FOGTEC

PROFESSIONAL FOG MACHINES

SHZ-80

Order code: FOG07

VP-1500

Order code: FOG21

VP-2500

Order code: FOG22

WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

CAUTION!

**Keep this equipment away from rain,
moisture and liquids.**

SAFETY INSTRUCTIONS

Every person involved with the installation, operation & maintenance of this
equipment should:
- Be competent
- Follow the instructions of this manual

**CAUTION! TAKE CARE USING THIS EQUIPMENT!
HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!!**

Before your initial start-up, please make sure that there is no damage caused
during transportation. Should there be any, consult your dealer and do not use
the equipment.

To maintain the equipment in good working condition and to ensure safe operation, it is necessary
for the user to follow the safety instructions and warning notes written in this manual.

Please note that damages caused by user modifications to this equipment are not
subject to warranty.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.

• Never let the power-cable come into contact with other cables. Handle the power-cable and all mains voltage connections with particular caution!
• Never remove warning or informative labels from the equipment.
• Do not open the equipment and do not modify the equipment.
• Only use the equipment indoors.
• Do not expose to flammable sources or gases.
• Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
• Make sure that the available voltage is between 220v/240v.
• Make sure that the power-cable is never crimped or damaged. Check the equipment and the power-cable periodically.
• If the equipment is dropped or damaged, disconnect the mains power supply immediately. Have a qualified engineer inspect the equipment before operating again.
• If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
• If your product fails to function correctly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Prolight dealer for service.
• Only use fuses of same type and rating.
• Repairs, servicing and power connection must only be carried out by a qualified technician. THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.
• WARRANTY: One year from date of purchase.

OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void.

Incorrect operation may lead to danger e.g. short-circuit, burns, electric shocks etc.

Do not endanger your own safety and the safety of others!
Incorrect installation or use can cause serious damage to people and property.

Before filling the unit disconnect the mains. Never fill with hot liquids.

Only use high quality, water based smoke fluid recommended by the manufacturer. Other smoke fluids may cause clogging and void the warranty.

Always make sure there is sufficient smoke fluid in the tank. Operating this smoke machine without smoke fluid will cause damage to the pump as well as over heating of the heater.

Operate the unit only after you have familiarized yourself with its functions, Do not permit operation by persons not qualified for operating the unit and always drain the tank and use the original packaging if the unit is to be transported.
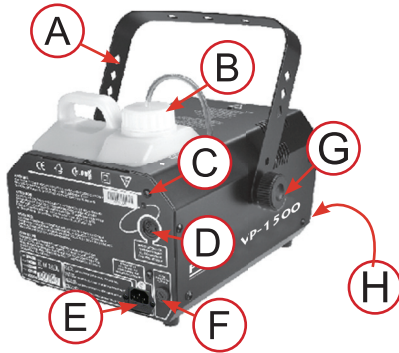
Fog machines:

SHZ-80
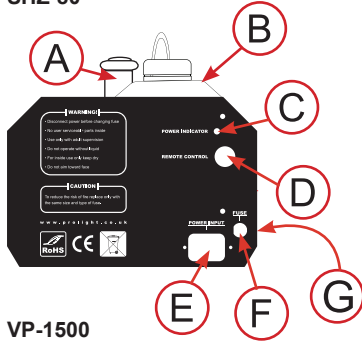
TC-4 Controller

Identification:

A, Handle
B, Fog fluid container
C, Indicator lamp
D, Remote socket
E, IEC power socket
F, Fuse
G, Low fluid indicator (front)

VP-1500

TC-1 Controller

Identification:

A, Bracket
B, Fog fluid container
C, Indicator lamp
D, Remote socket
E, IEC power socket
F, Fuse
G, Bracket knob
H, Low fluid indicator (front)

VP-2500

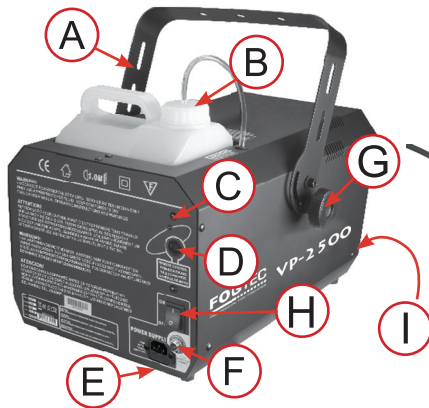DMX-2 Controller

Identification:

A, Bracket
B, Fog fluid container
C, Indicator lamp
D, Remote socket
E, IEC power socket
F, Fuse
G, Bracket knob
H, Power switch
I, Low fluid indicator (front)

STARTING OPERATION

The fluid tank of the unit needs to be filled with smoke/haze fluid before switching on.
Always disconnect it from the mains supply as fluid could be spilled.

Only use quality smoke/haze fluids recommended by your dealer. We recommend high quality
smoke/haze fluids. You must not use substances which are classified as
"DANGEROUS WORKING MATERIALS" or **"FLAMMABLE FLUIDS".**

If fluid should get inside the main housing, disconnect the unit from the mains immediately and
consult a technician.

INSTALLATION

Install the unit in a well-ventilated area. Use in an insufficiently ventilated room can lead to the
condensation of the smoke fluid. The resulting slippery surface can cause accidents. Keep a
minimum distance of 20cm around the unit.

Furthermore do not orientate the output nozzle directly in the direction of the audience's eyes. In
order to create the best effect, there should be a distance between the unit and the audience of at
least 1.5M.

Only install the smoke machine on fire resistant, scratch resistant and water resistant surfaces.

DANGER OF FIRE!
**When installing the unit, make sure there is no highly flammable
material (decoration articles etc) within a minimum distance of 0.5M**

Please make sure that the installation angle does not exceed 15˚.

This unit is constructed for a free standing or hanging installation. If the unit is to be installed
overhead, please follow the safety instructions below:

RIGGING INSTALLATION

The installation has to be built and constructed in a way that it can hold 10 times the weight of the
unit(s) to be installed for 1 hour without any deformation.

The unit must always be secured with a secondary safety attachment, e.g. an appropriate catch
net or safety wire. The secondary safety attachment must be constructed in a way that no part of
the installed unit can fall down if the main attachment fails.

When rigging, derigging or servicing, do not allow personnel to be directly underneath the unit.

The operator must always make sure that the safety-relating and machine-technical installations are approved by an expert before operation for the first time and after any further changes are made.

The operator has to make sure that the safety-relating and machine-technical installations are approved by an expert after every four years in the form of an acceptance test.

The operator has to make sure that the safety-relating and machine-technical installations are approved by a qualified person once a year.

PROCEDURE:

When hanging, the unit must not be installed in areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation materials being used, and periodic safety inspection of all installation materials and the unit. If you are not qualified, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The unit has to be installed out of the reach of people.

CAUTION: Units in overhead installations may cause severe injuries when falling! If you have doubts concerning the safety of a possible installation, do not install the unit.

Mount the unit with the bracket to your hanging system using an appropriate clamp or bolt.

For overhead use, always install a safety wire which can hold at least 12 times the weight of the unit. You must only use safety wires with link screw caps.

The maximum drop distance must never exceed 20cm.

A safety wire which has already held the strain of a fallen item or which is defective must not be used again.

Adjust the desired installation angle via the mounting bracket and tighten the screws.

⚠ **DANGER TO LIFE!**
**Before operation for the first time, the
installation has to be approved by an expert!** ⚠

TC-1/TC-4 Controller

The TC-1 is suitable for the VP-1500 and the TC-4 is suitable for the SHZ-80 The operation is as follows:

1, When the **"MANUAL FOGGING"** Green LED is OFF, this means that the fog/haze machine is heating up. When the Green LED illuminates, the fog/haze machine has heated up and is ready for use.
2, When the **"TIMERS"** and **"CONTINUOUS"** buttons are pressed OFF; the fogging duration can be adjusted by turning the **"DURATION"** knob.
The **"INTERVAL"** knob will adjust the amount of time in between every fog output.
3, When the **"CONTINUOUS"** button is pressed ON, the Red LED will light illuminate, the machine will now emit fog continuously until the Green LED goes OFF (indicating the fogger/hazer is heating up again) , The **"TIMERS"** and **"MANUAL"** buttons are ineffective in this mode.
4, When the **"TIMERS"** button is pressed ON and the **"CONTINUOUS"** button is pressed OFF, the machine can be controlled manually by pressing the **"MANUAL"** button.

Note: Before removing or replacing the remote control unit, disconnect the power cable.

TC-1 - TC-4 Controller

	Function	Instruction
A	Timers On/Off	Press this button and the timer of the interval output will stop and the red LED will illuminate.
B	Continuous Fogging	Press this button and the fog machine will emit fog continuously and the red LED will illuminate.
C	Manual Fogging	Press this button and it allows the operation to be controlled manually.
D	Duration	0.5s ~ 10s +/- 1s
E	Interval	9s ~ 280s +/- 20s

DMX-2 controller appendix

The DMX-2 is suitable for the VP-2500, the operations are as follows:

1, When the **"MANUAL FOGGING"** Green LED is OFF, this means that the fog/haze machine is heating up. When the Green LED illuminates, the fog/haze machine has heated up and is ready for use.

2, When the **"POWER ON/OFF"** button is pressed (no LED illuminated) the machine will emit fog continuously until the Green **"MANUAL FOGGING"** LED goes off, indicating the machine is heating up again..

3, When the **"DMX/MANUAL"** button is pressed ON the green LED will light up, now you can control fogging manually. The **"DURATION"** control knob is used to adjust the length time the fog is emitted while the **"INTERVAL"** control knob is used to decide the mean time between outputting the fog.

Note: The functions of the Duration and Interval only work under the Manual Timer mode.

6, When the **"DMX/MANUAL"** button is pressed OFF, the timer function is now controlled via the DMX output. The DMX-2 has two channels:

Channel 1: To adjust the duration
Channel 2: To adjust the Interval

For setting the DMX address please refer to the DMX chart overleaf.

7, The LED above the **"DMX/MANUAL"** button has a dual colour LED (red and green). When it is illuminated Green this indicates the operation mode of the button. When it is Red this indicated the status of fogging

NOTE: Manual Fogging mode overrides DMX Mode.

	Function	Instruction
1	Power On/Off	Press this to turn the power On
2	DMX/Manual	A, Press this button and the green LED will illuminate indicating the mode has been switched to Manual Timer. B, Release the button to set it to DMX Mode C, The LED will illuminate Red indicating the status of fogging output.
3	Manual Fogging	Press this button to manually manage the fog output.
4	Duration	0.5s ~ 13s +/- 10%
5	Interval	9s ~ 275s +/- 10%
6	DMX Dip switches	Set appropriate dip switches for DMX address.

DMX Charts

CH 1: Duration (time deviation: 10%)

DMX value	Action time	DMX value	Action time	DMX value	Action time
0-15	Force fog constant off	100	4.2s	180	8.6s
16-31	Force fog constant On	105	4.4s	185	8.8s
32	0.5s	110	4.8s	190	9.0s
35	0.7s	115	5.0s	195	9.5s
40	1.0s	120	5.2s	200	9.8s
45	1.5s	125	5.5s	205	10.0s
50	1.6s	130	5.7s	210	10.2s
55	1.8s	135	6.0s	215	10.5s
60	2.0s	140	6.2s	220	10.8s
65	2.3s	145	6.5s	225	11.0s
70	2.5s	150	7.0s	230	11.3s
75	2.8s	155	7.2s	235	11.5s
80	3.0s	160	7.6s	240	11.8s
85	3.3s	165	7.8s	245	12.0s
90	3.7s	170	8.0s	250	12.5s
95	4.0s	175	8.4s	255	12.7s

CH 2: Interval (Time deviation: 10%)

DMX value	Action time	DMX value	Action time
0-15	9s	128-143	110-114s
16-31	10s	144-159	130-133s
31-47	20-23s	160-175	150-154s
48-63	33-36s	176-191	170-176s
64-79	46-49s	192-207	193-200s
80-95	60-63s	208-223	213-220s
96-111	75-78s	224-239	233-248s
112-127	92-96s	240-255	268-278s

DMX-512:

• DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions form the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a data "out" terminal).

DATA Cable (DMX cable) requirements (for DMX operation):

• The Fogtec VP-2500 can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit and your DMX controller require a standard 3-pin XLR connector for data input/output (figure 1).

Figure 1

Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight dealers.
Please quote:
       CABL10 – 2M
       CABL11 – 5M
       CABL12 – 10M

Also remember that DMX cable must be daisy chained and cannot be split.

Notice:

• Be sure to follow figures 2 & 3 when making your own cables. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behaviour.
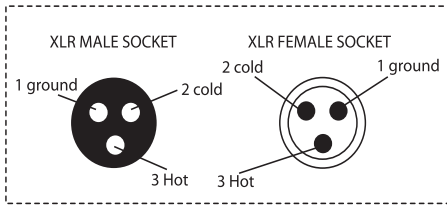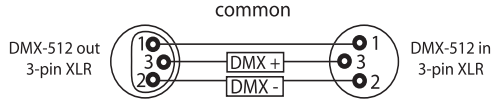
common

DMX-512 out
3-pin XLR

DMX +
DMX -

DMX-512 in
3-pin XLR

XLR MALE SOCKET

XLR FEMALE SOCKET

1 ground
2 cold
3 Hot

2 cold
3 Hot
1 ground

FIGURE 3

XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Negative
Pin 3 = Postive

FIGURE 2

Special Note: Line termination:

• When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.
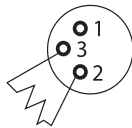
Termination reduces signal transmission problems and interferance. it is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4 W) between pin 2 (DMX-) and pin 3 (DMX+) of the last fixture.

Using a cable terminator (part number CABL90) will decrease the possibilities of erratic behaviour.

5-Pin XLR DMX Connectors:

• Some manufactures use 5-Pin XLR connectors for data transmission in place of 3-pin. 5-Pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-Pin XLR connectors in to a 3-pin line a cable adaptor must be used. The Chart below details the correct cable conversion.

5-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

3-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: N/C
Pin 3: N/C

3-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: N/C
Pin 3: N/C

5-Pin canon (socket)
Pin 1: GND (screen)
Pin 2: signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C
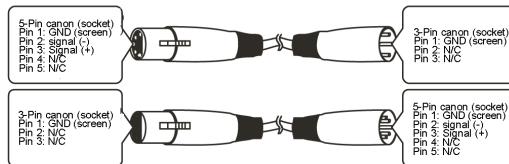
DMX Dip Switch Quick Reference Chart

Dip Switch Position

DMX DIP SWITCH SET 0=OFF 1=ON					#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																	
0	0	0	0	0			32	64	96	128	160	192	224	256	288	320	352	384	416	448	480
1	0	0	0	0		1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481
0	1	0	0	0		2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482
1	1	0	0	0		3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483
0	0	1	0	0		4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484
1	0	1	0	0		5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485
0	1	1	0	0		6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486
1	1	1	0	0		7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487
0	0	0	1	0		8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488
1	0	0	1	0		9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489
0	1	0	1	0		10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490
1	1	0	1	0		11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491
0	0	1	1	0		12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492
1	0	1	1	0		13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493
0	1	1	1	0		14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494
1	1	1	1	0		15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495
0	0	0	0	1		16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496
1	0	0	0	1		17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497
0	1	0	0	1		18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498
1	1	0	0	1		19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499
0	0	1	0	1		20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500
1	0	1	0	1		21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501
0	1	1	0	1		22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502
1	1	1	0	1		23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503
0	0	0	1	1		24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504
1	0	0	1	1		25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505
0	1	0	1	1		26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506
1	1	0	1	1		27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507
0	0	1	1	1		28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508
1	0	1	1	1		29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509
0	1	1	1	1		30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510
1	1	1	1	1		31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511

TECHNICAL SPECIFICATIONS

SHZ-80

Smoke output	1.500 cu.ft per minute
Warm up time	approx. 4 min
Tank capacity	2 L
Power consumption	800W
Power supply	240V
Dimensions	526 x 207 x 173mm
Weight	7.6Kgs

VP-1500

Smoke output	14,000 cu.ft per minute
Warm up time	approx. 8 min
Tank capacity	2.5 L
Power consumption	1500W
Power supply	240V
Dimensions	300 x 220 x 160mm
Weight	6.1Kgs

VP-2500

Smoke output	21,000 cu.ft per minute
Warm up time	approx. 8 min
Tank capacity	5 L
Power consumption	2500W
Power supply	240V
Dimensions	435 x 280 x 290mm
Weight	10.5Kgs

USER MANUAL

FOGTEC

PROFESSIONAL FOG MACHINES

www.prolight.co.uk