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Int'l Repo-Depo, Inc.

OPERATION INSTRUCTIONS

Machine Gun Simulators

XM-1A XM-2A and Replica Guns

Thank you for purchasing one of our gas gun conversions or simulators.

The basic operation of the simulator is to induce an amount of oxygen and propane into a firing chamber through a set of solenoids, where it is ignited by a coil and spark plug, controlled by an electronics firing board. This spark ignites the gas mixture and produces a controlled explosion and the report of the simulator.

Upon receipt of the simulator, unpack the unit and check for any damage that may have occurred in shipping. The unit is supplied with a 12V rechargeable battery located in the gun control box or separate with the Model XM-1A simulator. (Assemble the gun legs on the New Model by attaching the legs to the bottom of the body with the 4 bolts provided).

Locate the battery and connect the wires to the battery leads. Red is positive and green is ground. (The covered terminal is positive wire) Without the gas hooked up press your trigger control, you should hear the clicking of the solenoids which indicated the control is working.

If equipped with a Remote Control unit: Locate and attach the antenna, locate the transmitter and install the battery. Program channel 1 with the red program cable as described in the remote control setup information.

Locate your hose connections on the gun. Oxygen is right hand and Propane is left hand threads. We use your standard Oxygen/Acetylene welding hose fittings. You can use 1/4" hose or 3/16" cutting torch hose.



***ALWAYS USE TWO WRENCHES TO SNUG UP THE CONNECTIONS
FAILURE TO DO SO CAN CAUSE LEAKS IN THE COPPER TUBE
CONNECTIONS: 5/8" and 11/16" open end wrench***

This will void the warranty if you damage the lines.

OPERATING PRESSURE ON NEW .50 Cal Barrel Units!

10-15 PSI Oxygen and 1-3 PSI Propane

After you purchase your tanks and regulators, connect the hose and set the gas pressure to 10 lbs on the oxygen and 1 lb on the propane. (As the propane regulator does not need a gauge, turn the propane regulator to 0 and then start up with the pressure slowly while pressing the trigger in short burst. The gun will start to fire at around 1 lbs pressure. You can play with the pressure to find the best setting for your preference.

Larger calibers 20mm and up will fire on higher pressures. Your gun has been test fired and the pressure recorded below.

To adjust the report of the simulator, adjust the pressure of the oxygen or propane. This will change the amount of flash and the intensity of the report.

This will take a few times of working with the pressure to get to the desired sound and flash. After you have done this operation a few times you will have mastered this adjustment procedure.

Once you locate the proper settings the gun will fire at this setting with only a minor change in one regulator setting if needed.

***YOU NEED TO PRATICE THIS OPERATION BEFORE YOU GO TO THE
FIELD SO YOU FEEL COMFORTABLE IN ADJUSTING THE SETTINGS.***

***WARNING!!!! DO NOT EXCEED 100 PSI ON THE REGULATORS AS THE
SOLENIIONS ARE RATED AT 150 PSI AND DAMAGE CAN OCCURE.***

These simulators are very durable. The electronic are protected by a 7 amp slow blow fuse should a short occur. This fuse is located in the ammo can on the gun conversions and in the receiver housing of the new model. These units are not water proof so do not immerse in water. They are protected from light rain, mist, and dew. (Splash resistance only)

This unit is to be operated no more than a 50% on and 50% off cycle mode. If this is exceeded you can overheat the unit and cause permanent damage to the unit. This will void the warranty of the unit.

Maintenance:

There is minimal maintenance required. You may want to replace the spark plug at least once a year or if you determine that it has a problem. It's a standard champion # 847. Care should be taken when removing the hoses to not allow any dirt or trash to enter the ports as this will stop the solenoid from working. **SPARK PLUGS ARE A CONSUMABLE ITEM!**

Problems with correct firing could be a broken electrode insulator on the spark plug. Remove the plug and check for melted electrode or broken ceramic insulator. Plug gap is .020 in.

Inspect and check the gas line connections for tightness and leaks at least every 6 months. Check electrical connections for tightness and solenoid valve plunger for tightness every 6 months minimum.

As these units are clean burning no barrel cleaning is required. You can wipe off the exterior of the simulator and apply a light oil to protect the surface from dirt and moisture.

SAFETY:

Treat this as if it were a real firearm. Do not discharge at a person closer than 5 feet. This does produce a flash and can burn. If trash, dirt, mud etc. enters the end of the barrel it can become a projectile. **THE BARREL WILL GET HOT AND BURN IF GRABED!**

It is recommended that you add **FLASH ARESTORS** to your regulators to prevent back flash from the simulator to the tanks. This is available from your local welders supply and they can inform you of their operation and use. It's just for the operator's added safety.

The best operation of the simulator is to use short burst as these units will produce heat and if prolonged firing is done the unit will misfire until the heat is allowed to cool down. You may also damage the spark plug from the excessive heat and it would require replacement.

ELECTRICAL:

The simulators are powered by a 12V gel cell, rechargeable battery. You can purchase a charger from us or at any auto parts, Wal-Mart, etc. A trickle charger works the best.

A weak battery will not allow the gun to fire properly. One solenoid will not function if the battery is weak and a weak spark will be noticed.

CHECK YOUR POWER SOURCE FOR PROPER VOLTAGE!

11 Volts minimum !

The ignition is supplied by a 12 volt automotive type coil.

The control board is custom made and is adjustable via a small potentiometer located on the timing circuit board (blue in color) in the ammo can on the gun conversions or in the receiver housing on the New Model simulator.

Fuse protection of 7 amp (slow blow) is supplied with the control circuit of all the simulators we build. The fuse will be located with the controls of the unit.

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XM- 1A and 2A Machine Gun Simulator Instructions:

Unpack the unit and inspect for any shipping damage.

Open up the control box and connect the red battery lead to the battery.

Connect the manual firing cable (supplied) to the 2 black trigger terminals on the right hand side of the rear of the unit.

If unit was purchased with a remote control the antenna should be attached to the control box and the transmitter programmed with the red program cable. (See remote control instructions)

Turn on the unit with the on/off switch on the back of the unit.

Press the trigger button and the solenoids should start clicking. This test confirms the electrics are working properly.

Make your oxygen and propane connections to the rear of the unit. Always use two wrenches when tightening and loosening the hose connections. A snug fit is all that's required.

DO NOT APPLY EXCESSIVE FORCE ON THE BRASS CONNECTIONS.

.50 Cal barrel guns will use 10-15 PSI on the Oxygen and 1-3 PSI on Propane.

Setting Up the Pressure to Fire!

Set the oxygen regulator to 10 PSI and the propane to 0 PSI.

Slowly increase the propane pressure ¼ turn of the propane regulator knob and firing the simulator after each turn for a few cycles until the simulator starts to fire. Once the simulator starts to fire you can adjust the propane pressure up and down to fine tune the pressure and provide the unit with a steady pressure for operation. Once you have the unit firing properly you can increase the oxygen and propane to obtain a greater report and flash.

You will want a bright yellow flash when firing properly.

The auxiliary power terminals: (red + and Black -) can be used to power a remote control unit or the unit its self if the battery is depleted or removed. The terminals only have power if the power switch is in the on position. It is not recommended to charge the battery in the unit through the aux terminals as the switch would have to be on and power would be applied to the electronic during the charging process.

Connecting a set of N/O contact to the **trigger terminals** on the rear, both black and located to the right can provide for remote operation on the unit either by hard wire or radio control.

Refer to the operators' manual for testing, maintenance and service information.

We may be contacted via phone or Email for any additional information or questions.

RATE OF FIRE ADJUSTMENT:

Turning this small screw on potentiometer will increase or decrease the cycle rate of the gun. This is the blue plastic box on the firing control board. (Circuit Board)

ADJUSTMENT OF THE FLASH:

The flash or fire from the barrel should be a bright yellow with little blue from the propane gas. Blue indicated no enough propane gas is mixing.

Increase the pressure on the propane gas to get the desired level of flash.

DO NOT ALLOW a blue flame to jet from the barrel for any length of time as this jet will be hot enough to burn through the side of the barrel and combustion chamber.

Once an operator practices making the adjustments the set up procedures will be very easy after understanding what to expect.

Thank You

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