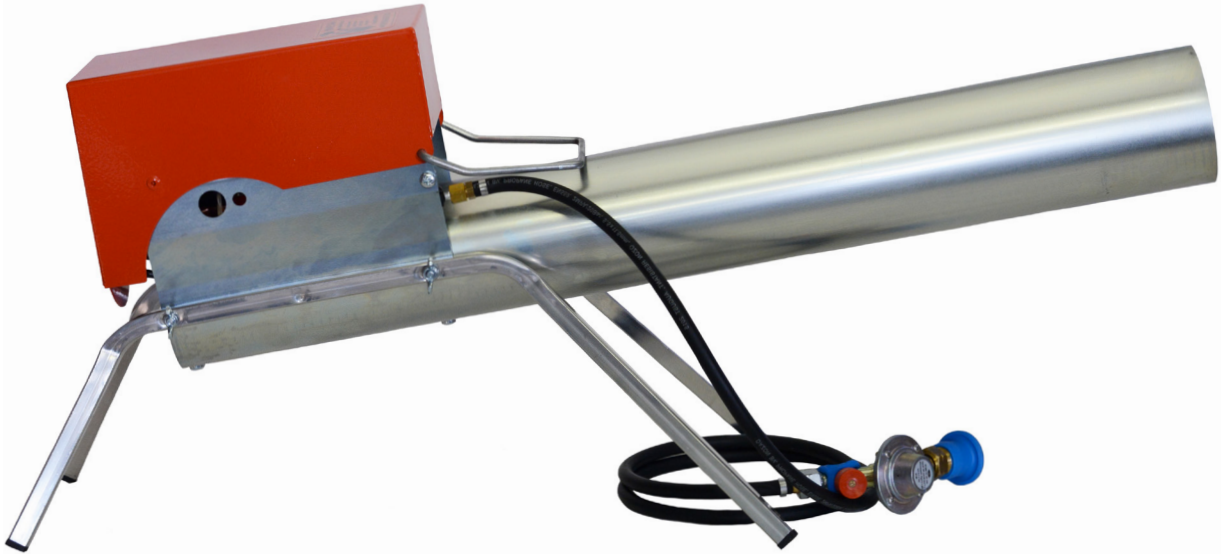

MARGO SUPPLIES

ELECTRA SCARE CANNON

#1100 - INSTRUCTION MANUAL



DISCLAIMER



THIS PRODUCT WAS DESIGNED AND INTENDED FOR THE SOLE PURPOSE OF WILDLIFE CONTROL AND MANAGEMENT. THE PROPER AND SAFE USE OF THIS PRODUCT IS THE SOLE RESPONSIBILITY OF THE OWNER AND/OR OPERATOR. THE SELLER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE IMPROPER AND/OR ILLEGAL USE, RESALE, ANY PHYSICAL INJURY AND/OR PROPERTY DAMAGE RESULTING FROM DELIBERATE OR ACCIDENTAL DISCHARGE OF THE PRODUCT, OR MODIFICATIONS MADE TO THE PRODUCT, SELF-SUPPLIED MATERIALS USED ALONG WITH THE PRODUCT, CARELESS OPERATION OR MAINTENANCE NEGLIGENCE OF THIS PRODUCT.

CANNON FEATURES & UPGRADES

- ▶ 120dB cannon blasts scare birds and keep them away.
- ▶ One 20lbs propane cylinder will provide over 15,000 detonations.
- ▶ Advanced digital clock for preset firing times and multi-shot bursts.
- ▶ Stable frame design prevents movement when detonating.
- ▶ Operates even in strong wind conditions.
- ▶ A fully charged 12V battery will power the cannon for 40-50 days.
- ▶ A fully charged 7.2A/h gel-cell battery will power the cannon for 14 days.
- ▶ Random and on demand firing modes help to prevent bird habituation.



CANNON UPGRADES

- ▶ **Zon Electra Rotating Tripod (#1101)** provides 360° coverage and elevates the cannon's blast. Using the tripod will increase the cannon's coverage to 30 acres.
- ▶ **Tripod Mounted Solar Kit (#1102)** and **Solar Case Kit (#1103)** provide continuous power and protects your battery from the elements.
- ▶ **Electra with Push Button Controller (#1500)** allows for on-demand firing.
- ▶ **Long Range Radio Control (#1200)** enables on-demand firing from a distance and controls multiple cannons on a single transmitter.

**VISIT MARGOSUPPLIES.COM
FOR A MORE COMPLETE LIST OF
UPGRADES AND ACCESSORIES.**



TIPS AND TRICKS

- ▶ Birds find it difficult to adapt to the confusion presented when using several deterrents together. Combine scare cannons with other different audio and visual deterrents for the best effect.
- ▶ Deploy cannons before your crops are damaged, not after. It's easier to keep birds out of the control area than to chase them out once they've been rewarded.
- ▶ Birds are most active at dawn and dusk.
- ▶ In order to reduce your overall sound output and prevent habituation, restrict cannon use when birds are not active.
- ▶ A single cannon will protect up to 6 acres of high value crop from persistent birds.
- ▶ Relocate the cannon frequently to prevent habituation. It should be moved every 2-3 days when birds are present.



SAFETY INFORMATION

- ▶ **Clear an area of 5m (15ft) surrounding the gas cylinder and cannon of all debris, including flammable and combustible material, such as dried weeds and grass.**
- ▶ **The area directly in front of the megaphone must be clear of all obstructions.**
- ▶ Never place objects or look directly into the megaphone.
- ▶ Never walk in front of or look into the barrel.
- ▶ Do not place objects on top of the cannon.
- ▶ Do not operate cannon in an enclosed space.
- ▶ Keep fire and other sources of heat/ignition away from the cannon.
- ▶ Cannon should be on stable horizontal ground when in use.
- ▶ Only use LP Gas (propane) or butane gas. Keep canister upright. Do not place in a pit.
- ▶ Call the proper authorities/emergency services in case of a fire.
- ▶ Service cannon after 150kg (330lbs) of use.
- ▶ Replace the gas hose every 2 years. Contact Margo Supplies to order replacement.



INSTALLATION

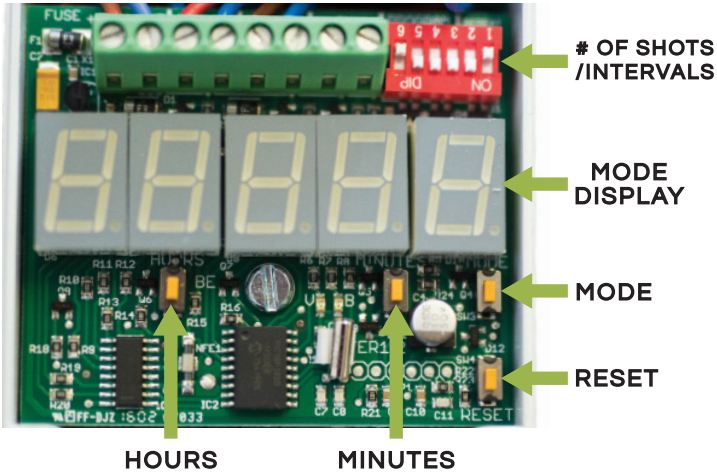
WARNING! Always wear ear and eye protection when operating cannon!

1. Attach **Red Metal Lid** (#91606) to Cannon Body with the **Handle** (#91616).
clicking sound and a red LED light on the control panel indicates the cannon is working.
2. Insert the **Plastic End Caps** (#91656) onto the end of the **Metal Legs** (#91636).
3. Attach the **Left and Right Metal Legs** (#91636) onto the cannon using **4 Butterfly Nuts**.
4. Make sure the Regulator and the Gas Cylinder both have clean connections.
5. Connect the **Gas Regulator** (#9023-33) to your LP gas canister (not included) and snug with a 24mm wrench. Do not open propane valve.
6. Hook up cannon to power source.
7. The scare cannon will immediately fire a test shot when connected to power. An audible
8. Keep the battery raised above ground level and sheltered from the elements.
9. The cannon is now ready for programming, if desired. Consult the next page for instructions.
10. To fire the cannon, open the gas valve and then press the **Red Hose Fracture Button** on the **Pressure Regulator** (#9023-33).

THE HOSE
FRACTURE
BUTTON
MUST BE
PRESSED
EACH TIME
THE GAS IS
TURNED ON!



QUICK START SETTINGS



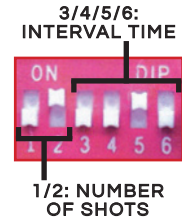
INTERVAL	SWITCH 3	SWITCH 4	SWITCH 5	SWITCH 6
1 MINUTE	OFF	OFF	OFF	OFF
2 MINUTES	ON	OFF	ON	OFF
3 MINUTES	OFF	ON	OFF	ON
5 MINUTES	ON	ON	ON	ON
7 MINUTES	OFF	OFF	ON	OFF
10 MINUTES	ON	OFF	ON	OFF
13 MINUTES	OFF	ON	ON	OFF
16 MINUTES	ON	ON	ON	OFF
20 MINUTES	OFF	OFF	OFF	ON
25 MINUTES	ON	OFF	OFF	ON
30 MINUTES	OFF	ON	OFF	ON
45 MINUTES	ON	ON	OFF	ON
60 MINUTES	OFF	OFF	ON	ON
RANDOM 10	ON	OFF	ON	ON
RANDOM 20	OFF	ON	ON	ON
ON DEMAND	ON	ON	ON	ON

SETTING THE CLOCK: When the “MODE” display is blank, press the “HOURS” and “MINUTES” buttons separately to find the current time.

SETTING THE STARTING OR ENDING TIMES: Press the “MODE” button repeatedly until the value on the mode display is the time period you want to modify. Then press the “HOURS” and “MINUTES” buttons. Once the time is set, it has to be activated by pushing the “MODE” button again. By pushing the “RESET” button for one second, the current time will be set to 00:00, which is 12 o’clock midnight.

SETTING THE NUMBER OF SHOTS:

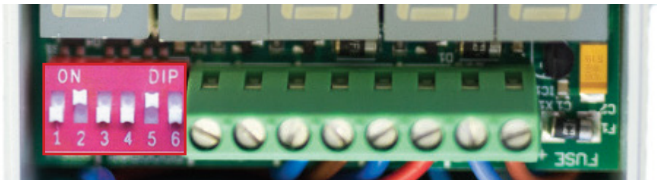
SERIES	SWITCH 1	SWITCH 2
1 SHOT	OFF	OFF
2 SHOTS	ON	OFF
3 SHOTS	OFF	ON
4 SHOTS	ON	ON



PROGRAMMING SHOTS IN A SERIES

The number of shots in a series and the timing interval between the series can be programmed using the dip switches on the control board.

1. Remove the lid to access the control board.
 2. Use Dip Switch 1 and 2 to control the number of shots in a series.
 3. Use Dip switch 3, 4, 5 and 6 control the timing interval between the series of shots. Each dip switch can be set as either ON or OFF.
 4. Push the switch all the way over to set.
- In the photo below, dip switch 2 and 5 are ON, while 1, 3, 4 and 6 are OFF.



- This configuration will produce a series of 3 shots and 7 minutes between the series. This is the factory setting.

Use the charts on the next page to configure the cannon to the desired settings. A small electronic screwdriver can help you accurately set the dip switches.

CONFIGURING SHOTS IN A SERIES

The cannon can be configured to produce 1 to 4 shots in a series with approximately 5 seconds between each shot. The number of shots in a series is controlled with dip switch 1 and 2.

SERIES	1 SHOT	2 SHOTS	3 SHOTS	4 SHOTS
SWITCH 1	OFF	ON	OFF	ON
SWITCH 2	OFF	OFF	ON	ON

PROGRAMMING TIME BETWEEN SERIES OF SHOTS

The time that has to pass between consecutive shot series is controlled with dip switch 3 to 6.

INTERVAL	1	2	3
DIP SWITCH 1	OFF	ON	OFF
DIP SWITCH 2	OFF	OFF	ON
DIP SWITCH 3	OFF	OFF	OFF
DIP SWITCH 4	OFF	OFF	OFF

*in minutes

Random 10: The time between a shot series is randomly chosen between 1 and 10 minutes.

INTERVAL	5	7	10	13	16	20	25	30	45	60
DIP SWITCH 1	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
DIP SWITCH 2	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF
DIP SWITCH 3	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON
DIP SWITCH 4	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON

*in minutes

Random 20: The time between a shot series is randomly chosen between 1 and 20 minutes.

On Demand: The cannon can only be activated by the operator using either push button or radio remote control.

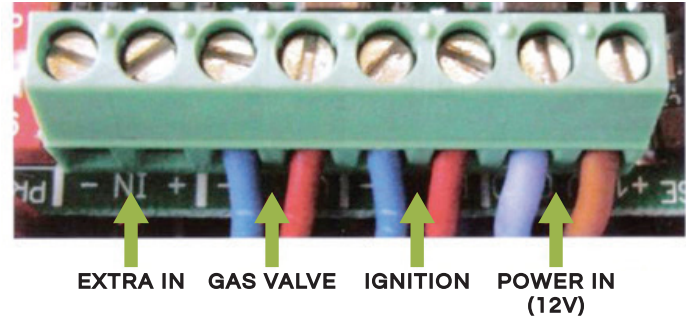
INTERVAL	Random 10	Random 20	On Demand
DIP SWITCH 3	ON	OFF	ON
DIP SWITCH 4	OFF	ON	ON
DIP SWITCH 5	ON	ON	ON
DIP SWITCH 6	ON	ON	ON

*in minutes

ON DEMAND & ELECTRONIC TIMER

ON DEMAND DEVICE CONNECTION

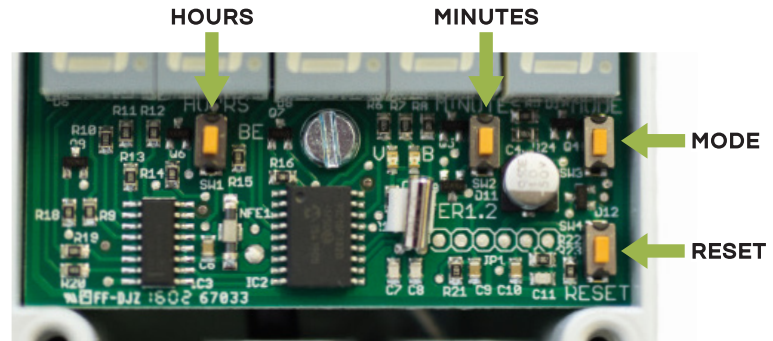
- ▶ The Electra Scare Cannon can be fired on demand by a push button radio controller. This device must be hardwired into the control box through the extra power "in" slot.



SETTING THE CURRENT TIME

The Zon Electra can be programmed to only fire during select periods in a 24 hour cycle. Up to four separate firing times can be set in a 24 hour cycle.

- ▶ Power must be connected to program the current time.
- ▶ Not all four ON/OFF times need to be set.
- ▶ Do not set ON/OFF times that go beyond a 24 hour period, the cannon will not function.



ELECTRONIC TIMER

- ▶ Press the mode button to light the display. If the current time has not been set, the display will read 99:99. The cannon will operate continuously if no current time is set.
- ▶ Press the hours and minutes buttons separately to set the current time. The timer is set on a 24 hour clock (1:00pm is 13:00).

SETTING ON/OFF PERIODS

- ▶ Up to 4 ON/OFF periods can be set during a 24 hour period. The cannon will operate according to the shot configuration during these set times. It will not fire outside of these hours.
1. Push the mode button to cycle through starting and ending times.
 2. Use the hours and minutes button to set the on and off times.
 3. Once a time has been set, it must be confirmed by pressing the mode button once.

MODE 1:

Time Period Start 1

MODE 2:

Time Period End 1

MODE 3:

Time Period Start 2

MODE 4:

Time Period End 2

MODE 5:

Time Period Start 3

MODE 6:

Time Period End 3

MODE 7:

Time Period Start 4

MODE 8:

Time Period End 4



MAINTENANCE

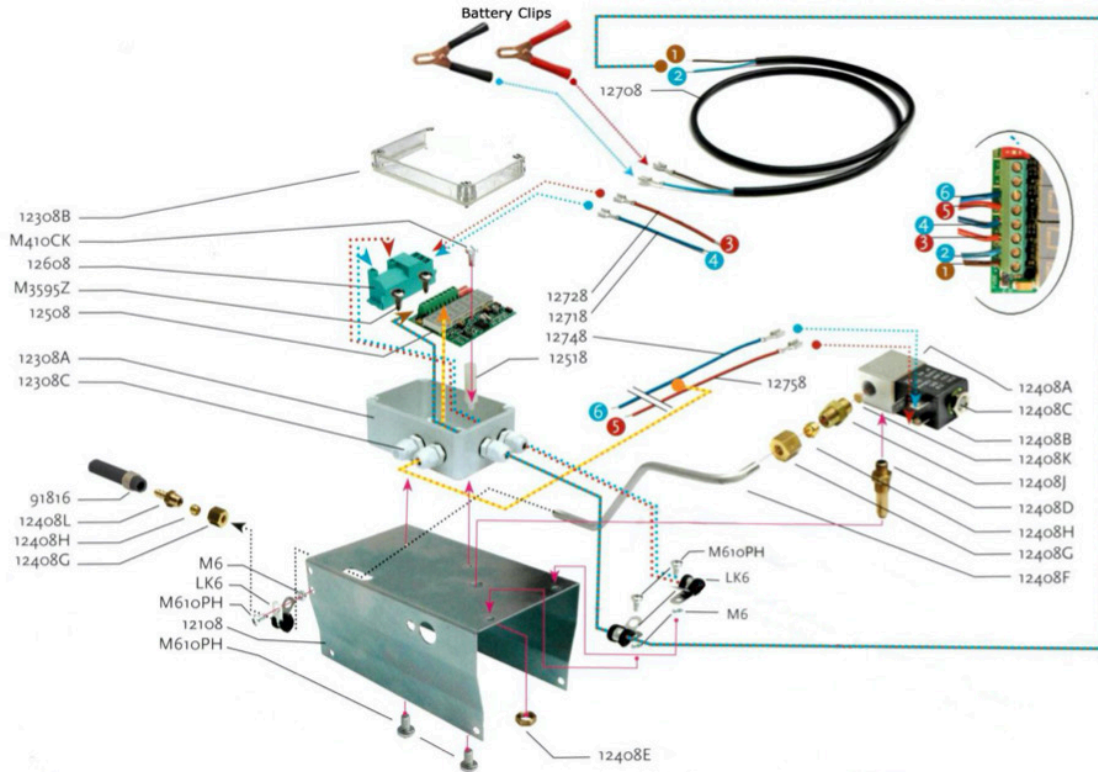
IMPORTANT: Cannon should be disconnected from gas when stored.

A full maintenance check should be performed at least once a year. When the cannon is not in use, it should be stored in a cool, dry place.

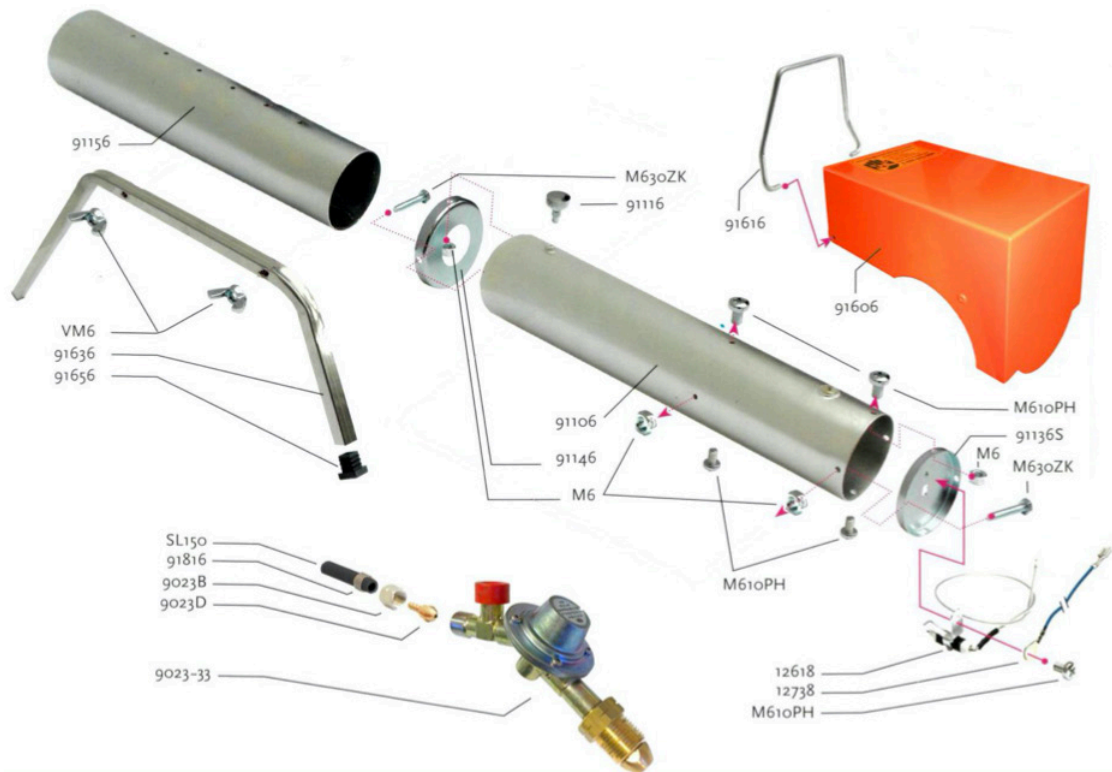
NOTE:

- ▶ Store in a dry area when not in use.
- ▶ Never use flammable cleaning agents on this device.
- ▶ Do not use a steam jet sprayer to clean.
- ▶ Check the barrel of the cannon for mouse nests before use if it has been in storage.
- ▶ Ensure all nuts, bolts, and screws are tight.
- ▶ Inspect the gas hose for defects and leaks. Replace old or cracked hose with new hose. Only use specialty hose from Margo Supplies.
- ▶ Check gas regulator for damage or leaks. Repair or replace parts before use.
- ▶ Check for corrosion on or around the Electrode (#12618). Clean with a wire brush or emery cloth.
- ▶ Always wear hearing protection while operating on or while in the vicinity of the cannon.

PARTS DIAGRAM



PARTS DIAGRAM



PARTS LIST

MAIN BODY/ CONTROL UNIT

12108	Main Body
12308A	Control Unit Enclosure (Bottom)
12308B	Control Unit Enclosure (Transparent Top)
12308C	Cord Grip
9093	Electra Control Unit
12508	Printed Circuit Board
12518	Pedestal (PCB)
12708	Battery Cable
91816	Clamp
LK6	Small Hose Clamp
M610PH	Metal Screw (M6 x 10)
M410CK	Metal Screw (M4 x 10)
M3595Z	Metal Screw (M3.5 x 9.5)
M6	Hexagonal Nut (M6)
Battery Clips	Positive & Negative Battery Clips

FRAME

91106	Outer Megaphone
91116	Clamping Bolt
91136S	Rear Cover
91146	Iris Cover
91156	Inner Megaphone
91606	Cover
91616	Handle
91636	Base Frame (Left)
91646	Base Frame (Right)
91656	Cap
91816	Clamp
VM6	Butterfly Nut (M6)
M630ZK	Metal Screw (M6x30)
M610PH	Metal Screw (M6x10)
M6	Hexagonal Nut (M6)

PARTS LIST

GAS VALVE

12408A	Solenoid Valve (Main Body)
12408B	Coil
12408C	Nut (Solenoid Valve)
12408D	Injector Nozzle
12408E	Nut (M12)
9043	Gas Valve (Complete)
12408F	Gas Tube (Aluminum)
12408G	Union Nut
12408H	Cutting Ring
12408J	Coupler (Solenoid Valve)
12408K	Filter
12408L	Supply Nipple
12748	22cm Blue Wire (Valve)
12758	22cm Red Wire (Valve)

IGNITION

12608	Ignition Module
12618	Electrode
12718	10cm Blue Wire (Ignition)
12728	10cm Red Wire (Ignition)
12738	30cm Blue Wire (Ignition)
Ground Wire	Ground Wire (Electrode)
M610PH	Metal Screw (M6 x 10)

GAS REGULATOR

011	Protective Cover
9023-33	Complete Regulator Unit with HFP
9023B	3/8" Nut
9023D	Nipple
91816	Clamp
SL100	150 cm Hose

TROUBLESHOOTING

FAILURE

Cannon operates but there is no explosion or sound.

CAUSE

SOLUTION

Gas tank valve is not open.

Open the gas valve.

Gas tank is empty or does not have enough pressure.

Fill or replace gas tank.

Hose Fracture Protector Button hasn't been pushed.

Push the Hose Fracture Protector Button (red) one or more times.

Poor gas mixture.

Gas mixture in the gas tank is not correct, replace gas tank.

Gas valve is blocked or partially blocked.

Open up blockage with a thin wire approx. 0.6mm in diameter.

Ignition gives a weak or no spark at all.

Check the Electrode for effectiveness. The porcelain base could be broken. Replace if necessary.
Clean corrosion on any of the connection points between the barrel, electrode and the ground wire. Separate all pieces to clean contact points with an emery cloth.
If the electrode is wet, be sure to dry it well.

The gas valve will not operate.

Check connection points. If properly connected, call the dealer for repair.

Debris in combustion chamber or other opening.

Remove debris and other blockages from around the cannon. Common instances are mouse or spider nests.

TROUBLESHOOTING

FAILURE

CAUSE

SOLUTION

Cannon is connected yet fails to operate.

Battery cable is not connected properly.

Ensure the battery terminals are connected. The black battery clip is negative and the red battery clip is positive.

Low battery.

Recharge or connect a new battery.

Cannon works, but gives dull explosions.

Wind is too strong; gas/air mixture is disturbed.

Place cannon down wind, out of the wind or behind a screen.

Gas valve is partially blocked.

Open blockage with a thin wire approx. 0.6mm in diameter.

Cannon is leaking.

Coupling nut on the gas regulator is not tight enough.

Tighten the coupling nut.

Gas hose is damaged.

Replace the hose.

Contact Margo Supplies for replacement parts or for complicated repairs.

