

Sci-Fi Board Manual

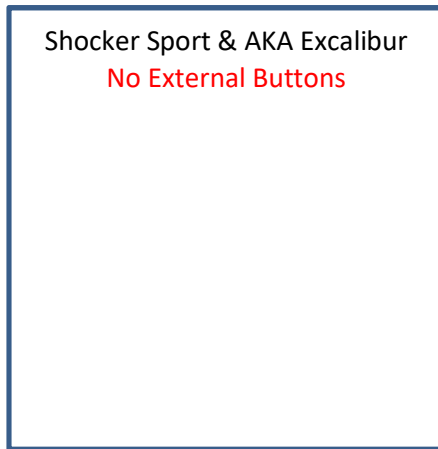
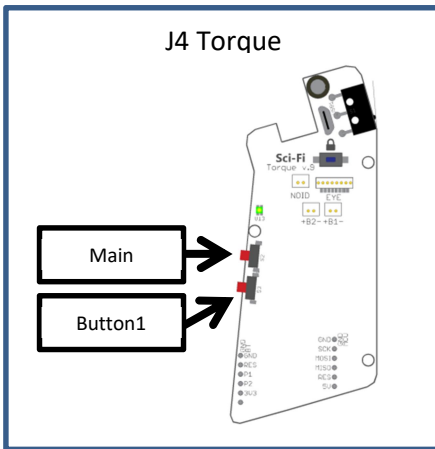
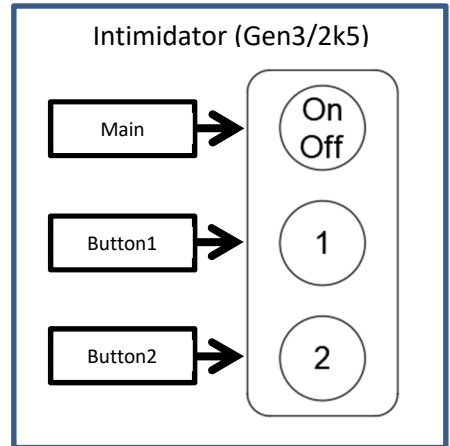
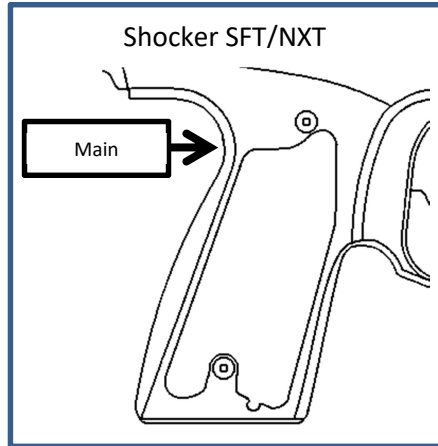
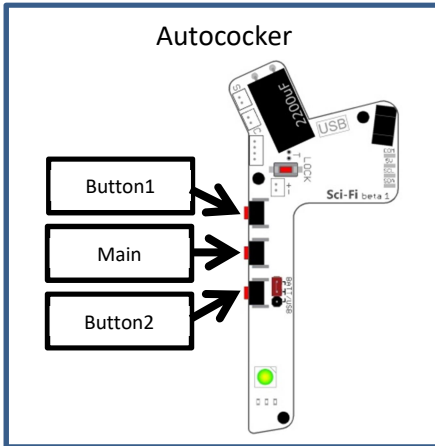
All markers with Software v2.5

Attention:

- A Paintball Marker is NOT a toy. Misuse can result in injury or death.
- Please understand the operation of this board before using it.
- Test your marker using safe practices to ensure proper board settings.
- Always make sure your board uses settings approved by the paintball field or event.
- ALWAYS wear eye protection that is specifically designed for paintball & conforms to the ASTM / CE standards.


Understanding your Buttons:

Different markers have different numbers of buttons. Some functionality changes depending on the buttons available for your maker.



Turn on board:

If your marker has a power switch, like the Excalibur, turn on the power switch.
Otherwise, tap the Main Button

 The GREEN led will fade ON, then enters FIRING MODE


The marker is now ready to fire

A led will flash every 2 seconds while in firing mode, GREEN led if the Eye is Enabled, YELLOW if Eye is Disabled.


Open bolt markers might have a RED flashing led, this indicates the Eye didn't see a ball drop after the previous shot.

Turn off board:


If your marker has a power switch, like the Excalibur, turn off the power switch.
Otherwise, hold the Main Button for 5 seconds

 RED led will fade OFF.

Turn off the Photo-Eye: Hold the trigger for 4 seconds, or Button1 for 1 second.

 YELLOW led flashes once

Turn on the Photo-Eye: Hold the trigger for 4 seconds, or Button1 for 1 second.

 GREEN led flashes once

Entering/Exiting MENU MODE:

Enter MENU Mode (Method 1): Hold the Trigger while the board boots up.

- ☀ Board boots up and then the WHITE led appears.
You are now in MENU Mode, the marker will not fire.
Bluetooth is only available in Menu Mode

Enter MENU Mode (Method 2): Hold “MAIN” Button for 3 seconds.

- ☀ WHITE led appears.
You are now in MENU Mode, the marker will not fire.

Exit MENU Mode (Method 1): Reboot the board. (Without holding the Trigger)

- ☀ The board reboots to Firing Mode, the led turns OFF.
The marker is now ready to fire!
The led will flash every 2 seconds while in firing mode, GREEN led if the Eye is Enabled, YELLOW if Eye is Disabled.

Exit MENU Mode (Method 1): Tap Center Button while WHITE led.

- ☀ The led turns OFF.
The marker is now ready to fire!
The led will flash every 2 seconds while in firing mode, GREEN led if the Eye is Enabled, YELLOW if Eye is Disabled.

Bluetooth is only available in Menu Mode

Tournament Lock:

Tournament Lock (Pushbutton Type): Tap the Lock Button to Unlock the marker.

- ☀ RED led flashes for 1 second

NOTE:

The board boots to a Locked state. No setting can be changed, either by buttons or Bluetooth, while the board is locked. If you unlock the board, it will return to the locked state when you Exit MENU Mode. This ensures that no setting can be changed without pressing the inner Lock Button.

Tournament Lock (Dip Switch Type): Dip Switch #1 controls the Lock. On is Locked, Off is Unlocked.

The App can still Bluetooth connect while the board is locked, although no settings can be changed by Bluetooth or by pushbuttons.

Navigating The Menu:

Some markers/board do not have external buttons, so the MENU can be entirely navigated with only the trigger.

Enter MENU Mode (Method 1): Hold the Trigger while the board boots up.



Board boots up and then the WHITE led appears.
You are now in MENU Mode, the marker will not fire.
Bluetooth is only available in Menu Mode.

Navigate the menu: Tap the Trigger to move to the next parameter.

The led will flash a sequence of colors to indicate the current Setup Parameter.
See the chart in the following pages to determine the menu parameters color code.

*If your marker/board has external buttons, Button1 will move to the next parameter, and Button2 will move to the previous parameter.

Select a Parameter to Edit: Hold the Trigger for 2 seconds.

The led will quickly flash WHITE to indicate you have selected a parameter to edit.
You are now in EDIT mode.

*If your marker/board has external buttons, you can also use the MAIN Button to select a parameter to edit.

Edit a Parameter Value: Pull the trigger (X) number of times to change the selected parameter value.

See the chart in the following pages to determine how many trigger pulls = each value.
See the chart in the following pages to for definition of each parameter.

When finished entering the new value (by pulling the trigger) release the trigger and wait 5 seconds. The board will exit EDIT mode and return to the main menu, indicated by the flashing led.

*****NOTE:**

After selecting a parameter to edit, you have 5 seconds to begin entering your new value. If the trigger is not pulled for 5 seconds, the board will exit EDIT and go back to the main menu, and the value will not be changed.

Closed Bolt Markers

Parameter Charts

(pages 8 – 16)

Open Bolt Markers

Parameter Charts

(pages 17 – 25)

Closed Bolt Parameters

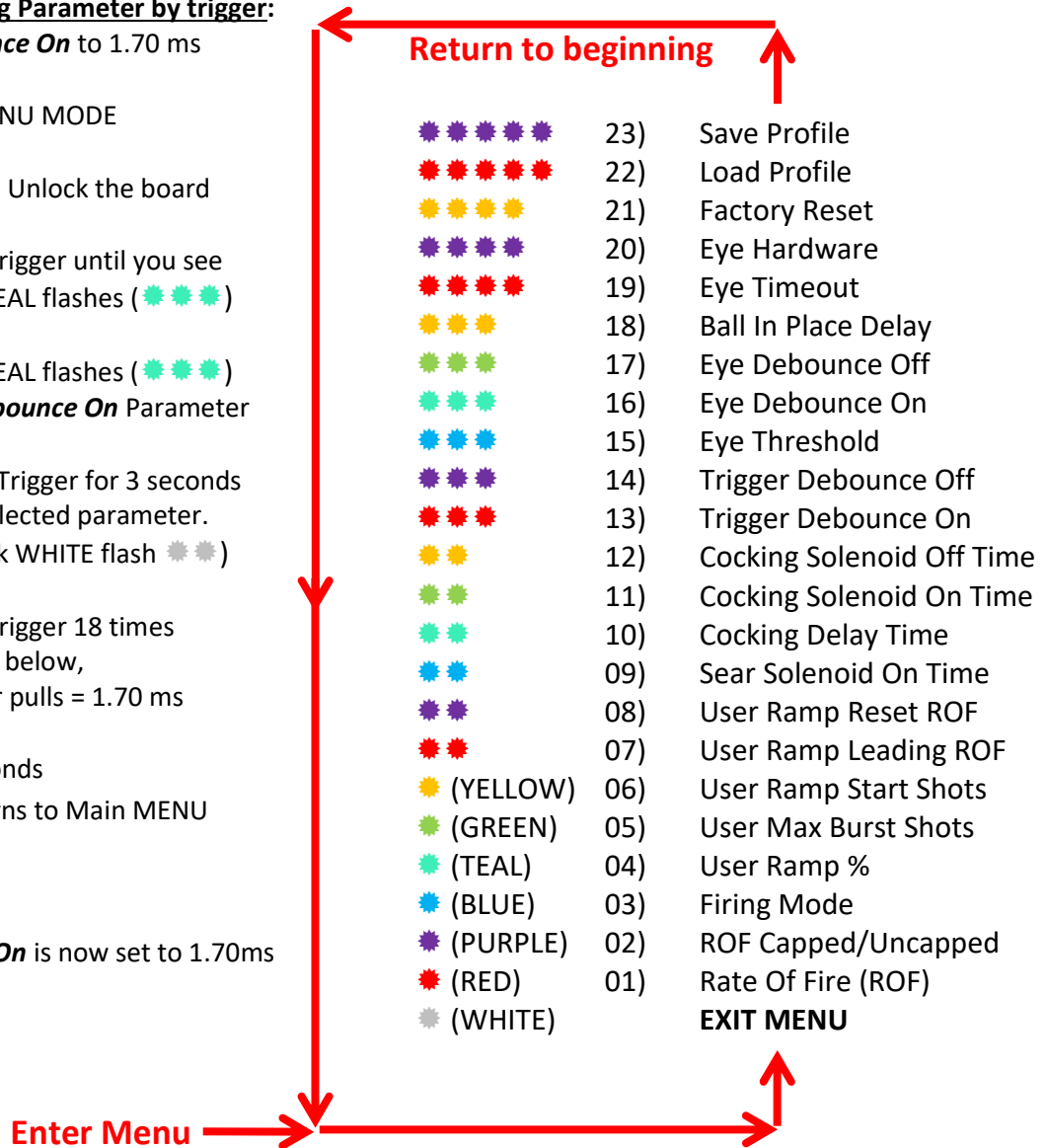
Example Setting Parameter by trigger:

Set *Eye Debounce On* to 1.70 ms

- Enter MENU MODE
- If Locked, Unlock the board
- Tap the Trigger until you see 3 quick TEAL flashes (● ● ●)
- 3 quick TEAL flashes (● ● ●) = *Eye Debounce On* Parameter
- Hold the Trigger for 3 seconds to edit selected parameter. (See quick WHITE flash ● ●)
- Pull the Trigger 18 times
See chart below,
18 trigger pulls = 1.70 ms
- Wait 5 seconds
Board returns to Main MENU

Done

Eye Debounce On is now set to 1.70ms



🔴 1) Rate Of Fire (balls per second)

This is the maximum shots per second the marker will fire. All firing modes are limited by this setting. This setting will be bypassed if the Rate Of Fire Cap/Uncapped setting is set to Uncapped.

***Default: 9.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	9.00	10.00	10.20	10.50	11.00	11.50	12.00	12.20	12.50	13.00
Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00
Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	18.50	19.00	19.50	20.00	20.50	21.00	21.50	22.00	22.50	23.00

🟡 2) Rate Of Fire Capped/Uncapped

If set to Capped, the marker rate of fire will be limited to the Rate Of Fire setting.

If set to Uncapped, the marker will not be limited and will fire as fast as it is capable of firing.

***Default: Capped

Trigger Pulls	1	2
Value	Uncapped	Capped

🟢 3) Firing Mode

***Default: Semi Auto

Trigger Pulls	Firing Mode
1	Semi Auto
2	Full Auto
3	3 Shot Burst
4	Auto-Response
5	PSP Ramping
6	Millennium Ramping
7	NXL Ramping
8	User % Ramping
9	God Mode
10	User Burst
11	Classic
12	Sniper
13	Select Fire

1 shot fired for each trigger pull.

Shoots for as long as the trigger is held down.

3 shots fired for each trigger pull. Trigger must be held down.

Shot fired when the trigger is pulled and also when released.

Ramps to 3 shot bursts @ max ROF, per PSP rules.

Ramps to 1 extra shot @ max ROF, per Millennium rules.

Ramps to 1 extra shot @ max ROF, per NXL rules.

Ramps to 1 extra shot up to max ROF with custom settings.

Fully adjustable burst style ramping with custom settings.

Adjustable burst fires (2 to 5) shots fired for each trigger pull.

Like a mech cocker, the backblock is open while trigger is held.

Marker waits for trigger release before re-cocking.

Switch modes while playing by holding the bottom button 1 sec.

4) Ramp % (only for User % Ramping Firing Mode)

While in User % Ramping firing mode, this setting controls the ramping rate of fire.

If the Ramp % is set to 250 %, and if the trigger is pulled 5 times per second, the marker will fire at 12.5 balls per second.

***Default: 200 %

Trigger Pulls	1	2	3	4	5	6	7	8	9	10	11
Value	100	150	200	250	300	350	400	450	500	550	600

5) User Max Burst Shots (only for God Mode & User Burst Firing Mode)

While in User Ramping firing mode, this setting controls how many times the trigger must be pulled within 1 second to sustain ramping.

***Default: 2.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50

Trigger Pulls	11	12	13	14	15	16	17
Value	7.00	7.50	8.00	8.50	9.00	9.50	10.00

6) User Ramp Start Shots (only for God Mode & User % Ramping Firing Mode)

While in User Ramping & God Mode firing mode, this setting controls how many shots must be fired before ramping is enabled

***Default: 4 shots

Trigger Pulls	1	2	3	4	5	6	7	8	9	10	11
Value	2	3	4	5	6	7	8	9	10	11	12

7) User Ramp Leading ROF (only for God Mode & User % Ramping Firing Mode)

This setting controls how fast you must pull the trigger before ramping is enabled.

***Default: 1.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50

Trigger Pulls	11	12	13	14	15	16	17	18	19
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8) User Ramp Reset ROF (only for God Mode & User % Ramping Firing Mode)

This setting controls how fast you must maintain to pull the trigger or ramping will disabled.

***Default: 2.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50

Trigger Pulls	11	12	13	14	15	16	17	18	19
Value	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

9) Sear Solenoid On Time (milliseconds)

This setting controls how long the Sear Solenoid will be energized.

***Default: 5.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	3.50	3.60	3.70	3.80	3.90	4.00	4.10	4.20	4.30	4.40

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	4.50	4.60	4.70	4.80	4.90	5.00	5.10	5.20	5.30	5.40

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	5.50	5.60	5.70	5.80	5.90	6.00	6.10	6.20	6.30	6.40

Trigger Pulls	31	32	33	34	35	36	37	38	39	40	41
Value	6.50	6.60	6.70	6.80	6.90	7.00	7.10	7.20	7.30	7.40	7.50

10) Cocking Delay Time (milliseconds)

This setting controls how much time the marker waits before energizing the Cocking Solenoid.

The delay begins when the Sear Solenoid is energized.

***Default: 7.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20	21
Value	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

11) Cocking Solenoid On Time (milliseconds)

When the Eye is disabled, this setting controls how long the Cocking Solenoid will be energized.
 When the Eye is enabled, this setting is bypassed.

***Default: 40.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00	24.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00	29.50

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00	34.50

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	35.00	35.50	36.00	36.50	37.00	37.50	38.00	38.50	39.00	39.50

Trigger Pulls	41	42	43	44	45	46	47	48	49	50
Value	40.00	40.50	41.00	41.50	42.00	42.50	43.00	43.50	44.00	44.50

Trigger Pulls	51	52	53	54	55	56	57	58	59	60
Value	45.00	45.50	46.00	46.50	47.00	47.50	48.00	48.50	49.00	49.50

Trigger Pulls	61	62	63	64	65	66	67	68	69	70
Value	50.00	50.50	51.00	51.50	52.00	52.50	53.00	53.50	54.00	54.50

Trigger Pulls	71	72	73	74	75	76	77	78	79	80	81
Value	55.00	55.50	56.00	56.50	57.00	57.50	58.00	58.50	59.00	59.50	60.00

☀️☀️ **12) Cocking Solenoid Off Time (milliseconds)**

This setting controls how long the Cocking Solenoid must remain de-energized before the next shot may occur.

***Default: 30.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10	
Value	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00	24.50	
Trigger Pulls	11	12	13	14	15	16	17	18	19	20	
Value	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00	29.50	
Trigger Pulls	21	22	23	24	25	26	27	28	29	30	
Value	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00	34.50	
Trigger Pulls	31	32	33	34	35	36	37	38	39	40	
Value	35.00	35.50	36.00	36.50	37.00	37.50	38.00	38.50	39.00	39.50	
Trigger Pulls	41	42	43	44	45	46	47	48	49	50	
Value	40.00	40.50	41.00	41.50	42.00	42.50	43.00	43.50	44.00	44.50	
Trigger Pulls	51	52	53	54	55	56	57	58	59	60	
Value	45.00	45.50	46.00	46.50	47.00	47.50	48.00	48.50	49.00	49.50	
Trigger Pulls	61	62	63	64	65	66	67	68	69	70	
Value	50.00	50.50	51.00	51.50	52.00	52.50	53.00	53.50	54.00	54.50	
Trigger Pulls	71	72	73	74	75	76	77	78	79	80	81
Value	55.00	55.50	56.00	56.50	57.00	57.50	58.00	58.50	59.00	59.50	60.00

***** 13) Trigger Debounce On Time (milliseconds)**

This setting controls how long the trigger must be held before a trigger pull is registered.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

***** 14) Trigger Debounce Off Time**

This setting controls how long the trigger must be released before a trigger release is registered.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

***** 15) Eye Threshold**

This setting controls how much light is required to activate the photo-eye

***Default: 350

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	200	250	300	350	400	450	500	550	600	650

Trigger Pulls	11	12	13	14	15	16	17
Value	700	750	800	850	900	950	1000

*** 16) Eye Debounce On Time

This setting controls how long the eye must be activated before a ball is detected.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

*** 17) Eye Debounce Off Time

This setting controls how long the Eye must be de-activated before an empty breech is detected.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

*** 18) Ball In Place Delay

After a ball is detected, how much time the marker waits before de-energizing the Cocking Solenoid.

***Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20	21
Value	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

🔴🔴🔴🔴 19) Eye Timeout

When the Eye is enabled, this is how long the marker will look for a ball before de-energizing the Cocking Solenoid.

***Default: 1000 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	100	150	200	250	300	350	400	450	500	550

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	600	650	700	750	800	850	900	950	1000	1050

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550

Trigger Pulls	31	32	33	34	35	36	37	38	39
Value	1600	1650	1700	1750	1800	1850	1900	1950	2000

🟡🟡🟡🟡 20) Eye Hardware

When this setting is Enabled, the Eye will be enabled when the marker boots up.

When this setting is Disabled, the Eye will be disabled when the marker boots up.

Default: Enabled

Trigger Pulls	1	2	3	4
Value	Bounce/Disabled	Bounce/Enabled	Break/Disabled	Break/Enabled

🟡🟡🟡🟡 21) Factory Reset

Factory Reset will change every setting to its default value. User Profiles will not be affected.

Trigger Pulls	1	2
Value	Cancel	Reset

🔴🔴🔴🔴🔴 22) Load Profile

Load stored settings from one of the 5 available profiles.

Trigger Pulls	1	2	3	4	5
Value	1	2	3	4	5

🟡🟡🟡🟡🟡 23) Save Profile

Save the current marker settings in to one of the 5 available profiles.

Trigger Pulls	1	2	3	4	5
Value	1	2	3	4	5

Open Bolt Parameters

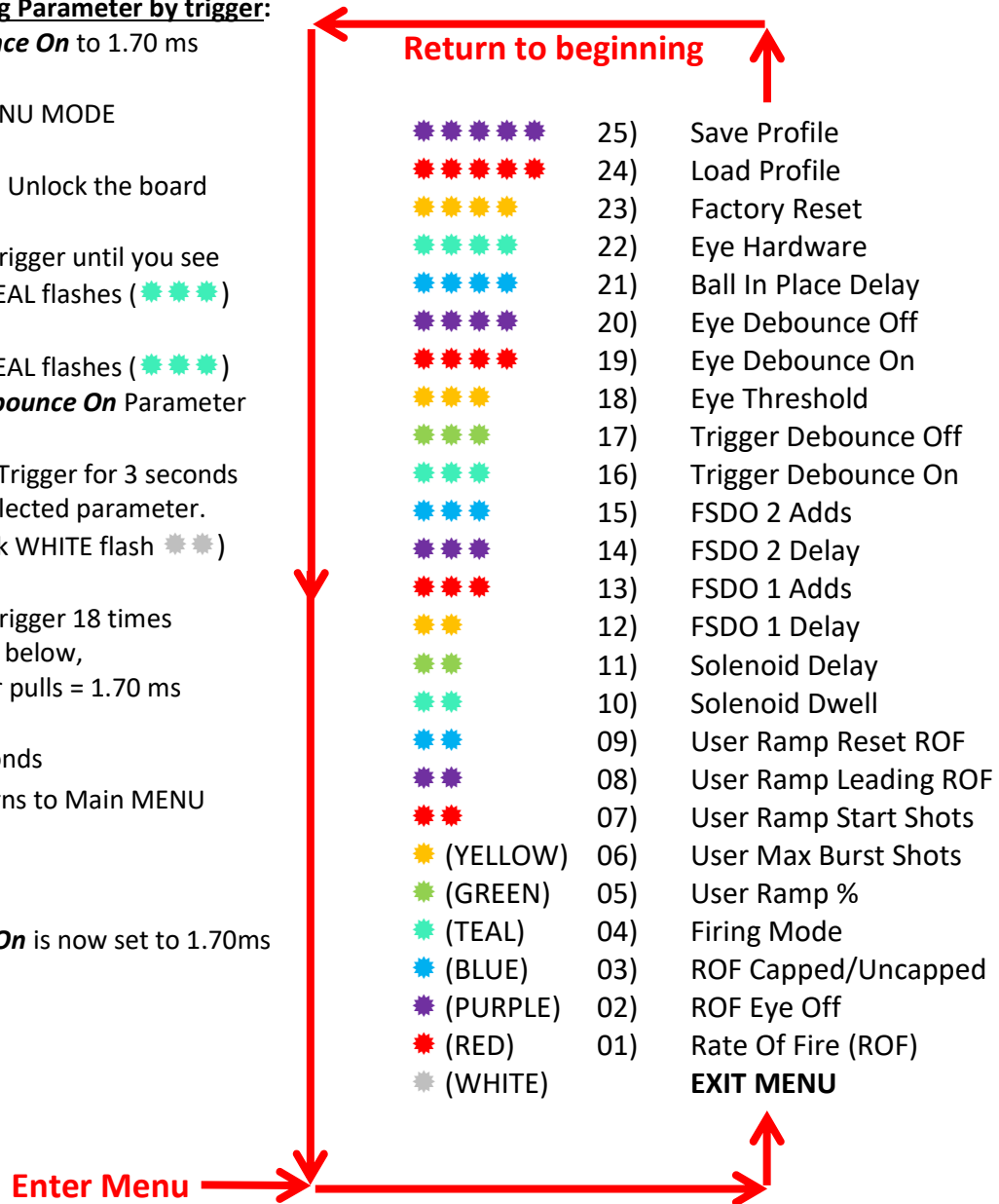
Example Setting Parameter by trigger:

Set *Eye Debounce On* to 1.70 ms

- Enter MENU MODE
- If Locked, Unlock the board
- Tap the Trigger until you see 3 quick TEAL flashes (● ● ●)
- 3 quick TEAL flashes (● ● ●) = *Eye Debounce On* Parameter
- Hold the Trigger for 3 seconds to edit selected parameter. (See quick WHITE flash ● ●)
- Pull the Trigger 18 times
See chart below,
18 trigger pulls = 1.70 ms
- Wait 5 seconds
Board returns to Main MENU

Done

Eye Debounce On is now set to 1.70ms



☀ 1) Rate Of Fire (balls per second)

This is the maximum shots per second the marker will fire. All firing modes are limited by this setting. This setting will be bypassed if the Rate Of Fire Cap/Uncapped setting is set to Uncapped.

***Default: 9.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	9.00	10.00	10.20	10.50	11.00	11.50	12.00	12.20	12.50	13.00
Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00
Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	18.50	19.00	19.50	20.00	20.50	21.00	21.50	22.00	22.50	23.00

☀ 2) ROF Eye Off (balls per second)

This is the maximum shots per second the marker will fire while the Eye is turned Off. All firing modes are limited by this setting.

***Default: 9.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	9.00	10.00	10.20	10.50	11.00	11.50	12.00	12.20	12.50	13.00
Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00
Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	18.50	19.00	19.50	20.00	20.50	21.00	21.50	22.00	22.50	23.00

☀ 3) Rate Of Fire Capped/Uncapped

If set to Capped, the marker rate of fire will be limited to the Rate Of Fire setting.

If set to Uncapped, the marker will not be limited and will fire as fast as it is capable of firing.

***Default: Capped

Trigger Pulls	1	2
Value	Uncapped	Capped

 **4) Firing Mode**

*****Default: Semi Auto**

Trigger Pulls	Firing Mode
1	Semi Auto
2	Full Auto
3	3 Shot Burst
4	Auto-Response
5	PSP Ramping
6	Millennium Ramping
7	NXL Ramping
8	User % Ramping
9	God Mode
10	User Burst

1 shot fired for each trigger pull.

Shoots for as long as the trigger is held down.

3 shots fired for each trigger pull. Trigger must be held down.

Shot fired when the trigger is pulled and also when released.

Ramps to 3 shot bursts @ max ROF, per PSP rules.

Ramps to 1 extra shot @ max ROF, per Millennium rules.

Ramps to 1 extra shot @ max ROF, per NXL rules.

Ramps to 1 extra shot up to max ROF with custom settings.

Fully adjustable burst style ramping with custom settings.

Adjustable burst fires (2 to 5) shots fired for each trigger pull.

 **5) Ramp % (only for User % Ramping Firing Mode)**

While in User % Ramping firing mode, this setting controls the ramping rate of fire.

If the Ramp % is set to 250 %, and if the trigger is pulled 5 times per second, the marker will fire at 12.5 balls per second.

*****Default: 200 %**

Trigger Pulls	1	2	3	4	5	6	7	8	9	10	11
Value	100	150	200	250	300	350	400	450	500	550	600

 **6) User Max Burst Shots (only for God Mode & User Burst Firing Mode)**

While in User Ramping firing mode, this setting controls how many times the trigger must be pulled within 1 second to sustain ramping.

*****Default: 2.00 bps**

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50

Trigger Pulls	11	12	13	14	15	16	17
Value	7.00	7.50	8.00	8.50	9.00	9.50	10.00

 **7) User Ramp Start Shots (only for God Mode & User % Ramping Firing Mode)**

While in User Ramping & God Mode firing mode, this setting controls how many shots must be fired before ramping is enabled

*****Default: 4 shots**

Trigger Pulls	1	2	3	4	5	6	7	8	9	10	11
Value	2	3	4	5	6	7	8	9	10	11	12

8) User Ramp Leading ROF (only for God Mode & User % Ramping Firing Mode)

This setting controls how fast you must pull the trigger before ramping is enabled.

***Default: 1.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50

Trigger Pulls	11	12	13	14	15	16	17	18	19
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9) User Ramp Reset ROF (only for God Mode & User % Ramping Firing Mode)

This setting controls how fast you must maintain to pull the trigger or ramping will disabled.

***Default: 2.00 bps

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50

Trigger Pulls	11	12	13	14	15	16	17	18	19
Value	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

10) Solenoid Max On Time (milliseconds)

This setting controls how long the Sear Solenoid will be energized.

The HES sensor will override this value.

***Timmy Default: 12.00 milliseconds

***Torque Default: 14.00 milliseconds

***SFT/NXT Default: 14.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	19.00	19.50	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50

Trigger Pulls	41	42	43	44	45	46	47	48	49	50
Value	24.00	24.50	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50

Trigger Pulls	51	52	53	54	55	56	57	58	59	60	61
Value	29.00	29.50	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00

11) Solenoid Delay Time (milliseconds)

This setting controls how long the solenoid must remain Off before firing again.

***Default: 32.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00	24.50

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	25.00	25.50	26.00	26.50	27.00	27.50	28.00	28.50	29.00	29.50

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	30.00	30.50	31.00	31.50	32.00	32.50	33.00	33.50	34.00	34.50

Trigger Pulls	41	42	43	44	45	46	47	48	49	50
Value	35.00	35.50	36.00	36.50	37.00	37.50	38.00	38.50	39.00	39.50

Trigger Pulls	51	52	53	54	55	56	57	58	59	60
Value	40.00	40.50	41.00	41.50	42.00	42.50	43.00	43.50	44.00	44.50

Trigger Pulls	61	62	63	64	65	66	67	68	69	70	71
Value	45.00	45.50	46.00	46.50	47.00	47.50	48.00	48.50	49.00	49.50	50.00

12) FSDO 1 Delay (seconds)

This setting controls how much time since the last shot before the Solenoid Dwell is adjusted to compensate for First Shot Drop-Off.

***Timmy Default: 0 seconds

***Torque Default: 0 seconds

***SFT/NXT Default: 2 seconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0	1	2	3	4	5	6	7	8	9

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	10	11	12	13	14	15	16	17	18	19

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	20	21	22	23	24	25	26	27	28	29

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	30	31	32	33	34	35	36	37	38	39

Trigger Pulls	41	42	43	44	45	46	47	48	49	50
Value	40	41	42	43	44	45	46	47	48	49

Trigger Pulls	51	52	53	54	55	56	57	58	59	60	61
Value	50	51	52	53	54	55	56	57	58	59	60

***** 13) FSDO 1 Adds (milliseconds)**

This setting controls how much time is added to the Solenoid Dwell to compensate for First Shot Drop-Off

***Timmy Default: 0.00 milliseconds

***Torque Default: 0.00 milliseconds

***SFT/NXT Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20	21
Value	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

***** 14) FSDO 2 Delay (seconds)**

This setting controls how much time since the last shot before the Solenoid Dwell is adjusted to compensate for First Shot Drop-Off.

***Timmy Default: 0 seconds

***Torque Default: 0 seconds

***SFT/NXT Default: 16 seconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0	1	2	3	4	5	6	7	8	9

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	10	11	12	13	14	15	16	17	18	19

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	20	21	22	23	24	25	26	27	28	29

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	30	31	32	33	34	35	36	37	38	39

Trigger Pulls	41	42	43	44	45	46	47	48	49	50
Value	40	41	42	43	44	45	46	47	48	49

Trigger Pulls	51	52	53	54	55	56	57	58	59	60	61
Value	50	51	52	53	54	55	56	57	58	59	60

🌟🌟🌟 15) FSDO 2 Adds (milliseconds)

This setting controls how much time is added to the Solenoid Dwell to compensate for First Shot Drop-Off

***Timmy Default: 0.00 milliseconds

***Torque Default: 0.00 milliseconds

***SFT/NXT Default: 4.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20	21
Value	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

🌟🌟🌟 16) Trigger Debounce On Time (milliseconds)

This setting controls how long the trigger must be held before a trigger pull is registered.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

🌟🌟🌟 17) Trigger Debounce Off Time

This setting controls how long the trigger must be released before a trigger release is registered.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

☀☀☀ 18) Eye Threshold

This setting controls how much light is required to activate the photo-eye

***Default: 350

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	200	250	300	350	400	450	500	550	600	650

Trigger Pulls	11	12	13	14	15	16	17
Value	700	750	800	850	900	950	1000

☀☀☀☀ 19) Eye Debounce On Time

This setting controls how long the eye must be activated before a ball is detected.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

☀☀☀☀ 20) Eye Debounce Off Time

This setting controls how long the Eye must be de-activated before an empty breach is detected.

Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90

Trigger Pulls	11	12	13	14	15	16	17	18	19	20
Value	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90

Trigger Pulls	21	22	23	24	25	26	27	28	29	30
Value	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90

Trigger Pulls	31	32	33	34	35	36	37	38	39	40
Value	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90

Trigger Pulls	41	42	43	44	45	46	47	48	49	50	51
Value	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00

21) Ball In Place Delay

After a ball is detected, how much time the marker waits before de-energizing the Cocking Solenoid.

***Default: 2.00 milliseconds

Trigger Pulls	1	2	3	4	5	6	7	8	9	10
Value	0.00	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50

Trigger Pulls	11	12	13	14	15	16	17	18	19	20	21
Value	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

22) Eye Hardware

When this setting is Enabled, the Eye will be enabled when the marker boots up.

When this setting is Disabled, the Eye will be disabled when the marker boots up.

Default: Enabled

Trigger Pulls	1	2	3	4
Value	Bounce/Disabled	Bounce/Enabled	Break/Disabled	Break/Enabled

23) Factory Reset

Factory Reset will change every setting to its default value. User Profiles will not be affected.

Trigger Pulls	1	2
Value	Cancel	Reset

24) Load Profile

Load stored settings from one of the 5 available profiles.

Trigger Pulls	1	2	3	4	5
Value	1	2	3	4	5

25) Save Profile

Save the current marker settings in to one of the 5 available profiles.

Trigger Pulls	1	2	3	4	5
Value	1	2	3	4	5