

FUSION™



OWNER'S MANUAL

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CONGRATULATIONS ON YOUR PURCHASE!

Welcome to the Dangerous Power™ family. You can rest assured that you now own a product crafted with the latest technology and highest grade materials. Each and every F8™ marker has been meticulously hand assembled, and thoroughly tested with several rounds of paintballs before leaving the factory. We believe that our attention to detail and innovation sets us apart from the rest. Our mission is to bring the greatest value to paintball, while growing the exciting and adrenaline rushing sport we all love and enjoy.

At Dangerous Power™ we not only bring you the most innovative products of the highest quality, but also take great pride in our customer service. By purchasing any Dangerous Power marker or accessory, you can play with confidence knowing that you have a knowledgeable and dependable staff backing you up every step of the way should you ever need assistance. It is our commitment to you, and a way to simply say THANK YOU.

Welcome to the world of....DANGEROUS POWER™!

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. The eye protection gear must be approved and designed for paintball use.

- ⚠ The F8 marker is not a toy!
- ⚠ Misuse or careless use can cause serious injury or death.
- ⚠ Please read the operation manual and warranty card before using.
- ⚠ Always use a barrel blocking device.
- ⚠ 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.
- ⚠ This product is recommended for use for adults 18 years or older. Person under 18 must have adult supervision or use only on paintball fields meeting ASTM standard F1777-97.

STATEMENT OF LIABILITY

The manufacturer assumes no responsibility for this product's resale or safe operation upon 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 appear in this document.

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 from the manufacturer. All proprietary rights and information are the sole property of the manufacturer.

LIMITED WARRANTY

DANGEROUS POWER™ warrants this F8 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, and attempts made to drill holes or remove metal from the external surfaces which could reduce the safety and/or performance of this marker are not covered under this limited 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 non-refundable and are not subject to exchange from manufacturer.

This limited warranty is non-transferable 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.

FEATURES

- 200 to 250 psi operating pressure.
- Efficient use of Nitrogen or compressed air.
- Cocker compatible barrel thread.
- Low-friction self lubricating Delrin bolt.
- Quick-strip bolt and ram assembly.
- Blade style trigger with oversized trigger guard for easy trigger walking even with gloves worn.
- Optical trigger with externally adjustable pre and post travel.
- Sensor trigger with 2-step adjusting.
- Super bright LED user interface (**Semi / ramping**) on circuit board.
- Break-beam anti-chopping eyes.
- Blade style trigger for lighter pull.
- Complete hoseless design substitutes air passageways into body for increased reliability and ease of maintenance.
- Low-rise clamping feed neck, compatible with any loader.
- Lightweight 3D milled body.
- High pressure regulator for increased adjustability.
- ASA (**Air System Adapter**) system.

INSIDE THE PACKAGE

- (1) F8 marker body
- (1) Two piece .690 barrel
- (1) Barrel condom
- (1) 11-piece hex key set
- (1) Package of replacement O-rings
- (1) User manual
- (1) Warranty card
- (1) Dangerous Power™ Key Chain
- (2) Dangerous Power™ Hopper Decals

POWERING THE F8

The F8 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 drain slowly drain if left in the F8 - even if the marker is not 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 serious damage!** (Tip: If you are having trouble getting an old battery out, simply remove the other panel. Once it is off, you can easily push the battery out from the other side.)

Do not use CO₂ with the F8 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 F8's use of an electronic solenoid and its capability for high rates of fire, only use nitrogen or compressed air.

The F8 operates at under 250 psi, and will perform equally well with either LP (low pressure) or HP (high pressure) compressed air tanks. To attach a compressed air tank, simply screw it into the ASA, and then screw in the on/off knob as far as it will go. 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, first make sure that there are no paintballs in the marker. Flip the on/off on the front of the RAPS. The F8's HPR (High Pressure Regulator) can still hold air, even after the tank is deactivated. Clear the remaining air out of the F8 by dry firing until it no longer fires. Once completed, unscrew air tank. Do not fasten air tank on the F8 unless you intend to fire it. Promptly remove after use to prevent accidental discharge.

ADJUSTING PRESSURE AND VELOCITY

When air enters the F8, it first enters through the HPR where it is regulated down to approximately 200~250 psi. From there, the air takes two paths - the first leads to the chamber and will flow of the bolt to propel the paintball. The second path takes air flows through the solenoid and is responsible for cycling the bolt back to open the valve. The majority of the paintball's velocity is a function of the HPR.

KEY HIGHLIGHTS:

- Before attaching the air system, ensure the air system adapter is in place.
 - HPR: 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.
 - The initial adjustment should be made with no paintballs loaded.
 - When adjusting or operating with low pressure, always check the velocity using chronograph devices.
 - Use caution when adjusting, as internal damage may occur to the components or the regulator systems and may void the warranty.
-

HPR ADJUSTMENT

- The HPR is adjustable by using the hex screw at the bottom.
 - The F8 marker operates with greatest efficiency with the HPR gauge at approximately 220 psi.
 - The suggested operating pressure is between 200 to 250 psi. Exceeding 250 psi with the HPR is not necessary to reach the 300 fps universal velocity limit. Increasing pressure beyond what is recommended can damage parts (#91) as well as create other problems.
 - Immediately shut off HPR if any leakage is detected.
-

TRIGGER ADJUSTMENT

- The two adjustment screws are located on the trigger and trigger guard.
- The screw controls the over-travel. By turning this screw you can adjust how far the trigger will travel after it reaches the firing point.
- The screw below controls the forward travel. Screwing it in will shorten the trigger's length of pull.

IMPORTANT NOTE:

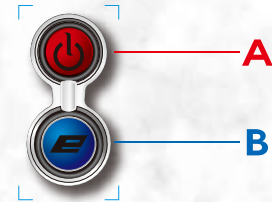
It is possible to adjust the trigger to the point where it is past the activation point, or not capable of being activated. Both conditions may lead user to believe the marker is inoperable.

LED INTERFACE OPERATION

Before operating the PC board of the F8, ensure the barrel blocking device is in place. There is an operating button located on the back. Follow activation instructions for how to read the LED interface:

ACTIVATION:

1. To activate F8, hold down button "A" for 1.5 seconds. When the red light turns into a blinking blue light, the sensor has been activated.
2. F8 is ready to be fired once the marker has been loaded and the blue light remains on.
3. Press the button "B" to switch sensor systems.
4. F8 will turn off automatically after 20 minutes of non-use.
5. Press "A" to manually shut off the F8.
6. BPS and Ramping System:



CFOA MODE
BPS:15



(SEMI)

NPPL MODE
BPS:25



(SEMI)

PSP MODE
BPS:15



(5 BPS Active Ramping)

RAMPING MODE
BPS:25



(5 BPS Active Ramping)

MILL MODE
BPS:15



(8 BPS Active Ramping)

NXL AUTO
BPS:15



(5 BPS Active Ramping →
hold trigger transfer full auto)

RAMPING MODE
BPS:15



(3 BPS Active Ramping)

RAMPING MODE
BPS:25



(3 BPS Active Ramping)

Quick Reference Guide:

- Red light flashing every 3 seconds - Battery power low.
- Blue light blinking rapidly - Sensor system OFF.
- Blue light blinking slowly - Sensor system ON and marker NOT loaded.
- Blue light steady - Sensor system ON and marker loaded.

DEACTIVATION

- Press and hold the power button "A" for 4 seconds.
- LED turn off after releasing the hand.

BOARD ADJUSTMENT

Using a HEX tool, remove the 2 screws located on the top and bottom of grip with the F8 pointing to the left. The 2 adjusting finger switches are located on the top of the PC board.

EXTERNAL MAINTENANCE

Most contaminates found on external surfaces can easily be removed with water and a dry clean dump cloth or a few drops of cleaning oil. Other useful supplies for maintaining F8 are clean rags, Q-tips, and water / rubbing alcohol mix.

SENSOR SYSTEM MAINTENANCE

The sensor system must be kept clean for optimal performance. Please follow the instructions below for cleaning and maintenance:

1. Remove the two screws located on the top and bottom of grip using a HEX tool.
2. Clean the area thoroughly with cotton swab.
3. Replace the sensor system and the cover.
4. Replace the screws back onto the sensor system cover.

BOLT MAINTENANCE

F8 is equipped with a Delrin fieldstrip 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 F8 and there is no paintball inside.
2. Lift up the locking pin on the bolt and remove the bolt from the rear.
3. Clean the bolt with a clean damp cloth. Soap and warm water may be used to remove any residue.
4. Do not lube the bolt, as it is made of self-lubricating material.
5. The pin locking system should be gently oiled to ensure proper functioning. The pressure holding the pin in place can be adjusted at the back of the bolt.
6. Clean the bore of the F8 with a squeegee and ensure there are no remaining contaminants.
7. Replace the bolt back to F8 and check for movement - it should now move freely in the bore.



back position



forward position

STRIKER MAINTENANCE

Follow the instructions below to carefully remove the striker assembly for cleaning and maintenance:

1. Disconnect the air system and loader and ensure there is no paintball inside of the F8.
2. Lift up the locking pin and turn the cylinder 90 degrees counterclockwise, then pull the striker and main spring.
3. Place each component carefully and pay attention to their settings.
4. Pull the striker out from the ram cap and locate the two O-rings on the rear end of sticker.
 - Lubricate O-rings with gel-type lubricant if necessary.
 - Replace the O-rings after excessive wear.
5. Clean the bore of the F8 with a squeegee and ensure there are no remaining contaminants.
6. Reassemble the components and slip them back in their respective chambers.
7. Screw the hose connector back to ram cap and reinstall the striker locking pin in the rear of bolt.

FIRING VALVE MAINTENANCE

Follow the below instruction to remove the firing valve assembly carefully for cleaning and maintenance:

1. Remove the ASA (**air system adapter**) hoses.
2. Remove the two screws located on the top and bottom of grip using a HEX tool.
3. Disassemble the solenoid line and sensor eye system.
4. Remove the two invisible screws using a HEX tool.
5. Separate the body and grip frame.
6. Turn the firing valve screw (**found under the body**) counterclockwise.
7. Take out the firing valve by using plastic stick (**no wider than 17.5mm**).

HPR MAINTENANCE

1. Disconnect the macro-line.
2. Unscrew the bottom portion of the regulator.
3. Screw the adjustment screw all the way in.
4. Gently tap top end down until the piston (part #42) is free from the HPR body.
5. Take care to note the order of shims.
6. Clean the piston and examine the two O-rings for any visible signs of damage. Replace if necessary.
7. Once cleaned/replaced, lubricate the O-rings with Dow-55 lubricant.
8. Replace shims in same order on the piston, and reinsert into HPR body.
9. Screw back onto the top portion of the HPR and reinsert macro-line.

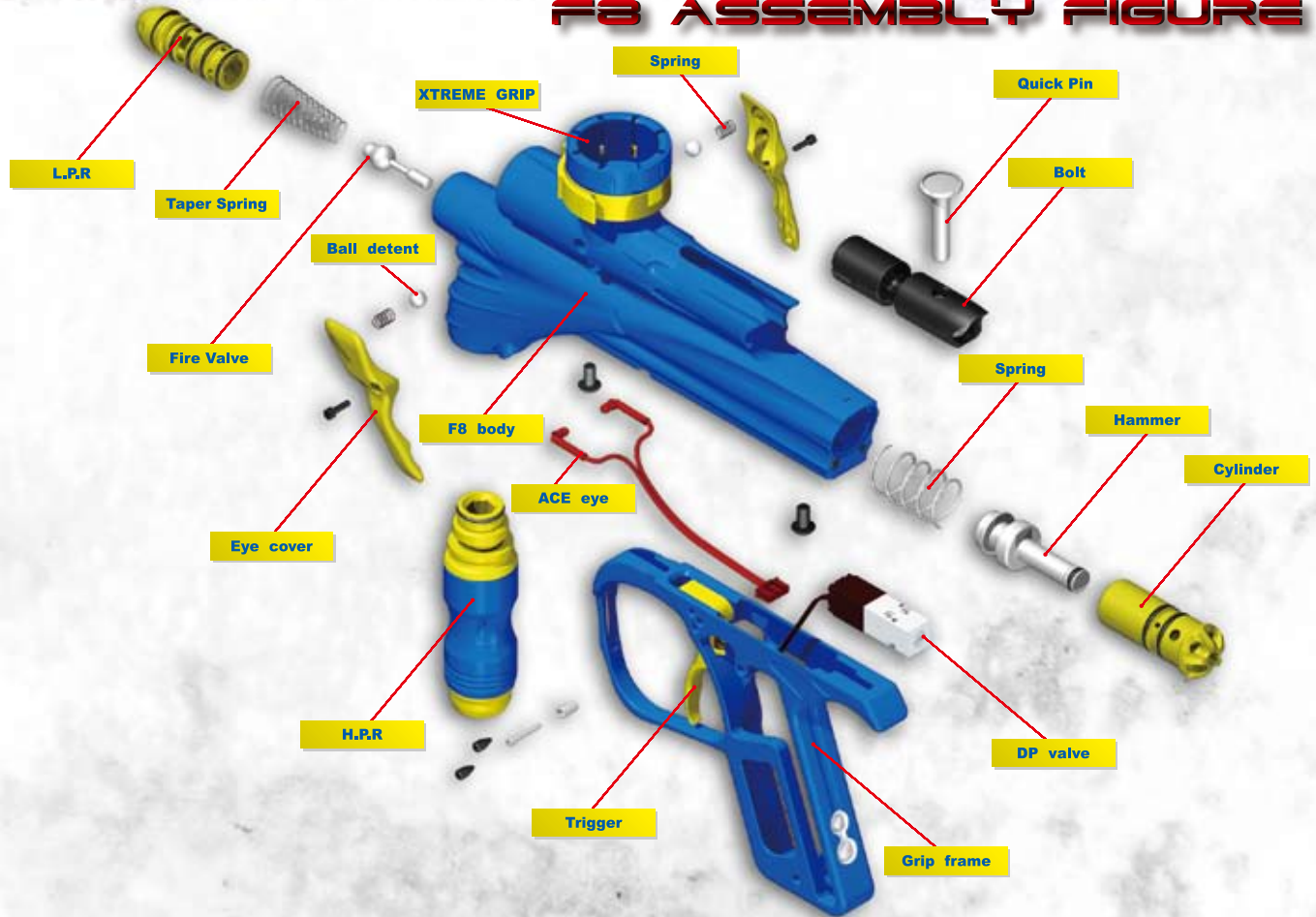


STORAGE AND TRANSPORTATION

- Clean and deactivate F8. Detach air systems when not in use.
- Make sure the barrel blocking device is in place when not in use.
- Keep F8 away from any unauthorized users.
- During transportation, F8 must be detached from air sources.
- Do not carry F8 uncased when not on a playing field. Non-playing public and law enforcement personnel may mistake the marker for a firearm.
- Always carry F8 in its factory case or a suitable marker case.
- Never transport Charged N₂ / compressed air or CO₂ air systems.



F8 ASSEMBLY FIGURE

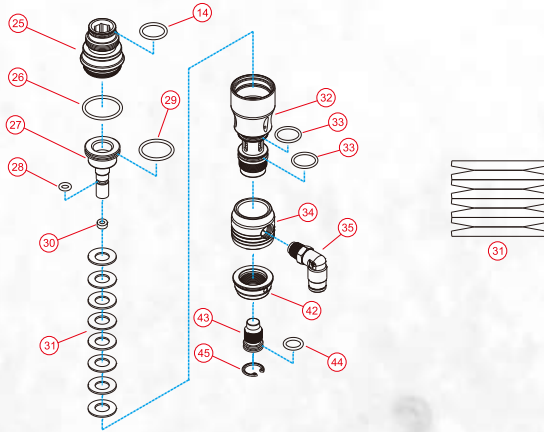


TROUBLESHOOTING

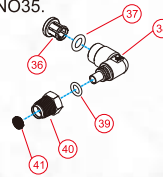
PROBLEM	POSSIBLE CASUE	SOLUTION
F8 will not turn on	Not activated	Hold down operating button for more than 4 seconds
	Low battery power	Change battery
	Battery is connected incorrectly to the PC board	Check to see if the battery cable were connected correctly to the terminal
F8 will not fire	Low battery power	Change battery
	Low pressure air	Refill the air system
	Solenoid may be out of place	Open grip and press solenoid forward
F8 will not fire with sensor system on	No paintball present	Turn on the loader
	Sensor system is unclean	See "Sensor System Maintenance"
	Ball detent is damaged	Call the authorized dealers for replacement
	Paintball broke inside	See "Bolt and Sensor System Maintenance"
Air leak from barrel area	Valve pin is worn	Replace them
F8 will not cycle completely	Air pressure is too low	Adjust the operating pressure to 200 to 250 psi
	Low battery power	Change battery
	O-ring of striker is worn	Replace the O-ring
	Striker is worn	Call the authorized dealers for replacement
Breaking paintball when shooting out of the barrel	Barrel size dose not match paintball's	The stock barrel size is 0693, change it if necessary
Chopping paintball internally	Ball detent is worn	Call the authorized dealers for replacement
	Sensor system is not on	Switch it to ON
	Low battery power	Change battery

PARTS DIAGRAM AND TABLE

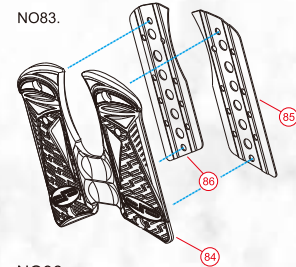
NO24.



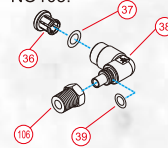
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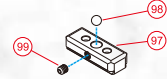
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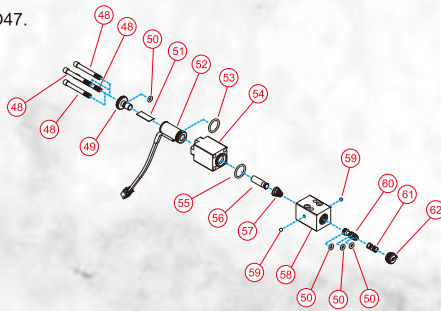
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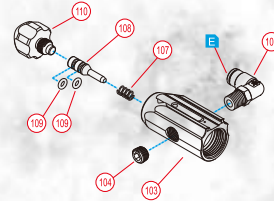
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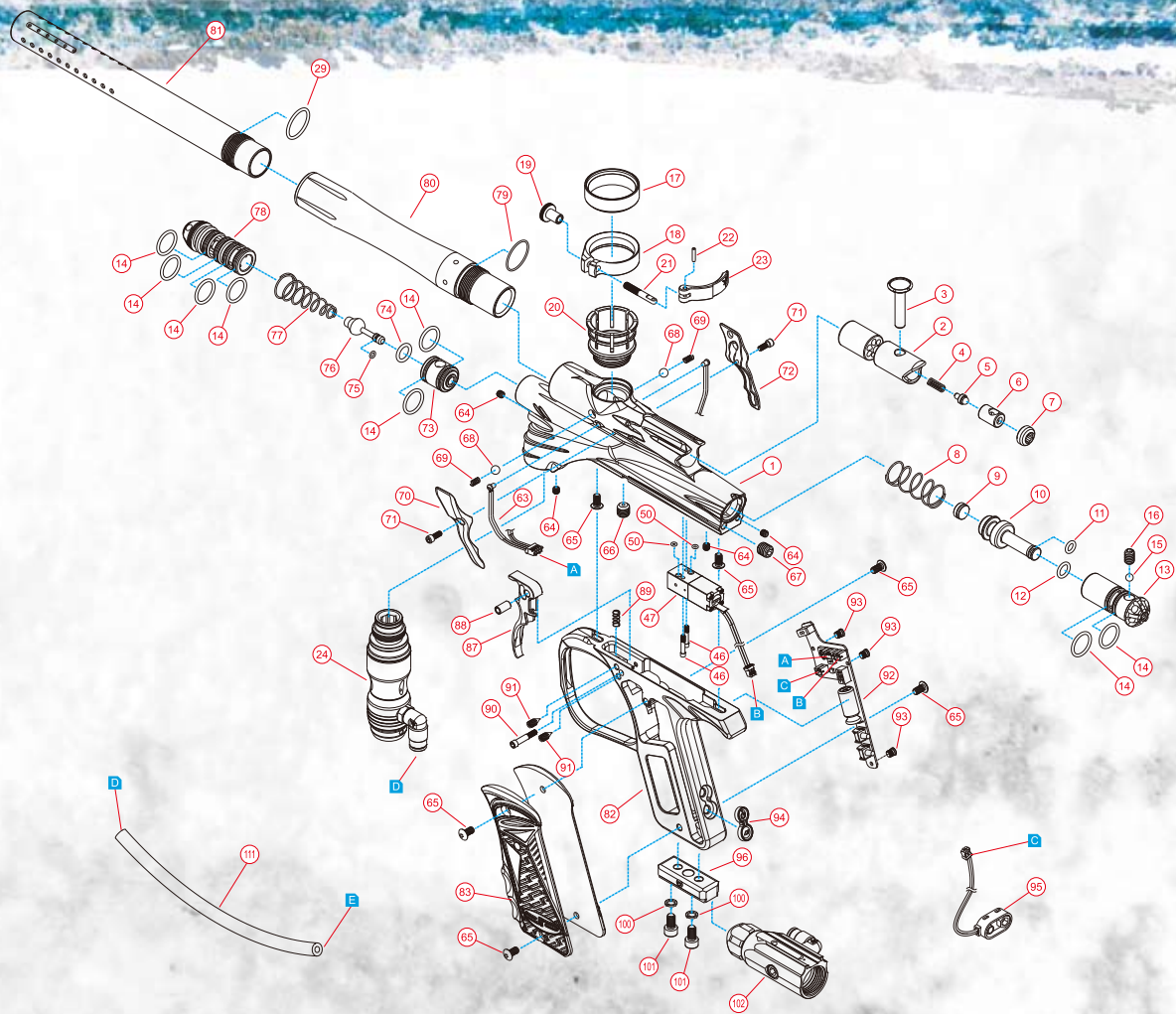


NO47.



NO102.





NO	ITEM NUMBER	Qty	NOTE
1	20-B01196-301-PFUS8A	1	
2	20-E02112-000-PFUS8A	1	
3	20-H05500-000-PFUS8A	1	
4	20-G01240-000-PFUS8A	1	
5	20-H05430-000-PFUS8A	1	
6	20-H05530-000-PFUS8A	1	
7	20-H03160-000-PFUS8A	1	1/2"-28UNEF
8	20-G01230-000-PFUS0A	1	
9	20-E01100-000-PFUS0A	1	
10	20-H05420-000-PFUS0A	1	
11	20-F01520-000-PFUS0A	1	Ø 5, 29*Ø 1, 78
12	20-F01530-000-PFUS0A	1	Ø 7, 65*Ø 1, 78
13	20-B10223-301-PFUS8A	1	
14	20-F01510-000-PFUS0A	9	Ø 14*Ø 1, 78
15	20-W01030-000-PDM1	1	SØ 3/16"
16	20-W10860-000-PFUS0A	1	1/4-20UNC-3/8"L
17	20-B15912-301-PTHR7A	1	
18	20-B15903-301-PTHR7A	1	
19	20-H03120-000-PFUS0A	1	
20	20-B25482-301-PTHR7A	1	
21	20-C25020-000-PT00	1	
22	20-H05270-000-PT00	1	
23	20-B30484-301-PTHR7A	1	
24	20-A20240-301-PFUS8A	1	
25	20-B25523-301-PFUS8A	1	
26	20-F01550-000-PFUS0A	1	Ø 21, 95*Ø 1, 78
27	20-B10132-300-PFUS0A	1	
28	20-F01570-000-PFUS0A	1	Ø 4, 47*Ø 1, 78
29	20-F01540-000-PFUS0A	2	Ø 18, 77*Ø 1, 78
30	20-F05030-000-PFUS0A	1	
31	20-W20090-000-PFUS0A	8	
32	20-B16043-301-PFUS8A	1	
33	20-F01760-000-PTHR7A	2	Ø 15, 6*Ø 1, 78
34	20-B16032-301-PFUS8A	1	
35	20-A01230-104-PT00	1	
36	20-D15020-104-PT00	2	
37	20-F01340-000-PT00	2	Ø 5, 8*Ø 1, 9

38	20-D15232-104-PT00	2	
39	20-F01350-000-PT00	2	Ø 5*Ø 1, 5
40	20-D15300-104-PT00	1	
41	20-D05220-000-PT00	1	Ø 6, 9 ± 0, 1*2L
42	20-B16052-301-PFUS8A	1	
43	20-H05470-000-PFUS8A	1	
44	20-F01580-000-PFUS0A	1	Ø 9, 25*Ø 1, 78
45	20-W53010-000-PFUS0A	1	
46	20-W10790-000-PFUS0A	2	#3-56UNF-13, 3L
47	20-A06110-303-PFUS0A	1	
48	20-W10780-000-PFUS0A	4	#3-56UNF-19, 8L
49	20-C20040-104-PFUS0A	1	
50	20-F01700-000-PFUS0A	6	Ø 2*Ø 1
51	20-E10061-000-PTS1	1	
52	20-A06100-000-PFUS0A	1	
53	20-F01480-000-PFUS0A	1	Ø 6*Ø 1
54	20-C01042-104-PFUS0A	1	
55	20-F01470-000-PFUS0A	1	Ø 7, 5*Ø 1
56	20-C20033-103-PFUS0A	1	
57	20-G10230-000-PFUS0A	1	
58	20-B20202-303-PFUS0A	1	
59	20-W01080-000-PFUS0A	2	SØ 2
60	20-H05400-000-PFUS0A	1	
61	20-G10220-000-PFUS0A	1	
62	20-H03110-000-PFUS0A	1	
63	20-W23500-000-PFUS0A	1	
64	20-W10710-000-PFUS0A	4	#8-32UNC-5/32"L
65	20-W10730-000-PFUS0A	6	#8-32UNC-5/16"L
66	20-W10720-000-PFUS0A	1	5/16"-24UNF-5/16"L
67	20-W10700-000-PFUS0A	1	#10-32UNC-3/16"L
68	W50040-AGW2	2	
69	20-G10260-000-PFUS0A	2	
70	20-B30563-301-PFUS8A	1	
71	20-W10970-000-PFUS8A	2	#5-40UNC-5/16"L
72	20-B30573-301-PFUS8A	1	
73	20-H10050-000-PFUS0A	1	
74	20-F01500-000-PFUS0A	1	Ø 9*Ø 2
75	20-F01490-000-PFUS0A	1	Ø 3*Ø 1

76	20-H05410-000-PFUS0A	1	
77	20-G01220-000-PFUS0A	1	
78	20-B25533-301-PFUS8A	1	
79	20-F01600-000-PFUS0A	1	Ø 20*Ø 1
80	20-B15893-301-PFUS1A	1	
81	20-B15882-301-PFUS1A	1	
82	20-B05206-301-PFUS8A	1	
83	20-A13690-601-PTHR7A	1	
84	20-E05180-601-PTHR7A	1	
85	20-C10070-000-PTHR7A	1	
86	20-C10080-000-PTHR7A	1	
87	20-B30583-301-PFUS8A	1	
88	20-H05510-000-PFUS8A	1	
89	20-G10270-000-PFUS0A	1	
90	20-W10990-000-PFUS8A	1	#3-56UNF-15, 3L
91	20-W11012-000-PFUS8A	2	#8-32UNC
92	20-W23520-000-PFUS0A	1	
93	20-W10840-000-PFUS0A	3	#3-56UNF-5/32"L
94	20-F10110-000-PFUS8A	1	
95	20-W23510-000-PFUS0A	1	
96	20-A60100-301-PXMT0A	1	
97	20-B30414-301-PT00	1	
98	20-W01050-000-PXMT0A	1	Ø 1/4"
99	20-W10900-000-PT00	1	#10-32UNF-1/4"L
100	20-W20110-000-PFUS0A	2	
101	20-W10830-000-PFUS0A	2	#10-32UNF-3/8"L
102	20-A01220-301-PFUS1A	1	
103	20-B25434-301-PFUS1A	1	
104	20-W10560-000-PM31	1	1/8"-27NPT
105	20-A01130-104-PT00	1	
106	20-D15142-104-PT00	1	
107	20-G10250-000-PFUS0A	1	
108	20-H05450-000-PFUS1A	1	
109	20-F01590-000-PFUS0A	2	Ø 3, 69*Ø 1, 78
110	20-B20213-301-PFUS1A	1	
111	20-E02092-000-PO31	1	Ø 1/4"*130L



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