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Patent Number 7568478 and Design Patent Number D597152  
Additional US & INT'l Patents Pending

D Y E P A I N T B A L L . C O M



*dye*  
**LT-R**  
REVOLUTIONARY PATENTED ROTOR™ TECHNOLOGY



L T - R™ L O A D E R O W N E R ' S M A N U A L

# LT-R™ LOADER OWNER'S MANUAL



## SPECS.

- CAPACITY:** 200 paintballs  
**FEED RATE:** 50+ bps  
**WEIGHT:** 1.3lbs (empty with batteries)  
**DIMENSIONS:** 4.75"H x 8.5"L x 4.25"W  
**POWER SUPPLY:** Three AA batteries

U.S. and International Patents Pending.

## WARNING

IMPORTANT SAFETY INSTRUCTIONS AND GUIDELINES.

- Misuse of paintball equipment may cause serious injury or death.
- Please read, understand and follow the directions in the Rotor Loader owner's manual.
- Eye protection that is designed specifically for paintball and meets ASTM/CE standards must be worn by user and persons within range.
- Recommend 18 years or older to purchase. Person under 18 must have adult supervision.
- If you read these instructions and do not fully understand them or are unsure of your ability to make necessary adjustments properly, call DYE or your local pro shop for help.

## QUICK SET-UP GUIDE

### BATTERY INSTALLATION

No tools are required for battery installation, just follow the simple instructions found on page 2. Three AA batteries are required to operate the Rotor Loader. When installing the batteries make sure to install them the correct way by following the + and - polarity markings on the battery holder.

### MOUNTING ROTOR LOADER ON A MARKER

Make sure the Rotor Loader is securely mounted on your marker's feedneck and the Rotor Loader's feed tube is bottomed out on your marker's feed neck. It is recommended to use an adjustable clamping feed neck system with the Rotor Loader. Do not over tighten your marker's feed neck on the Rotor Loader as it may damage the Rotor Loader.

### TURNING THE ROTOR LOADER ON/OFF

Once the batteries have been installed and the Rotor Loader is fully assembled, simply press the power button at the rear of the Rotor Loader (see figure 1a). As soon as the LED light indicator comes on, the loader is ready to go. There is no programming or boot up sequence to worry about, just load up paintballs and go.

### IF ROTOR LOADER JAMS PAINT

In the unlikely event that the Rotor Loader jams paint, simply give the jam release trigger a quick pull. This will turn the center rotor arm in reverse, quickly clearing the jam. The jam release trigger is located on the underside of the Rotor Loader (see figure 1b).

**WARNING: RESULTS MAY VARY DEPENDING ON THE QUALITY OF PAINTBALLS USED WITH THE ROTOR LOADER.**



Figure 1a



Figure 1b

## CHANGING THE BATTERIES

### INSTALL/CHANGE BATTERIES

1. Remove the Rotor Loader from your marker.
2. Empty all paint from the Rotor Loader.
3. Open lid and slide secondary locking tab up (see figure 2a).
4. Depress main locking tab and lift upper shell off bottom shell (see figure 2a).
5. Push forward on the tab at the front of the floor tray, and lift the floor tray out of the bottom shell from the rear (see figure 2b).
6. This will expose the battery tray, gearbox and rotor carousel (see figure 3a).
7. Install batteries into battery holder. Pay attention to the + and - symbols.
8. Reassemble by following directions in reverse.



Figure 2a



### WARNING

Low batteries may cause the Rotor Loader not to function properly.

Dirt and heavy dust can create excess friction and cause the loader to malfunction.

Over filling the Rotor Loader with paintballs and forcing the lid closed will cause jamming.

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### FULL DISASSEMBLY

1. Remove upper shell and floor tray (follow directions for changing batteries).
2. The two red retaining tabs lock the gearbox and rotor carousel in place. Turn the back of the two red retaining tabs outward (see figure 3a).
3. The rotor carousel and gearbox can now be removed from the bottom shell.
4. Remove the Rotor Loader carousel first, and the gearbox second.
5. The rotor carousel can be fully disassembled for cleaning (for proper cleaning see page 7).
6. There is no need to disassemble the gearbox.

**The on/off button is held in place by the gearbox.**

**Take care not to lose the on/off button during disassembly or assembly.**



## FULL DISASSEMBLY



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## ASSEMBLY

WHEN PERFORMING FULL ASSEMBLY OF THE ROTOR LOADER INSTALL THE GEAR BOX FIRST FOLLOWED BY THE ROTOR CAROUSEL.

### INSTALLING THE GEARBOX

1. Make sure the jam release trigger is in the forward position (highlighted **yellow** in figure 4a).
2. Make sure the on/off button is in the rear position.

**The on/off button is held in place by the gearbox.**

**Take care not to lose the on/off button during disassembly or assembly.**

3. Place the rear edge of the gearbox under the retaining ledge at the back of the bottom shell (highlighted **green** in figure 4a).
4. Lower the front of the gearbox into position. The support walls on the gearbox should line up with the support walls in the bottom shell (highlighted **blue** in figure 4a).
5. Make sure the gearbox is fully seated and sitting level in the bottom shell.
6. If the gearbox is seated properly, pulling the jam release trigger will turn the white cheese gear at the front of the gearbox.



Figure 4b

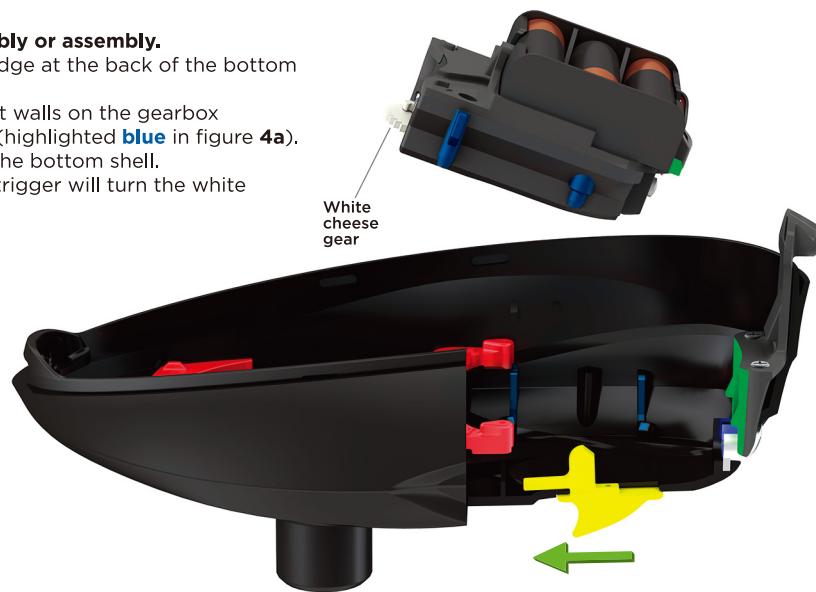


Figure 4a

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## ASSEMBLY

### INSTALLING ROTOR CAROUSEL

1. Place the planetary gear assembly at bottom of the bottom shell. Make sure the outer teeth mesh with the white cheese gear.
2. Install the rotor base over the planetary gear assembly. The rotor base should sit under the front retaining ledge (see picture 4b) and level with the front of the gearbox.
3. Install the center rotor arm. The center rotor arm should only rotate counter-clockwise  $\frac{1}{2}$  turn. You should feel constant spring tension while rotating it.
4. Install the upper rotor. The upper rotor should fit under the front retaining ledge and sit level with the top of the gearbox.
5. The upper rotor should rotate freely  $\frac{1}{4}$  turn.
6. The two retaining tabs should rotate over the rotor carousel without binding the upper rotor.
7. By rotating the two red locking tabs inward, the rotor carousel and gearbox will be locked into the bottom shell.

### ASSEMBLE TRAY AND LOADER TOP

1. Slide the front of floor tray under retaining ledge at front of bottom shell.
2. Lower back of floor tray down and snap it under the rear-retaining ledge.
3. Hook the front nose of the top shell into the bottom shell. Depress the main locking tab at the rear of the loader while lowering the top shell. Make sure the tongue and groove mate up properly.
4. Depress the secondary locking tab down into the locked position once the top shell and bottom shell are snapped together.

1. Upper Rotor
2. Center Rotor Arm
3. Rotor Base
4. Planetary Gear Assembly



Figure 4c



### WARNING

Dirt and heavy dust can create excess friction and cause the loader to malfunction.

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## CHANGING LID/WINDOWS

### LID REPLACEMENT

1. With the top shell off (see page 2 for instructions on top shell removal) use a 3/32" allen wrench (included) to unscrew the five screws securing the carrier.
2. With the lid closed, push the lid axle pin partially out to either side using a metal pin such as an allen key.
3. Open the lid and lift the side of the lid hinge arm that is no longer retained by the cross pin (see picture 5b).
4. Slide the lid off the cross pin. Be careful not to lose the lid spring.
5. To install new lid, follow directions in reverse order.



Figure 5a

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### WINDOW REPLACEMENT

1. With the top shell off (see page 2 for instructions on top shell removal), reach inside and push firmly on the rear upper corner of the window.
2. The rear two locking tabs will pop out.
3. Slide the window rearward and out of the top shell.
4. To install new window, follow directions in reverse order.



Figure 5b



**WARNING**  
Over filling the Rotor Loader with paintballs and forcing the lid closed will cause jamming.

## CLEANING AND GENERAL MAINTENANCE

### CLEANING AND GENERAL MAINTENANCE

Clean your Rotor Loader immediately (same day) after each use or whenever it is dirty or covered with paint.

**WARNING:** Keep gearbox free of water.

**WARNING:** Clean only with plain water. Chemical cleaners (Windex®, 409®, Simple Green®, etc.) contain alcohol and detergents which can weaken the Rotor Loader.

**WARNING:** Never store the DYE® Rotor Loader in areas that may have chemical fumes. Gasoline, kerosene, alcohol and other chemicals and fumes will weaken the Rotor Loader.

**WARNING:** Never store the DYE® Rotor Loader in areas of extreme heat or cold. Temperature extremes will damage the Rotor Loader. Store the Rotor Loader in a cool, well-ventilated place.

## TROUBLESHOOTING

### ROTOR LOADER NOT TURNING ON

If your Rotor Loader does not turn on when the on/off button is pressed check the following steps:

1. Make sure the Rotor Loader is empty of all paintballs.
2. Check that the gearbox is inserted correctly into the bottom shell, follow instructions on page 4. You should hear an audible click when pushing the on/off button.
3. Check that the batteries are fresh and installed the correct way. For battery installation follow instructions on page 2.
4. Make sure the wire from the battery pack to the gearbox is fully inserted into the connector.
5. Check that the Jam Release Trigger is all the way forward. If you turn the loader on but there is no spring tension pulling the Jam Release trigger back re-insert the gearbox into the bottom shell.

### ROTOR LOADER IS LOUD

If the Rotor Loader sounds very loud while running, please do a thorough cleaning of all parts. Dust and dirt will cause excessive sound.

### ROTOR LOADER IS JAMMING

If you are getting paintballs jammed in the Rotor Loader please check the following steps.

1. Make sure the two red retaining tabs are turned to locked position. For instructions see page 5.
2. Check that all Rotor Loader parts are clean of any dirt and debris.
3. Install new batteries into the Rotor Loader. If you notice a significant increase in the rotating speed of the carousel, this could be the cause.
4. Make sure you are using fresh, good quality paintballs. Use of soft / wet paintballs or reballs can cause jamming.
5. With no paintballs in the Rotor Loader, pull back the Jam Release Trigger. It should have a spring tension pushing it forward. If not, please re-insert the gearbox into the bottom shell.

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## EXPLODED VIEW



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## LEGAL INFORMATION

### PARTS LIST

- 01 Top shell
- 02 Carrier
- 03 Lid
- 04 Lid cross pin
- 05 Secondary locking tab
- 06 Carrier screws (5)
- 07 Bottom shell
- 08 Gearbox / Battery tray
- 09 Planetary Gear Assembly
- 10 Rotor base
- 11 Center Rotor Arm
- 12 Upper Rotor
- 13 Floor tray
- 14 Collapsing floor plate

### LIMITED WARRANTY

DYE Precision, Inc. warrants that your DYE<sup>®</sup> Rotor Loader will be free from defects in materials and workmanship for 90 days from the date of original retail purchase. Any product determined by DYE<sup>®</sup> to be defective in materials or workmanship in accordance with the above warranty will be repaired or replaced, at the option of DYE<sup>®</sup>, free of charge when received at the factory freight prepaid, together with proof of purchase. This warranty is expressly in lieu of all other warranties.

Any implied warranties of merchantability or fitness for a particular purpose are limited to the same duration as this expressed warranty. This warranty does not cover incidental or consequential damages. DYE<sup>®</sup> shall not be liable for any incidental or consequential damages. Some states do not allow the exclusion or limitation of implied warranties, incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty does not cover any problem resulting from misuse, abuse, neglect, alteration, failure to perform maintenance as instructed, unauthorized repair or service, or damage caused by contaminants. This warranty does not cover any representation or warranty made by Dealers beyond the provisions of this warranty. This warranty does not cover costs incurred for normal repair, inspection and preventive maintenance. You must establish proof of purchase to obtain warranty service or replacement. You may establish proof of purchase by completing the Warranty Registration Card and mailing it to DYE<sup>®</sup>. This warranty gives you specific legal rights, and you also have other rights which vary from state to state.

If you have any questions about your DYE<sup>®</sup> product, please call DYE Precision, Inc. at (858) 536-5183 or visit [www.dyeprecision.com](http://www.dyeprecision.com).

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