Using the Hazer

(JEM Hazer Pro, last updated 09/09/2021)

About the Hazer

The ADC's primary hazer is a JEM Hazer Pro. It takes Martin JEM C-Plus hazer fluid. **Do not use any other haze fluid with it.**

Setting Up the Hazer

- The hazer primarily lives in the halfway hemps gallery. If you wish to you can move it from there for your show, but please return it to there at the end of your show.
- **The hazer should be powered from Lighting Power.** This is to reduce the likelihood that it triggers during the day while Stage Power is on.

Turning on the Hazer

- **Before turning on the hazer ensure the stage and auditorium fire alarm sensors are isolated.** Talk to your SM about how to do this.
- The hazer has a rocker on/off switch on its back. Toggle this to turn the hazer on.
- When the hazer turns on it will immediately enter a **six minute heating cycle**. The hazer will show 'HEAT' on its display. When it is ready, it will either show 'RDY' (ready) or 'DMX' depending on how it is being controlled. It will not respond to input until this cycle is complete.

Controlling the Hazer

The Hazer can either be controlled manually or via DMX. Instructions below:

1. **Manually**
- Use the Menu left and right buttons to navigate different parameters (Haze, Fan).
- Then use the Value up and down buttons to adjust the settings on those parameters, to produce more haze, or increase fan speed. Press enter to set the setting. Both haze and fan vary from 0 to 100.
- Press 'Run' to begin producing haze, and 'Run' again to stop.
- Press 'Silent' to enter silent mode. This will reduce fan speed to be quieter. It will not affect pump noise. **Silent is a global setting and will affect both manual and DMX control.**
- Presets 1 and 2 can be used to save parameter settings. To recall presets, press the relevant preset button. To adjust presets, set parameters as above, then within 3 seconds press the relevant preset button to store the change.

2. **DMX**
- The hazer is by default set to address 506 on universe 2.
- The hazer will automatically enter DMX mode if it detects DMX input. In this mode it cannot be controlled manually (except to enable and disable Silent mode).

- The hazer uses a custom profile that is not found in the standard EOS fixture library. To use it in your show, on the lighting desk go to 'File' > 'Merge' > 'ADC Fixture Library', then select 'Fixtures', and hit 'OK'. This will have imported the **JEM Hazer Pro** fixture. This can now be selected as a fixture type in EOS patch as usual.
  - o NOTE: Do not use the 'JEM Compact Hazer Pro' profile as this has slightly different parameters.
- The channel breakdown is:

Channel	Description	Input Values
1	Haze Level	From 0 to 100
2	Fan Level	From 0 to 100
3	'Heater' (essentially control)	From 0 to 255. Ranges: • **0-50** Idle, operates as usual • **51-100 for 5s** - Prime, runs pre-heat sequence • **101-150** Auto Fan mode • **151-200 for 5s** – Heater off & shutdown • **201-255** – Heater on (normal operation). Heaters will stay on if Channel 3 returns to 0.

Turning Off the Hazer

- The hazer runs a self-cleaning cycle that lasts 90 seconds before shutting down. You can trigger this cycle remotely by setting channel 3 to between 151 and 200 for 5s.
- The hazer also contains a battery, and will trigger this self-cleaning cycle if it loses power before it has completed a cleaning cycle.
- **As the cleaning cycle produces haze, it is critically important that the hazer is shut down and turned off from its power switch before the stage is de-isolated on the fire alarm system!**

N.B. Noise Levels

The JEM Hazer Pro is very slightly louder than our old LeMaitre MVS Hazer.

For your information, I have done some measurements of sound levels in the auditorium.

In the below measurements, both hazers were situated on the halfway hemps gallery. All measurements were taken from the middle of row D.

Conditions	Volume (dB)	Surplus to floor (dB)
Noise floor (no hazer, no extra background noise)	31.8	N/A
JEM Hazer Pro (haze 50, fan 20) – Normal Mode	33.5	1.7
JEM Hazer Pro (haze 50, fan 20) – Silent Mode	32.8	1
JEM Hazer Pro (haze 100, fan 20) – Normal Mode	33.4	1.6
JEM Hazer Pro (haze 100, fan 20) – Silent Mode	33.4	1.6
LeMaitre MVS Hazer (haze 50, fan 20)	32.3	0.5