



# Owner's Manual

## #01 WARNING!

Eye protection must be worn at all times by the user and any person located in the range of an actively used paintball marker. All safety gear must be designed and approved for paintball use.

01. The E2 marker is not a toy! Misuse or careless use can cause serious injury or death.
02. Please read the instructions in this operation manual and the accompanying warranty card before using.
03. Always use an approved barrel blocking device when marker is not in use.
04. Always ensure the marker is not pointed at anyone when it is being handled outside the confines of an actual paintball game and where proper eye protection and equipment are not being used.
05. This product is recommended for adults 18 years of age or older. Minors must have adult supervision or participate only on paintball fields meeting ASTM standard F1777-97.

## #02 STATEMENT OF LIABILITY

The manufacturer assumes no responsibility for this product's safe operation upon sale or distribution. PROPERTY DAMAGE, BODILY INJURY OR DEATH could occur due to misuse, abuse or failure to follow the manufacturer's instructions stated in this manual. The manufacturer will assume no responsibility for physical injury or property damage resulting from the use of this marker. The information in this document is subject to change without prior notice. The manufacturer assumes no responsibility for any errors that may appear in this document.

## #03 DISCLAIMER

Notice is hereby given that this owner's manual is part of the article owned in whole by the manufacturer, known as indicated by this disclaimer and all illustrations within the manual. All rights for manufacturing and reproducing of such



manufactured or reproduced in any way except by the written authorization of the manufacturer. All proprietary truths and information are the sole property of the manufacturer.

## **#04 LIMITED WARRANTY**

DANGEROUS POWER™ warrants this E2 paintball marker, to the initial retail purchaser, to be free from defect in original materials and/or workmanship for twelve (12) months from the original date of purchase, with the following exceptions:

- (a) Disposable parts (batteries, o-rings, seals, micro switch, rubber and/or plastic material parts, etc.) are not included in this limited warranty.
- (b) Electronic parts on this marker are fully warranted for 30 days from the original date of purchase.
- (c) Bolt and striker systems of this marker are fully warranted for 6 months from the original date of purchase.
- (d) Surface damages (scratches and nicks) or operation failure due to accident, neglect, modification, normal wear, operator error, maintenance by anyone other than an authorized dealer or agent, misuse, improper disassembly and reassembly, are expressly not covered under this warranty.

Purchaser is responsible for all rendered services not covered under this limited warranty, including any applicable shipping costs, labor, and/or installation. DANGEROUS POWER™ reserves the right to determine the legitimacy of claimed defective original parts and their eligibility for coverage under the terms of this warranty. DANGEROUS POWER™, its authorized dealers, affiliates, and/or agents, will not be held liable under this warranty, state, federal, common law for any product failure, personal injury, property damage resulting from improper use and/or alteration of this product. Any attempt to alter basic marker parts will result in automatic default of all expressed warranties. Paintball markers are nonrefundable and are not subject to exchange from manufacturer. This limited warranty is nontransferable and is valid only upon presentation of a completed warranty registration card and original proof of purchase. There are not other warranties or guarantees, expressed or implied, made by the manufacturer on this paintball marker.

## **#05 FEATURES**

- 01. Entire operation system utilizes only 2 moving parts for maximum dependability and ease of maintenance /repair!
- 02. Easy access to bolt and assembly.
- 03. Signature DP oversized trigger guard for easy 'trigger walking' - even with gloves on.
- 04. Standard 45 degree grip frame enables user to purchase and customize grips readily available.
- 05. Cocker compatible barrel threaded.
- 06. Lightweight, only 1.9lb with barrel and battery installed.
- 07. Low operating pressure (200psi) - ideal for even the most brittle tournament paint.
- 08. In-house, custom designed solenoid made to withstand extreme pressure for maximum reliability.



## #06 POWERING THE E2

The E2 is an electro-pneumatic marker and requires the use of a 9-volt battery in order to operate the circuit board that controls the firing mechanism. Using fresh, high quality batteries will ensure optimal performance. To maximize battery life, remove the battery after you are done playing for the day. To insert a battery, you will need to take the supplied 5/64 hex key, unscrew the Right grip panel, and remove it. Plug the battery into the grip frame and gently push it into place and the battery should fit snugly.

Only use compress air Nitrogen with the E2 marker, DO NOT USE CO2 with can damage the solenoid o-rings, regulator and other internals.

The E2 operates at under 240 psi, and will perform well with HP (high pressure) compressed air tanks. To attach a compressed air tank, simply attach and engage the threaded end of tank to the asa. Be sure to lubricate the tank's o-ring from time to time to ensure that it does not dry out and become susceptible to leaking. Avoid using any kind of oil in the ASA, as oil can damage the solenoid.

To disconnect the air tank, assure there no paintballs in the marker. Disengage the ASA by loosening the knob counterclockwise to release air from ASA then unscrew the air tank.

**Warning: The E2 will not automatically remove residual air in the regulator. To release residual air in the regulator, turn eye off and dry fire E2 until all residual gas has removed.**

## #07 POWER ON

### RC BOARD



**LED**  
Power ON  
BATTERY LEVEL OK (GREEN FLICKER)  
LOW BATTERY LEVEL (RED FLICKER)

**POWER BUTTON**  
Power ON  
PRESS/HOLD UNTIL LED ILLUMINATES  
(DISPLAYS BATTERY LEVEL). RELEASE  
AND MARKER IS READY TO FIRE.

Power OFF  
PRESS/HOLD 2 SECONDS UNTIL LED  
TURNS OFF. RELEASE AND MARKER  
IS OFF.

EYE CONTROL  
TAP TO TOGGLE EYE DISABLE/ENABLE.

01. To power up your E2, press & hold the power button until LED illuminates. Once LED begins to blink, your E2 marker is launched in Semi-Auto firing mode with eyes ON.

02. To toggle different firing modes between Semi-Auto & Full-Auto-Pull hold the trigger then press & hold the power button to turn on the E2. Your E2 is now set to either Full-auto firing or Semi-Auto mode with eyes ON.

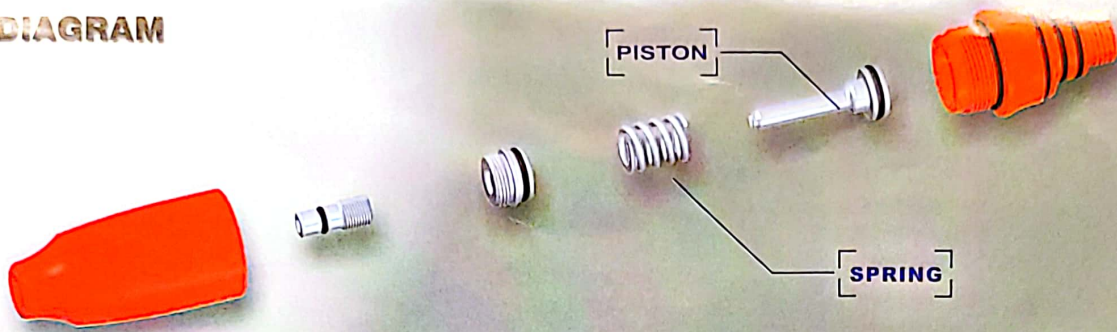
03. To toggle the E2 system's eye-breaker beam system Once your E2 is ON, press the power button & the LED light will change from a blink to a solid light.

**Warning: Trigger pulls of the E2 marker will fire when the eye sensors are turned off! Please make sure your E2 barrel sleeve is fasted & secured at all times when your E2's eye-breaker beam system is off.**

## #08 HPR MAINTENANCE



## HPR DIAGRAM



01. With a firm hold on the HPR body, unscrew by hand the entire unit in a counterclockwise direction. If the HPR unit is difficult to turn by hand, a rubber strap wrench available in most hardware may be used.
02. By hand or with the assistance of a strap wrench, unscrew the operating pressure regulator body from the HPR bottom housing.
03. Remove the regulator piston and spring.
04. Using supplied Allen key wrench (1/4") and (7/32"), Carefully disassemble the regulator bottom housing and piston seal by turning wrench handle counterclockwise.
05. Using supplied Allen key wrench (1/8") turn clockwise to remove velocity adjustment screw.
06. Remove all visible debris and dirt with a lightly dampened and clean cotton cloth. Do not scratch the surface of any regulator parts.
07. Lightly apply a small amount of DP-40 PLUS lubricant to the tip of a cotton swab.
08. Apply lubricant to the o-ring located on the base of the HPR piston.
09. Apply lubricant to the 2 o-rings located on the piston seal.
10. Apply lubricant to the o-ring located on the base of the regulator adjustment screw.

# #09 HPR ADJUSTMENT

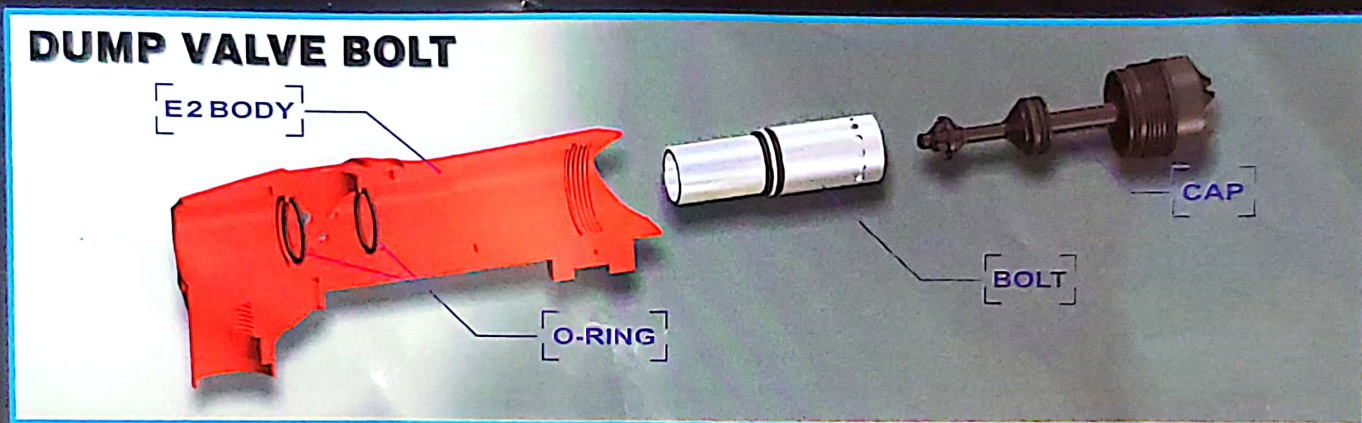
## ADJUSTMENT





01. The HPR is adjustable by using the hex screw at the bottom (use HEX tool #1/8).
02. Turning the adjustment screw clockwise, or in, will lower the HPR's output pressure. Turning the adjustment screw counterclockwise, or out, will raise the HPR's output pressure.
03. The E2 marker operates with greatest efficiency at approximately 200 psi.
04. Increasing pressure beyond recommended PSI Levels can damage your E2 solenoid as well as other parts.
05. Immediately shut off HPR if any leakage is detected.

## #10 BOLT MAINTENANCE



E2 is equipped with a precision crafted aluminum bolt for durability and reducing friction. The bolt must be kept clean for optimal performance. If the surface of the bolt becomes sticky, please use the following cleaning instructions:

1. Make sure the air system is not attached to the E2 and no air is retained in the regulator.
2. Remove the bolt cap from the rear ( use HEX tool 1/4 ).
3. Carefully remove the bolt from the rear.
4. Clean the bolt with a clean cloth. Inspect and replace all worn o-rings. Be sure to use the correct o-ring sizes for each groove on the bolt.
5. After completing above instructions, lubricate the o-ring with recommended DP Formula 40 or Dow 33. Do not over lubricate as it has been shown to cause "bolt drag".
6. Carefully inspect bolt cap to ensure the surfaces are free from damage.
7. Replace the bolt and secure bolt cap in original place. Use of force is not necessary and may damage/strip delicate threads.

## #11 TROUBLESHOOTING

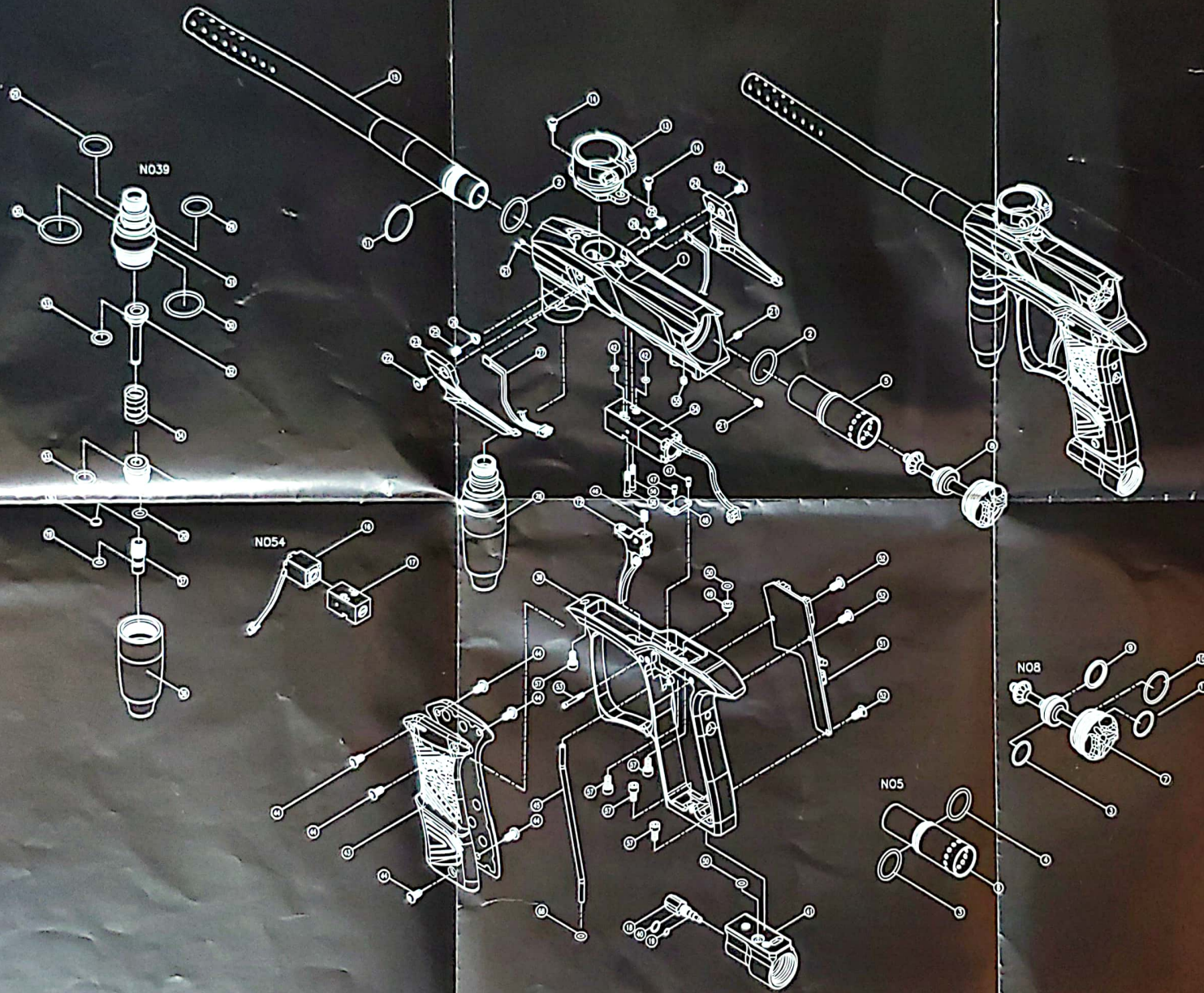


PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>E2 will not turn on</b>	Low battery power	Replace with fresh battery
	Battery is connected incorrectly to the PC board	Check to see if the battery is installed correctly to the terminal
<b>E2 will not fire</b>	Low battery power	Replace with fresh battery
	Low air pressure	Refill the air system
	HPR pressure is too low	Adjust HPR pressure without paintball present
	Insufficient pressure in tank	Refill tank
	Solenoid may have loose contact to board	Press solenoid wire into the terminal on the board properly
<b>E2 will not fire with sensor system on</b>	No paintball present	Turn on the loader
<b>E2 will not cycle completely</b>	Air pressure is too low	Adjust the operating pressure to 150 to 200 psi
	Low battery power	Change battery
	Bolt o-ring is worn	Change o-ring
	Bolt o-ring lubricant is exhaust	Lubricate the o-ring with Dow-33 lubricant
<b>Air leaking from barrel area</b>	Bolt cap o-ring is worn	Change o-ring
	Internal o-ring is worn or damaged	Change o-ring
<b>Paintball breaking out of the barrel</b>	Barrel size does not match paintball's	The stock barrel size is 0.690, change if necessary
	Ball detent is worn	Change ball detent
<b>Paintball chopping internally</b>	Ball detent is worn	Change ball detent
	Sensor system is not on	Switch it to ON
	Sensor system is unclean	Remove and clean eye-sensor
	Low battery power	Replace with fresh battery





# PARTS DIAGRAM MAP



57	SCREW	5	#10-32UNF-3/BL
56	SCREW	2	#3-56UNF-13.3L
55	SCREW	1	#8-32UNC-5/32L
54	VALVE SET	1	
53	SCREW	1	#3-56UNF-16.3L
52	SCREW	3	#3-56UNF-4L
51	CONTROL BOARD	1	
50	O RING	2	#3.5*#2
49	PIPE HOUSE	1	
48	SPRING HOUSE	1	
47	SCREW	2	#3-56UNF-4L
46	SPRING	1	
45	PIPE	1	
44	SCREW	6	#6-32UNC-8.32L
43	HANDLE	1	
42	O RING	2	#2*#1
41	ASA BODY	1	
40	O RING	1	#7.65*#1.78
39	TRIGGER FRAME	1	
38	OPR BODY	1	
37	SCREW	1	
36	SEAL	1	
35	SEAL CAP	1	
34	SPRING	1	
33	O RING	2	#10.82*#1.78
32	OPR PISTON	1	
31	OPR CAP	1	
30	O RING	2	#20.35*#1.78
29	O RING	2	#13*#2
28	OPR SET	1	
27	BALL SENSOR	1	
26	BALL DETENT	2	
25	SPRING	2	
24	EYE COVER	1	
23	EYE COVER	1	
22	SCREW	2	#5-40UNC-6.35L
21	SCREW	4	#5-40UNC-1/21L
20	O RING	1	#5.29*#1.78
19	O RING	2	#3.69*#1.78
18	ASA SWITCH	1	
17	VALVE BODY	1	
16	VALVE DRIVE	1	
15	BARREL	1	
14	SCREW	2	#8-32UNC-8.35L
13	FEED NECK SET	1	
12	TRIGGER SET	1	
11	O RING	2	#15.8*#1.78
10	O RING	1	#21.95*#1.78
9	BUMPER	1	
8	BACK CAP SET	1	
7	BACK CAP	1	
6	BOLT	1	
5	BOLT SET	1	
4	O RING	1	#15.8*#1.9
3	O RING	2	#13.8*#1.9
2	O RING	2	#17.17*#1.78
1	BODY	1	
NO	PART NAME	Qty	NOTE

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57	SCREW	5	#10-32UNF-3/8L
56	SCREW	2	#3-56UNF-13.3L
55	SCREW	1	#8-32UNC-5/32L
54	VALVE SET	1	
53	SCREW	1	#3-56UNF-16.3L
52	SCREW	3	#3-56UNF-4L
51	CONTROL BOARD	1	
50	O RING	2	$\phi 3.5 * \phi 2$
49	PIPE HOUSE	1	
48	SPRING HOUSE	1	
47	SCREW	2	#3-56UNF-4L
46	SPRING	1	
45	PIPE	1	
44	SCREW	6	#6-32UNC-6.35L
43	HANDLE	1	
42	O RING	2	$\phi 2 * \phi 1$
41	ASA BODY	1	
40	O RING	1	$\phi 7.65 * \phi 1.78$
39	TRIGGER FRAME	1	
38	OPR BODY	1	
37	SCREW	1	
36	SEAL	1	
35	SEAL CAP	1	
34	SPRING	1	
33	O RING	2	$\phi 10.82 * \phi 1.78$
32	OPR PISTON	1	
31	OPR CAP	1	
30	O RING	2	$\phi 20.35 * \phi 1.78$
29	O RING	2	$\phi 13 * \phi 2$



28	OPR SET	1	
27	BALL SENSOR	1	
26	BALL DETENT	2	
25	SPRING	2	
24	EYE COVER	1	
23	EYE COVER	1	
22	SCREW	2	#5-40UNC-6.35L
21	SCREW	4	#5-40UNC-1/8"L
20	O RING	1	ø5.29xø1.78
19	O RING	2	ø3.69xø1.78
18	ASA SWITCH	1	
17	VALVE BODY	1	
16	VALVE DRIVE	1	
15	BARREL	1	
14	SCREW	2	#8-32UNC-6.35L
13	FEED NECK SET	1	
12	TRIGGER SET	1	
11	O RING	2	ø15.6*ø1.78
10	O RING	1	ø21.95*1.78
9	BUMPER	1	
8	BACK CAP SET	1	
7	BACK CAP	1	
6	BOLT	1	
5	BOLT SET	1	
4	O RING	1	ø15.8*ø1.9
3	O RING	2	ø13.8*ø1.9
2	O RING	2	ø17.17*1.78
1	BODY	1	
NO	PART NAME	Q'ty	NOTE