

# MCS



BOX DRIVE MANUAL

## 1. Rules for Safe Marker Handling

- 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 on "SAFE" until ready to shoot.
- Keep the barrel-blocking device in/on the marker's muzzle when not shooting.
- Always remove paintballs and propellant source before disassembly.
- After removing propellant 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 propellant 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 91.44 meters (300 feet-per-second).

**NOTE:** Eye protective devices designed specifically for paintball use must be worn by the operator and anyone within range.

## 2. Specifications

- Power Requirements: 4AA batteries (not included)
- Capacity: 140+ paintballs
- Feed Rate: 15bps+
- Construction: Composite

## 3. Features

- Adjustable Speed
- Auto-Off 1 Hour
- Adjustable Sound Sensitivity
- Low Battery Indicator

## 4. Battery Installation

- Using a Phillipshead screwdriver, remove the screw on top of battery door and lift off door.
- Install (4) AA alkaline batteries following the polarity markings
- Reinstall the door and battery door screw.

**NOTE:** For best results, only use quality name-brand alkaline batteries. When replacing batteries, used batteries should be recycled.



## 5. Activating the Box Drive

Locate the power button on the rear of the Box Drive. Tap the power button once to turn the Box Drive. The motor will spin for a second and the Box Drive is now ready to use.

- The green LED will flash repeatedly while the unit is on to show it is ready. If the LED flashing changes to red, then the batteries are low and need to be replaced.
- To turn off the Box Drive, press and hold the power button until the LED changes to Red. Release the button and the Box Drive will turn off. If the Box Drive is left on, it will shut off after 1 hour of inactivity.



## Wheel Drive

The Wheel Drive is the thumbwheel located under the Box Drive and has several uses.

- Manually load up to 6 paintballs into your paintball gun for every revolution of the thumbwheel. This can be done to chronograph your marker without the need to turn on the Box Drive, or to feed paintballs if your batteries should happen to die during a game.
- Clear a ball jam in your Box Drive during a game by rotating the Wheel Drive backwards and clearing the jam, then forwards again to load the ball stack.

## 6. General Maintenance

### Emptying the Box Drive for Storage

With the Box Drive turned off, turn it upside down to dump the paintballs out. While upside down, rotate the Wheel Drive backwards from the feeding direction to release paintballs. Do not store your Box Drive with any paintballs left inside.

**NOTE:** When storing the Box Drive for an extended period of time, remove the batteries and store it in a dry place.

### Cleaning The Box Drive:

To clean the Box Drive, use only a clean, dry cloth, or apply a small amount of goggle lens cleaner to a clean, dry cloth and wipe clean. Do not apply goggle lens cleaner directly to Box Drive surfaces, as too much contact will deteriorate plastic and cause damage.

If any paintballs break inside the Box Drive; do not use any liquids or chemicals to rinse out the Box Drive, doing so will cause severe damage to the Box Drive electronics.

## Preloading the Drive Carrier Spring

If you remove the drive carrier for cleaning it will be necessary to preload the drive carrier spring. Follow the instructions below.

If any paintballs break inside the box drive; do not use any liquids or chemicals to rinse out the box drive; doing so will cause severe damage to the box drive electronics.

- Install the spring cup, drive spring, and drive carrier onto the drive shaft. Make sure the spring sits in the spring cup correctly.
- Rotate the drive carrier clockwise until its tab hits the spring housing tab. You should now have both spring tabs pressed together.
- Lift the drive cone slightly and rotate it clockwise up and over the spring cup's tab, taking the upper spring tab with it.
- Snap the drive carrier down with the drive spring tab on the right side of the drive cup's tab.
- The drive cone spring is now pre-loaded and will snap back properly when wound up.

## 7. Board Functions

### Programming

There are two functions which can be adjusted in programming mode.

The default settings should be good for your marker.

- Motor Speed– 3 levels of adjustment, level (1) being the slowest motor speed and level (3) being the fastest.

**Note:** It is recommended that you do not set the speed higher than needed. Using higher speeds than needed will only shorten the life of your batteries.

- Sound Sensitivity– 3 levels of adjustment, level (1) being the least sensitive and level (3) being the most sensitive. This setting is only used in sound activation mode.

**Note:** It is better to have the microphone setting less sensitive and still able to detect the marker firing. Do not set it to 3 if setting 1 detects the marker firing. Only use a higher setting if the lower setting does not detect the marker firing.

	Features	LED Color	Default Value	Range
1	Motor Speed	Solid Green	2	1-3
2	Sound Sensibility	Solid Orange	2	1-3

## Entering Programming Mode

- Make sure the Box Drive is turned off.
- Press the power button, and then quickly release the power button.
- A solid green LED will appear, while the LED is a solid green, press the power button one time.

## Current Settings

Once in programming mode the Box Drive will display the current settings.

- The green LED will flash the motor's current speed setting (1 slowest; 3 fastest).
- The orange LED will flash the current sensitivity setting (1 less sensitive; 3 most sensitive).

## Adjusting Settings

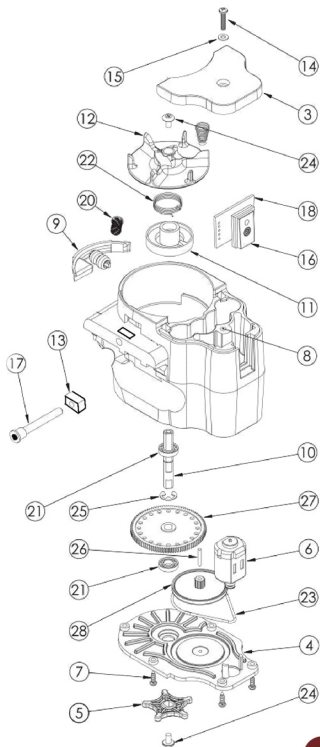
After the Box Drive displays the current settings, you can enter the new setting that you desire.

- The green LED will come on for 1 second. If changing the speed setting, press the power button while the LED is a solid green. When the LED turns to red the new setting can be entered. Now press the power button the number of times necessary based on the new setting. Each time the button is pushed an orange LED will appear. After the new setting is entered the green LED will flash the new setting.
- The orange LED will come on for 1 second. If changing the sensitivity level setting, press the power button while the LED is a solid orange. When the LED turns to red the new setting can be entered. Now press the power button the number of times necessary based on the new setting. Each time the button is pushed an orange LED will appear. After the new setting is entered the orange LED will flash the new setting.
- The Box Drive will automatically exit programming mode.

## 8. Parts List and Diagram

REF N°	DESCRIPTION	PART #
1	Box Drive Adapter (Not shown)	17852
2	Box Drive Base (Not shown)	31023
3	Battery Cover Assembly	38413
4	Bottom Cover	38416
5	Wheel Drive	38421
6	Motor w/ Harness	38423
7	Bottom Cover Screw	38425
8	Battery Cover Nut	38426
9	Anti Jam Assembly	38427
10	Drive Shaft	38428
11	Spring Housing	38429
12	Drive Carrier	38430
14	Battery Cover Screw	38435
15	Battery Cover Washer	38436
16	On/Off Button Pad	38442
18	TM Circuit Board	38448
20	Anti Jam Spring	38800
21	Bearing	38803
22	Drive Cone Spring	38814
23	Drive Belt	38820
24	Drive Shaft Screw	38822
25	E-Clip	38823
26	Pulley Gear Pin	38828

REF N°	DESCRIPTION	PART #
27	Sprocket Gear	38830
28	Pulley Gear	38837



## 9. Box Drive 1 Year Warranty

### 1 Year WARRANTY INFORMATION

(ORIGINAL PURCHASE RECEIPT REQUIRED)

**MCS** 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. MCS 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.

**MCS** 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 by:**

- ✓ Completing the product registration card (if applicable) and mail along with a copy of your receipt to MCS, 2345 La Mirada Dr. Vista, CA 92081

### 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 1 Year 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 Warranty. Examples of this type of part include (but are not limited to) O-ring seals, springs, batteries, drive belts, gears and any part of a product subject to continuous impact from Paintballs.



The 1 Year Warranty also does not cover incidental or consequential damages. This warranty is the sole written warranty on this 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 1 Year 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 or information in the U.S., contact: **MCS •**

For technical video go to:

**[WWW.MCSTECHVIDEO.COM](http://WWW.MCSTECHVIDEO.COM)**

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***WWW.MCSUS.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 critical failure, 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 can expose you to chemicals including lead, which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## WARRANTY REGISTRATION

To assist us in providing the best customer service possible, complete and mail this to **MCS**:

2345 La Mirada Dr. Vista, CA 92081

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Country: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Serial Number (located on bottom of Box Drive): \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Place of Purchase: \_\_\_\_\_

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