valken TACTICAL

CODE

.68 CALIBER ELECTRONIC MARKER

WARNING

Rules of Safe Marker Handling.
1. Treat every marker as if it were loaded.
2. Never look down the barrel of a paintball marker.
3. Keep your finger off the trigger until ready to shoot.
4. Never point the marker at anything you don't wish to shoot.
5. Keep the marker on "safe" until ready to shoot.
6. Keep the barrel blocking device in/on the marker's muzzle when not shooting.
7. Always remove paintballs and propellant source before disassembly.
8. After removing propellant source, point marker in safe direction and discharge until marker is degassed.
9. Store the marker unloaded and degassed in a secure place.
10. Follow warnings listed on propellant source for handling and storage.
11. Do not shoot at fragile objects such as windows.
12. Every person within range must wear eye, face and ear protection designed specifically to stop paintballs and meeting ASTM standard F1776.
13. Always measure your marker's velocity before playing paintball and never shoot at velocities in excess of 300 feet-per-second.

CODE SPECIFICATIONS:	
Caliber:	0.68
Barrel:	12" Aluminum ported .689
Battery:	1 - 9V Alkaline
Air:	Compressed air or nitrogren
Mode:	Unlimited Semi, Adjustable Semi, PSP Ramping, PSP Burst, NXL Full Auto, Millennium Ramping, Normal Ramping, Auto Response, Burst and Full Auto
Material:	Aerospace aluminum alloy for body, frame and other major parts
ROF:	Max 30bps
Auto Shut-Off:	30min

Attaching the barrel

The barrel simply threads on. The barrel threads are autococker type.

Attaching the loader

Open the clamp lever and place the loader into the feedneck. Adjust the tightness of the clamp with a 5/32″ hex key. Close the clamp lever.

Battery replacement

Remove grip cover from foregrip. Press the button on the lower front of the foregrip. Pull the 9V battery out and dislodge it from the battery cap. Replace with a fresh 9V battery. We recommend the use of a high quality alkaline battery.

Connecting the air source

The CODE has a standard ASA to accept a screw in air tank. First, make sure that the On/OFF is in OFF position (lever pointing to the front). Carefully screw in the air tank until it stops. Flipping the lever backward will allow air to flow into the marker from the tank. To remove the tank, flip the lever forward. This will release all the air in ASA and make it easier to remove the tank. We recommend the use of compressed air or nitrogen air tank with a maximum output pressure of 800 PSI.

Turning the marker ON

Press power button. Eyes on is blue/blinking blue for blocked/ unblocked eyes. Blinking yellow for eye malfunction (if the eyes don't see the bolt return like if you block the eyes continually with your finger). Eye malfunction reduces rate of fire to prevent additional chopping.

Turning the marker OFF

Hold power button for 2 seconds or until the LED goes off to turn off the marker.

Intelligent break beam ball sensor system

The CODE has a break beam sensor system. The eyes can be cleaned by simply removing the bolt and using a squeegee, or using a 1/16" hex key to remove the eye cover. If any malfunction should occur the software automatically overrides the eye function and reduces the rate of fire. When the marker first powers up, the eyes are on by default. To disable the sensor system, press the on/off button for 1 sec until the LED is blinking red. To enable the eyes again, simply press the on/off button again for 1sec until the LED is blinking blue.

Adjusting the velocity

The CODE has an adjustable regulator in the handle frame that controls the pressure in the marker thereby controlling the velocity. The best way to adjust the velocity is to turn the adjusting screw clockwise using a 3/32″ hex key. This will be the minimum velocity. Please DO NOT over tighten the screw as it will damage the seal and cause leaking. Check the velocity with a chronograph and gradually increase the velocity by turning the screw counterclockwise.

Trigger adjustment

The trigger has adjustments for microswitch activation point and pre travel.
Pre travel adjustment. Use a 3/32" hex key to remove the frame screws. Carefully unplug the solenoid harness. Use a 1/16" hex key to adjust the set screw on top of the trigger.
Microswitch activation adjustment. using a 3/64" hex key to adjust the set screws in the trigger. Please make sure to leave enough space for the screw to travel. Setting the screw too deep will damage the microswitch while firing.
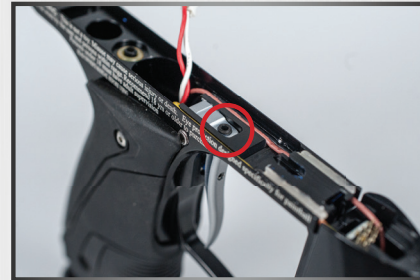
Tournament Lock

The tournament lock is located inside the upper right of the LED on the foregrip, after removing the grip cover. This feature prevents users from entering programming mode while in the field.

While the gun is in the specific firing mode, press and hold the lock switch for 2 seconds to toggle it on or off. The LED will flash green to indicate it is locked or red to indicate it is unlocked. When the lock is off, you can enter programming mode by turning the board off, then turning it on while the trigger is held.

CHANGING THE PARAMETERS

User can change the setting by entering the programming mode.

Programming Mode

Enter programming mode by holding down trigger and then turning the marker on. Cycle through different setting by pressing the trigger once. Color Setting:

• Green .... Firing Modes
• Purple .... Max Rate of Fire
•Yellow .... Fine timing for max rate of fire
• Blue .... Debounce
• Red .... Dwell
•White .... Ramp Start
• Aqua .... Ramp Percent

Once you are in the desired setting, press and hold the trigger again for 2sec and the LED will start blinking. The last accessed setting is remembered so you don't have to keep cycling through settings when you want to test different dwell settings, for instance. When the blink stopped, you can enter the new numbers by pressing the trigger.

Firing Modes(Green)
The firing mode can be changed after entering the programming mode.
Blinks in Fire Mode
1 Unlimited Semi auto
2 Adjustable Semi auto
3 PSP ramping
4 PSP Burst
5 NXL Full Auto
6 Millennium Ramping
7 Normal Ramping
8 Auto Response
9 Burst
10 Full Auto

Max Rate of Fire(Purple)

Blinks	BPS	Blinks	BPS	Blinks	BPS	Blinks	BPS	Blinks	BPS
5	5	11	11	17	17	23	23	29	29
6	6	12	1	18	18	24	24	30	30
7	7	13	13	19	19	25	25	31	Unlimited
8	8	14	14	20	20	26	26		
9	9	15	15	21	21	27	27		
10	10 (Default)	16	16	22	22	28	28		

PROGRAMMING MODE

Fine timing for max rate of fire(Yellow)

Blinks	Increments BPS	Blinks	Increment BPS	Blinks	Increment BPS
1	0.0 (Default)	5	0.4	9	0.8
2	0.1	6	0.5	10	0.9
3	0.2	7	0.6		
4	0.3	8	0.7		

Debounce(Blue)

Blinks	ms	Blinks	ms	Blinks	ms	Blinks	ms	Blinks	ms
1	1	11	11	21	21	31	31	41	41
2	2	12	12	22	22	32	32	42	42
3	3	13	13	23	23	33	33	43	43
4	4	14	14	24	24	34	34	44	44
5	5	15	15	25	25	35	35	45	45
6	6	16	16	26	26	36	36	46	46
7	7	17	17	27	27	37	37	47	47
8	8	18	18	28	28	38	38	48	48
9	9	19	19	29	29	39	39	49	49
10	10 (Default)	20	20	30	30	40	40	50	50

Dwell(Red)

Blinks	ms	Blinks	ms	Blinks	ms	Blinks	ms	Blinks	ms
2	2	7	7	12	12	17	17	22	22
3	3	8	8	13	13	18	18	23	23
4	4	9	9	14	14	19	19	24	24
5	5	10	10	15	15 (Default)	20	20	25	25
6	6	11	11	16	16	21	21		

Ramp Start(White) Use by PSP and normal ramping Modes.

Blinks	BPS	Blinks	BPS	Blinks	BPS
4	4	8	8	12	12
5	5 (Default)	9	9	13	13
6	6	10	10	14	14
7	7	11	11		

Ramp %(Aqua) Use by PSP and normal ramping Modes.

Blinks	%	Blinks	%	Blinks	%	Blinks	%	Blinks	%
1	10	11	110(Default)	21	210	31	310	41	410
2	220	12	120	22	220	32	320	42	420
3	30	13	130	23	230	33	330	43	430
4	40	14	140	24	240	34	340	44	440
5	50	15	150	25	250	35	350	45	450
6	60	16	160	26	260	36	360	46	460
7	70	17	170	27	270	37	370	47	470
8	80	18	180	28	280	38	380	48	480
9	90	19	190	29	290	39	390	49	490
10	100	20	200	30	300	40	400	50	500

MAINTAINING YOUR CODE

The CODE has been designed to require a minimal amount of maintenance for proper operation. It is recommended that before each use you put 2 drops of light gun oil in the ASA. When the marker is gassed up the oil will distribute through the marker. This will be adequate to keep the marker working properly.

Removing the ball detents for cleaning

The CODE uses two rubbery ball detents to prevent the double feeding of paintballs. They are located near the front of the receiver. To remove, insert a 1/16" hex key into the access hole in the eye cover. Make sure that the hex key is fully engaged in the screw otherwise you may strip the hex in the screw. Unscrew the cover and lift out the ball detent.

To install the ball detent

Place the ball detent and detent spring in the hole in the receiver. Put the cover screw in the slot of the cover and put the hex key in the screw through the access hole in the cover. Place the cover over the ball detent/spring and tighten the screw.
Note: Do not over-tighten the screw otherwise you may strip the hex in the screw which will make it difficult to remove the cover.

Cleaning the CODE

First remove the bolt assembly by lifting the Cap button at the back of the rear cap and pull it out. If the bolt is left in the breach, insert a soft head stick from the front to push the bolt back out. You can use a standard squeegee to clean the bore of the marker. Insert the squeegee from the back of the marker and pull it through the front. When the bore is cleaned, push the bolt assembly back from the back until it click. PLEASE MAKE SURE THE REAR CAP BUTTON IS LOCKED(DOWN)POSITION.
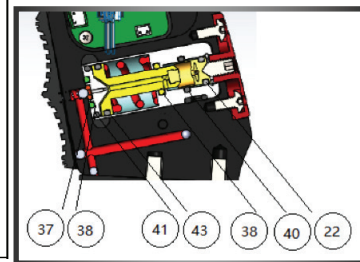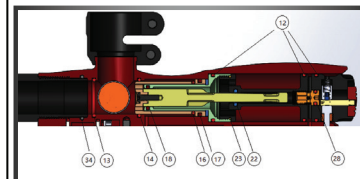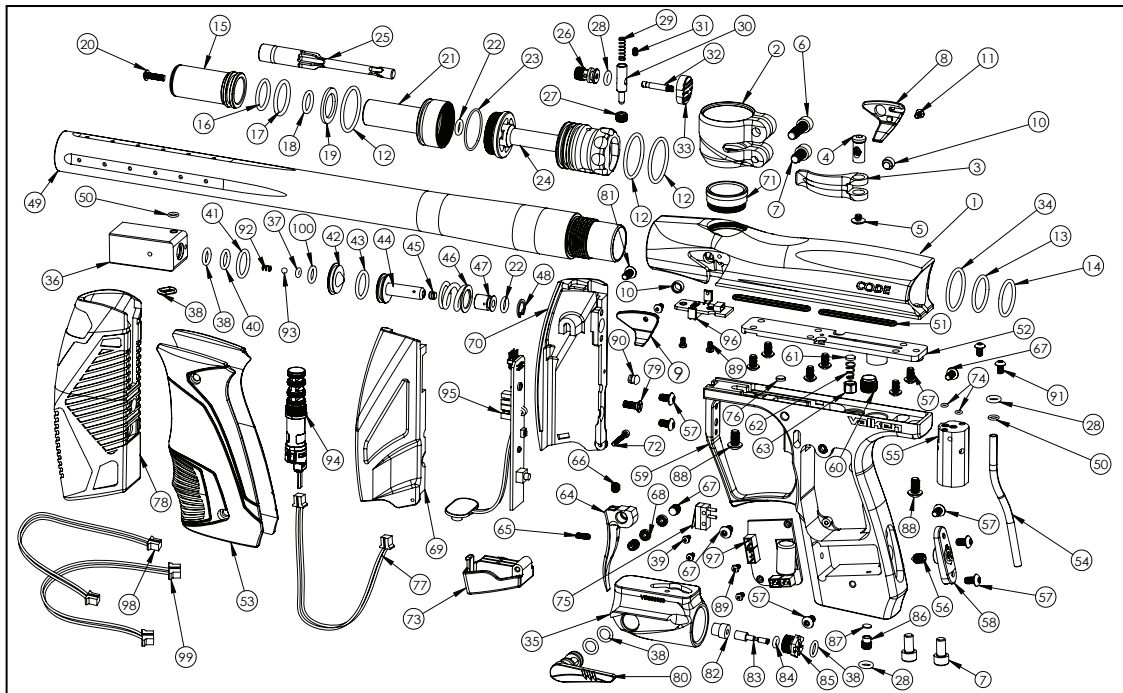
CODE SCHEMATICS

Item	Description	Item	Description	Item	Description	Item	Description
1	Main Body	29	Back Cap lock spring	57	BHCS 6-32 X .250	85	ASA Plug
2	Feedneck Body	30	Back Cap Lock pin	58	Regulator Cover	86	Fliter Cap
3	Feedneck lever	31	Set Screw M2 0.5 X 0.45	59	Frame	87	Air Fliter
4	Feedneck nut	32	Back Cap Button shaft	60	Cover Plate Regulator	88	BHCS 8-32 X .3125
5	BHCS 6-32 X .125	33	Back Cap Button	61	Seal Rubber Regulator	89	BH M2 0.4 X 4
6	SHCS 10-32 X .625	34	19mm*1mm 70 BUNA	62	Spring OPP Regulator	90	Light Pipe
7	SHCS 10-32 x .375	35	ASA Adapter	63	Seal Regulator	91	Solenoid Screw
8	Ball Detent Cover-Right	36	REG Body	64	Trigger	92	Regulator Release spring
9	Ball Detent Cover- Left	37	Oring 004/70 Buna	65	Set Screw 4-40 X .3125	93	1/8" ball bearing
10	Ball Detent	38	O Ring-010/90 Urethane	66	Set screw 8-32 x .1875	94	Solenoid
11	BHCS 3-48 X .125	39	BH Screw M2 0.4 X 12 Philips	67	6-32x 16.5mm set screw	95	Circuit Board A
12	O Ring-020/70 Buna	40	O Ring-011/ 90 Urethane	68	#N/A	96	Circuit Board B
13	O Ring-017/70 Buna	41	O Ring-014/70 Buna	69	Foregrip Left	97	Circuit Board C
14	O Ring-017/90 Urethane	42	Regulator Piston Guide	70	Foregrip Right	98	Wire Harnesses-A
15	Bolt-Front	43	O Ring-014/90 Urethane	71	Feedneck tube	99	Wire Harnesses-B
16	O Ring-015/90 Urethane	44	Regulator Piston	72	SH M2 0.4 X 18	100	O Ring-011/ 70 Buna
17	O Ring 16mm x 2mm ID 70 Urethane	45	Seal	73	Foregrip End Cap		
18	O Ring-012/90 Urethane	46	Regulator Spring	74	O Ring-2mm x 1mm ID 70 BUNA		
19	Ram Bumper	47	Regulator Vent Adjuster Piston	75	Micro Switch		
20	BH Screw M3 0.5 X 10	48	Retaining Ring INT 9mm	76	5mm x 1.5mm Magnet		
21	Valve	49	Barrel	77	Wire Harness assembly		
22	O Ring-009/90 Urethane	50	O Ring -4mm x 1mm ID 70 BUNA	78	Foregrip sleeve		
23	O Ring- 21mm x 1mm ID 70 BUNA	51	Rubber Seal	79	FH Screw 6-32 x 3/8		
24	Back Cap	52	Air Transfer Plate	80	ASA On/Off Lever		
25	Valve Shaft	53	Grip	81	BHCS 6-32 X .3125		
26	Back Cap Screw	54	Macro Hose	82	ASA Guide		
27	Back Cap lock nut	55	Solenoid Body	83	ASA Pin		
28	O Ring-008/90 Urethane	56	Set Screw 10-32X5/16	84	O Ring 006/90 Urethane		

LIMITED WARRANTY

Valken Paintball guarantees the CODE against defects in material and/or workmanship of this marker for twelve (12) months from the original date of purchase by the original retail purchaser. To activate your warranty, fill out the warranty card and mail it along with a copy of the original purchase receipt. In the event that a part is defective Valken Sports will send out a replacement part free of charge. Wearable items such as o-rings, seals, screws, ball detents and the like are not covered under this warranty. Failure of any part due to an accident, abuse, neglect, modification, misuse, operator error, lack of maintenance, or use of parts inconsistent with the use originally intended for the marker as sold is not covered by this warranty.

Valken makes no other warranties or guarantees, expressed or implied. Valken Paintball limits its sole and exclusive liability and that of it's authorized dealers, affiliates, or agents pursuant to this warranty to cover repair or replacement of the defective part. Incidental and consequential damages are expressly excluded hereunder. Valken Paintball, its authorized dealers, affiliates, or agents, will not be liable under this warranty, nor under any state or federal law, or the common law or otherwise for any damage or failure, including personal injury, resulting from such use and/or alteration. This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state.

valken
1 Hawk court, Swedesboro, NJ, 08085, USA
Tel: 856.812.2800
www.valken.com