

E1 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 E1 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 articles or any part thereof are reserved by the manufacturer. Neither said article nor any part thereof may be 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 E1 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, air pressure hose, 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, or common law for any product failure, personal injury, or property damage resulting from improper use and/or alteration of this product. Any attempt to alter the trigger assembly will instantly void your warranty and may result in serious injury. Any attempt to alter basic marker parts without prior written consent from the manufacturer 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 no 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, and six o-rings, for maximum dependability and ease of maintenance /repair! (Fewer o-rings minimize 'bolt stick' due to less friction upon initial fire, and lessens chance of first shot drop off)
02. Easy access to bolt and assembly, tools provided. Only one screw to remove.
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, 3-D milled body - entire marker, complete with ASA, feedneck, barrel, and 9V battery is only 1.9 pounds!
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 E1

The E1 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. The battery will slowly drain if left in the E1 - even if the marker is not turned on! 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 3/32 hex key, unscrew the left grip panel, and remove it. Plug the battery into the harness and gently push it into place. The battery should fit snugly, but refrain from using force to coerce the wires into positions as doing so can cause damage!

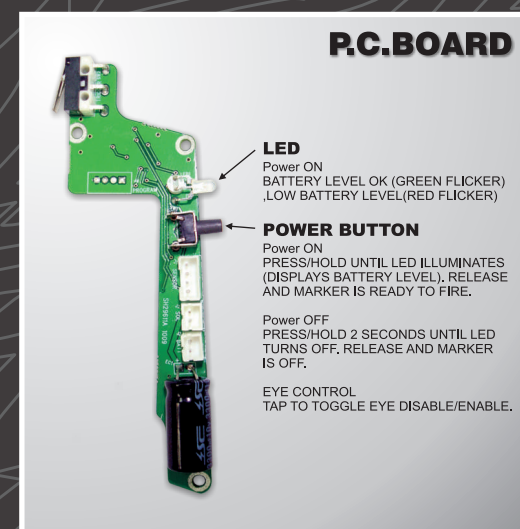
Do not use CO2 with the E1 marker. At high rates of fire with cold temperatures, liquid CO2 can damage the solenoid. Co2 is also much harsher on rubber o-rings and can cause irreparable damage within the regulators and other internals. Due to the E1's use of an electronic solenoid and its capability for high rates of fire, use only nitrogen or compressed air.

The E1 operates at under 240 psi, and will perform equally well with HP (high pressure) or LP (low 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 liquids 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 E1 will not automatically remove residual air in the regulator. To release residual air in the regulator, turn eye off and dry fire E1 until all residual gas has removed.

#07 POWER ON



01. To power up your E1, press & hold the power button until LED illuminates. Once LED begins to blink, your E1 marker is launched in Semi-Auto firing mode with eyes ON.
02. To toggle different firing modes between Semi-Auto & Full-Auto-Pull and hold the trigger, then press & hold the power button until LED illuminates. Your E1 is now set to either Full-auto firing or Semi-Auto mode with eyes ON.
03. To toggle the E1 system's eye-breaker beam system-Once your E1 is ON, press the power button & the LED light will change from a blink to a solid light.

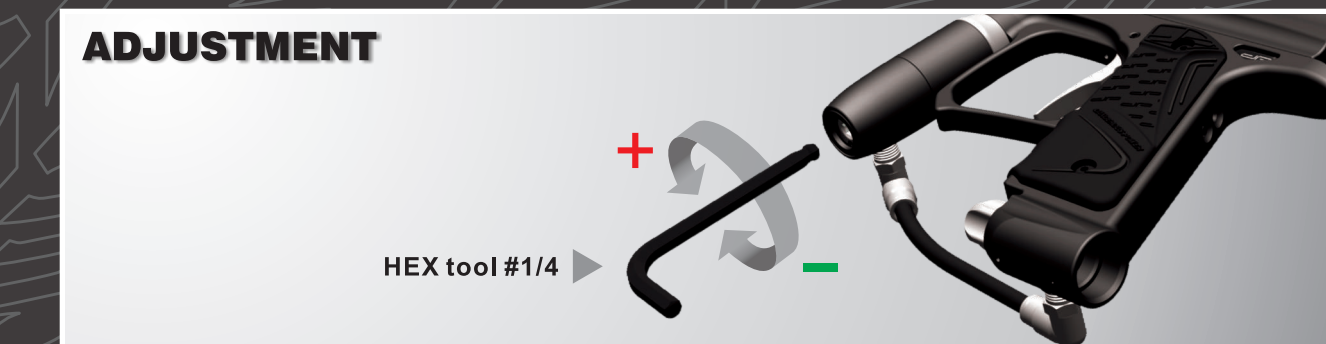
Warning: Trigger pulls of the E1 marker will fire when the eye sensors are turned off! Please make sure your E1 barrel sleeve is fasted & secured at all times when your E1's eye-breaker beam system is off.

#08 HPR MAINTENANCE



01. Disconnect the macro-line.
02. Unscrew the bottom portion of the regulator.
03. Screw the adjustment screw all the way in.
04. Gently tap end down until the piston (part #76) is free from the HPR body.
05. Be aware to note the order of shims.
06. Clean the piston and examine the two o-rings for any visible signs of damage. Replace if necessary.
07. Once cleaned/replaced, lubricate the o-rings with Dow-55 lubricant.
08. Replace shims in the original order on the piston, and reinsert into HPR body.
09. Screw body onto the top portion of the HPR and reinsert macro-line.

#09 HPR ADJUSTMENT

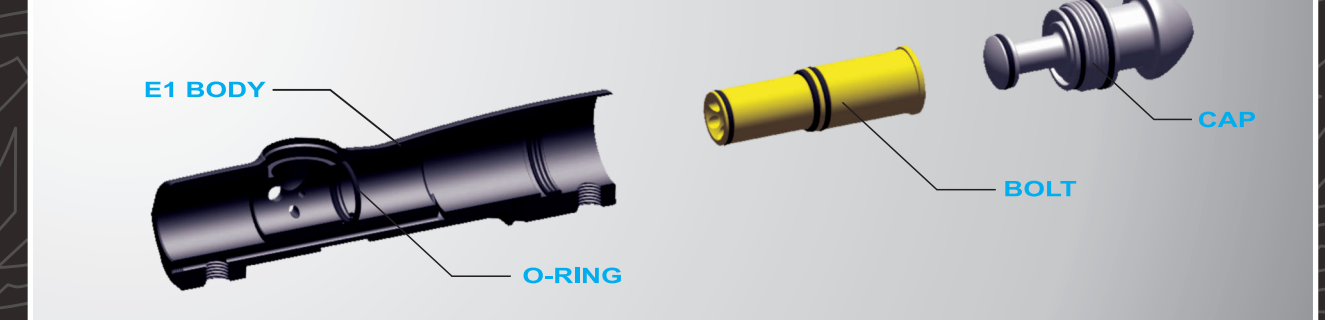


01. The HPR is adjustable by using the hex screw at the bottom (use HEX tool #1/4).
02. Turning the adjustment screw clockwise, or in, will lower the HPR's output pressure. Turning the adjustment screw counterclockwise, or out, will raise the HPR's output pressure.

03. The E1 marker operates with greatest efficiency with the HPR gauge (sold separately) at approximately 200 psi.
04. Increasing pressure beyond recommended PSI Levels can damage your E1 solenoid as well as other parts.
05. Immediately shut off HPR if any leakage is detected.

#10 BOLT MAINTENANCE

DUMP VALVE BOLT



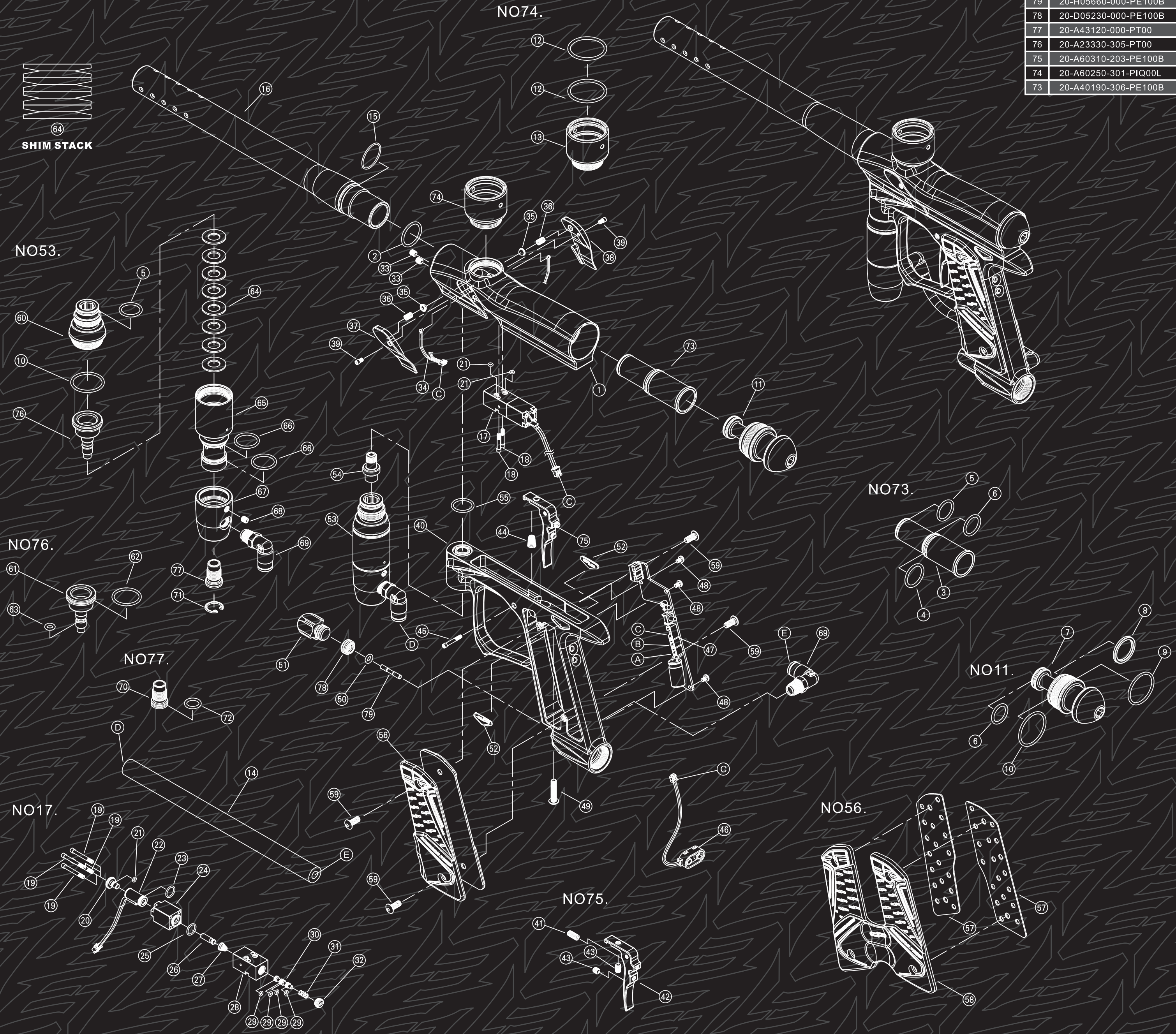
E1 is equipped with a precision crafted aluminum bolt for durability and reducing friction. The bolt must be kept clean for optimal performance. If the surface of the bolt becomes sticky, please use the following cleaning instructions:

1. Make sure the air system is not attached to the E1 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, and take out all o-rings from the bolt. Inspect and replace all worn o-rings. Be sure to use the correct o-ring sizes for each groove within the bolt.
5. After completing above instructions, lubricate the o-ring with recommended DP Formula 40 or Dow 55. 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
E1 will not turn on	Not activated	Hold down operating button for more than 4 seconds
	Low battery power	Replace with fresh battery
E1 will not fire	Battery is connected incorrectly to the PC board	Check to see if the battery cable is connected correctly to the terminal
	Low battery power	Replace with fresh battery
	Low air pressure	Refill the air system
	Solenoid may be out of place	Open grip and press solenoid forward
	HPR pressure is too low	Adjust HPR pressure without paintball present
	Insufficient pressure in tank	Refill tank
E1 will not fire with sensor system on	Solenoid may have loose contact to board	Press solenoid wire into the terminal on the board properly
	No paintball present	Turn on the loader
E1 will not cycle completely	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
Air leaking from barrel area	Bolt o-ring lubricant is exhaust	Lubricate the o-ring with Dow-55 lubricant
	Bolt cap o-ring is worn	Change o-ring
Paintball breaking out of the barrel	Internal o-ring is worn or damaged	Change o-ring
	Barrel size does not match paintball's	The stock barrel size is 0.690, change if necessary
Paintball chopping internally	Ball detent is worn	Change ball detent
	Ball detent is worn	Change ball detent
Paintball chopping internally	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



79	20-H05660-000-PE100B	1		72	20-F01580-000-PFUS0A	1	ø 9.25 x ø 1.78
78	20-D05230-000-PE100B	1		71	20-W53010-000-PFUS0A	1	
77	20-A43120-000-PT00	1		70	20-H05523-000-PG3LEH	1	OPR
76	20-A23330-305-PT00	1		69	20-A01130-104-PT00	2	1/8" NPT
75	20-A60310-203-PE100B	1		68	20-W10960-000-PTH7A	1	#10-32UNF-4.76L
74	20-A60250-301-PIQ00L	1		67	20-B16313-301-PE100B	1	
73	20-A40190-306-PE100B	1		66	20-F01760-000-PTH7A	2	ø 15.6 x ø 1.78
				65	20-B16303-301-PE100B	1	
				64	20-W20090-000-PFUS0A	8	
				63	20-F01570-000-PFUS0A	1	ø 4.47 x ø 1.78
				62	20-F01540-000-PFUS0A	1	ø 18.77 x ø 1.78
				61	20-B10302-305-PG3LEH	1	
				60	20-B25713-301-PE100B	1	
				59	20-W10730-000-PFUS0A	4	#8-32UNC-5/16"L
				58	20-E05220-601-PIQ00L	1	
				57	20-C10110-000-PSPI0B	2	
				56	20-A13750-601-PIQ00L	1	
				55	20-F01560-000-PFUS0A	1	ø 10.82 x ø 1.78
				54	20-D20090-000-PE100B	1	
				53	20-A20320-301-PE100B	1	
				52	20-X45770-000-PG300B	2	
				51	20-B20293-301-PE100B	1	
				50	20-F01590-000-PFUS0A	1	ø 3.69 x ø 1.78
				49	20-W11070-000-PE100B	1	#8-32UNC-19L
				48	20-W10840-000-PFUS0A	3	#3-56UNF-5/32"L
				47	20-W23690-000-PE100B	1	
				46	20-W23510-000-PFUS0A	1	
				45	20-W10980-000-PTH7A	1	
				44	20-G10290-000-PTH7A	1	
				43	20-W10950-000-PTH7A	2	#8-32UNC-6.35L
				42	20-B30943-301-PE100B	1	
				41	20-W11010-000-PFUS8A	1	#8-32UNC-9.53L
				40	20-B05315-204-PE100B	1	
				39	20-W11020-000-PSPI0B	2	#3-56UNF-4L
				38	20-B30963-203-PE100B	1	
				37	20-B30953-203-PE100B	1	
				36	20-G10300-000-PSPI0B	2	
				35	20-E01150-000-PSPI0B	2	
				34	20-W23600-000-PSPI0B	1	
				33	20-W10930-000-PTH7A	2	#5-40UNC-3/16"L
				32	20-H03110-000-PFUS0A	1	
				31	20-G10220-000-PFUS0A	1	
				30	20-H05480-000-PTH7A	1	
				29	20-F01700-000-PFUS0A	4	ø 2 x ø 1
				28	20-B20242-305-PTH7A	1	
				27	20-G10230-000-PFUS0A	1	
				26	20-C20053-104-PTH7A	1	
				25	20-F01470-000-PFUS0A	1	ø 7.5 x ø 1
				24	20-C01042-104-PFUS0A	1	
				23	20-F01480-000-PFUS0A	1	ø 6 x ø 1
				22	20-A06170-000-PSPI0B	1	
				21	20-F01780-000-PG300B	3	ø 2 x ø 1
				20	20-C20040-104-PFUS0A	1	
				19	20-W10780-000-PFUS0A	4	#3-56UNF-19.8L
				18	20-W10790-000-PFUS0A	2	#3-56UNF-13.3L
				17	20-A06192-305-PIQ00L	1	
				16	20-B16322-301-PE100B	1	
				15	20-F01820-000-PSPE0B	1	ø 12.42 x ø 1.08
				14	20-E02092-000-P031	1	ø 1/4" x 130L
				13	20-B25583-301-PIQ00L	1	
				12	20-F01770-000-PIQ00L	2	ø 25.5 x ø 2
				11	20-A40180-300-PE100B	1	
				10	20-F01550-000-PFUS0A	2	ø 21.95 x ø 1.78
				9	20-F01890-000-PE100B	1	ø 23.52 x ø 1.78
				8	20-E10170-000-PT00	1	
				7	20-B10433-300-PE100B	1	
				6	20-F01720-000-PTH7A	2	ø 13.8 x ø 1.9
				5	20-F01510-000-PFUS0A	2	ø 14 x ø 1.78
				4	20-F01750-000-PTH7A	1	ø 15.8 x ø 1.9
				3	20-B10242-306-PSPI0B	1	
				2	20-F01730-000-PTH7A	1	ø 17.17 x ø 1.78
1	20-B01295-301-PE100B	1					
NO	ITEM NUMBER	Q'ty	NOTE				