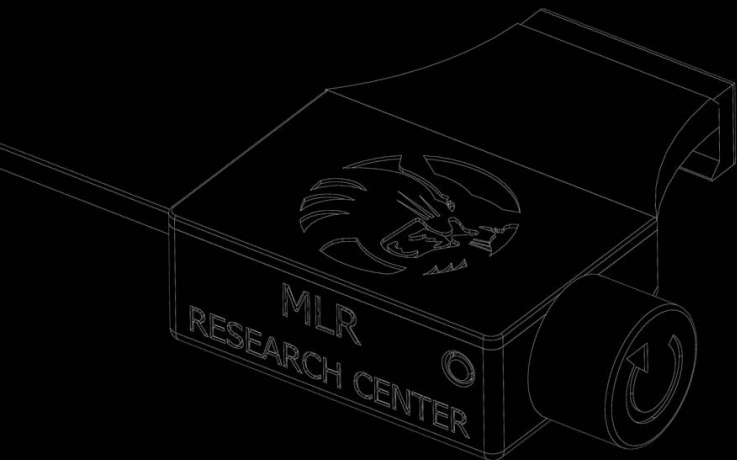


# MLR RESEARCH CENTER



**Electronic Digital Level**



# WARNINGS

## Safety

Prior to mounting the level on your weapon, make sure the weapon is unloaded and safe. If you are not sure how to secure the weapon, please see the operator's manual that accompanied the weapon platform you are mounting the level on.

## Caution



Never try to disassemble the unit, it is resin sealed. Disassembly will void the warranty and may cause the level inoperable.



The digital levels are designed to mount directly to either a 1" (25.4mm) Weaver or MIL-STD-1913 rail specification, and can operate both horizontally and vertically installed.

## GENERAL INFO

This manual is an overview of the MLR Digital Level, and will define the basic operation, features/benefits, and options of this proprietary system. The MLR Digital level utilizes a digital sensor to give rapid and instinctive response to the inclination of the weapon platform relative to the axis perpendicular to the ground.

## KEY ATTRIBUTES

The MLR Digital level is a lightweight, low profile, long-lasting system designed for PRS, hunting and informal precision long range shooting.

The major advantage of the MLR digital level is and extremely rapid and precise response to the inclination of the weapon system.

## LED'S

MLR Digital level is equipped with a crescent-shaped led indicator, designed to adapt to every type of sight on the market. Using the Velcro strap it can be fixed around the eyepiece so is possible to observe the inclination indicator without having to take your eyes off the objective.

The leds are of different colors to be recognized easily and without distracting attention from the aim.

Inclination side	Led color
Left	Red
Center	Green
Right	Blue

## SPECIFICATIONS

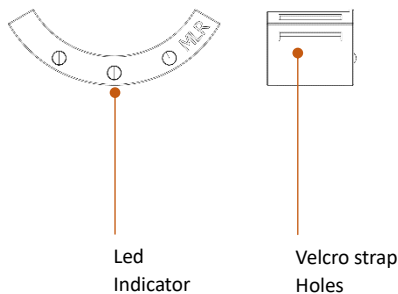
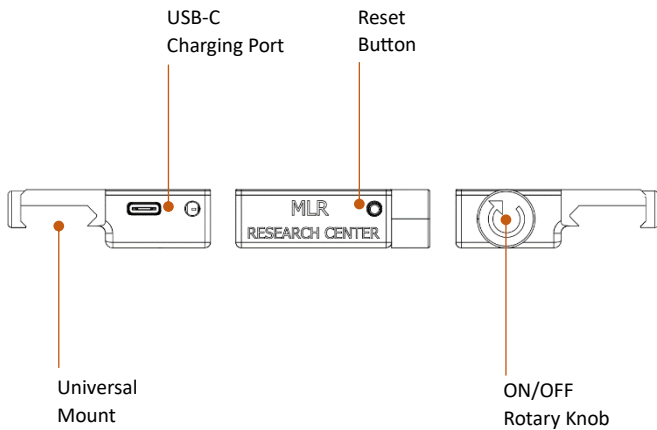
### TECHINICAL SPECS

Optics	Red-Green-Blue Led
L x W x H (level)	53.5 x 56.0 x 16.0 mm
L x W x H (indicator)	Ø57mm x 120° x 20mm
Cable lenght	About 40cm
Sealing	Resin sealed
Ip Rating	IP42
Color/Finish	Matte Black – UV Resistant paint
Adjusment Range	± 0.6°
Mount direction	Both orizontal and vertical
Mount	1" Weaver or MIL-STD 1913 rail

### ELECTRICAL

Power source	3.7V 320mAh LiPo Battery
Battery life	About 15 continuous hours at room temperature
Bettery charge indicator	Startup led flashing

# ANATOMY



## **DEFINITIONS**

### **ON/OFF**

The round button control allows the operator to turn the level on and off.

### **Universal Mount**

Integrated base to accommodates all MIL-STD 1913 rail tolerances.

### **Reset Button**

The lowered button, designed to avoid involuntary pressures, allows resetting and programming.

### **USB-C port**

USB-C port is for charging the battery.

## OPERATING INSTRUCTIONS

This section describes the features and operating instructions of the MLR Digital level.

Please read the instructions carefully before mounting and using the level, and always practice proper firearm safety.

### Mounting MLR Digital level

The MLR Digital Level is equipped with mounting hardware to attach to a 1" (25.4mm) Weaver or MIL-STD-1913 Picatinny style rail.

To achieve the best results and accuracy, the MLR Digital Level must be mounted properly. It can be mounted both horizontally and vertically, both in left or right side of the weapon system.

Avoid oblique installations of more than 20° respect to the horizontal or vertical plane.

### To mount the level:

1. Turn hex blot **counterclockwise** to back the bolt out of the weaver lock. Do not back the bolt all of the way out of the lock, only enough for the base to sit properly on the rail.
2. Turn the hex bolt **clockwise**, drawing the weaver lock into the rail until resistance is felt Using a 4mm heagonal key rotate the bolt head an additional 1/2 turn to fully tighten This is equivalent to approximately 0.2kgm of torque.



## BATTERY

- MLR digital level is supplied with a fully-charged battery.
- It is designed to maintain constant brightness as the battery drains down.
- The led brightness will not fade as the battery runs down, but rather, shut down abruptly.
- The first indication of the battery draining is the red light blinking at startup, before led light game when the unit is turned on.
- Battery drainage is protected electronically from a circuit that prevent excessive drainage that would damage the battery.
- At start-up MLR level will auto check battery status and a will flash according to the charge.

## ELECTRONIC FEATURES

Electronic controls are via push button on left side of the level and via round rotating button on front side.

### ON/Auto Battery Check

- Rotate round button **clockwise** to turn level on.
- The level will automatically perform a battery check every time it is turned on and a led will flash according to the charge .

Green: the batteries have more than 70 percent of life left.

Blue: the batteries have from 35 to 70 percent of life left.

Red: the batteries have between 35 percent or less useful life left:

Recharge as soon as possible

### OFF

- Rotate round button **counterclockwise** to turn level off.

## **ZEROING PROCEDURES**

After properly mounted the level, place your weapon system perfectly on a stable and rigid surface, perfectly perpendicular to the ground.

If you are unable to carry out the operation correctly or not sure about quality, contact an expert gunsmith.

Turn on the level and briefly press the programming button, in this way the level resets to zero.

The flashing of the green led will confirm the resetting operation.

It is recommended to check or repeat the zeroing operation approximately once every 6 months.

## **PROGRAMMING PROCEDURES**

With the level mounted on the left side of the weapon (for right-handed shooters) the left led will light up when the weapon is tilted to the left and vice versa the right led will light up when the weapon is tilted to the right.

For left-handed shooters, who install the level on the right side, it is necessary to reverse the operation. To perform programming it is necessary to press the programming button for a long time (more than 2 seconds).

The flashing of the blue LED or the red LED indicates the LED that will light up when you tilt the weapon to the right.

## CLEANING INSTRUCTIONS



**CAUTION:** Never try to disassemble the unit, it is resin sealed. Disassembly will void the warranty and damage the unit.

The units are coated with an anti-UV material. No maintenance is needed on the surface, except to occasionally wipe off with a damp, soft cloth. Use only a water-based cleaner such as glass cleaner or soap and water. Never use any solvent-type cleaner such as alcohol or acetone to clean the surfaces. Do not use gun cleaner to clean or lubricate the unit.

## TROUBLESHOOTING

### The unit will not power up

Ensure the battery is fully-charged, re-charge it.

A red charging LED can be seen through the charging port.

That led become blue when battery is fully-charged.

If this doesn't solve the problem, turn in unit for maintenance.

### One of the 3 LEDs does not light up

The connection cable may be damage, turn in unit for maintenance.

### I am missing the rotating power button, or other parts

Contact seller for spare parts.

**THANKS FOR SUPPORT  
OUR PROJECT**

**PROUDLY MADE IN ITALY**

