Barrel LPT

User Manual

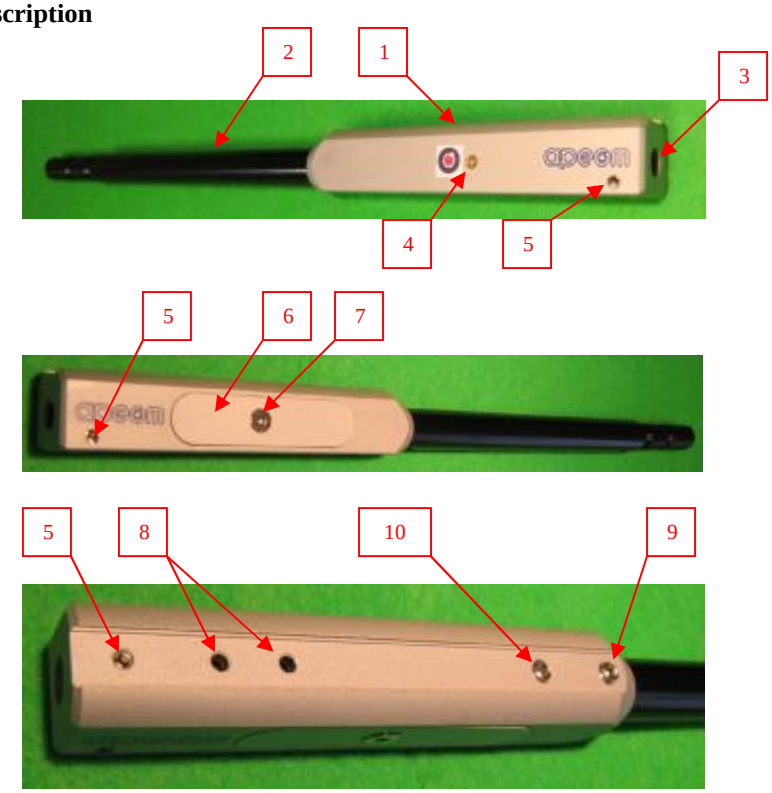
Safety Precautions

- Read this User Manual carefully before first use of the equipment.
- Use the equipment only as described in this manual.
- Do not use the equipment for other purposes than for which it is intended.
- Do not aim at people or animals or to an uncontrolled area.
- The emitter is an optoelectronic device; its disassembly is forbidden.
- Observe general rules for weapon handling while operating the weapon.
- Use the equipment only in dedicated areas bounded for shooting.
- Observe general rules for behaviour and handling a weapon on a shooting-range.
- After finishing shooting check if the weapon was not left cocked.
- Do not look into the emitting opening of the emitter.
- It is forbidden to remove from the body emitter laser diode and electronics.

Purpose

- Barrel LPT is designed for performing sport and training shooting at electronic targets.
- Barrel LPT is designed for imitation of a bullet by emitting an optical ray during the shot.
- Barrel LPT is designed for mounting to a body - frame of a gun.

Description



1) *emitter*
2) *adapter*
3) *emitting aperture - opening*
4) *mode button*
5) *adjusting screw*
6) *lid*
7) *lid screw*
8) *openings for bolting of a foresight*
9) *spacer screw*
10) *fixing screw*

Preparation for Operation

Unscrew the lid screw /7/ and remove the lid /6/. Loosen up the spacer screw /9/ by half turn and loosen up the fixing screw /10/ so that the emitter can be moved on the adapter /2/ by 10 mm back and forth. Move the emitter forward and insert batteries to the battery compartment. Use 3 pieces of LR54 alkaline batteries or equivalent. Observe battery polarity that is marked on the lid. Push the emitter back on the adapter and tighten

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the fixing screw, then the spacer screw. Mount the lid and screw up the lid screw. Do not use excessive force to retighten the lid screw.

Mount the foresight on the emitter and screw it into one of the opening for bolting of a foresight /8/. Use one M3x5 countersunk screw to screwing up the foresight. Do not use a longer screw; the emitter might be damaged.

Mount the adapter /2/ to the weapon frame, screw up the screws on the weapon frame so that the adapter can be turned without being pushed out. By looking through the back-sight turn the adapter so that the foresight was aligned with the back-sight. Tighten the screws of the weapon frame. Fill the air container with air and screw it into the weapon.

Barrel LPT is ready for operation.

Rules of Operation

Never aim at persons, animals or to an uncontrolled area – it is necessary to observe general rules for weapon handling and general rules for behaviour on a shooting-range while using the equipment.
Emitter has a protected class of IP52. When using the device, the user is obliged to observe the rules of UIPM, in particular the section 5.9.4 vi.

The emitter works in two modes. One is the shooting mode where the laser emitter is used for shooting at a target. The other is adjusting mode in which sighting can be done.

Modes can be chosen using mode button /4/.

Changing modes:

Cock the weapon, push the mode button /4/, pull the trigger and release the mode button. The emitter switches to adjusting mode for about one minute and starts emitting short pulses. Do not look into the emitting opening.

Place the Barrel LPT to a white underlay and check the emitted information.

If the emitter sends an information in the form:

short pulse – pause about 1 second - short pulse – pause etc. (● 1 sec ● 1 sec ●) – rectification mode,

10 x short pulse (● ● ● ● ● ● ● ● ● ●) – flat battery indication.

Adjusting mode ends automatically after about 1 minute or it can be turned off by holding the mode button for > 3sec. By turning off the adjusting mode with the button you save batteries.

In case that Barrel LPT will not be used for a long time (more than 1 month), remove batteries. Always insert new batteries to the emitter. Only use alkaline batteries of the following types: L1131, LR54, AG10, V10GA, GP189.

When replacing batteries, first remove the lid, then loosen up the spacer screw /9/ by half turn, then loosen up the fixing screw /10/ so that

the emitter can be moved on the adapter. Shake out the old batteries, insert the new batteries while observing battery polarity. Push the emitter back by about 10 mm back on the adapter, tighten the fixing screw, tighten the spacer screw. Replace the lid.

Never remove the batteries using a different method than the above, especially by forcing the batteries out with a metal object.

Batteries

Do not charge the batteries. This would pose a risk of leaking electrolyte or explosion.
Use the batteries only in intended electronic devices. In case of using an unsuitable battery, the equipment may be damaged or destroyed.
Keep the batteries out of humid environment; this would pose a risk of leaking electrolyte due to corrosion of the case. The electrolyte is a strong caustic that causes alkali burn in contact with skin.
Do not use damaged batteries.
Be careful when handling the button cells due to their small dimensions.
Keep the batteries out of children.
Observe correct polarity (+ -) of the batteries, do not short-circuit.
Do not throw batteries into fire, do not solder, do not disassemble.
Do not mix batteries of different type or age, the batteries discharge faster.
Store the batteries in a dry place under temperatures between 5 - 30 °C.
Take the batteries to a collection centre for hazardous waste or collection points.

Maintenance

Keep the emitter clean by wiping dust with a dry cloth. Do not use any cleaning agents, solvents and chemicals. Do not push against the emitting opening optics with any objects. Store the emitter so that clogging of the emitting opening is prevented.

Treat the adapter by wiping with a cloth gently moistened with oil. Use water-repellent oil such as WD40.

After every shooting and before every shooting visually check intactness of the emitter and adapter, check batteries for corrosion. Remove the batteries if there are marks of corrosion on them. Let the emitter the dry up before storing the emitter to a weapon case. Also let the emitter to dry up in case that you used it in humid or rainy conditions.

In case that Barrel LPT will not be used for a long time (more than 1 month), remove batteries.

Potential Defects and Troubleshooting

The emitter does not send the laser ray while shooting.	Check whether the batteries are inserted, or replace the batteries, or check if the emitting opening is not clogged, or tighten the screws of the weapon frame that hold the adapter, or tighten the fixing screw and the spacer screw.
The emitter cannot be switched to the adjusting mode.	Replace the batteries.

CAUTION – Using different checks, settings or operating procedures than the ones mentioned above may lead to dangerous radiation exposure.

Environment Protection

Do not throw the batteries to a waste bin. Take the batteries to collection points.

Specifications

Name of parameter	*Value*
- Laser type	semi-conductor
- Laser class	CLASS 1 LASER PRODUKT
- Wavelength (λ)	635nm - 650nm +/- 5%
- Diameter laser dot	4mm +/-0,5 mm at10m distanc
- Time between trigger release and the laser starts emitting the radiation	6ms
- Lens output aperture diameter (according to the manufacturer)	3mm
- Output (P)	≤ 3,4mW
- UIPM code	2015 – 15,6
- Emission duration	15.6ms
- Carrier frequency	40kHz
- Pulse ration	1:1
- Numbers and lengths of pulses	1 * 2.4 + 6 * 1.2 + 2 * 0.6ms
- Operating temperature	+10°C to +42°C
- Weight (emitter, Morini 162 adapter, batteries)	0.2kg
- power supply	4.5VDC (3xLR54 or equiv.)
- Number of shots per set batteries	min. 40000 / at 20°C
- Dimensions of emitters without adapter	100x18x18mm
- Length emitters with adapter (Morini 162)	295mm

Special Provisions

The emitter is equipped with a warning-information plate, serial number plate and sealing stickers. Warranty for the equipment is void in case of damage to the plate or sealing stickers.

Updating software is possible. SW is free of charge.

Plate

The warning-information plate is located on the bottom side of the emitter body.