

USER MANUAL: OPERATING & SAFETY INSTRUCTIONS



READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL CAREFULLY BEFORE USING THE XM42-M. DO NOT DISCARD THIS MANUAL.

This instruction manual should always accompany this product and be transferred with it upon sale, or when the product is loaned or presented to another person.



PROUDLY MADE IN THE USA



CHARGE BATTERY BEFORE USE

DO NOT ALLOW VOLTAGE TO DROP BELOW 10.5 VOLTS



Required Accessory:

Butane (also marketed as isobutane) canister intended for use in camping stoves.

Do not use canisters larger than 230 grams; heavier canisters may weaken or damage the threads they are attached to, and that would be bad. Always remove canister between uses to prevent inadvertent leaks or breakage.

These canisters are readily available at major department stores such as Wal-Mart, sporting/camping goods stores, and online (which unfortunately requires a hazmat fee).



The XM42-M utilizes the patented Magpul M-LOK system for its attachments. Any M-LOK based accessory such as flashlight mounts and grips are capable of mounting to the slots on the rail. Patent information available at: <https://www.magpul.com/ip>

Transportation, shipping, and/or use of the XM42-M may be regulated by federal, state, and/or local law. Verify applicable laws before using, transporting, or shipping. The Ion Productions Team, LLC and its members, managers, agents, and representatives shall not be liable for any special or consequential damages that result from the use of the products offered, even if The Ion Productions Team, LLC has been advised of the possibility of such damages. Applicable law may not allow the limitation or exclusion of liability or incidental or consequential damages. Although the contents of this manual are believed to be accurate, The Ion Productions Team, LLC does not assume responsibility as to the accuracy, correctness, completeness, reliability and up-to-dateness of information made available through the manual. The contents of the manual are provided "as is" and without any expressed or implied warranties of any kind. The Ion Productions Team, LLC disclaims liability for any damages that arise as a result of the direct or indirect use of its manual and/or websites. The Ion Productions Team, LLC reserves the right to modify, amend, delete, suspend or discontinue its manuals and/or websites, which it controls, without prior notice.

If you experience any issues with your XM42-M, contact us at support@xm42.com with your serial number and a brief description of problem and we'll do everything we can to help!

IMPORTANT SAFETY WARNINGS AND INSTRUCTIONS



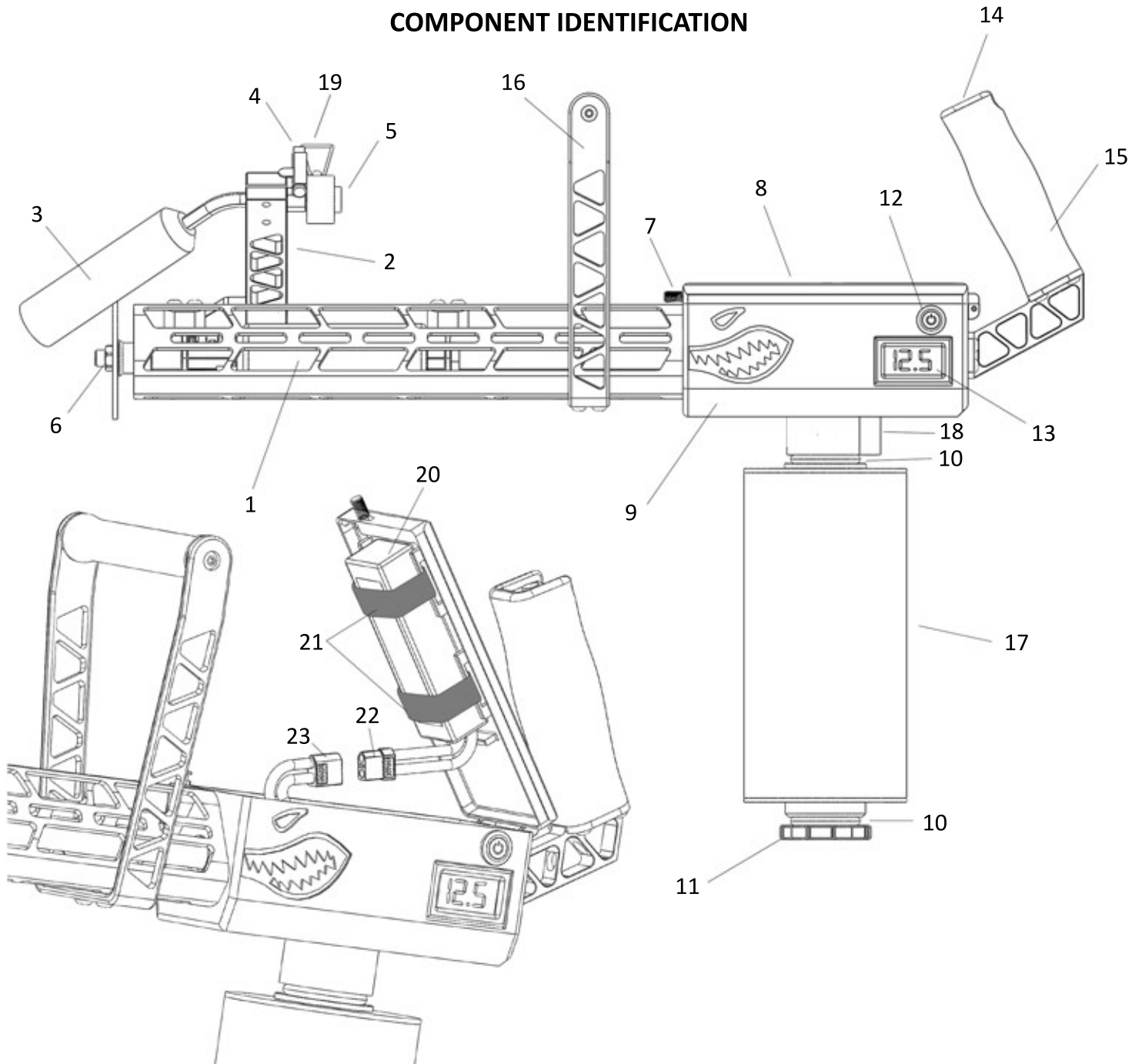
When the XM42-M is turned on and the trigger is pressed, the XM42-M sends out a stream of fuel that's ignited. The stream may extend beyond 25 feet. The XM42-M is intended for proper use in accordance with the user manual by legally-competent persons over the age of 18. The Ion Productions Team, LLC and its members, managers, agents, and representatives shall not be liable for any damages that result from improper or unauthorized use.

1. Read all instructions before operating product. Failure to follow all instructions listed below may result in burns, unintentional fires and/or serious injury or death. Save these instructions and review frequently before use and when instructing others.
2. KEEP OUT OF REACH OF CHILDREN
3. XM42-M must be on the ground or a grounded surface during refueling. As with filling any fuel container, there is a risk of static charge buildup.
4. Inspect for leaks before operation. Check all visible fittings and ensure there is no fuel leaking anywhere on or inside the device. If you suspect or notice any leakage (through sight, smell, or otherwise), discontinue use immediately and contact us for technical support.
5. Never aim in any unsafe direction.
6. Do not handle or untwist/remove butane canister while flame is present.
7. Remove butane canister when not in use.
8. Keep all parts of body as far away as possible from nozzle during use.
9. Do not aim towards anything you do not intend to ignite.
10. Do not refill fuel tank while pilot flame is ignited. This would be stupid.
11. Do not use in windy conditions. The fuel stream and droplets of fuel can travel toward the operator or other unintended areas. Basic physics.
12. Do not drop or impact in any way. If the XM42-M is dropped, although it is rugged, it may cause a component failure. If the unit fails to operate correctly, immediately contact us for repairs and do not attempt to use.
13. Do not expose to or use in temperatures higher than 120F or lower than 0F.
14. Fuel has the ability to drip from the nozzle of the device at any time. Always be sure the XM42-M is directed safely away from people and any flammable surfaces, and that all parts of the operator's body are as far away from the nozzle as possible. Never aim XM42-M higher than 45 degrees: risk of fuel drip onto operator increases significantly.
15. When the pilot torch is lighted or the nozzle area is aflame, do not allow the nozzle to aim towards or otherwise be directly above the operator's feet; fuel can drip at any time.
16. Ensure pilot torch gas valve is fully closed after use and XM42-M power button is off.
17. Use in upright position only.
18. DO NOT DISASSEMBLE IN ANY WAY unless you have been authorized by The Ion Productions Team to do so. Disassembly instructions for aftermarket finishing or end-user repairs are available by contacting support@xm42.com.
19. The XM42-M is not waterproof. It may be slightly water resistant (light rain) for a brief period, but it would be wise to prevent liquids from entering the unit in any way to prevent short circuits. If any liquid gets inside the main body, allow it to completely dry before using.
20. Nozzle area and pilot torch become hot and aflame during use. DO NOT TOUCH NOZZLE AREA OR PILOT TORCH BURNER TUBE.
21. DO NOT TRANSPORT WHILE FILLED WITH FUEL. Pressure can build up and force fuel out the nozzle making a hazardous mess.

LITHIUM BATTERY SAFETY WARNINGS

1. CHECK VOLTAGE DURING EVERY USE. DO NOT allow overall battery pack voltage to drop below 10.5 volts. The battery may not re-charge or may become hazardous. A voltage readout is on the left side of the XM42-M and it activates when the power button is on. A low voltage alarm will sound if the voltage dips below 10.5 volts to alert the user to stop use immediately and recharge or change the battery.
2. DO NOT charge with any charger other than the one provided or one that The Ion Productions Team recommends.
3. Failure to read and follow these instructions may result in fire, personal injury and damage to property if charged or used improperly.
4. Lithium polymer battery packs may explode and cause fire if misused or short circuited.
5. DO NOT PUNCTURE THE BATTERY, DO NOT SHORT CIRCUIT THE BATTERY, DO NOT INCINERATE THE BATTERY. DO NOT EAT THE BATTERY. DO NOT EXPOSE TO WATER, EXCESSIVE MOISTURE, OR ANY LIQUID.
6. When charging the battery, place the battery in a fire proof area. Do not leave unattended.
7. If you notice any damaged or frayed wiring, discontinue use immediately, place in a safe area, and contact us for technical assistance.
8. NEVER make a wrong polarity connection when charging and discharging battery packs.
9. Replace battery with a new one at least every 3 years for safety and longevity of charge.
10. NEVER leave the battery where it is subjected to extremes in temperature. This includes low levels as well as high.
11. DO NOT leave battery in direct sunlight.
12. There are fire risks when batteries are overcharged or short circuited, or if they have become submerged in water (even if they have been dried out) or if their cases have become damaged.
13. Remove battery from the charging source as soon as the indicator shows that charging is complete. The charger should protect against overcharging, but why not be extra safe?
14. Inspect battery for physical damage or degradation before each use. Do not use a battery that is damaged.

COMPONENT IDENTIFICATION

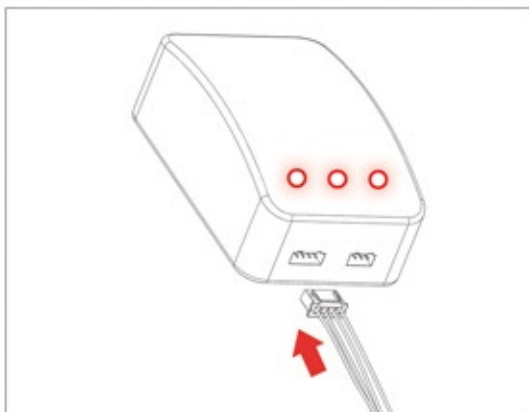


- | | | |
|-------------------------------------|----------------------|-----------------------------|
| 1. Fuel pump | 10. Fuel tank o-ring | 19. Gas flow knob |
| 2. Torch bracket | 11. Fuel cap | 20. Battery |
| 3. Pilot torch head | 12. Power button | 21. Battery strap |
| 4. Pilot torch ignition button | 13. Voltage gauge | 22. Battery power connector |
| 5. Butane canister attachment point | 14. Trigger button | 23. Body power connector |
| 6. Nozzle | 15. Rear grip | |
| 7. Lid lever | 16. Foregrip | |
| 8. Lid | 17. Fuel tank | |
| 9. Body | 18. Check valve | |

HOW TO USE

1.

Charge the battery. It comes 30% - 50% charged from the factory, but it needs to be fully charged (12.4-12.6 volts) before use.



Plug the charger's AC plug into a 110-120V wall outlet. The lights will blink.

Plug the battery's small white connector into the charger as shown. Ensure the ridges align with the spaces in the charger.

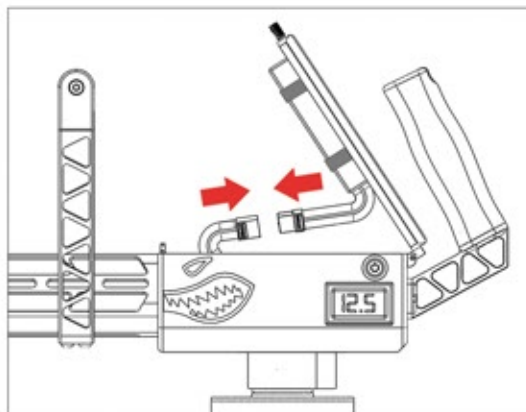
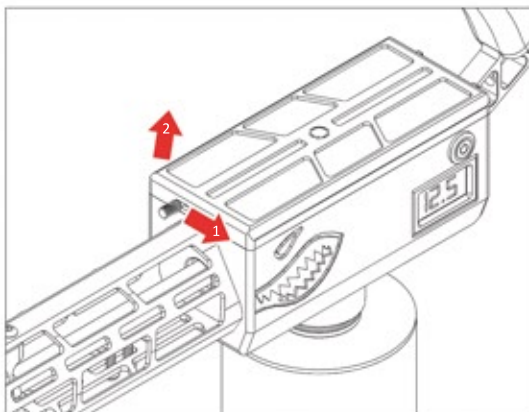
The lights will turn solid red, indicating that the battery is charging. These lights will turn solid green when charging is complete. Use care when removing the charging wire from the charger.



**READ THE SAFETY WARNINGS ON PAGE 2.
DO NOT CHARGE OR USE IF BATTERY IS BULGING
OR OTHERWISE DAMAGED IN ANY WAY.**

2.

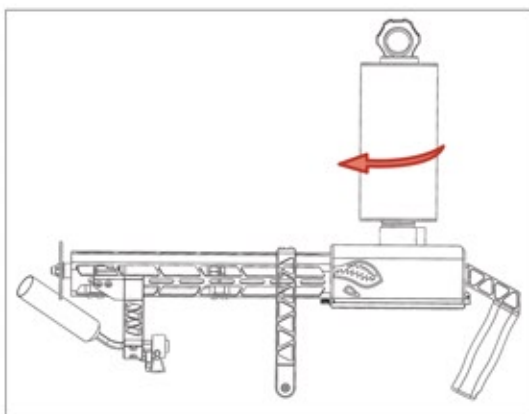
Install the battery.



Open the lid by sliding the lid latch (7) over and lifting at the front of the lid. Strap the battery in using the hook and loop straps (21) provided. Plug the battery power connector (22) into the body power connector (23). Close the lid fully and it will latch shut.

3.

Fill up with fuel.



USE ONLY APPROVED FUELS

- gasoline (unleaded)
- gasoline-diesel mixture (30-50% gasoline)
- ethanol (denatured alcohol)

Unapproved fuels may not have been tested and could damage the hose, o-rings, or fuel pump.



Do not use or store with diesel fuel if the unit will be exposed to temperatures below freezing. The fuel will gel and clog the fuel pump.

THE XM42-M MUST BE GROUNDED DURING FUELING TO MITIGATE RISK OF STATIC DISCHARGE AND IGNITION.

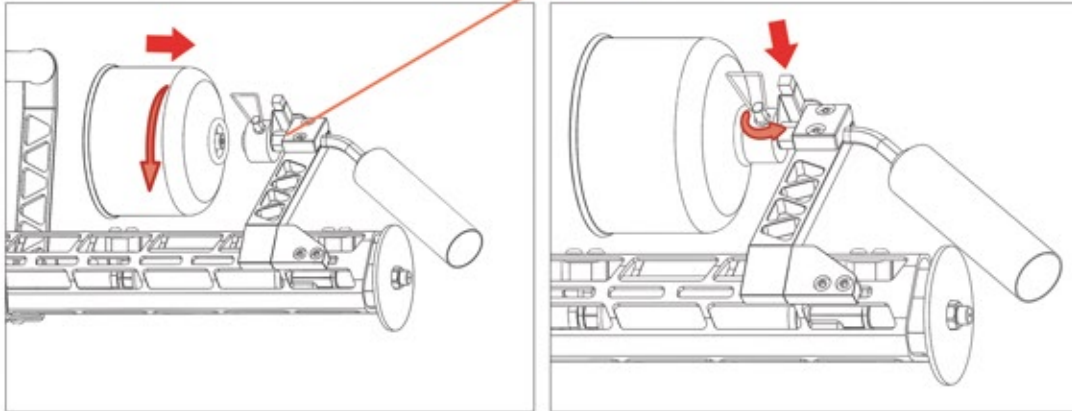
Turn the unit upside down and set on the ground. Ensure the fuel tank (17) is snug to the body by rotating the fuel tank clockwise. Remove the fuel cap (11) by unscrewing it counter-clockwise. Carefully pour choice of above approved fuels into tank. Do not overfill or it will come out when you reinstall the cap. Reinstall the fuel cap by screwing it in clockwise until hand-tight to prevent leaks.

4.

Install a butane canister and ignite the pilot torch.



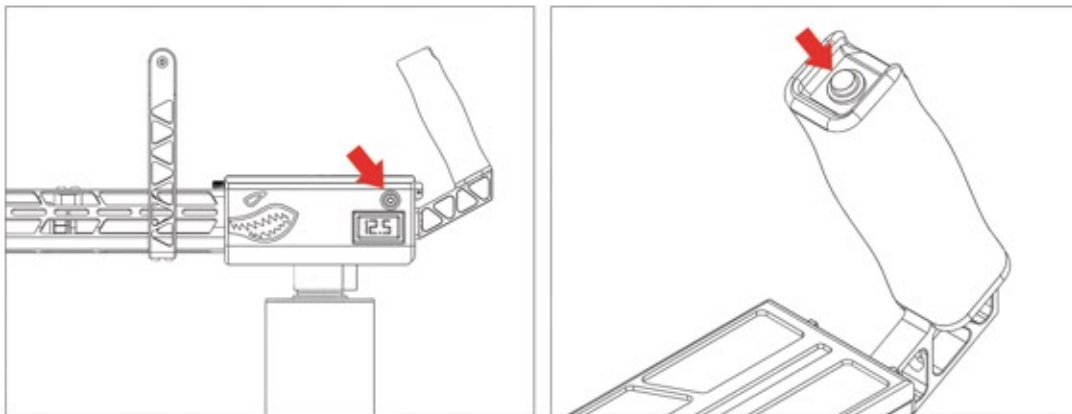
DO NOT OVER TIGHTEN CANISTER OR TORCH TUBE WILL BREAK AT THIS POINT.



Thread a butane canister (see Page 1) clockwise onto the butane canister attachment point (5). When removing or installing the butane canister, hold the knurled section of the torch to prevent accidental breakage or loosening of the torch itself. Open the gas valve by twisting the gas flow knob (19) counter-clockwise as shown until a slight hiss is audible. Press the ignition button (4) to generate a spark and ignite the pilot torch flame. Adjust gas flow knob as needed for reliable flame in path of fuel stream.

5.

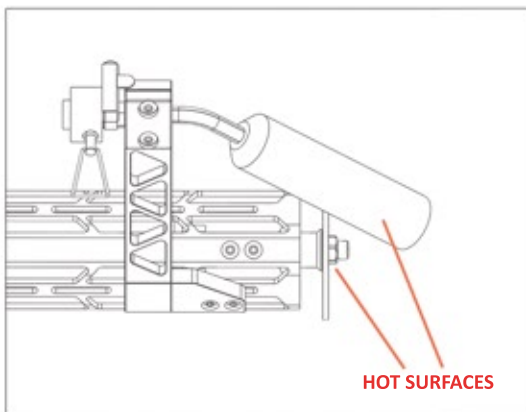
Turn on the system and send some fire.



With the pilot torch aflame, you're ready to send the stream of fuel. Press the power button (12) and it will illuminate blue along with the voltage gauge. Aim the XM42-M in a safe direction and press the trigger button (14) to emit fuel and a flaming stream.

6.

When you're done...



Turn off the power button by pressing it again. Ensure the switch is off when not in use to prevent any inadvertent fuel emission.

Twist the gas valve clockwise until fully closed to turn off pilot torch. Blow out remaining flame at the end of nozzle or wait until remaining fuel inside plumbing burns off.

Small amounts of fuel trapped between the pump and nozzle can continue to spurt from the nozzle after the system is off. Put a rag over the end after the XM42 cools or use the included vinyl cap to help prevent any little spurts during transport.



REMOVE BUTANE CANISTER BETWEEN USES TO PREVENT ACCIDENTAL LEAKAGE OR BREAKAGE.

TROUBLESHOOTING

While the XM42-M is a precision built product using industrial grade components, there's always a chance that a mechanical part can fail or degrade. Here are some solutions to try in case you run into any problems. For anything not solveable using this manual, reach out to support@xm42.com and we will do everything we can to correct it.

Problem	Possible Cause
It doesn't work.	We're gonna need more to go on than "it doesn't work."
The pump sounds like it runs, but nothing comes out.	<ul style="list-style-type: none"> • No fuel in the fuel tank. • Vinyl cap is still on the nozzle. • The feed tube, hose, or fuel pump internal screen filter is obstructed. • The nozzle is clogged. • The fuel pump is faulty.
The power button does not illuminate and the voltage display is blank.	<ul style="list-style-type: none"> • Battery is not connected. • Battery is faulty. • The wiring is not routed properly.
The power button is illuminated, the voltage readout is 10.5 volts or higher, but the trigger button does not activate the pump.	<p>Is there a clicking sound?</p> <p>YES: 1. The relay's contacts may be moving, but not touching fully. 2. It may be a faulty fuel pump.</p> <p>NO: 1. The momentary switch may be faulty. 2. A wire may have jostled loose from the relay harness. 3. The wire to/from the trigger switch may be disconnected. 4. The fuel pump may be faulty.</p>
The voltage readout is less than 10.0 volts.	Your battery is now below minimum levels and may not recharge safely or at all. It may expand and short internally. It should be recycled and replaced immediately.
The charger's lights continue to flash red when the battery is connected for charging.	Your battery has a serious fault and should be replaced immediately.
One or two lights on the charger have remained red while the rest have been green for at least 30 minutes.	The cells that remain red are faulty. Your battery should be replaced immediately.
The pilot torch will not ignite using the pilot torch ignition button.	<ul style="list-style-type: none"> • Gas flow knob is opened too far, only a tiny hiss of flow is needed to ignite. • Torch electrode tip is too far away from inside of torch. Bend it closer. • Torch electrode insulator is cracked. • Torch is faulty in another way.
Fuel drips from the nozzle during/after use.	No way to prevent it. There is fuel between the pump and the nozzle, and it wants to come out and play in the heat. This effect has been vastly reduced compared to the classic XM42 by moving the fuel pump closer to the nozzle.

MAINTENANCE

The XM42-M is designed to be generally maintenance-free. All components are designed for industrial use. Nevertheless, failures can occur in any mechanical device. The internals utilize aluminum plumbing as well as fluoroelastomer o-rings and hose. Inspect for leakage before every use to be safe.

- The current industry recommendation is to replace LiPo batteries every 3 years. Use a quality 2200mAh or larger 3S 12.6 volt XT60 connector lithium-polymer battery and recycle the old unit where applicable. DO NOT DISCARD IN TRASH.
- Keep fuel tank and plumbing clean and free of debris.
- Hose should be replaced in 15-20 years with a comparable 5/16" ID fluoroelastomer hose.
- Oiling the latch & hinge pins once in a while would be good. We recommend Break-Free® CLP®.

Contact us directly at support@XM42.com if you require service parts that are not listed in our online store.

LIMITED LIFETIME WARRANTY

Subject to the terms, conditions and limitations outlined below, The Ion Productions Team guarantees your XM42-M against defects in materials and workmanship for the lifetime of the original consumer purchaser.

To make a claim under this warranty, contact support@XM42.com and include your product serial number and brief description of problem. A copy of a bill of sale in your name or other verifiable proof showing that you are the original consumer purchaser may be required. For repairs that are covered by the warranty, The Ion Productions Team will pay the transportation and insurance charges to return your XM42-M and transport it back to you.

If a material or workmanship defect is found, and a valid claim is received within the warranty period, The Ion Productions Team will (1) repair the XM42-M or (2) replace the XM42-M. In the event of a defect, these are your exclusive remedies. Once The Ion Productions Team validates your claim, we will determine whether the defect is user-repairable or must be serviced in The Ion Productions Team's facility. If the defect is deemed user-repairable, The Ion Productions Team will provide you with the replacement part and thorough instructions. If not, we will provide a return label (and packaging if needed) and make it right. In no event will The Ion Productions Team accept any shipment that is sent C.O.D.

LIMITATIONS OF WARRANTY

The warranty will be void if any of the following occur:

- (1) the instructions in the Instruction Manual are not followed;
- (2) the XM42-M or any of its parts are altered or modified from their original state;
- (3) damage is caused by misuse, abuse or improper maintenance; or
- (4) the XM42-M is disassembled beyond the instructions in the Instruction Manual or the direct instruction of The Ion Productions Team.

There are no warranties which extend beyond the description on the face hereof. The sole and exclusive remedy pursuant to this warranty is the repair or replacement of the XM42-M, at the sole discretion of The Ion Productions Team. The implied warranties of merchantability and fitness for a particular purpose are expressly disclaimed.

All disclaimers and limitations of liability shall still apply even if the limited remedy of repair and replacement fails of its essential purpose. In states where permitted, The Ion Productions Team. assumes no liability for incidental or consequential damage or for incidental expenses. Any action against The Ion Productions Team. based on an alleged breach of this warranty must be brought within one (1) year of the claimed breach. The Ion Productions Team's liability for breach of warranty shall be limited to repair or replacement of the XM42-M, at the sole discretion of The Ion Productions Team.

The XM42-M is a dangerous device. The purchaser assumes all liability resulting from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. The Ion Productions Team will not be responsible for injuries or damages resulting from careless handling, unauthorized or unsafe adjustments or modifications, the use of incorrect fuel, the use of incorrect or damaged butane/isobutane fuel canisters, the use of incompatible or improperly installed accessories, corrosion, neglect, fire damage, water damage, theft, abuse, ordinary wear and tear, or unreasonable use of the XM42-M. Under no circumstances shall The Ion Productions Team be responsible for incidental or consequential damages with respect to economic loss or injury or property damage, whether as a result of breach of express or implied warranty, negligence or otherwise.



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