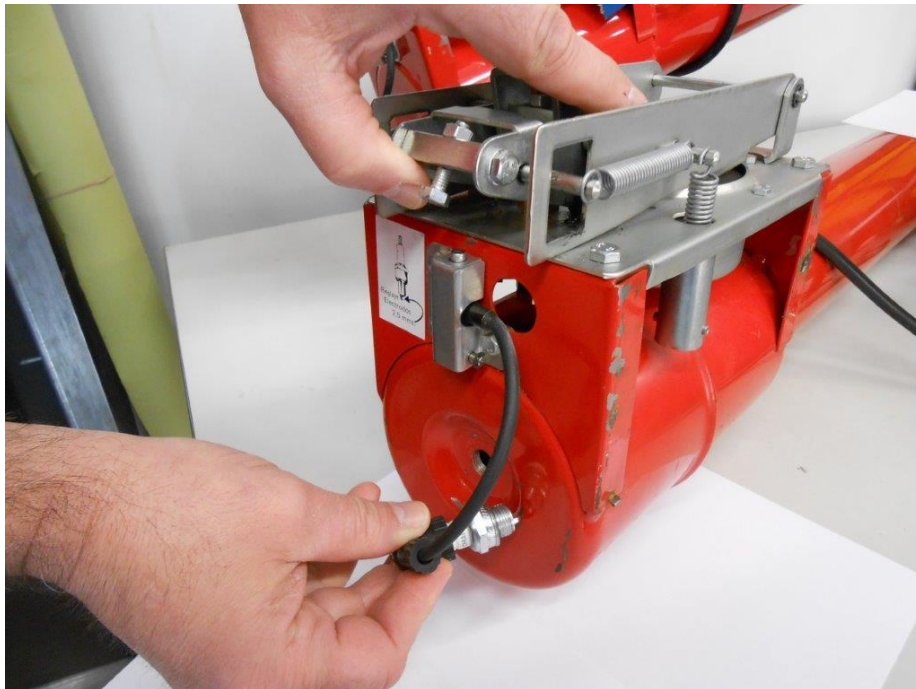




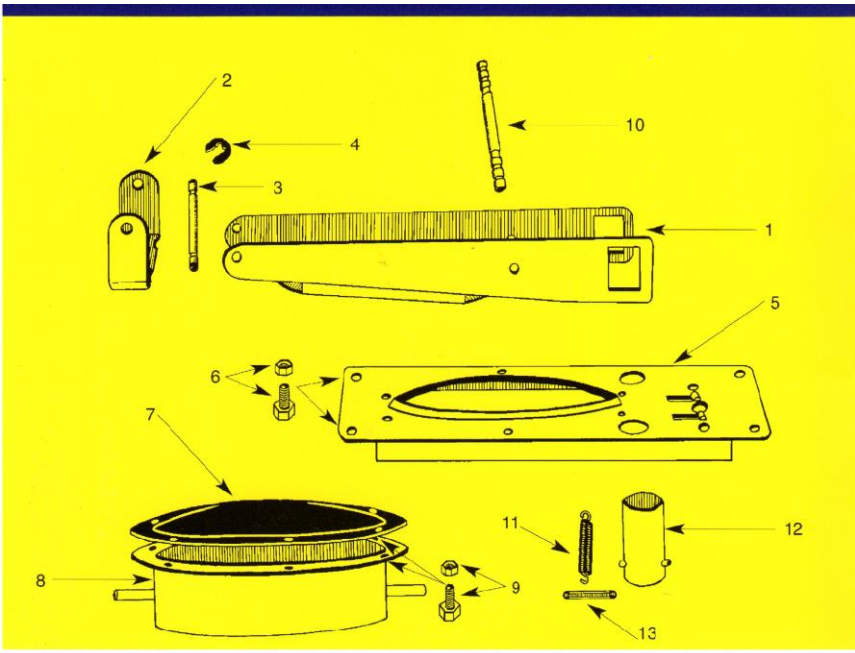
Maintenance Instructions for the Gepaval “Guardian-2” Propane Cannons

(Refer to attached schematic and parts list)

1. Verify that your **Guardian-2** cannon has no damage to any of the parts prior to general maintenance.
2. Lubricate moving parts, and specifically the two holes in the base (#5) where the firing bracket (#14) goes into the base.
3. Verify that line from the propane tank to the valve unit (#27) does not have any gas leaks. Gas leaks can come from the following parts at all connections:
 - a. Figure #7 – Membrane
 - b. Figure #26 – Gas inlet hose
 - c. Figure #27 – Gas Valve
 - d. Figure #31 – Membrane to valve hose
4. Check the ignition spark:
 - a. To check the spark plug, remove the spark plug from the barrel plate and ground the spark end of the plug to the cannon body (metal). Then manually pull up and release the firing bracket assembly (#14) as shown below. You should see a small spark across the spark plug gap.

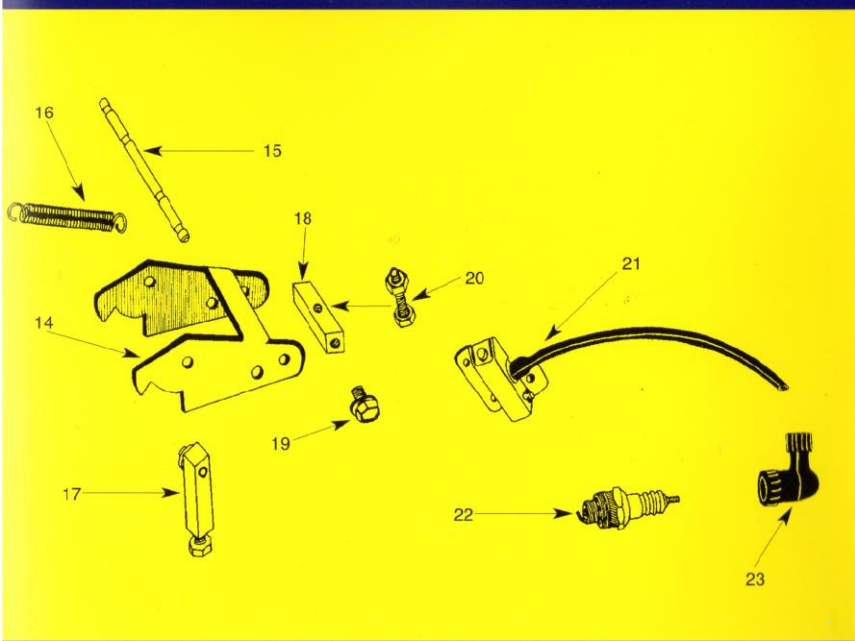


- b. If the spark plug (#22) is not firing correctly, check the electrode gap of the spark plug. It must have a minimum gap of .098 and a maximum gap of .125.
 - c. If the spark plug still does not fire after setting the gap, replace the spark plug and set the correct gap before installing.
5. If the **Guardian-2**, fires intermittently:
- a. Remove and clean the nozzle (#30) of the gas outlet valve (#27) with a thin copper wire, without scratching or enlarging the hole in the nozzle; clean and allow to air dry if a liquid cleaner is used.
 - b. After not using for a long period of time, or making a repair in the **Guardian-2**, firing will not happen until the third or fourth detonation cycle.
6. **VERY IMPORTANT: WHEN THE TEMPERATURE IS LESS THAN 46 DEGREEES, THE GUARDIAN-2 SHOULD ONLY RUN ON PROPANE GAS.**



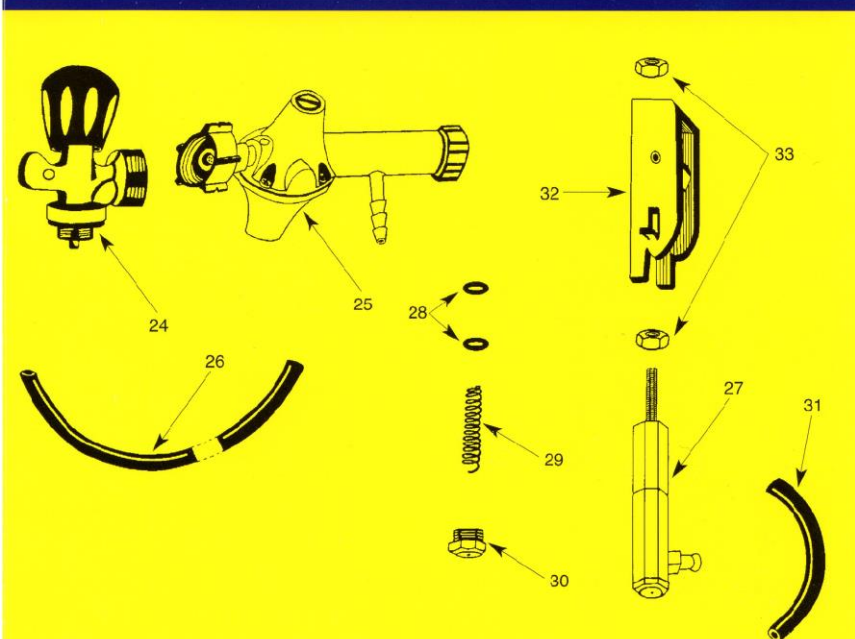
MEMBRANE UNIT

REF #	DESCRIPTION	QTY
1)	Lever	1
2)	Lever support	1
3)	Lever axle	1
4)	Axle C clip	2
5)	Base	1
6)	Base screw	4
7)	Membrane	1
8)	Membrane support	1
9)	Membrane screw	6
10)	Axle return lever	1
11)	Lever return spring	2
12)	Return spring support	2
13)	Return spring bolt	2



FIRING UNIT

REF #	DESCRIPTION	QTY
14)	Firing Bracket	1
15)	Firing axle	1
16)	Firing spring	2
17)	Firing support	2
18)	Striker support	1
19)	Support screw	2
20)	Striking bolt	1
21)	Electronic igniter	1
22)	Spark plug (Champion CJ8)	1
23)	Spark plug boot	1



REGULATOR UNIT

REF #	DESCRIPTION	QTY
24)	General shutoff valve	1
25)	Pressure regulator	1
26)	Gas inlet hose	1
27)	Gas valve	1
28)	Gas valve rubber o-ring	2
29)	Gas valve axle return spring	1
30)	Gas valve outlet jet	1
31)	Membrane to valve hose	1
32)	Gas valve control support	1
33)	Gas valve axle nut	2