

READ AND SAVE THESE INSTRUCTIONS

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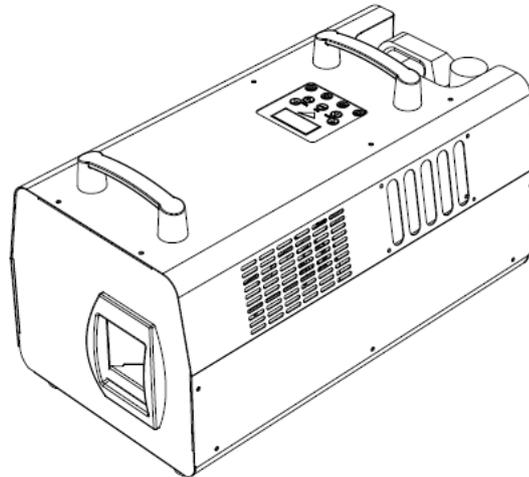
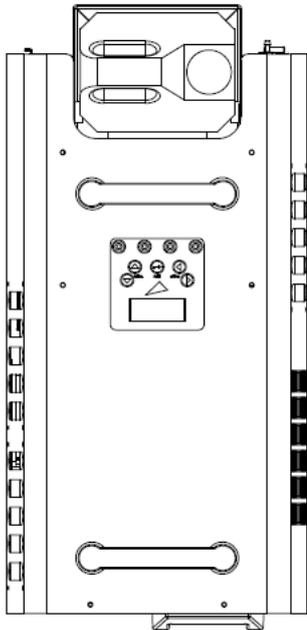
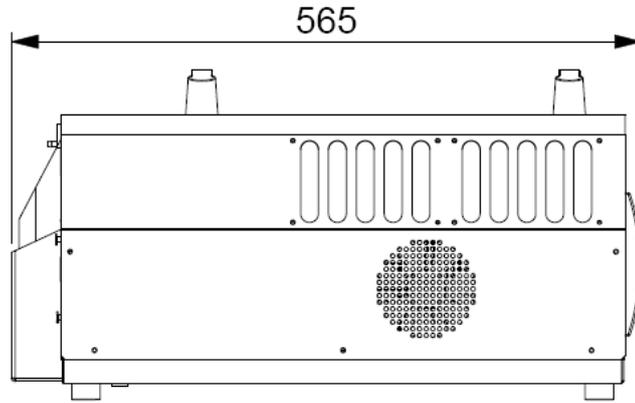
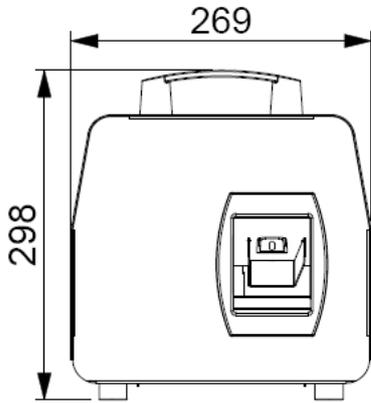
JEMTM HAZER PROTM

user manual

Martin[®]
by HARMAN

Dimensions

All dimensions are in millimeters



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Safety information

The following symbols are used to identify important safety information:



Caution! Safety hazard. Risk of personal injury.



Caution! Burn hazard. Hot surface. Do not touch.



Danger! Hazardous voltage. Contact will cause electric shock.



Caution! Fire hazard.



Warning! This product is not for household use. It presents risks of injury due to electric shock, burns, falls and respiratory problems!

Read this manual before operating the machine, follow the safety precautions listed below, and observe all warnings in this manual and printed on the machine. Use the system only as described in this manual and in accordance with local laws and regulations.

If you have questions about how to operate the machine safely, or if you have followed the instructions in this manual and the machine is malfunctioning, please contact Martin Service.

Preventing electric shocks



- Always ground (earth) the machine electrically.
- Use only a source of AC power that complies with local building and electrical codes, and that has both overload and ground-fault protection.
- Before connecting the haze machine to power, check that the voltage indicated on the machine's serial label matches your local AC power voltage. If your AC power voltage does not match, do not use the machine. Contact Martin Service for assistance.
- Before using the machine, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- If the machine or any cables connected to it are in any way damaged, defective, wet, or show signs of overheating, stop using the machine and contact Martin Service for assistance. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- Disconnect the machine from AC power before servicing and when not in use.
- This system is not waterproof and should not be exposed to wet outdoor conditions. Do not immerse in water or any other liquid. Do not expose to high-pressure water jets.
- Do not spill fluid over or inside the machine. If fluid is spilled, disconnect AC power and clean with a damp cloth. If fluid is spilled onto electronic parts, take the system out of service and contact Martin for advice.

- Do not remove the covers or attempt to repair a faulty machine. Refer any service not described in this manual to Martin.
- Do not operate the machine if any parts are damaged, defective or missing.
- Moisture and electricity do not mix. Do not aim haze output at electrical connections or devices.

Preventing burns and fire



- The haze produced by the machine is hot enough to cause burns when it leaves the nozzle, and very hot droplets of fluid escape occasionally. Keep people and objects at least 60cm (24 inches) away from the haze output nozzle.
- Do not touch the haze output nozzle during or after use – it becomes extremely hot and remains hot for several hours after the machine has been shut down.
- Haze output contains glycol, a flammable alcohol that burns with an almost invisible blue flame. Do not point haze output at sources of ignition such as open flames or pyrotechnic effects.
- Do not attempt to bypass thermostatic switches, fluid sensors or fuses.
- Replace fuses only with ones of the type and rating specified in this manual for the machine.
- Provide a minimum free space of 100mm (4 inches) around the machine.
- Provide a minimum free space of 500mm (20 inches) around fans and air vents and ensure free and unobstructed air flow to and around the machine.
- Keep the machine at least 60cm (24 inches) away from combustible and heat-sensitive materials.
- Do not operate the machine if the ambient temperature (T_a) is below 5° C (41° F) or above 40° C (104° F).
- Do not operate the machine if the relative air humidity exceeds 80%.

Preventing injuries



- Ensure that the surface on which the machine is located or installed can safely hold the weight of the machine.
- Do not install the machine over areas where people are present.
- This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Haze machines can cause condensation. Do not point the output at smooth floors. Floors and surfaces may become slippery. Check these frequently and wipe dry as necessary to avoid any danger of slipping.
- Ensure at least 2m visibility in areas where haze is being produced.
- Haze fluid contains food-grade glycols in solution but may present health risks if swallowed. Do not drink it. Store it securely. If eye contact occurs, rinse with water. If fluid is swallowed, give water and obtain medical advice.

Preventing breathing problems



- *A haze machine can operate safely only with the haze fluid it is designed for. Use the machine only with fluids specified under “Haze fluid options” on page 21 or you may cause the release of toxic gases, presenting a severe health hazard. You will also probably damage the machine.*
- *Do not create dense haze in confined or poorly ventilated areas.*
- *Do not expose people with health problems (including allergic and/or respiratory conditions such as asthma) to haze output.*
- *Do not point haze output directly at a person’s face or at face height.*

Product overview

Product description

The Jem Hazer Pro™ is a top of the range haze machine from Martin Professional designed for the highly demanding professional market. Its ability to produce exceptionally fine atmospheric haze in a short period of time makes it an ideal choice for rental houses, shows, theatres, TV studios, clubs, bars, cruise ships, theme parks and more.

Robust yet small and lightweight, the Jem Hazer Pro™ is capable of dispersing an even, continuous haze with superior optical clarity and reflectivity, the perfect small-particle haze for highlighting today's highly defined light beams. A high-quality air pump system ensures smooth distribution while a unique mixing channel allows the haze to optimize before being expelled.

Congratulations on your purchase of the Jem Hazer Pro™ from Martin. Details of the full range of Martin products are available on our website at www.martin.com.

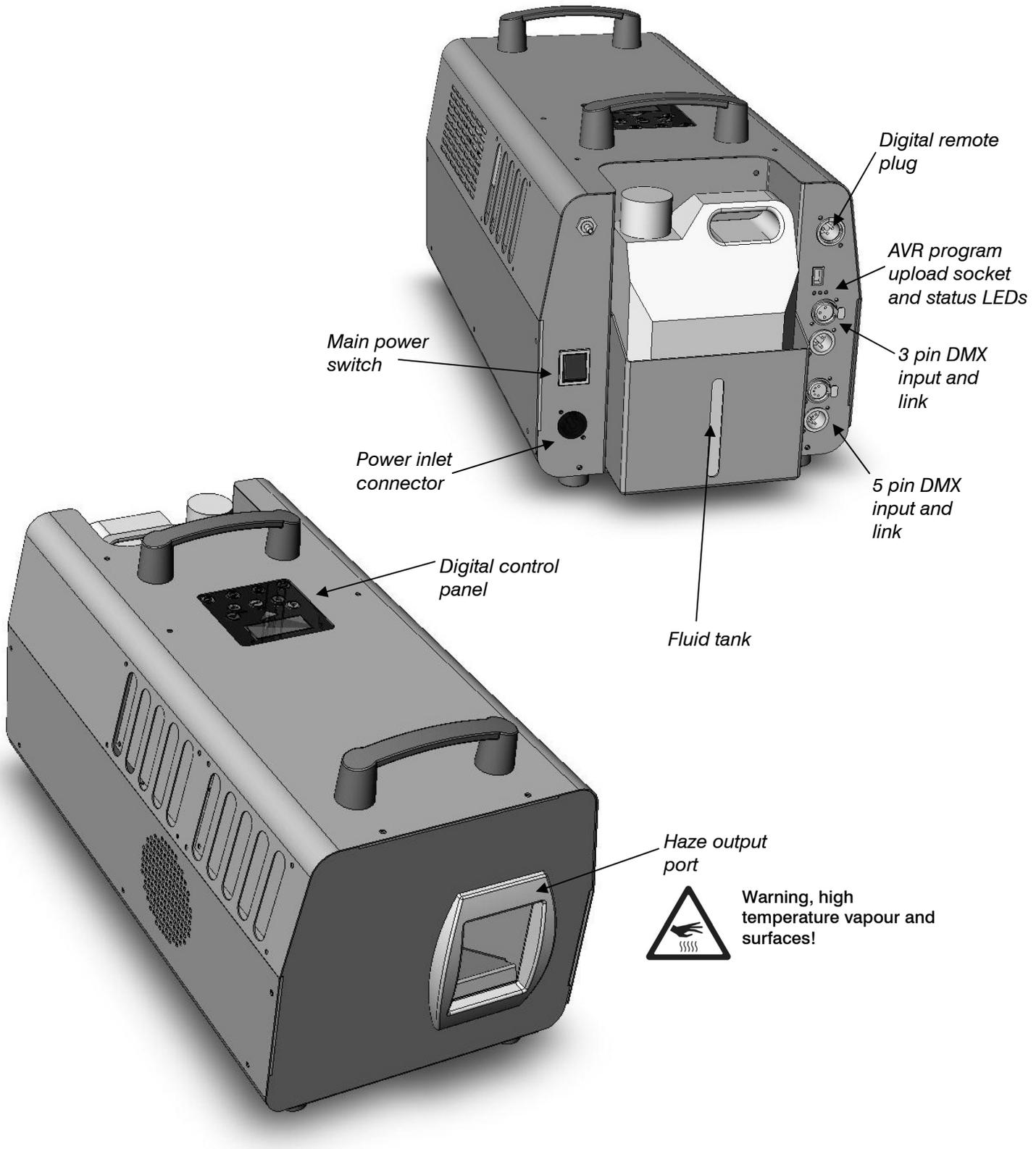
Features at a glance

- *Finest haze production in its class*
- *Small particle, even haze*
- *Continuous output*
- *Water-based fluid with long hang time*
- *Low noise*
- *Lightweight*
- *Variable haze and fan controls with 1% increments*
- *2.5 liter fluid capacity*
- *Sealed fluid system for transportation*
- *Advanced Pump Technology (APT)*
- *Battery powered automatic shutdown sequence prevents clogging*
- *RDM ready*
- *On-board DMX 3-pin and 5-pin*
- *User-friendly on-board control panel*
- *Optional Flying Kit and Digital Remote Control*



Use only Martin C-Plus Haze Fluid™. Use of other fluid will void warranty.

Product details



Quick Start

You are no doubt eager to switch on the machine and try it out by making a lot of haze. This section tells you how to do that. However, please also make the time to read the safety and servicing instructions in the remainder of this manual.

Setting up

Locate the machine in a suitably large area with nothing in front of the haze output.

Fill the fluid tank with Martin C-Plus Haze Fluid™ only. Use of other fluid will void the warranty.

Connect a suitably rated power supply to the machine using the supplied Neutrik Powercon cable. The power requirements are:

3.1A @ 230V (EU model)
6A @ 120V (US model)

Now set the mains switch, at the rear of the machine, to the 'ON' position. The display will show **HEAT**. If the display shows **OFF** press the RUN button (bottom right hand button) on the digital control panel. After about 6-8 minutes the display should show **CONT** and the machine will begin producing haze. If the display shows **RDY** press the RUN button to start haze.

Making haze

The two quick access buttons at the bottom left of the control panel automatically select different haze densities. The SILENT button enables or disables a quieter run mode. The RUN button starts and stops haze production.

If you want to adjust the haze density manually, press the Menu < > buttons until the display shows **HAZE**, then press the Enter button and use the Value up/down buttons to select a value above 0%.

You can also adjust the fan speed using the **FAN** menu.



If no haze is produced it may be necessary to prime the machine, press the Menu < > buttons until the display shows PRME, then press the Value Up button so the display shows Y, then press the Enter button.

Switching off

The Hazer Pro is designed to run a self-cleaning cycle on power down to help prevent blockages, using its built in rechargeable battery. When you turn off the power the cleaning cycle will begin automatically if required.

If cleaning is needed, the display will show **"WAIT"**, then **"90"** counting down to **"00"**. The machine will then power off automatically.

Installation and setting up



DANGER! DO NOT operate the haze machine until you have read and observed all the precautions listed under “Safety information” on page 5.

Location

The Jem Hazer Pro™ is designed to be located on the floor or may be suspended using the optional flying kit. If suspending the machine, the handles are removed and four eyebolts provided in the flying kit are fitted in their place.

The machine can operate in any orientation from 30 degrees upwards to 30 degrees downwards. Steeper tilting may cause fluid leakage.

If the machine is to be suspended, ensure the mounting surface can support the weight of the machine. Do not suspend the machine over areas where people will be underneath. Use only the correct Martin flying kit to suspend the machine.

Ensure that there is at least 100mm clearance all round the machine and at least 60cm in front of the haze output.

AC power

Before using the machine, ensure that a grounding-type (earthed) power plug that fits the local power outlets is installed on the Neutrik Powercon cable provided.



DANGER! Make sure the power plug is correctly rated:

- For EU (230V) use fit a plug rated 6 amp minimum
- For US (120V) use fit a plug rated 10 amp minimum

When installing the plug, follow the plug manufacturer’s instructions and connect pins as follows:

Yellow and green wire to ground (earth), blue wire to neutral and brown wire to live.

The table below shows some common pin identification schemes.

wire	function	marking	screw colour
brown	live	“L”	yellow or brass
blue	neutral	“N”	silver
green/yellow	earth		green

Before connecting the haze machine to power, verify that the AC supply is adequately dimensioned for the current draw of the machine. The machine requires:

3.1A @ 230V (EU model)

6A @ 120V (US model)

Check that the local AC voltage is appropriate, as indicated on the machine's serial number label. If your AC voltage is outside the appropriate range, do not use the machine. Contact Martin Service for assistance.

Setting up

Fill the fluid tank only with Martin C-Plus Haze Fluid™ (see page 21).

If DMX control is being used, connect the machine to the DMX line (see page 18). If the Jem Digital Remote is being used (optional accessory), connect the remote to the Remote socket (see page 9).

Final checks

Before applying power to the haze machine, verify the following:

- the machine is safely located or installed and meets the location requirements stated on page 11
- the operator is familiar with, and able to comply with, the requirements for safe operation listed on page 5.
- the haze fluid is one of the genuine Martin fluids listed under "Haze fluid options" on page 21.
- the machine is electrically grounded (earthed)
- the AC power distribution circuits and lines are adequately rated for the current load

Turning on the power

Turn on the main power switch located next to the power inlet. The display will show **HEAT**. If the display shows **OFF** press the RUN button (bottom right hand button) on the digital control panel. The machine will remember its state from when it was turned off last time, so it will only power up in OFF mode if you have previously disabled the heaters.

After about 6-8 minutes the display should show **CONT** and the machine will begin producing haze. If the display shows **RDY** press the RUN button to start haze.

Turning off the power

The Hazer Pro is designed to run a self-cleaning cycle on power down to help prevent blockages, using its built in rechargeable battery. When you turn off the power the cleaning cycle will begin automatically if required.

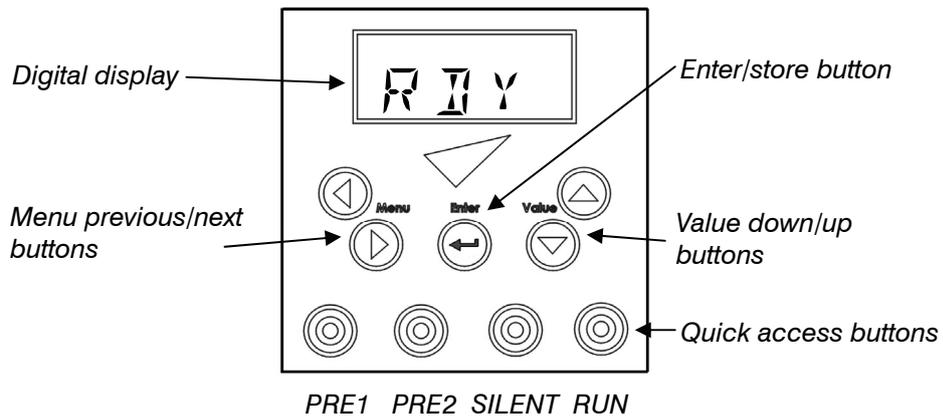
If cleaning is needed, the display will show **"WAIT"**, then **"90"** counting down to **"00"**. During this time the unit purges the fluid from its internal pipework to help prevent blockages.

The machine will then power off automatically.

Control settings

Overview

The **digital display** in the centre of the top panel allows you to configure the machine using option menus.



The brightness of the display can be changed to **LOW**, **NORM** or **HIGH** using the **DISP** menu option.

Quick access buttons

The four quick access buttons below the display allow you to quickly set the machine to one of two haze output levels, and engage silent mode or continuous run mode. The display shows the current setting.

The two left hand buttons select preset combinations of haze and fan.

quick mode	haze and fan settings
PRE 1	Haze 35%, Fan 15%
PRE 2	Haze 75%, Fan 45%

The two right hand buttons change the operating mode.

Press **RUN** to turn on haze in continuous run mode. The display shows **CONT**. To stop the haze, press the Run button again to set the machine to Standby mode (heaters remain on).

Press **SILENT** to engage a low noise mode which slows down the fan. If the **RUN** button is used to stop the haze, Silent mode is not cancelled. Silent mode is a global setting and will affect both manual and DMX control.



To change the preset settings, adjust the Fan and Haze settings using the menu, then within 3 seconds press the Pre1/Pre2 button to store the settings. **SET** will then be displayed if successful.

Setting Run mode

The Run menu sets the operational mode of the unit, either Off, Standby (heaters remain on), Fan only, Timer mode or Continuous mode.

Use the Menu Previous / Next buttons to select the RUN option.

Use the Up/Down buttons to select OFF, STBY, FAN, TIME, CONT.
Press the Enter button to store the setting. The display shows SET.

Selecting OFF will disable the heaters on the unit.

Setting Haze density

Use the Menu Previous / Next buttons to select the HAZE option.

Use the Up/Down buttons to select the density from 0% – 100%.

Press the Enter button to store the haze setting. The display shows SET.



If you want to temporarily change the haze density, do not press Enter. The haze setting will go back to its stored value next time the machine is powered up. This applies to all options.

Setting Fan speed

Use the Previous / Next buttons to select the FAN option.

Use the Up/Down buttons to select the fan speed from 0% – 100%.

Press the Enter button to store the fan setting.

The fan will run continuously if set above 0% and the RUN menu is set to FAN, TIME or CONT.

If haze is being produced and the fan is off or set to a low speed, the fan speed will be automatically increased to prevent build-up of haze at the machine output. The fan will also automatically run on for a short period when haze is turned off.

Auto Fan Mode

In some circumstances where an improved vertical distribution of haze is required, AUTO can be selected from the FAN menu. This causes the fan speed to vary over a 5 minute period.

Setting the Timer

Select the TIME option from the RUN menu.

Then set the TRUN and TOFF values from the menu.

The TRUN and TOFF values are set in seconds and are in the range 0-99. The haze and fan values are taken from the menu settings for Haze and Fan. The timer will cycle continuously until the run menu is changed.

Use this mode for maintaining a low level of haze in smaller venues.



When the timer is running and the display is not showing a menu, the display shows TRUN or TOFF as the timer cycles between run and off modes.

Setting the DMX base address

Use the Previous / Next buttons to select the **DMX** option.
Use the Up/Down buttons to set the DMX base address from 001 to 509. If you hold down the button the address will count up or down.
Press the Enter button to store the address setting.
The machine will automatically respond to a DMX controller whenever it is connected.

When using in a DMX system ensure the LINK menu is set to RECV (the default setting) to avoid causing DMX errors to other devices on the system.

Setting the master-slave link mode

It is possible to control several machines from one digital remote. The machine with the remote plugged into it becomes the Master. The other machines are Slaves. The machines are interconnected with DMX cabling.

Use the Previous / Next buttons to select the **LINK** option.
Use the Up/Down buttons to select **RECV** (slave unit) or **SEND** (master unit).
Press the Enter button to store the link setting.

The machine should be set to **SEND** only if it is running as a master. If running as a slave, stand-alone or DMX controlled it should be set to **RECV**.

Aux option

This option is not currently used and has no effect on the machine.

PSI option

This option is for service use only.

Priming the machine after fluid out

If the machine runs out of fluid it should be shut down to prevent damage to the pump. To suck the new fluid back into the machine, replace/refill the fluid tank and use the prime function.

Use the Previous / Next buttons to select the **PRIME** option.
Use the Up/Down buttons to change the option to **Y**.
Press the Enter button to start the priming function.

The machine will pump at full power for about 10 seconds or until the unit senses fluid in the heat exchanger.
To exit this menu if you decide not to activate the Prime function, select **N** and press Enter.

If the machine is not up to operating temperature the Prime function will do nothing.

Resetting options to factory settings

The factory settings configure a standard mode of operation for the machine.

Use the Previous / Next buttons to select the **RESET** option.

*Use the Up/Down buttons to change the option to Y .
Press the Enter button to reset all options.*

To exit this menu if you decide not to reset the options, select N and press Enter.

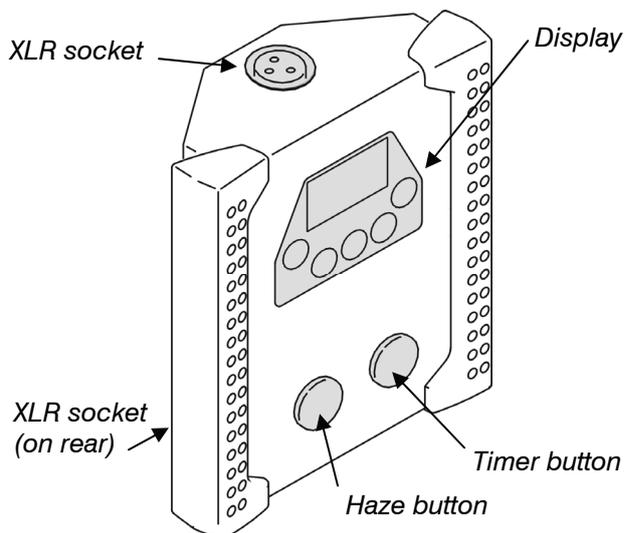
The factory settings are:

option	setting
HAZE	10%
FAN	10%
TRUN	10 seconds
TOFF	20 seconds
RUN	OFF
ADDR	001
DISP	NORM
LINK	RECV
AUX	0
PRME	N
PRE1	HAZE 35% FAN 15%
PRE2	HAZE 75% FAN 45%

Remote control

Overview

The Jem digital remote control, available separately, may be used for remote control of the Jem Hazer Pro™. Several machines may be controlled from one remote using the LINK function (see page 15).



Functions

The remote control provides the following functions:

- *Haze button: turns haze output on and off. Press once to start haze and again to stop.*
- *Timer button: turns the haze timer on and off.*
- *Haze level setting (HAZE = 0 -100%)*
- *Fan speed setting (FAN = 0 -100%)*
- *Timer run time/off time settings (TRUN = 1 -90 seconds, TOFF = 20-89 seconds)*
- *Run mode (RUN = OFF, STBY, FAN, TIME, CONT)*

The functions are the same as on the built in control panel and are described on page 13.

*The **RUN** menu duplicates the functions of the Haze and Timer buttons. The buttons are simply a quick way to control this menu function.*

Connection

The remote control has two identical XLR connectors on the top and back for connection to the Jem Hazer Pro™. Plug the cable provided with the remote control into one of these sockets and into the top 3-pin XLR plug on the rear panel of the Jem Hazer Pro™ (not the 3-pin DMX plug).

The remote control is powered through its cable by the Jem Hazer Pro™; no batteries are required.

The cable may be extended to up to 25 m (82 ft.) with a 3-pin XLR DMX cable, available from your Martin dealer.

DMX control

Overview

DMX is a digital control system widely used in entertainment and architectural lighting. Any controller meeting the DMX-512 standard may be used to control and program the haze output of the Jem Hazer Pro™.



When a DMX signal is present, the Jem Hazer Pro™ stand-alone functions do not work. To fire the unit from the control panel or remote control, the DMX controller must be powered off or disconnected.

Connection

The Jem Hazer Pro™ provides 3-pin and 5-pin XLR connectors on the rear panel of the unit for DMX connection.

You can use either the 3-pin or 5-pin connectors for in or link through, but you should not use the unit as a splitter by connecting both the 3-pin and 5-pin outputs.

For best results, use cable designed for high speed digital data transmission. Suitable DMX cable is available from your Martin dealer.

DMX functions

The Jem Hazer Pro™ address setting must match the DMX address allocated to it on your controller. To set the address, see “Setting the DMX base address” on page 15. The Jem Hazer Pro™ requires three DMX channels.

For example if the Jem Hazer Pro™ is set to DMX address 100, channel 1 will be controlled by address 100, channel 2 will be controlled by address 101 and channel 3 by address 102.

When the machine is at running temperature and is under DMX control it displays **DMX**.

The functions of each DMX control channel are shown on the following page.

Channel 1	DMX value range	Function	Macro description	Default value
Haze output Level	0-12	Idle range	None	0
	13- 24	Haze 5%		
	25- 36	Haze 10%		
		
	245 -255	Haze 100%		
Channel 2	DMX value range	Function	Macro description	Default value
Fan output level (fan will always run if haze is active)	0-12	Idle range	None	0
	13-24	Fan 5%		
	25-36	Fan 10%		
		
	245 -255	Fan 100%		
Channel 3	DMX value range	Function	Macro description	Default value
Special functions	0-50	Idle range	None	0
	51-100	Prime	5 seconds within range to activate once	
	101-150	Auto Fan mode	None (level triggered)	
	151-200	Heater off & shutdown	5 seconds within range to activate once	
	201-255	Heater on (normal operation)	None, but heaters will stay on if channel 3 returns to zero	

RDM operation

The Jem Hazer Pro supports DMX Remote Device Management (RDM). This allows configuration and status monitoring of the machine from a suitably equipped lighting console or control system.

The following can be configured using RDM:

Set/read DMX start address

Set/read RDM device label

Reset device

Reset options to factory defaults

The following parameters can be read using RDM:

Device status (ready, heating)

DMX "slot" functions (channel functions)

Device software version

Device model/manufacture

Service Data

Haze fluid types

The Jem Hazer Pro™ must only be used with C-Plus Haze Fluid™. Martin supplies high quality haze fluids that are based on ultra-pure deionized water. No other fluid is suitable for use.

To find your local dealer visit www.martin.com



DANGER! The Jem Hazer Pro™ can run safely only on the specific haze fluid it is designed for. Use **ONLY** the Martin haze fluid designated in this manual. **NEVER** use any other type of fluid, or toxic gas may be produced. You will probably also cause damage to the system that will invalidate the product warranty. Do not dilute haze fluid with water or any other liquid. Discard haze fluid if it becomes contaminated.

Basic service



Before servicing the Jem Hazer Pro™, read and observe all the precautions listed in “Safety information” on page 5. Any service not described in this section must be carried out by a Martin service technician.

To find your local Martin service centre visit www.martin.com

Cleaning

Excessive dust, haze fluid, and dirt build-up will degrade performance and cause overheating and damage to the machine that is not covered by the product warranty. To maintain adequate cooling, dust must be cleaned from the outer casing and air vents of the machine periodically.



Isolate the machine from power and allow to cool completely before cleaning. The haze output nozzle remains hot for a period after use.

- Remove dust from the air vents with a soft brush, cotton swab, vacuum, or compressed air.
- Clean haze fluid residues from the haze output of the machine using a damp cloth.
- Clean the outer casing with a damp cloth only.

Fuse replacement

The two fuses for the haze machine are located on the electronics board inside the unit.



DANGER! Disconnect the power supply before removing any covers. Live parts inside!

To replace a fuse, disconnect the power cord from the supply, unscrew the screws holding the top cover of the unit and remove the cover. The electronics board is located in the compartment under the display.

Remove the spent fuse and replace with one of exactly the same size and rating. The fuse type is indicated below. Contact Martin Service if the fuse blows repeatedly.

F1

120V = 10AT
230V = 6.3AT

F2

120V = 3.15AT
230V = 3.15AT

Troubleshooting

Problem	Probable cause(s)	Suggested remedy
<i>Machine will not produce haze when control panel set to RUN or remote control Haze switch turned on</i>	<i>Machine not at operating temperature</i>	<i>Wait until HEAT message no longer shown</i>
	<i>HAZE set to 0</i>	<i>Increase setting</i>
	<i>TRUN set to 0</i>	<i>Increase setting</i>
	<i>DMX signal present</i>	<i>Disconnect or turn off DMX controller</i>
<i>Machine can be fired from control panel or remote control, but not by DMX controller</i>	<i>DMX address setting incorrect</i>	<i>Change DMX address (page 15)</i>
	<i>Poor connection in DMX line</i>	<i>Check DMX cables and connections</i>
	<i>LINK menu is set to SEND</i>	<i>Set LINK menu to RECV</i>
<i>Haze output is weak</i>	<i>Machine requires priming</i>	<i>Prime machine (page 15)</i>
<i>Wet, greasy, non-uniform haze output, fluid drips or spits from nozzle, or very loud noise when firing machine</i>	<i>Incompatible haze fluid</i>	<i>Use approved fluid!</i>
<i>Machine appears dead</i>	<i>Mains fuse blown</i>	<i>Replace fuse (page 22)</i>
	<i>No power at AC cable inlet</i>	<i>Check power cable and circuit breaker</i>
<i>Machine causes DMX errors to occur on other units when connected to a DMX system</i>	<i>LINK menu is set to SEND</i>	<i>Set LINK menu to RECV</i>

Status messages

message	reason
OFF	The heaters are Off, the unit is shut down.
HEAT	The unit is heating up to operating temperature.
RDY	The heater is at operating temperature, but Haze is not turned on (RUN set to STBY or HAZE set to 0%).
DMX	The heater is at operating temperature and the unit is under DMX control.
CONT	The machine is in run mode and is producing haze.
SLNT	The machine is in quiet run mode and is producing haze.
RN 13	The machine is in Timer mode and is in a RUN period (the number counts down to show the run time)
OF 15	The machine is in Timer mode and is in an OFF period (the number counts down to show the off time)
CAL ERR	The machine has detected an error with its calibration settings and will not operate. Call Martin Service.
TEMP ERR	The machine has detected an error in the temperature sensor and will not operate. Call Martin Service.
WAIT 44	The machine is running a cleaning cycle which lasts 90 seconds (number may be 90 to 0)
BATT	(on start-up) The internal battery is low and the last shutdown did not complete. If this message displays on every start-up, call Martin Service to obtain a replacement battery.

Resetting the machine after fluid out

If the machine runs out of fluid simply refill the fluid container and follow the priming instructions on page 15.

Specifications

Physical

Length	565mm
Width	269mm
Height.....	298mm
Dry weight	15Kg

Performance

Operating time.....	continuous
Warm up time (approx).....	6 minutes
Maximum operating time at minimum output with 2.5L fluid.....	52 hours
Operating time at maximum output with 2.5L fluid.....	10.5 hours

Control and programming

Control options	onboard control panel, DMX, optional digital remote control
.....	instant or timer-controlled output, 0-100% adjustable output level
.....	adjustable Fan Speed Level
DMX channels	3
DMX compliance	USITT DMX512-A
RDM compliance.....	ANSI/ESTA E1.20

Construction

Housing	Steel & aluminium
Heat exchanger	600W, direct thermal protection

Fluid system

Fluid pump	Oscillating piston, high pressure
Onboard fluid capacity.....	2.5 L
Compatible fluids	Jem C-Plus Haze Fluid™ only

Installation

Orientation.....	Floor or flying kit
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Connections

Power connection	Neutrik PowerCon
DMX data.....	3-pin and 5-pin XLR sockets
Remote control.....	3-pin locking XLR

Electrical

AC power (EU models).....	220-240V nominal, 50Hz
AC power (US models).....	110-120V nominal, 60Hz
Main fuse (220-240V power)	6.3AT
Main fuse (110-120V power)	10AT

Typical Power and Current

US model.....	600W, 5.2A
EU model.....	600W, 2.6A
Measurements made at nominal voltage. Allow for a deviation of +/-10%	

Thermal

Maximum ambient temperature (Ta max).....	40°C (104°F)
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Exterior surface temperature, steady state, at 20°C ambient..... 30°C (86°F)
Max nozzle temperature 290°C (554°F)

Approvals



EU EMC: EN 61000-6-3:2001
EU safety: EN 60 335-1:2002
Immunity: EN 61000-6-1:2001
..... EN 50 366 : 2003 Electromagnetic fields
US safety (pending) UL998
Canadian safety (pending) CSA C22.2 No 104-01

Included items:

Power cable, 1.5m (4.9ft.), without mains plug
Fluid container, 2.5l

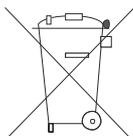
Accessories

Multifunction Digital Remote Control, JEM Hazer Pro™ P/N 92765041
Flying kit, JEM Hazer Pro™ P/N 92610002

Ordering information

JEM Hazer Pro™ US model 120V P/N 92225945
JEM Hazer Pro™ EU model 230V P/N 92225940

Specifications subject to change without notice. For the latest product specifications, see www.martin.com



Disposing of this product

Martin™ products are supplied in compliance with Directive 2002/96/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), as amended by Directive 2003/108/EC, where applicable.

Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of Martin products.



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