



REDLINE™

PRO GRIP FOR THE EMPIRE AXE AND MINI



empirepaintball.com



FITS THE EMPIRE AXE AND MINI



REDLINE™

OWNER'S MANUAL

Read this User Manual for technical information and usage instructions for your Empire Redline foregrip. The full manual can be found on the CD enclosed with the product or by contacting Paintball Solutions at 1-800-220-3222 (USA) or on www.paintballsolutions.com.

Rules for Safe Marker Handling

Important: Never carry your marker uncased when not on a playing field. The non-paintball playing public and law enforcement personnel may not be able to distinguish between a paintball marker and firearm. For your own safety and to protect the image of the sport, always carry your marker in a suitable marker case or in the box in which it came in.

Safety and safe marker handling are the most important aspects of paintball sports. Please practice each of the following steps with an unloaded marker before attempting to operate your marker with an air source and paintballs.

Read this entire manual before loading, or installing an air cylinder, or in any way attempting to operate the marker.

READ USER MANUAL BEFORE USING

- Treat every marker as if it were loaded.
- Never look down the barrel of a paintball marker.
- Keep your finger off the trigger until ready to shoot.
- Never point the marker at anything you don't wish to shoot.
- Keep the marker off until ready to shoot.
- Keep the barrel-blocking device in/on the marker's barrel when not shooting.
- Always remove paintballs and air source before disassembly.
- After removing air source, point marker in safe direction and discharge until marker is degassed.
- Store the marker unloaded and degassed in a secure place.
- Follow warnings listed on the air source for handling and storage
- Do not shoot at fragile objects such as windows.
- Every person within range must wear eye, face, and ear protection designed specifically to stop paintballs and meeting ASTM standard F1776.
- Always measure your marker's velocity before playing paintball and never shoot at velocities in excess of 300 feet-per-second (91.44 m/s).
- Remember that the ultimate safety device is you, the operator.

Paintball markers are not toys. Misuse may cause serious injury or death.

Eye protection designed specifically for paintball must be worn by the user and persons within range. Recommend 18 years of age or older to purchase. Persons under 18 years of age must have adult supervision.

For manuals and warranty details, go to: paintballsolutions.com

For manuals in other languages (where applicable), go to: paintballsolutions.com



WARNING! PAINTBALL GUNS AND PAINTBALL GUN ACCESSORIES ARE NOT TOYS!

- Careless use or misuse may result in serious bodily injury or death!
- Eye protection designed for paintball must be worn by the user and all persons within range.
- Must be 18 years of age or older to operate or handle any paintball gun and paintball gun accessories without adult or parental supervision.
- Read and understand all cautions, warnings, and operating manuals before using any paintball gun or paintball gun accessory.
- Do not aim paintball gun at eyes or head of people or at animals.
- Paintball guns are to be used with Paintballs only
- To prevent fire or shock hazard, do not expose unit to rain or moisture.
- To prevent fire or shock hazard, do not immerse unit in liquids.
- To prevent fire or shock hazard, do not disassemble any electronic paintball device.
- The disposal of the battery used to power this product may be regulated in your area.
- Please conform to all local or state regulations with regard to battery disposal.
- Use common sense and have fun.

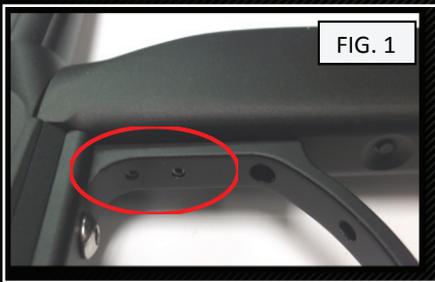
Any tampering with the unit voids your warranty. There are no consumer serviceable parts inside the unit. The use of non factory authorized components within this product may cause a fire or shock hazard.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.

WARNING: This product contains one or more chemicals that are known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands after handling.*

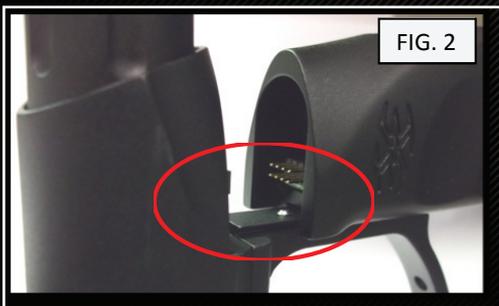
AXE/MINI FOREGRIP REMOVAL

1. Locate the two set screws that hold the Foregrip in place, they are found inside the trigger guard above the LED. (See FIG. 1)
2. Using a 1/16" Allen wrench, loosen both set screws by turning them in a counter-clockwise direction until the Foregrip is loose. Be careful not to lose the set screws.
3. Slide the Foregrip downward, away from the Marker Body until free of the Grip Frame.



REDLINE FOREGRIP INSTALLATION

1. Slide the Redline Foregrip along the guide on the Grip Frame. (See FIG. 2)
2. Carefully insert the contacts of the Redline Foregrip board into the corresponding Main Board mounting points on the marker.
3. Using a 1/16" Allen wrench, tighten both set screws by turning in a clockwise direction until the screws are tight. Be careful not to over tighten.
4. The Redline Foregrip should be secure and not move when wiggled.



BATTERY INSTALLATION

The Redline requires a single 9-volt battery as the electronic power source. The use of brand-name alkaline batteries is recommended. The battery is accessed through the removable left side panel on the front foregrip. Confirm that the marker is off before changing or installing the battery.

1. To access the interior of the Redline Foregrip, use a 5/64" Allen wrench on the screw located in the bottom left-hand side of the foregrip door.
2. Remove the door panel once the screw is completely loose, careful not to lose the screw.
3. Attach a fresh 9-volt into the battery harness.
4. Re-insert the battery and harness back into the battery compartment with the harness pointed down towards the bottom of the grip.
5. Make sure that there are no kinks in the harness wires. Do not force them into place. (See FIG. 3)

NOTE: Some rechargeable batteries may be too large for the Empire Redline battery compartment. If they don't fit, please don't force them as this may cause damage.



OPERATION INSTRUCTIONS

- Turn Marker ON - Press and hold the CENTER of the Directional Pad (the black button/joystick located under the screen) to turn board/marker ON - You are now in the LIVE Mode (see below for more details) and the marker is ready to fire.
- Turn Marker OFF - Press and hold CENTER on Directional Pad (D-pad) to enter MAIN Menu, release D-Pad and then press CENTER on D-Pad when the display reads OFF to turn board off.
- Automatic Off feature - The Empire Redline also has an automatic off feature. If you accidentally leave your marker powered up, it will shut itself off after approximately 10 minutes of inactivity.

NOTE : The Auto Off time is adjustable in the SYSTEM Menu

LIVE MODE

Live Mode is the standard mode when firing the marker. The main display will show the Firing Mode, Game Timer, EYE ON/OFF, Tournament Lock, Battery Level and Trigger Activation (See FIG. 4)

- Firing Mode - The upper section of the display shows the current Firing Mode. (FIG. 4) shows the marker in SEMI mode. The Redline offers eight different Fire Modes.
- Battery Level Indicator - On the upper left of the display, below the Firing Mode, is the Battery Level indicator. The indicator will flash when the battery is depleted. FIG. 4 shows the Battery Level at half life.
- Tournament Lock - On the upper right of the display, below the Firing Mode, is the Tournament Lock indicator. The Tournament Lock can only be set by pressing a button on the Redline board (see page 7 for more details).
- Eyes ON/OFF - Eyes are electronic light beams that will not allow the marker to fire until a paintball is completely loaded into the breech and "seen". This feature limits the number of chopped paintballs.

- Press D-Pad in the UP direction to toggle Eyes ON or OFF. The display icon will show either empty EYES, a ball in the breech or the OFF setting.
- [] EYES ON, empty breech
- [] EYES ON, ball in breech
- [OFF] EYES OFF
- Game Timer - Press D-Pad in the DOWN direction to toggle the Game Timer ON. Hold DOWN to stop the timer and continue to hold DOWN to reset the Game Timer.

- Trigger Status - The display will show the status of the trigger (depressed or released) in place of the Tournament Lock icon.

Hold the D-Pad in the LEFT or RIGHT directions to display more user data.

The Game Timer will be replaced by Shot Counter or the Rate of Fire indicators as you scroll through the display screens.

- Shot Counter - Displays the current number of shots taken, as determined by solenoid cycles. Holding the D-pad in the DOWN direction will reset the Shot Counter to zero.
- Rate of Fire - This screen displays the highest achieved Average Rate of Fire (AV) and the highest achieved Peak Rate of Fire (PK). Holding the D-pad in the DOWN direction will reset the Rate of Fire values to zero.
- MAIN Menu - Press and hold CENTER on D-pad to enter the MAIN Menu (see below for more details).



MAIN MENU

Press the D-pad to the RIGHT, LEFT, UP or DOWN directions to scroll through the MAIN Menu options. Press CENTER on the D-pad to make a selection.

- OFF - Turns Marker Off
- CONFIG - Enters User CONFIGurations Menu (see below)
- SYSTEM - Enters SYSTEM Settings Menu (see page 5)
- EXIT - Exits back to LIVE Mode

MENU QUICK EXIT

- As long as you are not currently modifying a setting, you can exit any menu at any time by pressing and releasing the trigger. This will take you back to LIVE Mode.

USER CONFIGURATIONS MENU

- Press the D-pad in the UP or DOWN directions to scroll through the USER CONFIGURATIONS Menu options. Press CENTER or RIGHT on the D-pad enter the selected option and see the current setting.
- CONFIG - There are 3 fully customizable user configurations (or profiles). The current user CONFIG (Profile) is displayed near the top of the screen (C1, C2, or C3).
- Only the settings under CONFIG menu are linked to a User Profile.
- If Tournament Lock is active, the display will show LOCKED when trying to make a selection and you cannot modify any settings in the CONFIG menu.
- Changing the values of a setting will only affect the Profile that is currently chosen. If the current setting is C1, any changes to the user settings will only affect C1.

FIRE MODE

Choose between the different pre-programmed firing modes (See FIG. 5)

- Press RIGHT or CENTER to see the current Firing Mode setting.
- Press UP or DOWN to cycle through Firing Modes
- SEMI - Semi automatic firing up to max ROF (Rate of Fire) setting
- RAMP - Semi auto shots (equal to Ramp Shot Start setting), then a Ramping rate of fire up to the max ROF setting (if Ramp Sustain TPS (Trigger Pulls per Second) is achieved)

FIRE MODE CONTINUED...

- BURST - Semi auto shots (equal to Ramp Shot Start setting), then 3-shot bursts at the max ROF setting
- AUTO - Semi auto shots (equal to Ramp Shot Start setting), then Fully Automatic firing at the max ROF setting
- PSP B - Complies to 2011 PSP rules for Burst mode
- PSP R - Complies to 2011 PSP rules for Ramping mode
- MILL - Complies to 2011 Millennium Series Rules for Ramping Mode
- NPPL - Complies with 2011 NPPL rules of 15 BPS (Balls per Second) Semi Auto
- Press CENTER to save selection and return to the CONFIG menu



FIG. 5

ROF Cap- Choose whether the Rate of Fire Cap is ON or OFF when Eyes are ON

- Press RIGHT or Press CENTER to see current setting of whether ROF CAP is On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER on D-Pad to save the setting and return to CONFIG menu

ROF Eye On- The maximum Rate of Fire with Eyes On (ROF Cap must be ON)

- Press RIGHT or Press CENTER on D-Pad to see current ROF with EYES ON
- Press UP or DOWN to increase/decrease the BPS setting (8.0-25.0BPS)
- Press LEFT or Press CENTER on D-Pad to save setting and return to CONFIG menu

ROF Eye Off- The maximum Rate of Fire with Eyes OFF

- Press RIGHT or Press CENTER on D-Pad to see current ROF with EYES ON
- Press UP or DOWN to increase/decrease the BPS setting (8.0-25.0BPS)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Dwell - Is the amount of time the solenoid stays open to fire a ball. Setting the Dwell too high will decrease efficiency. Setting the Dwell too low will affect marker operation.

- Press RIGHT, Press LEFT or Press CENTER of D-Pad to see current Dwell time (in milliseconds)
- Press UP or DOWN to increase/decrease the Dwell setting (5.0-20.0ms)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Trigger Pull Debounce - Time in milliseconds the trigger pull must be held to be valid. This eliminates electronic noise and vibrations that the board may wrongly interpret as a trigger action (trigger pull) and fire the marker.

- Press RIGHT or Press CENTER of D-Pad to see current Trigger Pull De-bounce setting (in milliseconds)
- Press UP or DOWN to increase/decrease the Pull Debounce setting (1-20ms)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Trigger Release Debounce - Time in milliseconds the trigger must remain released before next pull can be registered.

- Press RIGHT or Press CENTER of D-Pad to see current Trigger Release Debounce setting (in milliseconds)
- Press UP or DOWN to increase/decrease the Release Debounce setting (1-20ms)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Ball in Place Time - Time in milliseconds the ball must stay in breech before it can be fired. Increase this setting for slower feeding loaders to avoid chopping balls in the breech. Decrease this setting for use with faster feeding loaders to increase max ROF.

- Press RIGHT or Press CENTER of D-Pad to see current Ball In Place setting (in milliseconds)
- Press UP or DOWN to increase/decrease the BIP setting (1-20ms)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Anti-Bolt Stick Wait Time - Time that must expire after a shot before ABS is activated. Helps prevent first shot drop-off.

- Press RIGHT or Press CENTER of D-Pad to see current ABS Wait setting (in seconds)
- Press UP or DOWN to increase/decrease the ABS Wait setting (10-60s)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Anti-Bolt Stick Dwell - Time that will be added to dwell after ABS Wait time to prevent bolt stick.

- Press RIGHT or Press CENTER of D-Pad to see current ABS Dwell setting (in milliseconds)
- Press UP or DOWN to increase/decrease the ABS Dwell setting (0-10ms)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Ramp Shot Start - Number of Semi-Auto shots needed before ramping kicks in (affects all firing modes but Semi-Auto).

- Press RIGHT or Press CENTER of D-Pad to see current Ramp Start setting (in # of shots)
- Press UP or DOWN to increase/decrease the Ramp Start setting (3-12 shots)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Ramp Sustain - Trigger Pulls per Second (TPS) that must be maintained to continue ramping (affects RAMP, PSPR and MILL modes).

- Press RIGHT or Press CENTER of D-Pad to see current Ramp Sustain setting (in trigger pulls per second)
- Press UP or DOWN to increase/decrease the Ramp Sustain setting (3-12TPS)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Ramp Reset - Time in seconds after last trigger pull in which ramping will stay active (affects all modes except Semi).

- Press RIGHT or Press CENTER of D-Pad to see current Ramp Reset setting (in seconds)
- Press UP or DOWN to increase/decrease the Ramp Reset setting (1-10s)
- Press LEFT or Press CENTER of D-Pad to save setting and return to CONFIG menu

Back - Return to MAIN Menu

- Press RIGHT or Press CENTER of D-Pad when BACK is visible to return to the MAIN Menu.

SYSTEM MENU

- Press the D-pad in the UP or DOWN directions to scroll through the SYSTEM Menu options. Press CENTER or RIGHT on the D-pad enter the selected option and see the current setting.
- These are global settings that will affect all user configurations (C1, C2, C3). These settings can be modified when tournament lock is on or off.

Game Timer - Set the Game Timer countdown duration.

- Press RIGHT or Press CENTER of D-Pad to see current Game Timer Countdown setting; MM = Minutes, SS = Seconds (MM:SS)
- Press UP or DOWN to increase/decrease the Game Timer minutes (00-99)
- Press CENTER of D-Pad to save minutes setting
- Press UP or DOWN to increase/decrease the Game Timer seconds (00-59)
- Press CENTER of D-Pad to save seconds setting
- Press LEFT or Press CENTER of D-Pad to save settings and return to SYSTEM Menu

Timer Alarm - An audible alarm sounds when game time expires when setting is ON. Alarm also sounds with 1 minute remaining.

- Press RIGHT or Press CENTER of D-Pad to see current setting of On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER of D-Pad to save the setting and return to SYSTEM Menu

Force Shot - When ON, forces a shot with no ball in the breech and Eyes ON if trigger is held for 1 second.

- Press RIGHT or Press CENTER of D-Pad to see if Force Shot setting is On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER of D-Pad to save setting and return to SYSTEM menu

Dwell Lock - When selected ON, changing the Dwell Setting in any of the 3 user configurations (C1, C2, C3) will change the dwell for all 3 configurations. When OFF, the dwell in each user configuration can be changed independently.

- Press RIGHT or Press CENTER of D-Pad to see if Dwell Lock setting is On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER of D-Pad to save the setting and return to SYSTEM Menu

Brightness - Adjustable brightness of the screen display when screen is not dimmed

- Press RIGHT or Press CENTER of D-Pad to see current Brightness setting (A numerical value of 10-100, 100 is brightest setting)
- Press UP or DOWN to increase/decrease the Brightness setting (10-100)
- Press LEFT or Press CENTER of D-Pad to save the setting and return to SYSTEM Menu

Dim Time - The elapsed time after the last joystick activation in which the screen will dim to save power.

- Press RIGHT or Press CENTER of D-Pad to see current Dim Time setting (in seconds)
- Press UP or DOWN to increase/decrease the Ramp Reset setting (5-30s)
- Press LEFT or Press CENTER of D-Pad to save setting and return to SYSTEM menu

Auto Off - The elapsed time after the last trigger activation in which marker will shut off to save power.

- Press RIGHT or Press CENTER of D-Pad to see current Auto Off setting (in minutes)
- Press UP or DOWN to increase/decrease the Auto Off setting (5-30min)
- Press LEFT or Press CENTER of D-Pad to save setting and return to SYSTEM menu

System Sound - Turns the system sounds ON or OFF, including the startup, shutdown, and enter/exit menu sounds.

- Press RIGHT or Press CENTER of D-Pad to see if System Sound setting is On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER of D-Pad to save setting and return to SYSTEM Menu

JSTK Sounds - Joystick Sounds: Enables a beep when the joystick is activated when setting is ON.

- Press RIGHT or Press CENTER of D-Pad to see if Joystick Sound setting is On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER of D-Pad to save setting and return to SYSTEM Menu

Training - Training Mode: Allows trigger activation even though Eyes are ON and no ball in the breach. The solenoid does not cycle, and marker gives an audible chirp when fired.

- Press RIGHT or Press CENTER of D-Pad to see if Training Mode setting is On or OFF
- Press UP or DOWN to cycle through ON or OFF
- Press LEFT or Press CENTER of D-Pad to save setting and return to SYSTEM Menu

RST Shots - Reset Shot Counter: Resets the Shot Counter when YES is selected (also available through LIVE Mode menu)

- Press RIGHT or Press CENTER of D-Pad to Reset Shot Counter
- Press UP or DOWN to cycle from NO to YES
- Press LEFT or Press CENTER of D-Pad to reset counter if YES is set, then return to SYSTEM Menu

FCTRY RST - Factory Reset: Resets all settings to factory defaults when YES is selected

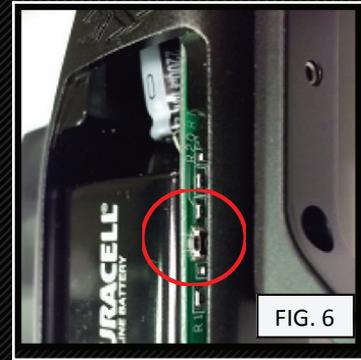
- Press RIGHT or Press CENTER of D-Pad for FACTORY RESET
- Press UP or DOWN to cycle from NO to YES
- Press LEFT or Press CENTER of D-Pad to activate RESET if YES is set
- Screen will then display "Resetting" and then will shut down

Back - Selecting will return you to the MAIN Menu

- Press RIGHT or Press CENTER of D-Pad to return the MAIN Menu

TOURNAMENT LOCK

- Tournament Lock is engaged or disengaged by pushing a small button on the board. (See FIG. 6)
- The button is located on the side of the board, facing the grip door, about 2.25" (5.7cm) from the bottom of the board.
- A distinct sound will play to indicate the Tournament Lock button was pressed.
- While in Live Mode the Tournament Lock symbol will indicate if the marker is locked or unlocked.



SOFTWARE VERSION

- On startup, the software version will display next to the logo.
- Hold CENTER on D-Pad during startup to continuously display the logo and software version.

LIMITED LIFETIME WARRANTY INFORMATION

(ORIGINAL PURCHASE RECEIPT REQUIRED)

Empire Paintball warrants that this product is free from defects in materials and workmanship for as long as it is owned by the original purchaser, subject to the terms and conditions set forth below. Empire Paintball will repair or replace with the same or equivalent model, without charge, any of its products that have failed in normal use because of a defect in material or workmanship.

Empire Paintball is dedicated to providing you with products of the highest quality and the industry's best product support available for satisfactory play.

Purchaser should register product to activate warranty. Register your product Online at www.paintballsolutions.com

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover problems resulting from abuse, the unauthorized modification or alteration of our product, problems resulting from the addition of aftermarket products and scratches or minor superficial imperfections. Due to the nature of paintball products it is important that the product be maintained by the user as indicated in the product manual to remain in good operating condition. Your Limited Lifetime Warranty will be void if you fail to maintain the product as recommended in the product instruction manual. In addition, certain parts of a product may be subject to wear through regular usage. Replacement and repair of such parts is the responsibility of the user throughout the life of the product. These parts are not covered under the Limited Warranty. Examples of this type of part include (but are not limited to) goggle lens, straps, O-ring seals, cup seals, springs, ball détentes, batteries, hoses, drive belts, gears and any part of a product subject to continuous impact from paintballs. Hydrotesting of air cylinders is not covered under this warranty.

The Limited Lifetime Warranty also does not cover incidental or consequential damages. This warranty is the sole written warranty on Empire's product and limits any implied warranty to the period that the product is owned by the original purchaser. Some states, provinces and nations do not allow the limitation of implied warranties or of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state, province to province, nation to nation.

If you should encounter any problems with your product and you have added aftermarket parts on your product, please test it with the original stock parts before sending it in. Always unload and remove air supply before shipping markers. Do not ship your air supply tank if it is not completely empty. Shipping a pressurized air supply tank is unsafe and unlawful. Remove all batteries from products prior to shipping.

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion of incidental or consequential damages.

For Warranty parts, service, information or manuals in other languages, (where applicable) go to:

Paintball Solutions: www.paintballsolutions.com

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