

# XL-305R REVERB UNIT USER MANUAL

AUDIOSCAPE ENGINEERING CO.





This manual provides general information, preparation for use, installation, and operating instructions for the Audioscape 76A.



Audioscape Engineering Co.
Florida
Made in the U.S.A.

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#### A WORD FROM THE AUDIOSCAPE FAMILY.

WELCOME TO THE XL-305R FROM AUDIOSCAPE
A ground breaking design, 12 springs, all tuned together to make
the Perfect Echo Chamber.

The XL-305R has its roots in the all analog XL-305 Spring Reverb from the 1980's. It's been a Secret Weapon reverb over the years that has gained cult-like status. Unlike many spring reverbs, this Spring Assembly has 12 springs tuned together making it equally tempered, very similar to opening the lid of a piano, holding the damper open and singing into the strings.

Working out from this core idea, we re-imagined the rest of the design from the ground up, from the electronics and spring decay times, to modern workflow and aesthetic improvements.

With the direction of Wayne Kirkwood (XL-305 Original Designer) and 4 years of R & D, we were able to bring this GROUNDBREAKING design from the last century into the modern century. Simply put, we are incredibly proud to bring this to market.

The perfect balance of simplicity and flexibility round out the options of this verb. Here's a feature rundown from left to right:

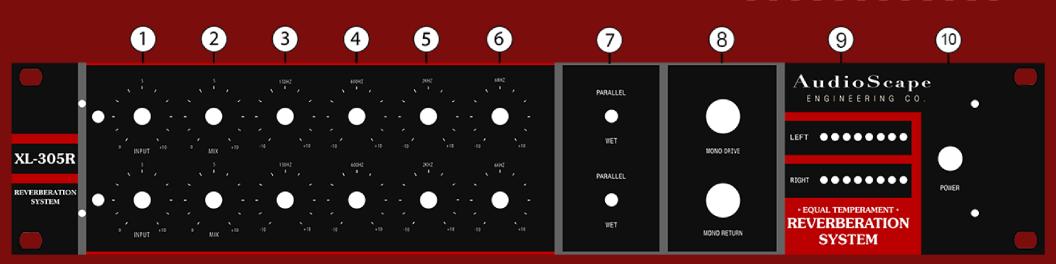
#### IMPORTANT SAFETY INSTRUCTIONS





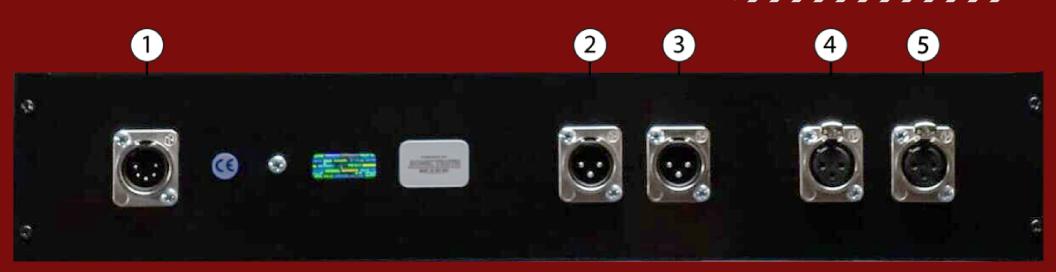
- 1.Water and Moisture Do not use the unit near any source of water or in excessively moist environments.
- 2.Object and Liquid Entry Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through openings.
- 3. Ventilation When installing the unit in a rack or any other location, be sure there is adequate ventilation. Improper ventilation will cause overheating and can damage the unit.
- 4. Heat The unit should be situated away from heat sources, or other equipment that produce heat.
- 5.Power Sources The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.
- 6.Power Cord Protection AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit. Never take hold of the plug or cord if your hand is wet. Always grasp the plug body when connecting or disconnecting it.
- 7.Non-use Periods The AC power supply cord of the unit should be unplugged from the AC outlet when left unused for a long period of time.

## **FRONT PANEL**



- (1) Input -
- (2) Mix -
- (3) Low Freq -
- (4) Low Mid Freq -
- (5) Mid High Freq -
- (6) High Freq -
- (7)Parallel / Wet -
- (8) Mono Mode -
- (9) Meters -
- (10) Power -

#### **REAR PANEL**



#### (1) AC Power Connector

(2-3) XLR OUTPUT - A balanced XLR connector carrying the line-level output signal of the unit. This signal will normally be routed via a patchbay to a channel or bus insert return.

(4-5) XLR INPUT - Connect line-level input signal to this balanced XLR connector. Pin 2 is wired positive (hot). This signal will normally be arriving via a patchbay from a channel or bus insert send.



#### **BRIEF DESCRIPTION & HISTORY**

Attached is a Brief description of the History and Science behind the XL-305 design from Wayne Kirkwood, the original designer:

What makes the MasterRoom reverbs unique are the spring timings. They are "equally-tempered" following a log progression very similar to the musical scale. I have never seen another mechanical reverb system that worked this way - most get their diffusion from the material whether its a metal plate or the less-than-random delays of a single spring or 2 or 3 springs operating in parallel. The plate has a lot of diffusion - small numbers of springs don't and usually "boing."

I'm standing on the shoulders of its inventor William "Bill" Hall. The MasterRoom actually began life as an acoustic burglar alarm, a side project in the early days of MicMix. MicMix's first product was an industrial-strength field mixer in a deep drawn aluminum Halliburton case. They sold a few but it wasn't very successful. Thus the name "MicMix."The burglar alarm didn't work on the Doppler principle, it "pinged" the room, mapped the echo returns and then looked for changes.

In order to test his research Bill needed a diffuse room which provided the most-difficult test. Bill was an amateur organist and knew about the Hammond spring system. Bill decided to use Hammond springs to provide his alarm's "test chamber." Using his math skills Bill determined that a log series would diverge and create a diffuse room. Once he pinged the "test chamber" he quickly realized what he had. The alarm project was dropped and the MasterRoom born by accident.

In short, it can sound more plate like with milder input settings, but can also do the spring thing if you drive it harder.

### **TECH SPECS**



#### **SPECIFICATIONS**





- 2U, with an International external power supply for best noise specification
- Input controls drive the signal to the tank, they have signal overload LEDs next to them to show when the signal is too hot going to the assembly.
- Mix controls blends the dry signal with the wet signal.
- 4 band Center De-tent EQ controls per channel, for a multitude of tone shaping the wet signal.
- Parallel/Wet toggle switches. Extremely handy to either have a full wet signal or parallel blend. With the parallel switches engaged and the mix controls maxed out the unit is operating at 50% wet signal.
- Mono Drive Lighted Push-button Switch stereo links the channels together, and makes it easier to bring the stereo image together
- Mono Return Lighted Push-button Switch sends the signal from the Reverb assembly out, summed to mono
- LED indicators on the right side of the unit allow the user to monitor the total output level of the Reverb itself

## **TROUBLESHOOTING**

- **COMMON QUESTIONS** 
  - o Q:
    - A:
  - Q:
    - A:
  - Q:
    - A:
  - 0