

BATAK Lite

Hardware Operation

PRELIMINARY

User Manual

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Published by:

DN Publications Ltd

37 Lee Street

Horley

Surrey RH6 8ER

United Kingdom

Tel / Fax : + 44 (0) 1293 771905

Website: <http://www.bataklite.com>

E-Mail : dnsolo@gmail.com

THE CONCEPT

BATAK Lite is a new innovative equipment for the 21st Century. Played against a high polish stainless steel framework with bright coloured electronically activated targets and scored automatically by striking illuminated targets by hand.

BATAK Lite is simple to use, with the minimum of equipment, by one or more participants - for fun, competitively or for calculable exercise/keep-fit programs that don't get boring.

BATAK Lite requires only a fraction of the space normally required for Court and Racquet Sports - yet still creates the same excitement, skill, fun and speed that make them so popular.

A selection of different workouts, programs and speed levels make this new equipment ideal for all ages, sexes and fitness levels.

1.1 THE EQUIPMENT

BATAK Lite comprises 8 Polycarbonate translucent **LED targets** carefully arranged in a 'maximum stretch' type pattern and fixed to a strong tubular steel framework. The steel framework is either **Free Standing** or fixed to a MDF back-board for **Wall Mounting**.

Each target houses a bright Solid State **LED** light cluster and a special electronic switch connected to the control Computer. A dedicated **Microcomputer** controls the sequence and speed of illumination, gives certain audio responses for 'strikes' and 'misses' and both times and scores the routines on the two upper **LED Displays**.

Electronic sampled speech guides the player through specific routines as required.

1.2 BENEFITS

- * New, competitive and exciting workouts to improve Hand and Eye co-ordination
- * Minimum space requirements for maximum play/exercise potential.
- * Single or multiple player participation (e.g. Team Relays)
- * Variable speed accommodates players of all ages and sexes.
- * No special kit required.
- * Provides excellent facility for non-boring exercise as well as competitive sport.
- * Simple rules
- * Foolproof electronic scoring throughout play.

1.3 THE ROUTINES

State of the art microcomputer based technology enables an infinite number of different routines to be played at varying speed/skill levels according to age and fitness. Custom programs can be created for training, therapeutics, aerobics, mind games and weight loss purposes.

2.1 CAUTIONS WHEN INSTALLING:

The **BATAK Lite** machine is designed for indoor use only. **It must not be used outdoors** or under the following conditions :-

- a. In areas directly exposed to sunlight, high humidity, direct water contact, dust high heat or extreme cold.
- b. In locations that would present an obstacle in the case of an emergency, i.e. near fire equipment or emergency exits.
- c. Fixed to a Wall with an adjacent unsuitable floor surface.

2.2 CAUTIONS WHEN HANDLING:

- a. AC power must always be turned off, and the machine disconnected, before replacing any internal parts.

When disconnecting the **Power Jack Plug** from the machine, **remember to push and hold the RED Locking Tab in before attempting to pull the Jack plug out.** Failure to do so may result in damage to the socket.

- b. When unplugging the machine from an electrical outlet, always grasp the plug, not the mains lead.
- c. If any internal adjustments are required take special care when removing the front plate not to drop it or damage the machine when replacing.
- d. Care must be taken at all times to avoid electric shock when inspecting or otherwise adjusting the machine.

2.3 WHEN TRANSPORTING:

- a. Ideally the **BATAK Lite** framework should be moved by two people to avoid accident.
- b. Before moving the equipment the **mains lead must be disconnected.**

3. INSTALLATION:

3.1 To a wall via **4 suitable bolts** through the **4 triangular bolt plates** provided.

3.2 Free standing by affixing legs via the **4 M10 bolts** and wing-nuts provided.

ADJUSTMENTS

4.1 EXTERNAL CONTROLS:

Two controls:

- 4.2 Machine 12V POWER JACK PLUG - at the rear of the Front Panel
- 4.3 Machine START and/or RESET pushbutton - in center of Front Panel

5.1 INTERNAL CONSOLE CONTROLS AND FEATURES – *on the Main Logic Board*

5.2 Machine Power Supply

Green LED - illuminates to show that the Power Supply is functioning correctly

5.3 Sound Volume Control - via Blue Preset Volume control potentiometer

5.4 Machine Reset

Green Pushbutton Resets the machine to cease play at any time.

5.5 Target strike light

This Red LED flashes momentarily as each target is struck. If it does not illuminate or remains illuminated then a stuck switch is often responsible.

STARTING A ROUTINE - After a reset

- 6.1 Press the Target number corresponding to the required routine.
The Target will illuminate to show the selection.

Pressing the **Central Start Button briefly in and releasing** will now start the chosen routine normally commencing with the audio response **'Get Ready'**.

All scoring and timing information is displayed on **Score A** and **Score B** during play and any special verbal announcements (e.g. **'Timeout'**, or **'Now Rest'**) are made as required.

If an error is made or the **wrong routine** started then **press and hold in the Central Start Button** for approximately **three seconds** and then release to cause a machine **Reset**. An audible click will be heard on a **Reset**.

PLEASE REMEMBER THAT **BATAK Lite** IS A REACTION, CO-ORDINATION AND STAMINA IMPROVEMENT MACHINE - ONLY A MODEST TARGET STRIKE IS REQUIRED.

STANDARD ROUTINES ver. 2.0

If no routine is selected on a Reset and the Start button simply pressed then the default program is No.4 the 30 second Accumulator. If on the other hand a specific program has been selected played just pressing the Start button again will play the same routine. A re-selection is only necessary if a different Game is needed.

N.B. Provided a target switch is operating correctly (viz. the central 'red ring LED' flashes on and then off on a strike) it is possible to stop it being selected during play by simply holding it in (i.e. the central 'red ring LED' will flash) during Reset (see above) **and then releasing the target**. If another Reset is made at any time after performing the above the target will be brought back into play. This whole process is very useful if a target light fails and there is not enough time to replace it ..for example during a competition.

0 TEST MODE

All the targets will illuminate in turn and stay on for about 5 seconds as a **TARGET LAMP** test facility and at this stage any faulty lamps may be identified and replaced. Each target is numbered from **0** to **7**. Striking any **unlit target** will cause it to first illuminate and then its corresponding number is **spoken** to show correct operation. Any targets which do not illuminate indicate a fault condition, possibly a damaged switch or failed **LED**.

To exit this program and return to normal selection the machine needs to be **Reset via the central front panel pushbutton**.

1 ACCUMULATOR - 30 seconds - Infant - targets 6 and 7 not in play

This program consists of random targets lasting for 30 seconds. The targets remain on until struck out the user setting the pace to slow or fast or speedup. The final score is shown on the 'SCORE' LED display.

2 25 TIMED TARGETS - 1 second targets

In this program 25 timed targets illuminate in succession and at random the 'TIME' LED display counting them down from 25 to zero and the 'SCORE' LED display showing each successful strike. The strike opportunity time is 1 second. If you strike the wrong target or strike one 'out of time' then the routine speeds up!

3 25 TARGET RACE

The user must strike out 25 targets at random as quickly as possible. The number of strikes is seen on the 'SCORE' LED display together with the time taken to one tenth of a second on the 'TIME' LED display. If more than 100 seconds is taken then the routine times out to finish.

4 ACCUMULATOR - 30 seconds - All targets used

This program consists of random targets lasting for 30 seconds and adheres to the same conditions as Program 1.

5 BATAKATHON - 2 Minutes

Please **Reset** the machine before selecting this particular program. The program consists of random targets lasting for 120 seconds (i.e. 2 minutes). The targets remain on until struck out the user setting the pace - slow - or - fast - or - speedup. The cumulative score is shown on the 'SCORE' LED display. This routine is ideal for aerobic exercise

6 ACCUMULATOR - 60 seconds - All targets used

This program consists of random targets lasting for 60 seconds and adheres to the same conditions as Program 1.

7 SIMPLE SIMON - Sequence of 12 Targets

This program is based on the well known Simple Simon game so popular some years ago. The object of this game is to reproduce a sequence of Target Lamps after they have been given by the machine without making any mistakes. Four random Targets are initially illuminated and then spoken followed by two beeps. It is now the turn of the Player to repeat this sequence.

If successful the next level is given where the same Targets are illuminated plus one more (i.e.5 in this case) again followed by the double beep for the Player's turn. This progression continues until a mistake is made or the sequence finished. The score and level are both shown on the 'SCORE' LED' displays.

BASIC FAULT FINDING

BATAK Lite performs a number of tests before and during play to help diagnose any possible problems.

On any machine **RESET** all the LEDs are checked and if any are found faulty these are displayed on the **SCORE** display as needing replacing whilst at the same time flashing the central **RED LED Ring** on the play button for 5 seconds. This enables the faulty **LED** to be changed either immediately or at a later stage (see below).

If during play a **LED** fails (i.e. does not light up) then this Target will be **de-selected** and not be chosen during **active** game play. In this way a routine may be played even with a number of blown **LED**'s.

If a **stuck switch** is found then this fact is shown both on the **SCORE** display and visually by flashing the offending switch. **A stuck switch must be replaced to continue.**

If during play a **switch sticks** then the Game will freeze and leave the offending switch flashing.

7.1 No response whatsoever when the machine is switched on.

Firstly remove the Front Plate from **BATAK Lite**. See if the green **5V** LED is illuminated on the **main Logic Board**. If it is then the correct power is getting to the machine. If not then the Power Supply is probably faulty. Contact **Quotronics**.

Check that the **red target LED** is **off** and only goes on and off when a target lamp is struck. If it is **permanently on** then see section 7.2

7.2 Target Lamp stays on and cannot be struck out

If during play **one lamp stays on** and all attempts to strike it out fail then this almost always indicates a stuck switch. If this is the case the **red LED** on the main Logic Board will be **permanently alight** and the '**red ring LED**' on the central **pushbutton** will **flash continuously**. Also ... if a **reset** is made the **offending target** will remain alight identifying it as the problem. This switch will need to be taken out and cleaned or in some cases replaced.

7.3 Replacing a faulty target switch

Unplug the mains power

Take out the two **M6 Button Head screws** from the Plastic Target Shade thus freeing the main Shade

from the Framework. Snap out the white nylon switch holder assembly.

Fit a new PVC Target shade and snap in the white switch holder. Replace the **M6 bolts**.

Turn on the machine and return to **test mode - program 0** - to check the repair.

Technical telephone support is available at all times

TECHNICAL SPECIFICATIONS

- 1 **World Wide** power supply 90-240 Volts A.C. or Direct 12V Battery Input with a special Adaptor.
- 2 The play interface operates at **12 volt DC** for total player safety.
- 3 The **BATAK Lite** frame is manufactured from High Polish Stainless Steel Tube
- 4 Either Wall mounted or Free Standing.
- 5 The approximate overall space requirements (in millimetres) are:
 - a) Wall Mount 1150 (w) x 100 (d) x 1400 (h)
 - b) Free Standing 1150 (w) x 950 (d) x 1750 (h) i.e. Frame mounted on its Legs.

Allow a minimum playing space of 1 metre in front of the machine (add to d dimension)

- 6 **BATAK Lite** weighs less than **30kg** including its free standing feet.
- 7 **8** Polycarbonate high impact resistant and high intensity **LED Targets**.
- 8 **Two 3 digit** high intensity **LED Score** and **Time** Displays.
- 9 A **dedicated Microcomputer** and digital sampled real speech and sound effects guide the player through each session.
- 10 **Seven workout routines** are supplied as standard and many more exciting software programs are currently being developed.

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