have the shorter delay times, with times increasing progressively from Tap 1 to 8.

## ECHO MODE

In Echo Mode (REVERB / ECHO button set to off) the Space Station will behave as a delay. The Echo tap time and feedback can be set via the ECHO DELAY TIME and REVERB ECHO/FEEDBACK knobs. This signal is summed to all the Audition Taps so, for each one of the TAPS knob, you will get the Echo Tap AND the additional echo from the selected taps.

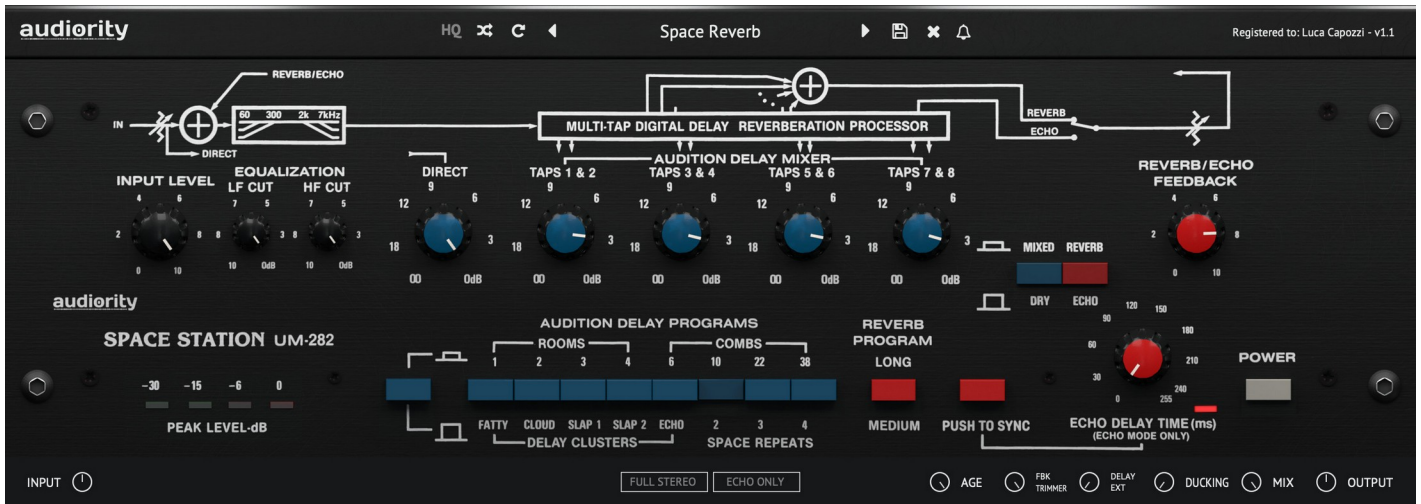
## REVERB MODE

In Reverb Mode (REVERB / ECHO button set to on) the Space Station will behave as a reverb. The Audition Taps works as a sort of early reflections, so changing the AUDITION DELAY PROGRAMS will shape the reverberation response. Use the REVERB / ECHO FEEDBACK knob to set the reverb length. ECHO DELAY TIME has no role when the Space Station is in Reverb mode.

## BREAKING CHANGES FROM v1.1

In v1.1 we introduced two new parameters to improve the matching between the original hardware unit and the plugin: FBK TRIMMER and AGE. **If you have projects made with v1.0, please set FBK TRIMMER TO 50% and AGE to 100%** or your projects will sound differently from what you intended. If you want to match the hardware unit we used to make this plugin, set FBK TRIMMER to 35%, AGE to 7% with **Broken Tap** enabled. For more information about these parameters, please read the next page.

# Plugin Parameters



## TOOLBAR

The Toolbar allows you to manage the plugin presets, register the plugin and set some global parameters.

By clicking the **AUDIORITY** logo, in the top left corner of the Toolbar, you'll be able to visit our website and social profiles, register the plugin, change the interface size and customize the paths for license and preset files.

The **HQ** button will enable oversampling, useful to reduce aliasing when the signal saturates. Use the **Randomize** and **Reset** buttons to experiment with random presets or restoring it to its saved version. Press **CTRL+DOUBLE CLICK** on any knob to manually assign a new value.

## PARAMETERS

<b>INPUT LEVEL</b>	Adjust the incoming signal volume
<b>LF / HF CUT</b>	Cuts the low/high frequencies of the incoming signal. This also affects the relative decay time of the reverberation frequencies
<b>DIRECT TAP</b>	Adjust the volume of the direct signal.
<b>AUDITION TAPS</b>	Adjust the volume of the audition taps. TAPS 1&2 always have the shortest taps, while TAPS 7&8 the longest
<b>REVERB/ECHO FEEDBACK</b>	Adjust the echo feedback or reverb time
<b>ECHO DELAY TIME</b>	Adjust the echo time by 1ms steps
<b>MIXED / DRY</b>	Switches between unprocessed (DIRECT ONLY) and processed (DIRECT + TAPS) signal
<b>REVERB / ECHO</b>	Switches between Echo and Reverberation
<b>AUDITION DELAY PROGRAMS</b>	Selects one of the 16 programs for the Audition Taps. Use the first button on the left to switch between the upper row (ROOMS / COMBS) and the lower row (DELAY / SPACE REPEATS)
<b>REVERB PROGRAM</b>	Switches between the medium and long reverb program. They may sound very similar, but the frequencies build-up is different
<b>PUSH TO SYNC</b>	Enables the tempo sync for the Echo mode
<b>POWER</b>	Powers the unit on/off

## GLOBAL CONTROLS (Footer)

<b>INPUT / OUTPUT</b>	Pre/Post effect gain
<b>FULL STEREO</b>	Process each stereo channel independently
<b>ECHO ONLY</b>	Disables the audition taps to get a more precise echo time
<b>AGE</b>	Decreasing this value will lower the dynamic range and one of the taps amplitude (if enabled). Right click on the knob to set the Broken Tap simulation, resulting in a wider stereo field when AGE is decreased.
<b>FBK TRIMMER</b>	Changes the curve of the feedback potentiometer. Set to 50% to restore v1.0 settings.
<b>DELAY EXT</b>	Increases the max delay time of the plugin. This parameter won't affect the Reverb mode.
<b>DUCKING</b>	Sets the ducking amount related to the current echo delay time
<b>MIX</b>	Dry/wet signal mixer.



### **RESIZING CONTROLS (Audiority logo menu)**

**Small / Default / Big Size**                      Reduce, reset or increase the size of the plugin interface.

**Resizing Corner**                                      You can resize from the bottom right corner of the GUI



#### **IMPORTANT**

This plugin, like the original unit, is a mono to stereo device. When used on a stereo track, both channels will be summed and processed as a mono input. Enable FULL STEREO mode to process each stereo channel independently.

# CHANGELOG

## **v1.2** (Mar 2022)

- NEW: Updated Framework
- NEW: Persistent GUI settings (via Settings option)
- NEW: Drag and Drop license file on registration window
- CHANGE: Broken Tap simulation now must be set via right click on AGE knob.
- BREAKING CHANGE: Broken Tap simulation is OFF by default

## **v1.1.1** (Jan 2022)

- NEW: Input overload saturation
- FIX: FBK TRIMMER causing crash on some configurations
- FIX: Wrong FBK TRIMMER default value for v1.0 saved states and presets
- FIX: Preset folder opened when clicking some specific presets
- FIX: Manual errata corrige

## **v1.1** (Jan 2022)

- NEW: Updated framework
- NEW: Improved hardware matching
- NEW: Age and FBK Trimmer parameters
- NEW: Ctrl+Double Click to set knob value manually
- FIX: Value from text always returning 0
- BREAKING CHANGE: New parameters change the sound behaviour.  
Set both AGE and FBK TRIMMER to 100% on projects saved with v1.0.

## **v1.0** (Jan 2022)

- Original release

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Last updated on May 19th, 2021

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We hope you will enjoy it as much as we did.

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or checkout our site at [www.audiority.com](http://www.audiority.com)

Cheers,  
Luca

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