

USER MANUAL



CO2SMOKE

V1.0 2025



PURE
EFFECTS
MANUFACTURING SPECIAL EFFECTS



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1. INTRODUCTION.

Welcome to the Pure Effects family and thank you for purchasing the CO2SMOKE. Our CO2SMOKE machine is the start of a Co2 bottle free era with keeping the sound and effect alive.

Please read this manual carefully before using the CO2SMOKE machine. If you encounter any problems, please contact Pure Effects for advice and assistance.

2. SAFETY INFORMATION.



CAUTION!

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.



DANGER! Electrical shock

Always connect the machine to correct voltage. It will lead to electrical shock or burned and may cause serious consequences if connecting to incorrect or improper voltage.



WARNING! Risk of electrocution

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

Damage caused by the disregard of this user manual are not subject to warranty. Pure effects and its dealers will not accept liability for any resulting defects or problems.

3. TECHNICAL SPECIFICATIONS.

- POWER SUPPLY:** EU AC 220 – 240V 6.67A / US AC 100 – 120V 13.3A
- POWER PER UNIT:** 1500W
- WARMING UP TIME:** Approx 13 – 15 MIN
- FLUID CONSUMPTION:** 400 ML/MIN – 5L = 12.5 MIN
- FLUID TANK CAPACITY:** 2.5L Tank
- AMBIENT TEMP/RANGE:** 5°C – 40°C (41°F – 104°F)
- CONTROL:** DMX 512 – 1CH – Remote or Wireless (optional).
- OUTPUT:** 10/12M (output can vary based off multiple conditions).
- CONNECTIONS:** PowerCON® TRUE1 (Power) – 5-pin (DMX) – Air
- MEASUREMENTS LxBxH:** 285x320x325MM
- WEIGHT:** 20KG
- LIQUID:** Pure Effects – CO2SMOKE fluid indoor / outdoor.



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4. SAFETY.

- You are working with heated machines! – **CAUTION**, danger of burns.
- When smoke exits the heat exchanger nozzle it is hot – **CAUTION**, danger of burns. Whilst producing smoke, it is possible for occasional droplets of hot fluid escape from the heat exchanger. It is important that no persons or heat sensitive material placed within a distance of 1.5mtr from the heat exchanger nozzle. Keep a minimum distance of 60cm from flammable, combustible and heat-sensitive objects.
- Never touch the heat exchanger nozzle – **CAUTION**, danger of burns.
- Use the CO2SMOKE only if no persons, animals or flammable objects are in the danger zone.
- **WARNING!** Never add flammable liquid of any kind to the machine.
- Make sure nobody who is not authorized has access to the CO2SMOKE and its BOOSTER UNIT!
- Be aware that the chassis around the heat exchanger becomes warm – **CAUTION**, danger of burns.
- Never create smoke into ignition sources (such as open fire).
- Never open the CO2SMOKE Head, contact Pure Effects in case of an error.
- Do not ingest smoke fluid and keep away from children. In case of eye contact, rinse with plenty of water. In case of accidental ingestion, consult a doctor.
- Spilled or splashed fluid can cause slipping hazards.
- Artificial smoke / fog / aerosol has potential to activate smoke detection systems.
- Make sure all participants are warned before the show.
- Always keep a clear view on the CO2SMOKE when operating



CAUTION!

Always disconnect from the mains before filling the machine. Never Add flammable liquids. If fluid gets inside the machine, please contact Pure Effects for service.

5. GENERAL INFORMATION.

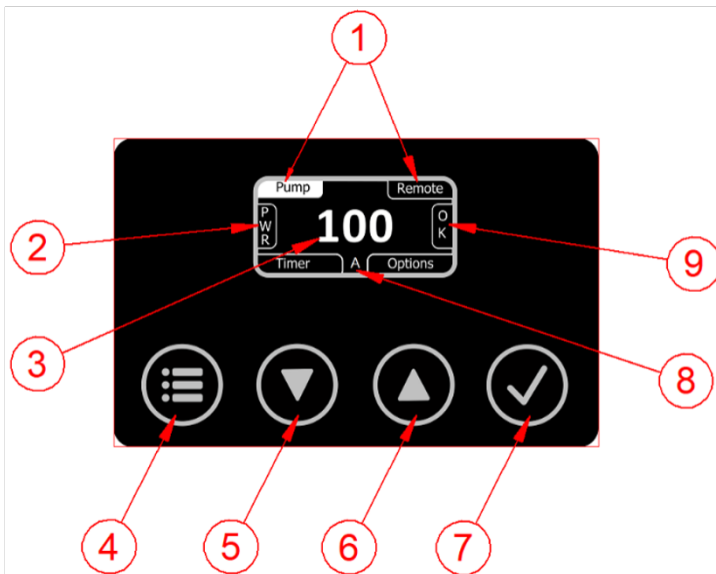
- Keep this device dry. This machine is not waterproof. Do not expose the machine to water splashes.
- Place the output unit on a flat surface, on the Pure Effects angle base or hang the CO2SMOKE with 2 certified truss clamps + safety cord.
- Make sure the CO2SMOKE is installed in a well-ventilated area.
- Provide at least 60 cm space around the machine.
- Make sure at least 150cm of space is between the CO2SMOKE and persons or heat sensitive material when operating.
- Make sure there are no flammable materials close to the machine while operating.
- **WARNING!** Never add flammable liquid of any kind to the machine.
- Before connecting CO2SMOKE to power, always check the voltage indicate on the machine matches to your local AC voltage. Do not use the machine if AC power voltage does not match.
- If the supply cord is damaged, it must be replaced by a replacement.
- Never use a damaged cord or hose. Always make sure the machine and accessories are in original condition.
- No user serviceable and modifiable parts inside. Never try to repair this product, an unauthorized technician may lead the machine to damage or malfunction.
- The CO2SMOKE can be used indoors and outdoors under the following conditions: **WARNING!** Do not expose to rain or any form of moisture!
- If fluid is spilled, disconnect AC power and clean with a damp cloth.
- Only use Pure Effects fluid. Other fluid may lead to heater clog and malfunction.
- Pay attention to all warning labels and instructions on the machine before operation.
- Do not connect more than 2 CO2SMOKE units to the same power source and always check the total combined power of all machines connected to the power source.
- Connecting 2 CO2SMOKE output units to the same power source can result in longer heat up times.

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6. INSTRUCTIONS.

- Step 1.** Place the output unit on a flat surface, on the Pure Effects angle base or hang the CO2SMOKE with 2 certified truss clamps + safety cord.
- Step 2.** Fill the fluid tank with Pure Effects approved fluid.
- Step 3.** Make sure there is NO PRESSURE HOSE connected to the CO2SMOKE head before connecting the Power to the machine. When pressure hoses are pre-installed make sure there is NO PRESSURE on the hoses coming from the BOOSTER UNIT! With powering on the machine, internal components will prime to 0 position.
- Step 4.** Connect the CO2SMOKE to the correct rated power supply. The CO2SMOKE OLED display will automatically turn on when the correct power is given to the machine. Heat up starts automatically.
Heat up takes approximately 15 minutes. Once the machine has reached operating temperature, the OLED display will show "OK".
Connect the pressure hoses to the BOOSTER UNIT.
- Step 5.** Connect the other end of the pressure hose to the CO2SMOKE
- Step 6.** output head.
Open the pressure valve of the BOOSTER UNIT.
- Step 7.** Power up the BOOSTER UNIT as described in the BOOSTER UNIT
- Step 8.** manual.
Wait for the BOOSTER UNIT to accumulate the correct
- Step 9.** pressure. The unit will turn off automatically. After accumulating the right pressure it is advised to wait 15 min before using the completed setup.
- Step 10.** Set up the CO2SMOKE output unit as stated below.
- Step 11.** Control panel of the CO2SMOKE output head.

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1. Menu Fields
2. Heating On
3. Value Field
4. Menu Key
5. Minus Key
6. Plus Key
7. Confirmation Key
8. Smoke Fluid Type

The CO2SMOKE Head is operated via the four keys (menu, minus, plus and confirmation) on the OLED display. The four control keys are located under the display.

The menu key is used to select the individual menus (counter clockwise). The corresponding value can then be changed with the help of the plus and minus keys and then saved with the confirmation key.

On the left edge of the screen, "PWR" indicates whether the heating is active.

On the right edge of the screen, "OK" indicates that the machine is ready to use.

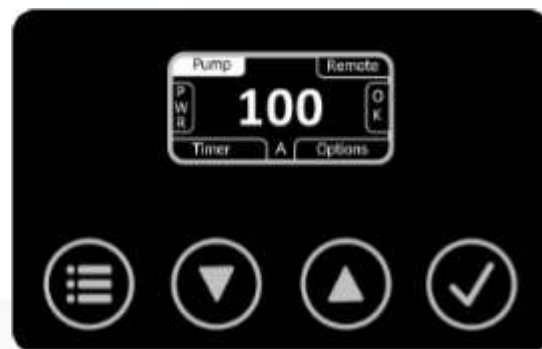
!Always use Smoke fluid type C for the best output settings!

Smoke Fluid A creates an extremely persistent smoke
Smoke Fluid B creates a quickly dispersing smoke
Smoke Fluid C creates a persistent smoke **RECOMMENDED**

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Step 12. Operation in stand-alone mode.

NOTE: If the user want to use DMX512, continue on page 10 and setup the DMX channel. If using DMX the user can skip Step 12.



The simplest method of control is the stand-alone mode. For this, the pump value is set to the desired value and the confirmation key is pressed. If the display is indicating it is ready (i.e. "OK" is displayed), smoke will be made immediately. The pump value can also be changed whilst the machine is making smoke. Pressing the confirmation key again stops the smoke.

NOTE: The stand alone mode can be used to prime the machine when the machine run out of fluid or when fluid type has been changed.

Release the pressure of the pressure line at the BOOSTER UNIT by closing the valve and open the pressure release screw.

Fill up the required fluid and output at 100% for approx. 10 sec once or twice. When primed return the pressure on the pressure lines by closing the pressure release screw and open the valve.

Step 13. The CO2SMOKE setup is now ready to use.

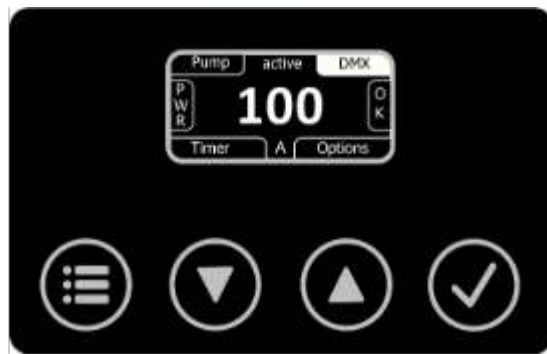


CAUTION! Risk of injury or death caused by falling objects. Make sure installation location, fastening connecting and rigging hardware can hold at least 10 times the weight of the machine. Make sure that the machine is installed securely and cannot fall down. It will cause severe injuries or death if the machine falling down. Pure Effects is never responsible for any damage or injuries because of falling objects. The owner of the device or installation crew/company is responsible for mounting the machine the correct way and securing the device.

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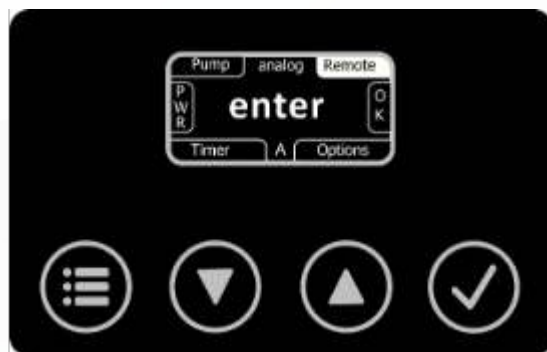
7. DMX & WIRELESS SETUP.

Operation via DMX512



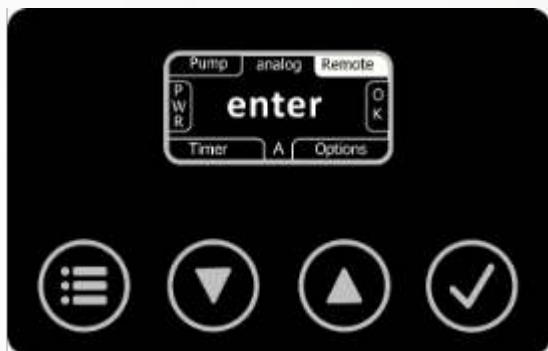
When operating via DMX512, the XLR input must first be set to DMX as shown, "DMX" appears in the upper right menu field. The DMX address can be changed with the plus and minus keys and must then be saved with the confirmation key. When a valid DMX signal is present, it will displayed at the top center with "active". The current pump value (%) can be displayed by selecting the pump menu item. If the received value is greater than zero, the CO2SMOKE unit starts creating smoke and stops it accordingly at the value zero.

Operation via wired remote control (optional)



When operating via the cable remote, the XLR input must first be set to Remote. After plugging in the cable remote control, the CO2SMOKE output unit automatically recognizes that an analog cable remote control has been plugged in. On the cable remote control there is an on switch and a potentiometer for setting the pump value / smoke output.

Operation via radio remote control (optional)



When operating via the radio remote control, the XLR input must first be set to Remote. After the radio remote control has been plugged in, the CO2SMOKE output unit automatically detects that a radio remote control has been plugged in. Up to 60 different handheld transmitters can be programmed on the machine. For this purpose, the "Remote" submenu must first be selected.



In the Remote submenu, the menu fields are replaced. The channel (key on the handheld transmitter) can be selected at the top left. At the bottom left, a new transmitter is paired and at the bottom right, the paired transmitters can be deleted again. A new transmitter is paired as follows. First select the menu item add and confirm this with the confirmation key. "Adding" now appears at the bottom left. The CO2SMOKE unit now waits for a valid radio signal. To do this, press any key on the transmitter. The pairing process is now complete and "adding" appears again at the bottom left. You can then select the key and save it. To delete the transmitters already paired, select the "del" menu item and confirm it. "Deleting" now appears at the bottom right. The deletion process is now in progress. The display changes back to "del" after a successful deleting process.

8. MAINTENANCE & SERVICE

Maintenance

Very little maintenance is required for your CO2SMOKE machine. If the below maintenance is regularly carried out, unnecessary servicing will be avoided. Remove pressure lines and main power supply before undertaking any maintenance operations.

NOTE: There are no serviceable parts inside of the CO2SMOKE output units or Pure Effects BOOSTER UNIT. Don't open the output unit or Booster unit. Limited warranty will occur when products has been opened before contacting Pure Effects for instructions.

- Frequently clean the nozzle of the Heat Exchanger
- Ensure that the machine is kept clean and dry.
- Ensure that the Internal Reservoir (External if applicable) contains only clean Pure Effects fluid.
- 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.
- Please allow machine to cool completely before storing to prevent condensation and potential malfunction.
- 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.

Servicing

We recommend that your CO2SMOKE output units and BOOSTER unit is returned to Pure Effects or an authorized distributor (details available from Pure Effects) on an annual basis for cleaning, servicing and testing to ensure that the equipment and its resulting output remains in optimum condition.

9. WARRANTY

The Pure Effects – CO2SMOKE has a factory warranty of 3 years, and 1 year on wear parts. Please inform Pure Effects as soon as possible in case of damaged good or broken products. We believe in good customer service and hope to resolve all requests as soon as possible.

No warranty is provided on consumables: Confetti, streamers, electric/handheld cannons or fluids.

The warranty expires when:

- The Pure Effects – CO2SMOKE is opened or modified.
- The user doesn't comply with the conditions safety standards.
- The CO2SMOKE unit is used incorrectly.
- Using other fluids than the Pure Effects fluids.
- The CO2SMOKE has internal indications of water damage.
- The CO2SMOKE unit has been used for use out of its designed form.

10. LIABILITY

"Unless expressly agreed otherwise, all our commitments are obligations of means. Without prejudice to mandatory legal provisions to the contrary, we shall only be liable for damage caused by the non-fulfilment of our obligations if and insofar as such damage was caused by our willful or grossly negligent fault or deceit. We are not liable for any other errors.

In the event that we are held liable for any damage, our liability shall be limited to a maximum of the invoice value of the customer's order, or at least to that part of the order to which the liability relates. We are only liable for direct damage. We are never liable for indirect damage, including but not limited to consequential damage, loss of profit, missed savings or damage to third parties. In the event of force majeure, our obligations shall be suspended and we shall not be legally released from any obligation towards the customer or otherwise liable.



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