

Programming Tutorial for the Rampage™ Board

WARNING: Before attempting to Program your Rampage™ board, you MUST remove any air source and cover your barrel with a barrel blocking device. Additionally, be sure there is no hopper attached to the marker and no ball in the breech of the marker to prevent accidental firing. Also, the following steps assume you are at the default setting and you are starting from the power off position.

TOP LEVEL GROUPS

Your Rampage™ board controls are organized into four Setpoint Groups or Top Level Groups.



THE INDIVIDUAL SETPOINTS ARE ORGANIZED UNDER EACH OF THE TOP LEVEL GROUPS

Rampage Mode 2 Setpoints	Default	Min/Max
1st Ramp Mode (semi/burst/reactive/auto)	4	1/4
1st Ramp Mode Rounds	10	1/10
1st Ramp Mode BPS	10	10/40
1st Ramp Point Pull Rate	4	2/10
2nd Ramp Mode (semi/burst/reactive/auto)	4	1/4
2nd Ramp Mode Rounds	10	1/10
2nd Ramp Mode BPS	15	10/40
2nd Ramp Mode Reset Timer	10	1/20
3rd Ramp Mode (semi/burst/reactive/auto)	4	1/4
3rd Ramp Mode Rounds	10	1/10
3rd Ramp Mode BPS	20	10/40
3rd Ramp Mode Reset Timer	10	1/20

* These settings are not used with the Auto Firing Mode

Rampage Mode 1 Setpoints	Default	Min/Max
1st Ramp Mode (semi/burst/reactive/auto)	2	1/4
1st Ramp Mode Rounds	2	1/10
1st Ramp Mode BPS	10	10/40
1st Ramp Point Pull Rate	4	2/10
2nd Ramp Mode (semi/burst/reactive/auto)	2	1/4
2nd Ramp Mode Rounds	3	1/10
2nd Ramp Mode BPS	15	10/40
2nd Ramp Mode Reset Timer	20	1/20
3rd Ramp Mode (semi/burst/reactive/auto)	2	1/4
3rd Ramp Mode Rounds	4	1/10
3rd Ramp Mode BPS	20	10/40
3rd Ramp Mode Reset Timer	20	1/20

Marker Control Setpoints	Default	Min/Max
Power Up Profile	5	1/5
Trigger Debounce (ms)	10	2/20
Anti Mechanical Bounce	5	1/20
Solenoid Dwell (ms)	15	8/40
Dwell Modulation (ms)	10	1/20
Bolt Stick Dwell (ms)	16	1/16
Bolt Stick reset time (sec)	15	1/25
Breach Load Delay (ms)	3	1/10
Bolt Return Delay (ms)	30	1/40
Eye Mode	2	1/5
Eye Type	1	1/2
Auto Shut Off (3 min ticks)	3	1/5
LED Controls	1	1/16
Audio Controls	1	1/25

Firing Mode Setpoints	Default	Min/Max
Cap Mode	2	1/2
Max Global Rate of Fire (Eyes ON)	15	10/40
Max Global Rate of Fire (Eyes OFF)	12	10/20
Burst Mode Rounds	3	2/5
Reactive Pull Rounds	1	1/5
Reactive Release Rounds	1	1/5
Tournament Mode (when active)	7	1/8
Group 1 Firing Mode enable	15	1/15
Group 2 Firing Mode enable	15	1/15
Breakout Mode	13	1/13

Changing Firing Mode Setpoints - MGRF

In this example you will navigate to the Firing Mode Setpoints and change the Maximum Global Rate of Fire (MGRF) when the Marker Eyes are ON to 20 balls per second (bps) from the default of 15bps. Additionally, you will set the MGRF when the Marker Eyes are OFF to 10bps from the default of 12bps.

1		Pull and Hold the Trigger, press and release the Power button, then release the Trigger.
2		The Blinking Red LED indicates you have accessed the Startup Options Menu and are at the first Menu Option—Programming Mode.
3		Press and Release the Power button to enter Programming Mode. The Rear Blue LED on the Power Button will be lit indicating you are at the Default Profile.
4		Press and Release the Power Button to select the Default Profile
5		Since the Firing Mode Setpoints is the first Setpoint Group, Pull and Hold the trigger for 2 Seconds to select it.
6		The Solid Red LED indicates you are at the first setpoint (Cap Mode) under the Firing Mode Setpoints.
7		Pull the trigger one time to scroll to the next Fire Mode Setpoint. The Solid Yellow LED indicates you are at the MGRF Eyes On setting.
8		Pull and Hold the Trigger for 2 seconds to indicate you wish to select this setting. The Blue LED will blink out the current value.
9		Pull and Hold the Trigger for 2 seconds to indicate you want to enter a new value. The Blue LED will go out.
10		Pull the trigger 20 times to input the new value. The Blue LED will blink with each trigger pull to indicate it has been registered.
11		Press and Release the Power button to store the new value. The Blue LED will blink 20 times indicating the new value.
12		Press and Release the Power button one time to go back to the MGRF Eyes ON Setpoint The Solid Yellow LED indicates you are back in the Firing Mode Setpoints-MGRF Eyes On.
13		Pull the Trigger one time to scroll to the next setpoint (MGRF Eyes OFF). The Solid Yellow/Red LED indicates you are at the MGRF Eyes OFF Setpoint.
14		Pull and Hold the Trigger for 2 seconds to indicate you wish to select this setting. The Blue LED will blink out the current value.
15		Pull and Hold the Trigger for 2 seconds to indicate you want to enter a new value. The Blue LED will go out.
16		Pull the trigger 10 times to input the new value. The Blue LED will blink with each trigger pull to indicate it has been registered.
17		Press and Release the Power button to store the new value. The Blue LED will blink 10 times indicating the new value.
18		Press the Power button one time to go back to the MGRF Eyes Off Setpoint.
19		Press the Power button one time to exit to the Top Level or Setpoint Groups. The Blinking Red LED indicates you are at the Top Level Setpoint Group—Firing Controls.
20		Press and Hold the Power button for 3 seconds to Store all changes and power off the marker. All four LEDs will flash indicating you are powering down.

Changing Marker Control Setpoints - Dwell

In this example you will navigate to the Marker Control Setpoints and change the Dwell to 12ms from the default of 15ms. **Note: It is important to know what solenoid is in your marker. There are two types of solenoids that can be in your marker. Depending on the solenoid, you will need to adjust your Solenoid Dwell times. Here are some suggested values for both types using a stock marker:**

Parker Solenoid Dwell 9 to 12 milliseconds
Humphrey Solenoids Dwell 13 to 17 milliseconds

1		Pull and Hold the Trigger, press and release the Power button, then release the Trigger.
2		The Blinking Red LED indicates you have accessed the Startup Options Menu and are at the first Menu Option—Programming Mode.
3		Press and Release the Power button to enter Programming Mode. The Rear Blue LED on the Power Button will be lit indicating you are in the Default Profile.
4		Press and Release the Power Button to select the Default Profile
5		Pull the trigger to scroll to the next top level menu Marker Control Setpoint. The Blinking Yellow LED indicates you are in the Marker Control Setpoints.
6		Pull and Hold the trigger for 2 Seconds to select it. The solid Red LED indicates you are at the first Setpoint - Power Up Profile under the Marker Control Setpoints.
7		Pull the trigger to scroll to the next Setpoint - Trigger Debounce; indicated by a solid Yellow LED
8		Pull the trigger to scroll to the next Setpoint - Anti Mechanical Bounce; indicated by a solid Yellow/Red LED
9		Pull the trigger to scroll to the next setpoint - Solenoid Dwell; indicated by a solid Green LED
10		Pull and Hold the Trigger for 2 seconds to indicate you wish to select this setting. The Blue LED will blink out the current value.
11		Pull and Hold the Trigger for 2 seconds to indicate you want to enter a new value. The Blue LED will go out.
12		Pull the trigger 12 times to input the new value. The Blue LED will blink with each trigger pull to indicate it has been registered.
13		Press and Release the Power button to store the new value. The Blue LED will blink 12 times indicating the new value.
14		Press the Power button one time to go back to the Solenoid Dwell Setpoint.
15		Press the Power button one time to exit to the Top Level or Setpoint Groups. The Blinking Yellow LED indicates you are at the Top Level Setpoint Group—Marker Controls.
16		Press and Hold the Power button for 3 seconds to Store all changes and power off the marker. All four LEDs will flash indicating you are powering down.

Reset ALL values to their default settings

The following steps will reset all marker values to their default settings. Using these steps will also reset any profiles or user definable ramping you may have created or saved.

1		Pull and Hold the Trigger, press and release the Power button, then release the Trigger.
2		The Blinking Red LED indicates you have accessed the Startup Options Menu and are at the first Menu Option—Programming Mode.
3		Pull and Release the Trigger 4 times to scroll to the Menu Option—Setpoint Default indicated by the Blinking Blue Power button LED.
4		Press and Release the Power button to Reset your Rampage board to its default configuration. All four LEDs will flash indicating you have reset your Rampage™ Board to its factory default configuration.



Be sure to check out the download section on our web site for more programming examples, tips and updates! www.GoApeOnline.com