

DM6 BOARD - SETTINGS AND FUNCTIONS

FIGURE 1



WARNING

When servicing your marker:

- Make sure a barrel sock is fitted to the DM6.
- Make sure your hopper is removed from the DM6.
- Make sure there are no paintballs in the breech of the DM6.
- Always remove the first stage regulator and relieve all residual gas pressure from the DM6 before disassembly.
- The DM6 can hold a small residual charge of gas, typically 2 shots, with the first stage regulator removed. Always discharge the marker in a safe direction to relieve this residual gas pressure.

Turning the DM6 ON and OFF

To turn on the DM6, press and hold the power button (see figure 1) until the LED lights turn blue. The blue light indicates board bootup. After the bootup sequence, the LED's will turn either RED (no ball) or GREEN (ball ready to fire). To turn the DM6 off, press and hold the power button until the LED's turn off.

NOTE: The DM6 automatically switches off after 10 minutes of non-use.

Firing the DM6

As soon as the marker is turned on and the LED's turn from blue to either red or green, the DM6 is ready to fire. If there is no ball and the LED's are RED, you need to hold the trigger for 1 second to force the DM6 to fire once. If there is a paintball inside the breech and the LED is green, just press the trigger to fire the marker.

LED Light Indicator

The DM6 uses two super bright LED lights mounted on the circuit board inside the grip frame. These two lights are used to provide information to the user about the DM6. They will always show the same information and it does not matter which LED you look at. One is mounted behind the DM6 logo on the left side of the grip panels. The other one can be seen by looking at the top left side of the grip frame while holding the DM6 in the position you would while playing a game.

When you turn on the marker in normal operation mode with the power button, the light colors mean the following:

- | | |
|----------------|--|
| Blue | - Boot Sequence |
| Red | - Breech is clear, no ball (eye on) |
| Green | - Ball in breech, ready to fire (eye on) |
| Blinking Red | - Eye is off |
| Blinking Green | - Eye failure (see DM6 Board, page 5) |
| Blinking Blue | - Indicates a low battery, battery should be changed as soon as possible |

BLUE



RED



GREEN



NOTE: The eye is always activated when you turn the marker on.

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FIGURE 2



WARNING

- The DM6 is not water resistant. Excess moisture can cause damage to electronic parts.
- Keep the board and all electrical components clean of dirt, paint and moisture.
- To clean the board, use canned air. If a more aggressive cleaning method is needed, lightly scrub the components with a soft, dry brush. Heavy scrubbing will damage the board.

Board settings and configuration mode

There are five settings you can alter on the DM6 board with the DIP switches inside the grip frame (see figure 2):

| | |
|---------------------|---|
| ABS | Anti Bolt Stick. |
| Trigger Sensitivity | This setting adjusts the delay between two trigger pulls. |
| Dwell | This is the time the solenoid is activated for. |
| ROF | Rate Of Fire when the eye is deactivated. |
| Firing Mode | This is the firing mode the DM6 uses |

There are two DIP switches mounted on the board of the DM6 (See figure 2). The first one is used for the ABS setting and the second one is used to access a configuration mode used to change the other four settings.

Anti Bolt Stick -

When ABS is activated, the dwell is increased after 15 seconds of non-use for the next shot fired. This helps to prevent bolt-stick, but may result in higher velocity for the first shot.



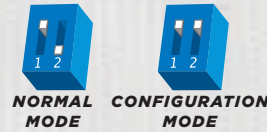
ABS on (default)



ABS off

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Configuration Mode - The following settings can only be modified in configuration mode. To activate the configuration mode, turn your marker off and set DIP switch 2 to the ON position. Next, turn your marker on. The LED's cycle through all colors for one second to indicate that you have entered the configuration mode. To cycle through different settings, pull and release the trigger. Configuration mode has 4 settings that can be changed.



Green - Trigger Sensitivity

Values 1 - 20 (factory default 5)
Trigger sensitivity is the amount of time that the trigger has to be released before the next trigger pull is allowed. In some situations with too low of a value, the DM6 can register more trigger pulls than what was actually pulled. This can cause the DM6 to shoot full auto, even in semi-automatic mode. To fix this, set trigger sensitivity setting higher.

Red - Dwell

Values 1 - 30 (factory default 18)
Dwell is the amount of time that the solenoid will be activated. Follow these steps for the best way to set your dwell:

- Remove loader and any paintballs from the DM6 marker.
- With the dwell set at 10, start increasing the value until the marker begins to fire.
- When you reach the setting where the marker begins to fire, get some paint and a loader and go to a chronograph.
- Increase the dwell until you see no increase in the velocity. This is the optimal dwell setting to be used.

Blue - Rate Of Fire (ROF) [When Anti Chop Eye (ACE) is deactivated]

Values 1 - 20 (factory default 20bps)
The ROF setting is used to set the maximum rate of fire of the DM6. The values do not correspond directly to a certain Balls Per Second (BPS) value. You will need to use the table below to locate your desired maximum ROF setting. The factory setting is 20 (30bps).

Value = BPS

| | | | |
|----|------|----|------|
| 1 | 10 | 11 | 15.6 |
| 2 | 11 | 12 | 15.9 |
| 3 | 12 | 13 | 16 |
| 4 | 13 | 14 | 18 |
| 5 | 14 | 15 | 20 |
| 6 | 14.5 | 16 | 22 |
| 7 | 14.7 | 17 | 24 |
| 8 | 14.9 | 18 | 26 |
| 9 | 15.2 | 19 | 28 |
| 10 | 15.4 | 20 | 30 |

Yellow - Firing Mode

Values 1 - 3 (default 1)
This setting changes the Firing mode of the DM6. Default is semiautomatic. In the semiautomatic mode, one trigger pull shoots out one paintball. The PSP/NPPL mode and The Millennium mode follow the rules of the paintball tournaments series.
 Value 1 - NPPL/Semi automatic Mode
 Value 2 - PSP Mode
 Value 3 - Millennium Mode

NOTE: You cannot turn your marker off with the power button when the marker is in configuration mode. You must first set DIP switch 2 to the off position.

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TO CHANGE THE VALUE OF A SETTING:

- While in configuration mode, pull the trigger and hold it for more than one second. The LED will flash to indicate the previous setting. After that, you can set the new value with the trigger. For example, if you want to change the trigger sensitivity to 7 units:
- Cycle through menus by pulling and releasing the trigger until the LED lights GREEN (trigger sensitivity).
- Pull and hold the trigger until the LED starts to flash (factory default for trigger sensitivity setting is 5 units, so the LED will flash 5 times).
- When the LED stops flashing, pull and release the trigger seven times in a fast pace. The new value is set after you haven't touched the trigger for one second. The LED will cycle through all colors to indicate that the new value is saved. All other configurations are changed the same way. Just as in part 2 above, change the mode to RED for "dwell" or BLUE for "ROF" to change the desired configurations.
- To exit configuration mode, set DIP 2 to the off position.

Battery

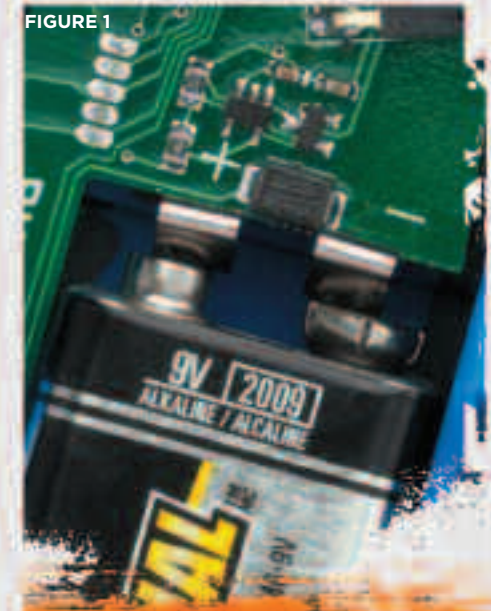
Standard 9V batteries will last for about 40,000 shots. Please be aware that there are substantial differences in performance between different brands of batteries. Use of high quality alkaline or lithium ion batteries is recommended for maximum battery life. If you plan not to use your marker for a long period of time (a month), it is recommended that you remove the battery from the marker. An intermittent blinking blue light indicates a low battery. A low battery can cause malfunctions to the marker. In this case, the battery should be changed as soon as possible. When the battery voltage starts to go too low, you will notice your velocity starts to decrease and the board can turn off. For tournament use, it is recommended to change the battery for each tournament. When changing your battery, take special care to ensure the wiring harness is not pinched under the battery (see figure 1).

Changing the battery

The battery is housed on the right side of the grip frame. To access the battery, remove the three screws holding the right side grip panel down. Use a 3/32" Allen wrench. Carefully lift the battery out of the frame. When inserting a new battery notice the + and - marks on the board. The positive lead of the 9V battery goes to the left and the negative lead to the right. Inserting the battery backwards does not damage the board but it will not function.

NOTE: If the marker will not function with the eye on, there is a good chance the battery needs to be changed.

FIGURE 1



WARNING

- A low battery will not be able to power both the ACE eye and the trigger switch, causing ACE eye failure.
- If the battery is low, it may not be able to power the solenoid correctly. This will affect the DM6's velocity, causing it to become inconsistent and/or low.

ULTRALITE FRAME

FIGURE 1



ADJUSTING YOUR TRIGGER

The trigger's forward travel, over travel and spring tension are fully adjustable so that the user can fine-tune the trigger to his or her exact liking. You do not need to remove the frame from the gun in order to adjust the trigger pull.

- There are two adjustment screws located on the right side of the Ultralite frame (see figure 1) and one adjustment screw behind the trigger. The two screws on the side of the frame adjust the travel of the trigger. The one located behind the trigger is used to change the tension of the trigger spring.

TO ADJUST TRIGGER TRAVEL

- Use a 5/64" Allen wrench to make the desired adjustments.
- The screw toward the front of the trigger (#1 in figure 1) controls the forward travel. Screwing it in will shorten the trigger's length of pull.
 - Note: If this screw is adjusted too far, the switch will be held down at all times and the marker will not fire.**
- The screw toward the rear of the trigger (#2 in figure 1) controls the over travel. By turning this screw you can adjust how far the trigger will travel after it reaches the firing point.
 - Note: If this screw is adjusted too far, the trigger will not be allowed to travel far enough to depress the switch and fire the marker.**

TO ADJUST SPRING TENSION

- Use a 5/64" Allen wrench to make the desired adjustment. The adjustment is made by pushing the allen key through a hole in the trigger.
- To make the trigger pull stiffer, turn the allen key clockwise or in.
- To make the trigger pull lighter, turn the allen key counterclockwise or out.

INTEGRATED LOCKING DOVETAIL FEATURE

The UltraLite frame comes equipped with an integrated locking dovetail. There is a locking screw located on the bottom right side of the UltraLite frame. It can be accessed with a 1/8" allen key through a hole in the grips panels. To unlock a part attached to the dovetail of the frame, turn the locking screw counter clockwise one full turn and slide part off the rail. To attach a part to the rail, slide the part on and turn the locking screw clockwise until part is firmly locked in place.

REMOVING ULTRALITE FRAME FROM THE DM6

If there is ever need to remove the Ultralite frame from the DM6 make sure to follow these steps.

- Remove three grip panel screws with a 3/32" allen wrench from the right side of UltraLite frame
- Disconnect the solenoid wire and the eye wire from their sockets by gently pulling them out
- Using a 3/32" allen key, turn the front frame screw counterclockwise one full turn
- Finally, turn out the back frame screw and slide the frame back and down until it comes off the DM6

To connect the frame follow above steps in reverse order.

NOTE: BE SURE THAT THE FRAME AND TRIGGER ASSEMBLY ARE KEPT CLEAN. IF THERE IS EXCESS DIRT OR PAINT BUILD UP AROUND THE TRIGGER, THE TRIGGER WILL NO LONGER MOVE FREELY. IN ADDITION, PAINT AND DIRT CAN CAUSE THE MICROSWITCH TO NOT FUNCTION PROPERLY OR FAIL. BE SURE YOU DO NOT PINCH THE WIRES BETWEEN THE FRAME AND THE BODY WHEN REATTACHING THE FRAME AND BODY.



PARTS LIST

- Adjustable Feed Neck
- On/Off Knob
- Ball Detent
- Eye Cover
- Self Cleaning Eye Lens
- Hyper²
- On/Off Retaining Screw
- "ACE" Eye
- Solenoid
- Front Frame Screw
- Ultralite 45 Frame
- Rear Frame Screw
- LPR Retaining Screw
- LPR
- LPR Cap
- Fuse Bolt
- DM6 Body

WARNING

- Be sure the trigger is not adjusted to the point where it is too sensitive and may cause accidental discharge of the marker.
- Removing the trigger spring will cause premature wear on the microswitch, resulting in failure.
- Be sure you do not pinch the wires between the frame and body if reattaching the frame to the body.