FT-20X Fire Training
Fog Machine User Manual

English

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FIRE TRAINING FT-20 FOG MACHINE

User Manual - English

Safety Information

Please read the following safety information carefully before operating the machine. This information includes important safeguards about installation, usage, and maintenance. Pay attention to all warning labels and instructions in this manual and printed on the machine.

If you have questions about how to operate the machine safely, please contact your local Antari dealer for help.

- Keep this device dry.
- Always connect to a grounded circuit to avoid risk of electrocution.
- Do not operate if power cord is damaged. If power cord is damaged, replace it immediately with a new one of same power rating.
- Remove the machine from battery or power adaptor before servicing and when not in use.
- This product is for indoor use only! Do not expose to rain or moisture. If fluid is spilled, remove machine from battery or power adaptor and clean with a damp cloth. If fluid is spilled onto electronic parts, immediately unplug the machine and contact your local Antari dealer for advice.
- No user serviceable and modifiable parts inside. Never try to repair this product, an unauthorized technician may cause damage or malfunction to the machine.
- For adult use only. Never leave the machine running unattended.
- For persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, supervision or instruction must be given concerning use of applicance in a safe way and understand the hazards involved.
- Install the machine in a well-ventilated area. Provide at least 50 cm space around the machine.

- Never add flammable liquid of any kind to the machine.
- Make sure there are no flammable materials close to the machine while operating.
- Only use Antari fluid. Other fluid may lead to heater clog and malfunction.
- If the machine fails to work, unplug the machine and stop operation immediately. Contact your local Antari dealer for advise.
- Before transporting the machine, make sure the fluid tank is completely drained.
- Fog fluid may present health risks if swallowed. Do not drink fog fluid. Store it securely. In case of eye contact or if fluid is swallowed, immediately look for medical advice.
- Do not charge battery while using, even if battery is low. Remove head unit or make sure head unit's power switch is off before charging.

Unpacking and Inspection

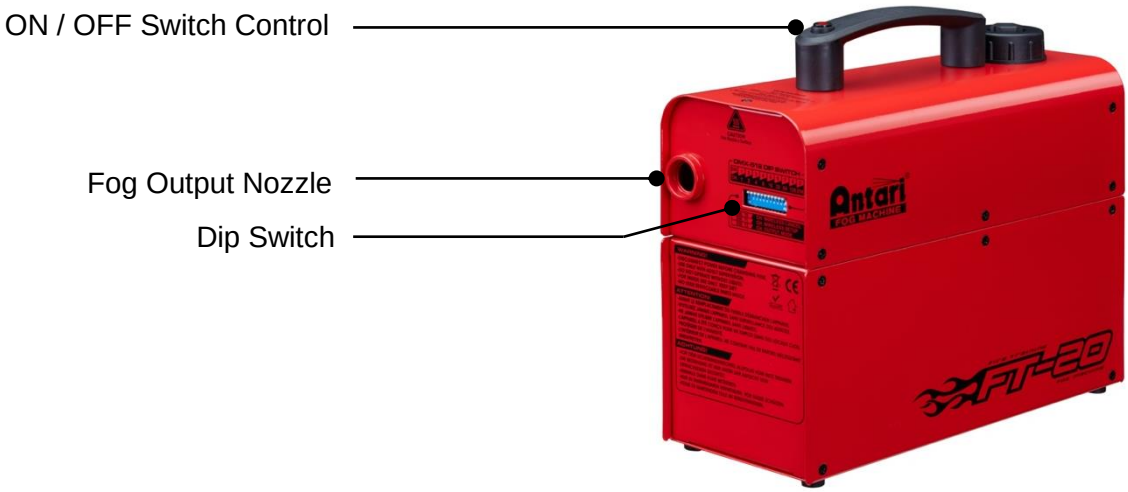
Immediately upon receiving the machine, carefully unpack the carton, check the content to ensure that all parts are present and have been received in good condition. If any parts appear damaged or mishandled from shipping, notify the shipper immediately and retain the packing material for inspection.

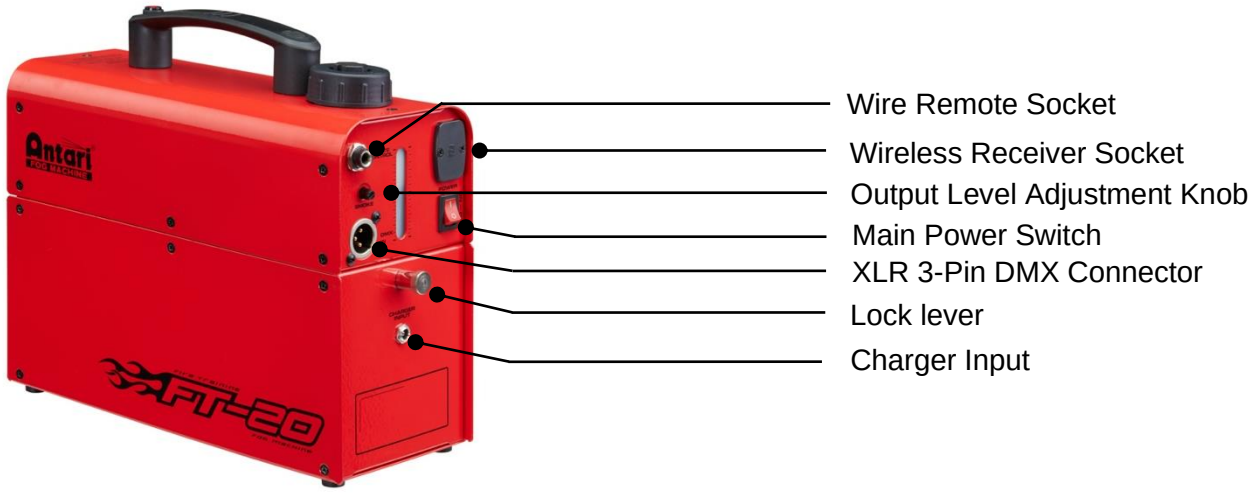
What is included:

1 x FT-20X Fog Machine
1 x Battery base
1 x Battery charger
1 x FLM-05P water-based liquid
1 x User Manual
1 x Flightcase

Product Dimensions

Product Overview





FT-20S Power Base (Optional)

Setting Up

DO NOT CHARGE THE BATTERY WHILE MAKING FOG OR SWITCH IS ON

Step 1: Place the machine on a flat surface and in a suitably large area with at least 50 cm of open space around the machine.

Step 2: Fill the fluid tank with Antari FLM-05W fluid.

Step 3: Please fully charge the battery upon receipt of the machine and before and after each operation. The head unit should be seperated while charging.Charge the battery by plugging the charger adaptor into a grounded electrical outlet. Yellow light on the adaptor indicates charging, when it turns green then the charge complete. Please note the battery requires 3 hours charge time. A fully charged battery can run the machine for roughly 12 minutes.

Plug in the charger

Red indicates charging

Green indicates charging complete

> Always connect the machine to a protected circuit and ensure it is properly grounded to avoid risk of electrocution.

Step 4: Connect the battery base or power base to the machine. Turn on the machine to start operation.

Pull to release locking lever

Align and insert head unit to base

Step 5: To start making fog, locate the rotary knob on the back for output level adjustment, and press the button to start making fog, release to stop.

Step 6: To turn off the machine, disconnect the machine (head-unit) from the battery base or power base.

Operation

Control Panel Operation

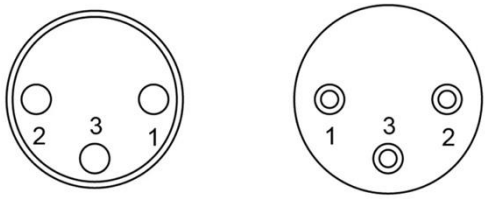
The machine can be operated with the On/Off button and output level control knob located on the rear. When using On/Off Mode press and hold the button to make fog, release to stop. In Continuous Mode, press button once to produce fog, press again to stop.

Dip Switch 12	Function
OFF	On/Off Mode
ON	Continuous Mode

Rotary Knob	Function
SMOKE	Turn fog on/off, adjust output volume from 0~100%

DMX Connector Pin Assignment

The machine provides 3-pin XLR connectors for DMX connection. The diagram below indicates pin assignment information.



3 Pin XLR

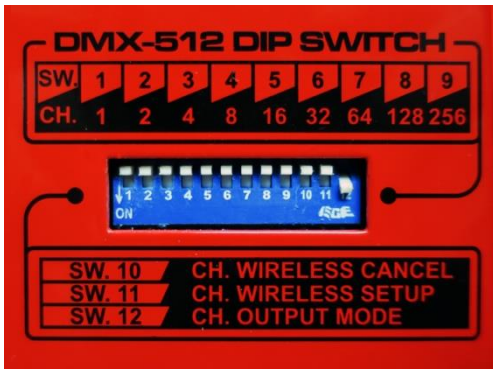
Pin	Function
1	Ground
2	Data-
3	Data+

DMX Operation

Making the DMX Connection – Connect machine to a DMX controller or to one of the machines in the DMX chain. The machine uses a 3-pin XLR connector for DMX connection, the connector is located on the rear of the machine.

Address Setup – Use the DIP switch located on the rear of the machine to set the DMX address. The machine occupies 1 control channels. The starting address is defined as the

first channel from which the machine will respond to the controller. Always double check to make sure there are no overlapping channles in order to control the machine correctly.



DMX Channel Function

Channel 1	DMX Value Range	Function
Fog	0 – 4	Fog Off
	5 – 255	Output 1-100%

Z-3 Remote Control Operation (Optional)

To operate the machine by remote control, connect the remote to the microphone jack located on the rear of machine. Use the switch to turn fog on/off, and use the rotary knob to adjust the output volume from 0~100%.

WTR-20 Wireless Operation (Optional)

Wireless remote control system WTR-20 consists of a transmitter equipped with four buttons to activate, deactivate, increase and decrease fog output and an onboard receiver attached to the rear panel of FT-20X fog machine.

W-2 Wireless Transmitter

Press [A] button to emit fog.

Press [B] button to stop.

Press [C] button to increase output volume.

Press [D] button to decrease output volume.

In a an unobstructed open space the effective distance is 50 meters, usage depending on obstacle level has an effective distance is 10-25 meters.

Registering a transmitter

Transmitters can be paired or deleted from the receiver. Each receiver can pair up to 5 transmitters. Follow the steps below to pair or delete a transmitter from a receiver.

To Pair

Step 1: Put Dip switch 11 to ON position

Step 2: LED indicator will start blinking, press and hold [A] to pair

Step 3: Once pairing complete LED indicator will be constant on for 3 seconds

Step 4: Put Dip switch 11 back to OFF position to start operation.

To Delete

Step 1: Put the dip switch 10 to ON position

Step 2: LED indicator will start blinking, press and hold [A] to delete

Step 3: The deleting process will take approximately 10 seconds

Step 4: Once deleted, the LED indicator will be on for 3 seconds

Step 5: Put the dip switch 10 back to the OFF position to start operation

Transmitter battery replacement

If the effective distance seems to decrease, it is possible the battery level is low and requires replacement. In order to replace the battery, undo the three screws on the back of transmitter to release the cover. Replace with the same type and specification of battery which is 27A 12V

Fluid

Only use Antari FLM-05P water-based liquid for the FT-20X Fire Training Fog Machine. The machine is tested and calibrated with this liquid to get the best output performance. Warranty will be voided if any other type of liquid is used. Improper use of liquid may lead to machine failure or malfunction.

Service and Maintenance

- Do not allow the machine to become contaminated.
- Remove dust from air vents with air compressor, vacuum or a soft brush.
- Only use a damp cloth to clean the casing.
- Before storing run distilled water through the system to help avoid condensing the pump or heater.
- It is recommended to run the machine on a monthly basis in order to achieve best performance and output condition.
- Excessive dust, liquid and dirt built up will degrade performance and cause overheating.

LED Status Indicator

Status	**LED Indicator**
Standby/Ready	Constant on

Producing fog	Slow flash
Producing fog via DMX	Alternate quick and slow flash
Low battery	Quick flash
Machine error	Fast flash

Maintenance of Rechargeable lead-acid Battery

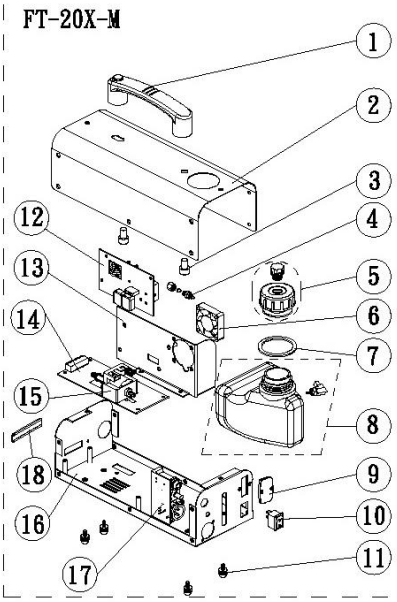
To give the rechargeable battery long lifespan and best performance, please follow below instructions:

- Please fully charge the battery upon receipt of the machine and before and after each operation.
- Battery will self-discharge bit by bit if not in use. To avoid over discharging problem, every 2-4 weeks, check and ensure the battery has sufficient power to work. At least charge the battery to full every 2-3 months.
- Before storage, please have the battery fully charged.
- Please store the fully charged battery and the machine in cool and dry area, avoid directly sunlight.
- Please charge the battery within 1 hours if the battery is going to run out of power.
- Battery capacity changes as temperature differs. Life and capacity of battery is rated at 25°C, ambient temperature and humid change will significantly affect battery life.
- If you have any question on maintenance and usage, please contact your local dealer for advice.

Technical Specifications

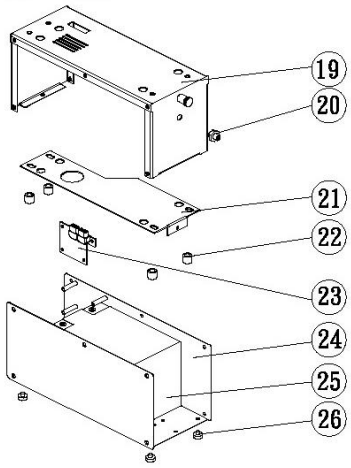
- Input voltage	DC 12V (Battery)
	AC 100-240V, 50-60Hz (Battery charger)
- Rated power	600W
- Warm-up time	1 second (approx.)
- Fluid consumption	16 ml/min
- Fluid tank capacity	0.4 Liter (0.11gallon)
- Compatible fluid	Antari FLM-05P Fog Fluid
- Ambient temp. range	0 °C - 40 °C (32 °F-104 °F)
- Control	DMX512, Manual,
	Wireless (Optional)
	Cable Remote (Optional)
- DMX channels	1 channel
- Connection	XLR 3-pin (DMX)
- Optional accessories	WTR-20 Wireless Remote
	Z-3 Cable Remote
	FT-20XS Power Base
- Dimension	L293 W108 H238 mm
	(L11.54 W4.25 H9.37 inch)
- Weight	8.5 kg (18.74 lbs)

FT-20X-M

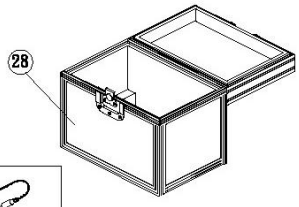


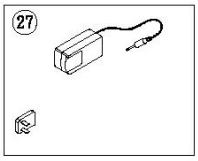
① Handle & Button
② Steel Case/Cover
③ M8 Screw
④ Cu connector
⑤ Tank's Cap
⑥ Fan
⑦ EVA
⑧ Tank
⑨ Antenna Cover
⑩ Rocker Switch/Power
⑪ Fixture Case
⑫ PCB+Heater
⑬ Steel Case/Cove
⑭ Main PCB
⑮ Pump(12V)
⑯ Steel Case/Cove
⑰ I/O PCB
⑱ Switch Cover

FT-20X-B



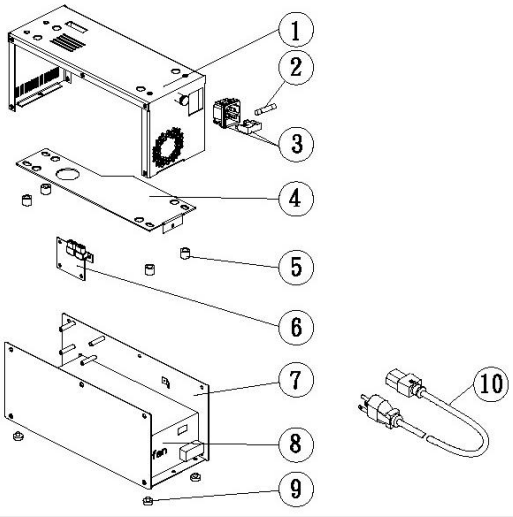
⑲ Steel Case/Cover
⑳ DC-IN
㉑ Steel Case/Cove
㉒ Fixture Case
㉓ CHARGE P.C Board
㉔ Steel Case/Cove
㉕ Battery(12V)
㉖ Foot
㉗ Charger
㉘ Flight Case





FT-20XS

① Steel Case/Cover
② Fuse
③ Power socket (Inlet)
④ Steel Case
⑤ Fixture Case
⑥ CHARGE P.C Board
⑦ Steel Case
⑧ Power swith supplier
⑨ Foot
⑩ Power Cord & Plug



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For information requests please contact us at:sales@antari.com

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