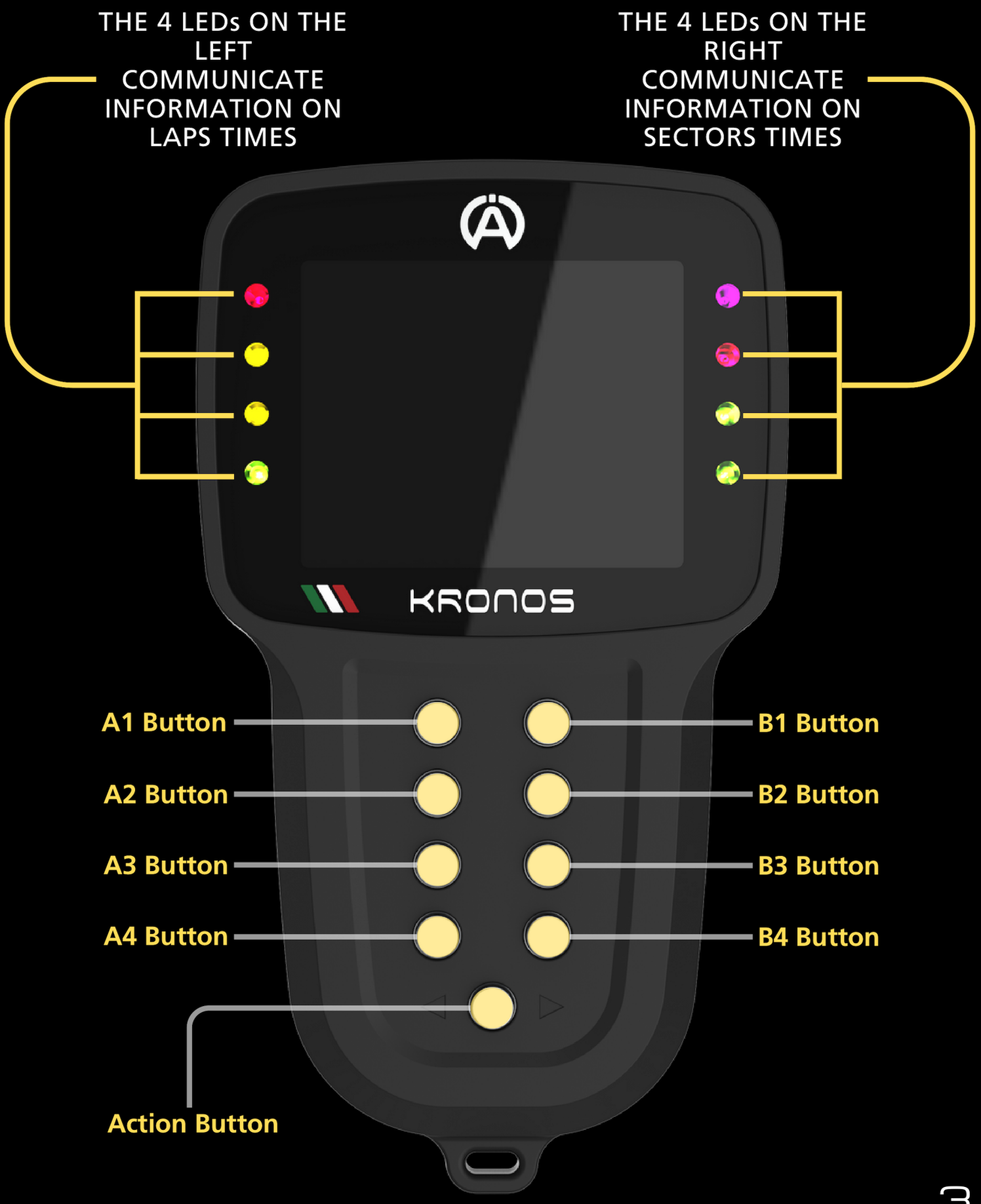
Instruction Manual

KRONOS

Index

1. Device Overview



1. Device Overview

2. Switching On and Off

Press the **action button** to **turn on** the Kronos

The device will run the last set program

The **Kronos** will **automatically turn off** after **10 minutes** of **inactivity** if all the stopwatches are inactive (STOP status, see page 9)

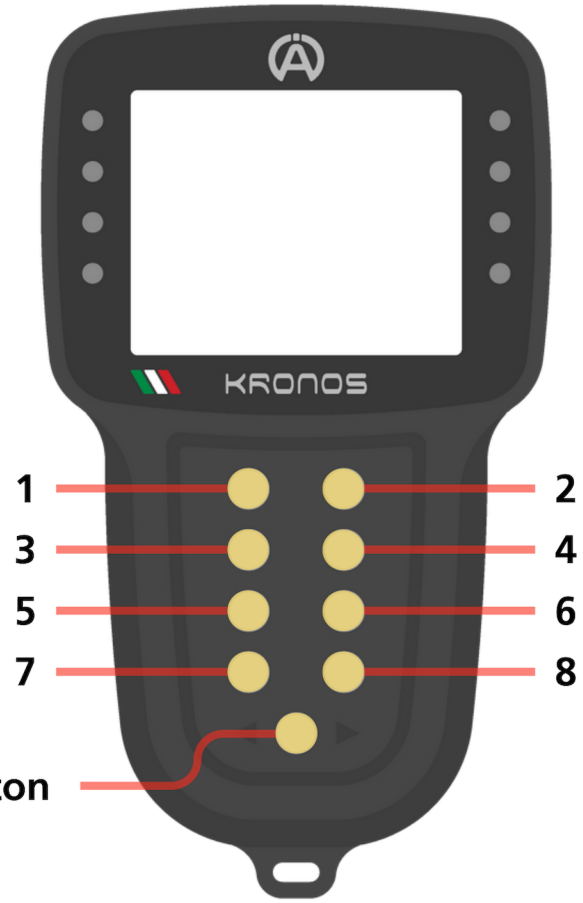
To **turn off** the **Kronos**, **simply press** the **action button until** the **"Off" icon** is **selected** and **wait** for **three seconds**

2. Switching On and Off

2.1 Switch on with program selection

To run a **different operating program**, **turn on** the **device** by **long pressing** the **action button together** with the **desired program button**

Pr 1 : **Action** button + button **1**
Pr 2 : **Action** button + button **2**
Pr 3 : **Action** button + button **3**
Pr 4 : **Action** button + button **4**
Pr 5 : **Action** button + button **5**
Pr 6 : **Action** button + button **6**
Pr 7 : **Action** button + button **7**
Pr 8 : **Action** button + button **8**



Changing the operating program will delete the entire Kronos memory

Export data via Bluetooth to the Kronos app to save it on your smartphone or tablet (see page 18)

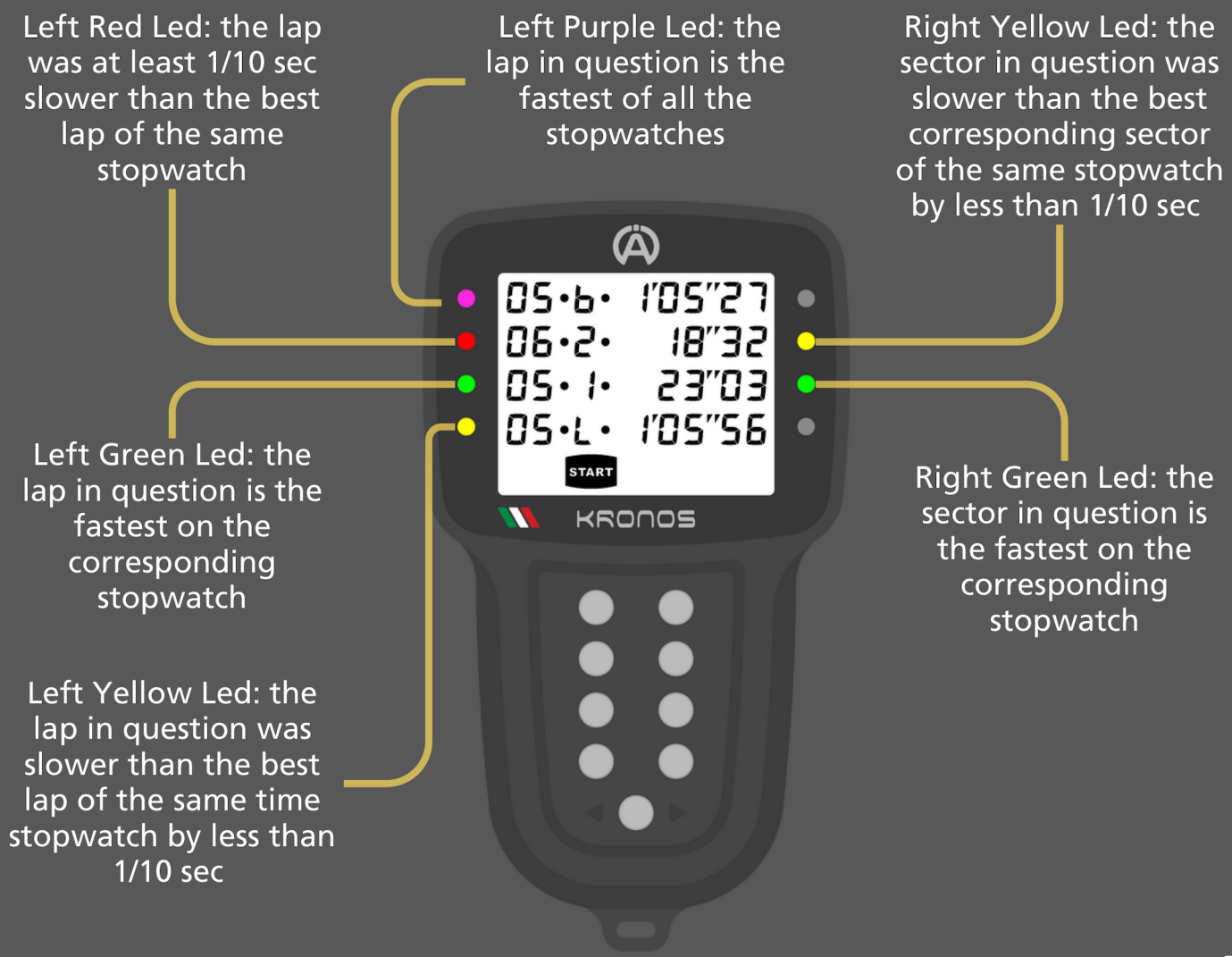
3. 8 LEDs system operation

3.1 Delta communications

- **Purple LED** : **Absolute best time** among all stopwatches
- **Green LED** : **Best time** of the corresponding stopwatch
- **Yellow LED** : **Time less** than **1/10 sec slower** than the corresponding best stopwatch time
- **Red LED** : **Time slower** by **more** than **1/10** of a **second** than the corresponding best stopwatch time

The **left LEDs provide lap time information** and the **right LEDs provide sector information**

EXAMPLE



3. 8 LEDs system operation

3.2 Lap time ranking

During the **analysis** of the **best lap**, the **theoretical lap**, the **rolling lap** and the **race pace**, the **left LEDs rank** the **times** from **fastest** to **slowest**

1° 2° 3° 4°

EXAMPLE

- The fastest pilot was recorded by the first stopwatch
- Second fastest pilot was recorded by the fourth stopwatch
- Third fastest pilot was recorded by the second stopwatch
- Slowest pilot was recorded by the third stopwatch

4. Functions

All functions are **accessible from** the **home page via** the **action button. Each time** the **action button** is **pressed** the **device accesses** the **next function**

The **functions** are:

- **Bests**
- **Recall**
- **Reset**
- **Off**
- **Bluetooth**

Only the **Bests function** is **accessible during timing** (Kronos in **START status**), **to access** the **other functions** the **Kronos must be** in **STOP status**

4.1 Home page - Stop/Start

The **Kronos**, once turned on in any program, **starts** by **accessing** the **home page**. i.e. the screen through which the pilots are timed

The **device is** in the **STOP status** (STOP icon steady and START icon flashing)

In **STOP status** the **device** is **ready** to **start timing** (START status)

By **pressing one** of the "**A**" **buttons** (depending on the program selected), **Kronos starts recording data**

During timing (START status) the **only accessible function** is the "**Bests**" one

The "Bests" function has different purposes when the unit is in the START or STOP status

4. Functions

4.2 Bests

4.2.1 During timing - START Status

To access the "**Bests**" **page during timing, press** the **action button**

The **best time recorded** by **each stopwatch** will be **displayed** for **2 seconds**

Press the **action button again** to **view** the **last lap time recorded** by **each stopwatch**

After 2 seconds, the **device** will **automatically return** to the **timing screen** (home page)

The "bests" function is not available while using program 8

4. Functions

4.2 Bests

4.2.2 STOP Status

When the **device** is in **STOP status** (for more information see page 9), the "**Bests**" **function allows** you to **analyse** the **most interesting data**

The available pages are:

- **Best Lap analysis** (with related split times if present)
- **Theoretical lap analysis**
- **Rolling lap analysis**
- **Race Pace analysis**

The **Theoretical Lap** and **Rolling Lap Analysis** pages are **only available** if the **laps recorded consist** of **more** than **one sector**

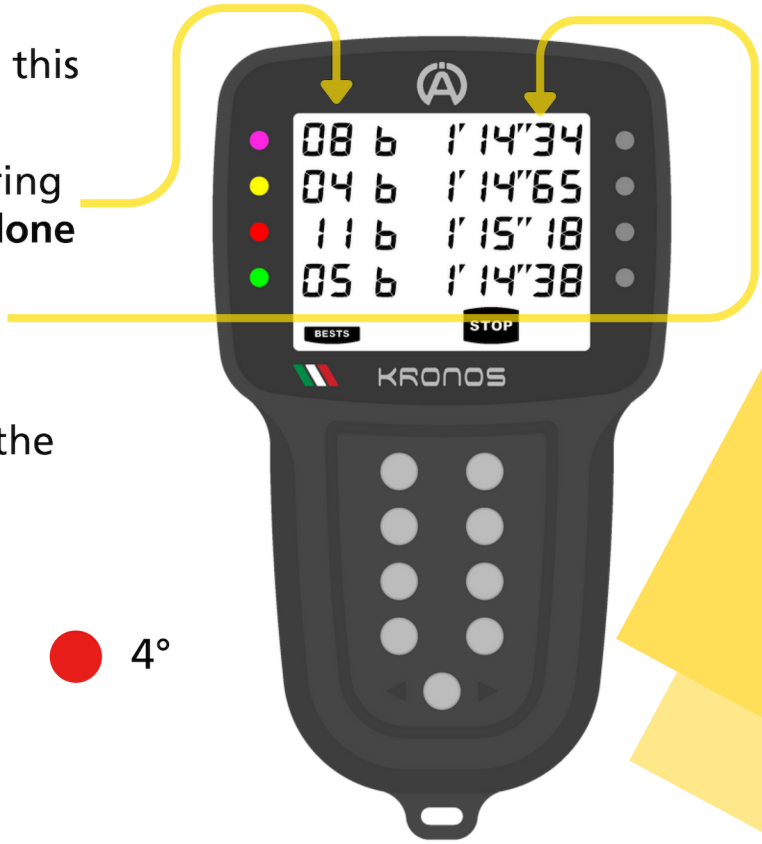
The “bests” function is not available while using program 8

4.2.2.1 Best Lap analysis

The **first analysis screen shows** the **best lap** (symbol "b") **recorded** by **each stopwatch**

The **information displayed** on this screen **is:**

- the **number** of the **lap** during **which** the **best time** was **done**
- the **best time** to the **hundredth** of a **second**



The **left LEDs quickly classify** the **times** from **fastest** to **slowest**

1° 2° 3° 4°

4. Functions

4.2 Bests

4.2.2 STOP Status

4.2.2.1 Best Lap analysis

EXAMPLE

The fastest time was recorded by the 1st stopwatch (purple left LED) during the 8th lap

The 2nd fastest lap was recorded by the 4th stopwatch (green left LED) during the 5th lap

The 3rd fastest lap was recorded by the 2nd stopwatch (yellow left LED) during the 4th lap

The slowest lap among the best laps of the 4 stopwatches was recorded by the 3rd stopwatch (red left LED) during the 11th lap

4. Functions

4.2 Bests

4.2.2 STOP Status

4.2.2.1 Best Lap analysis

If the **best laps** are **made up** of **split times**, the **analysis proceeds with** the **sectors that made up** the **best laps**

Pressing button B1 displays the **analysis** of the **first sector**

The **right LEDs indicate** the **delta time** of the **sectors** with **respect** to the **best sector** of the **corresponding stopwatch**, see page 7

EXAMPLE

Stopwatch 1: The 1st sector was completed in 20 seconds and 26 hundredths. The green LED indicates that the 1st sector was the pilot's best 1st sector

Stopwatch 2: The 1st sector was completed in 20 seconds and 56 cents. The red LED indicates that the 1st sector was at least one tenth of a second slower than the pilot's best 1st sector

Stopwatch 4: The 1st sector was completed in 20 seconds and 21 hundredths. The purple LED indicates that the first sector was the fastest for the pilot in question and also the fastest compared to all the other pilots

Each time the **B1 button** is **pressed**, the **next sector** is **displayed**, and the **A1 button takes** you **back** to the **previous screen**

4. Functions

4.2 Bests

4.2.2 STOP Status

4.2.2.2 Theoretical lap analysis

Once the **sectors constituting** the **best** lap have **been analysed, press button B1 again** to **access** the **analysis** page of the **theoretical lap** for **each stopwatch** (symbol "t")

The **times** are **classified** from **fastest** to slowest by the **left LEDs**

1° 2° 3° 4°

4.2.2.3 Rolling lap analysis

The **next screen shows** the **analysis** of the **rolling lap** (symbol "r")

The **times** are **classified** from **fastest** to **slowest by** the **left LEDs**

1° 2° 3° 4°

4. Functions

4.2 Bests

4.2.2 STOP Status

4.2.2.4 Race Pace analysis

The **last screen** from the "**bests**" **function concerns** the **race pace analysis** (symbol "p")

The **race pace analysis shows** the **consistency** of the **pilots** by **providing** the **average lap times, excluding times** that **would distort them**

The **times** are **classified** from **fastest** to **slowest by** the **left LEDs**

1° 2° 3° 4°

4. Functions

4.3 Recall

The **Recall function gives access** to the **entire memory** of the **device** to read back data

The **first page** of the **recall function shows** the **total time recorded** by **each stopwatch**

Use the **B1** (forward) and **A1** (backward) **buttons** to **browse** the **pages** of the **recall function**

The **times** of the **sectors that make up** the **lap are displayed first, then** the **lap time**

Sector 1 Lap 1

Sector 2 Lap 1

Sector 3 Lap 1

Lap 1

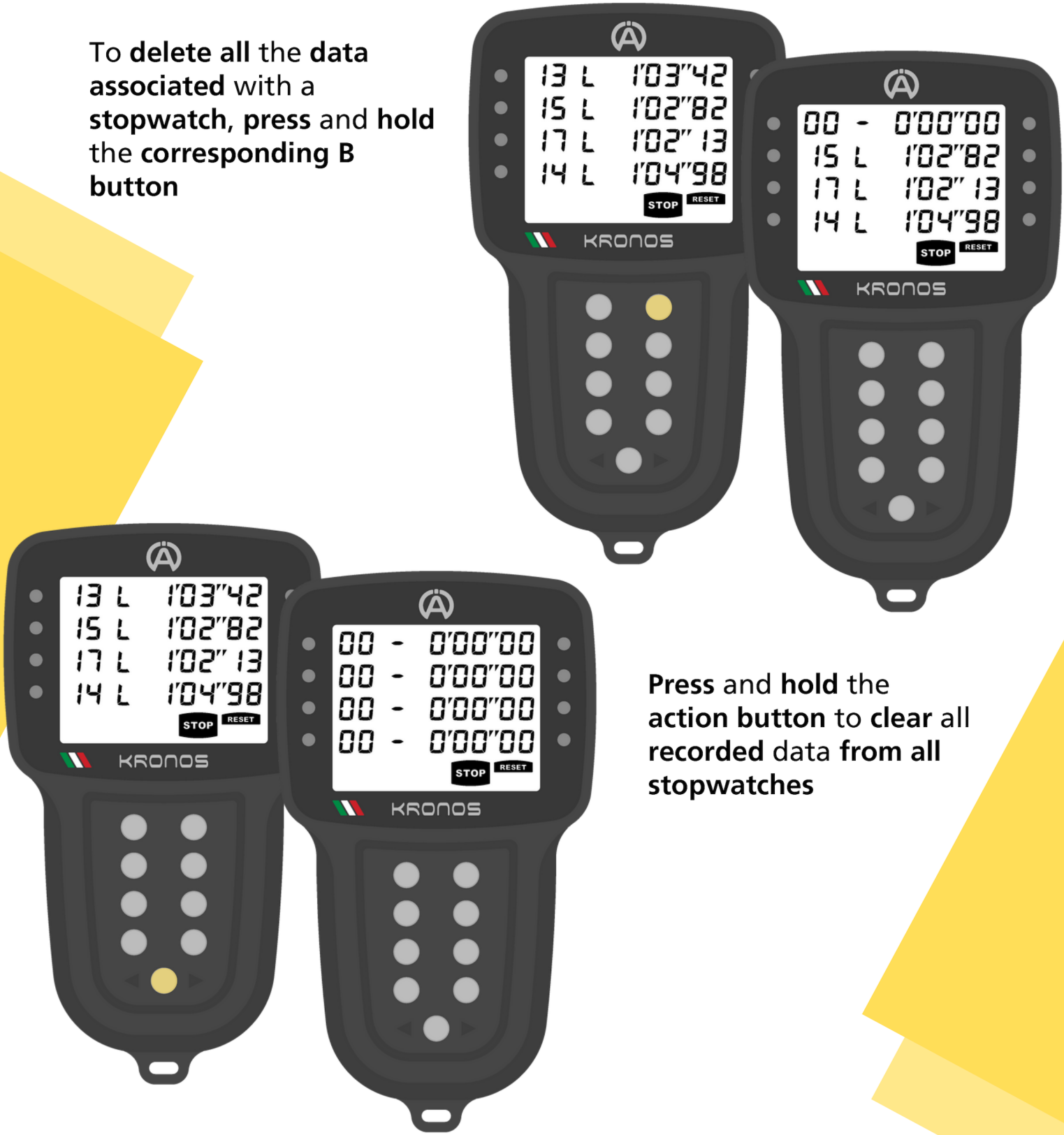
The LEDs for the lap times (left LEDs) and the sector times (right LEDs) indicate the gaps of the lap/sector displayed, see page 7

4. Functions

4.4 Reset

The **reset function allows you** to **erase stored data**

To **delete all** the **data associated** with a **stopwatch**, **press** and **hold** the **corresponding B button**



Press and **hold** the **action button** to **clear** all **recorded** data **from all stopwatches**

4. Functions

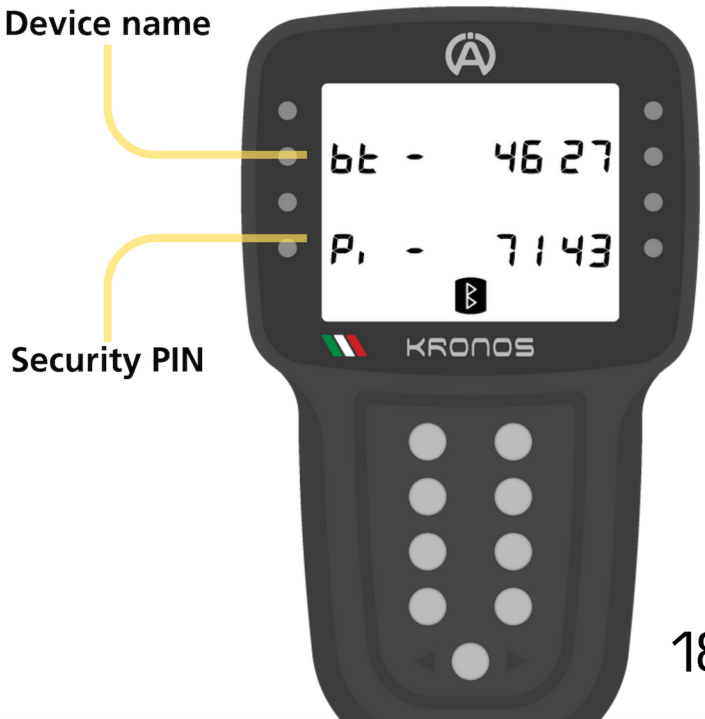
4.5 Off

To **switch off** the **device**, **select** the "**Off**" **function** and **wait 3 seconds**

4.6 Bluetooth

To **connect** to the **dedicated application**, **activate** the **Kronos Bluetooth function**

The **information needed** to **connect** will **appear** on the **screen**



The security pin is only necessary for the first connection with your smartphone/tablet

5. Program

The **Kronos** has **8 operating programs**:

Program 1	The **Kronos manages** up to **4 stopwatches** simultaneously
Program 2	**Similar** to **program 1**, **except** that the **lap time** is **displayed running** during recording
Program 3	**Kronos manages up to 3 stopwatches** simultaneously. The **fourth stopwatch monitors** the **session time**
Program 4	**Similar** to **program 3**, **except** that the **lap time** is **displayed running** during recording
Program 5	The **Kronos manages** up to **4 stopwatches** simultaneously, the **4 stopwatches are started** at the **same time**
Program 6	**Similar** to **program 5**, **except** that the **lap time** is **displayed running** during recording
Program 7	The **Kronos manages** up to **2 stopwatches** simultaneously. **During** lap **timing**, the **running time** of the **lap being timed** is **displayed**
Program 8	**Kronos times** a **single driver** for **4** consecutive **laps**

5. Program

5.1 Program 1

Program 1 allows the simultaneous management of 4 stopwatches, each independent of the others

5. Program

5.1 Program 1

The **information shown** on the **screen is**:

5. Program

5.1 Program 1

5.1.1 Starting timing

The **first press** of **one** of **the A1, A2, A3** or A4 **button starts** the **corresponding stopwatch**. The **device switches** from **STOP** to **START status**

An **active stopwatch** has two **dots** on the **screen**

5.1.2 Ending/Starting a sector

To delimit sectors, press button B1, B2, B3 or **B4** to **end timing** of **one sector** and **start timing** of the **next sector**

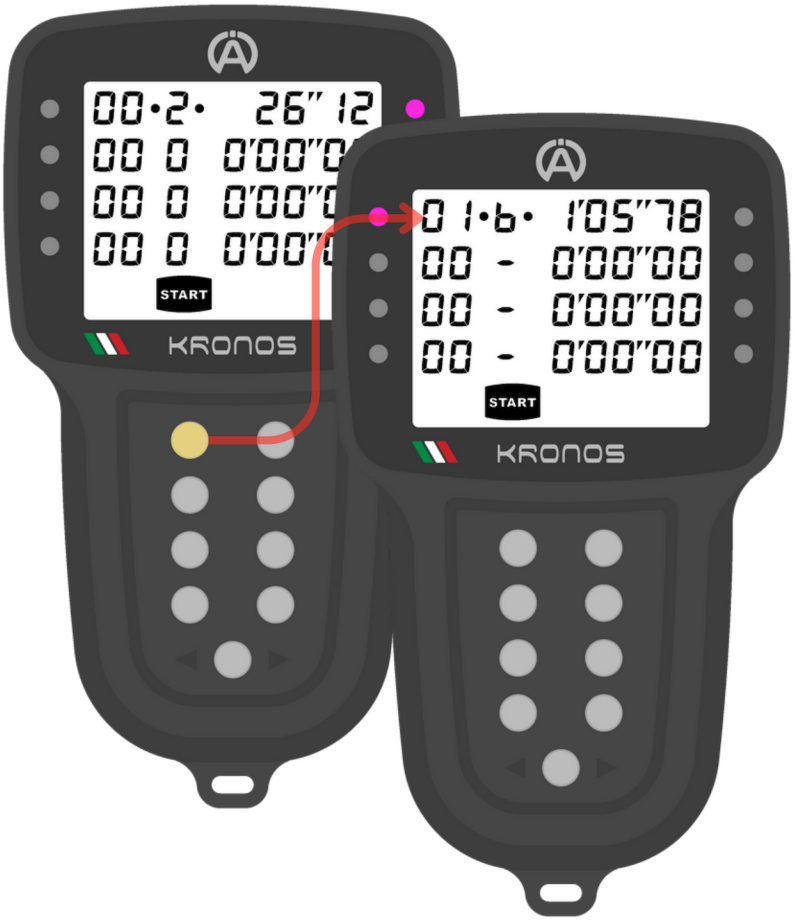
Each lap can have up to 9 sectors

5. Program

5.1 Program 1

5.1.3 Ending/Starting a lap

Press the **A1**, **A2**, **A3** and **A4 buttons again** to **end** the **current lap** and **start timing** the **next lap**



As soon as a **lap** is **done**, the **device shows** the **time**

If it is the **best lap**, the **letter "b"** (BEST) **appears**. **Otherwise**, the **letter "L"** (LAP) **appears**

If **sectors have been assigned** to the **lap** in **question**, the **time** of the **last sector** will **first** be **displayed** for **two seconds**, **followed** by the **time** of the lap **just completed**

5. Program

5.1 Program 1

EXAMPLE - INFORMATION SHOWN

Stopwatch 1

The last lap completed is lap number 5, done in 1 minute, 5 seconds and 27 hundredths

Left purple LED: lap number 5 of stopwatch 1 is the fastest of all running stopwatches

Stopwatch 2

The last lap completed is lap number 6.

Red LED left: Lap number 6 of stopwatch 2 has been completed with a time at least 1 tenth of a second slower than the best time of the same stopwatch

The second sector of the 6th lap was covered in 18 seconds and 32 hundredths

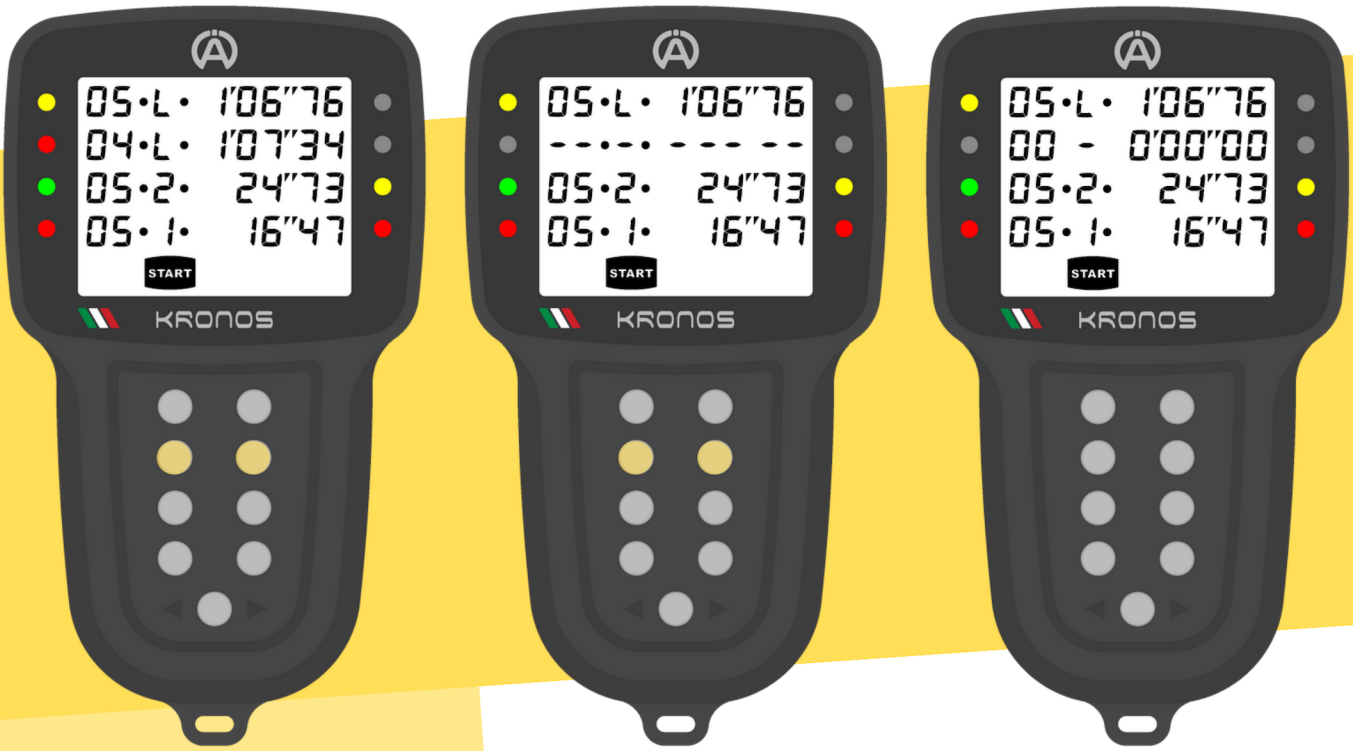
The right LED is yellow: sector number 2 just covered was less than a tenth of a second faster than the best second sector of stopwatch 2

5. Program

5.1 Program 1

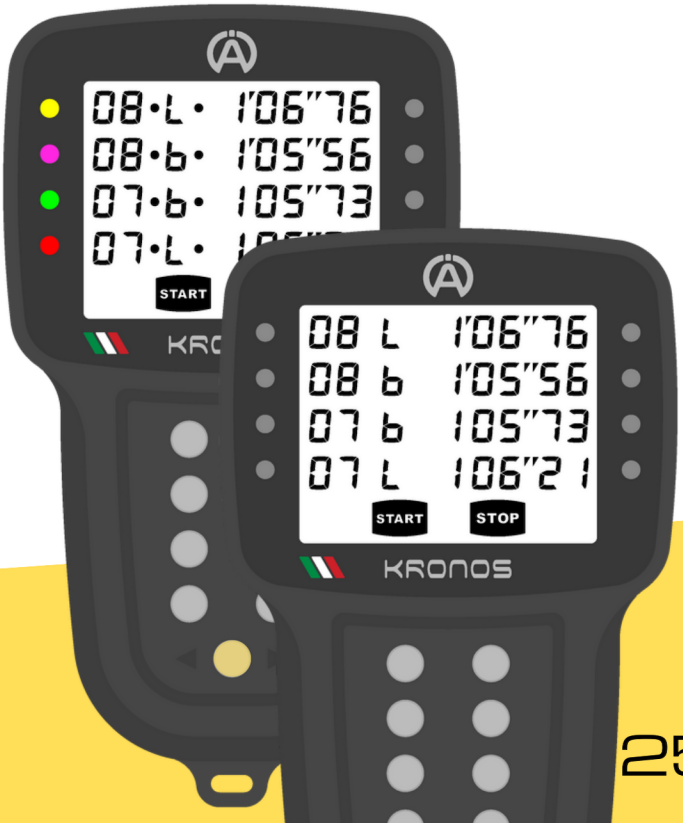
5.1.4 Deleting data during timing

To **stop** a **stopwatch** and **delete** all **data recorded up** to **that moment**, **long press** the **respective A** and **B buttons** at the **same time**



5.1.5 Stopping timing

To **stop timing**, **press** and **hold** the **action button**, the **device** will **stop all active stopwatches** and **switch** to **STOP status**, see page 9



5. Program

5.2 Program 2

Program 2 works in the **same way** as **program 1**

The **only difference** is that the **lap time displayed scrolls during timing**

When a **new lap** or **sector** is **acquired**, the **Kronos shows** for **5 seconds** the **time** of the lap or sector that has **just been completed**, **after this time** the **lap time being timed** will be **shown scrolling**

5. Program

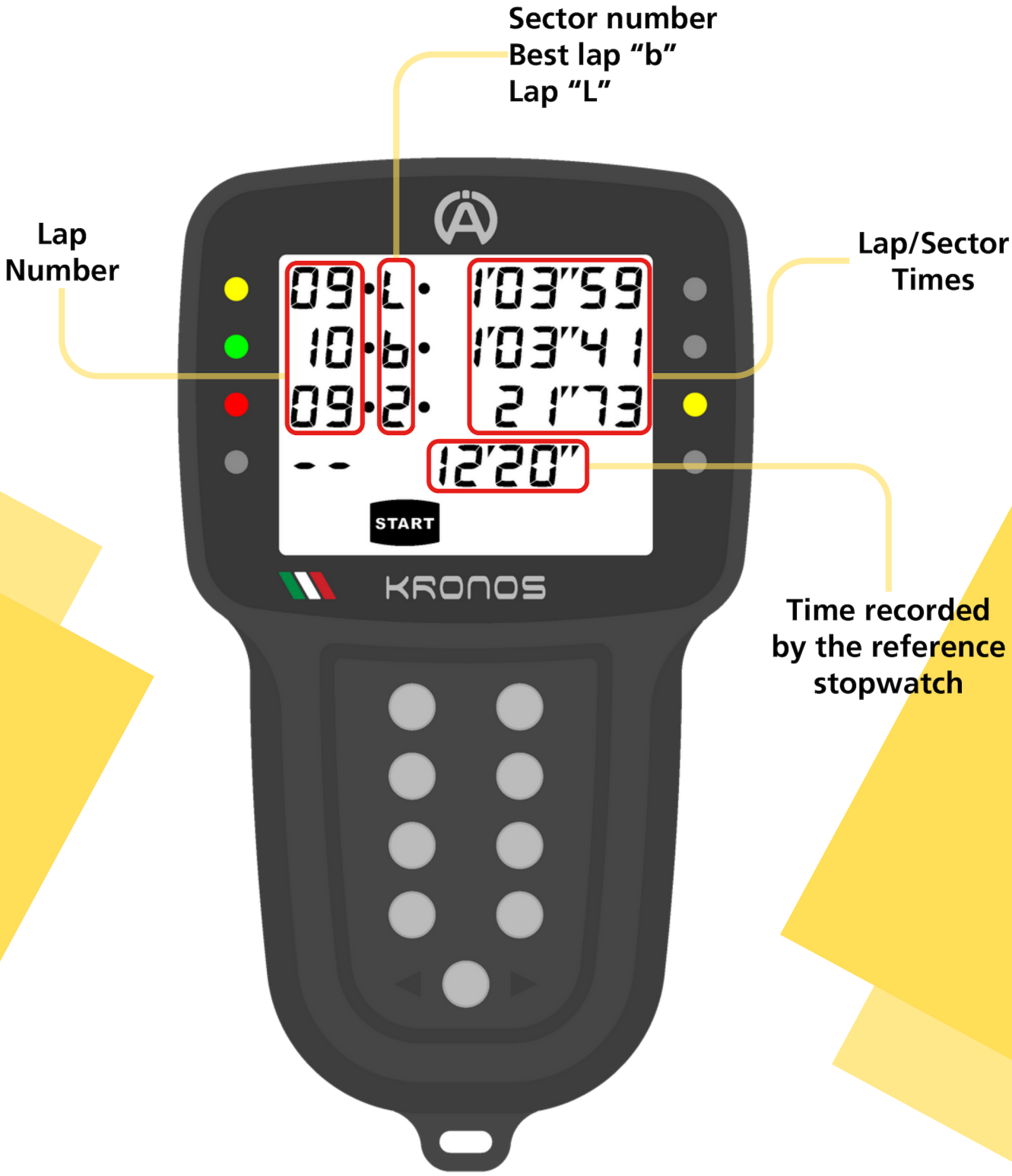
5.3 Program 3

Program 3 manages up to 3 completely independent stopwatches and a reference stopwatch to monitor the session time

5. Program

5.3 Program 3

The **information shown** on the screen **is**:



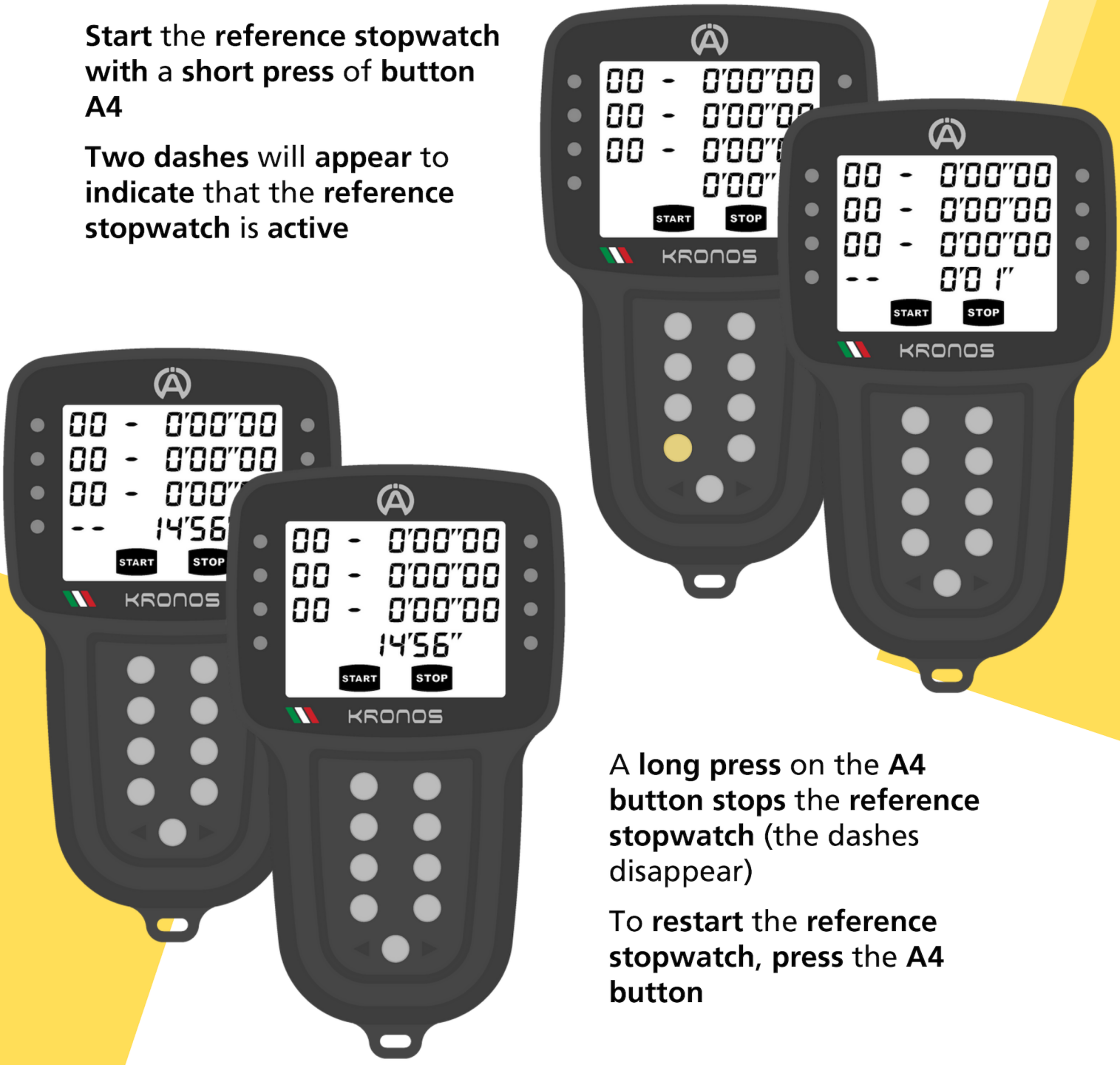
5. Program

5.3 Program 3

The **reference stopwatch** is **independent** of the **STOP** or **START status** of the **device**, so it can be started before the timing starts and it does not affect access to the other functions of the device

Start the **reference stopwatch with** a **short press** of **button A4**

Two dashes will **appear** to **indicate** that the **reference stopwatch** is **active**



A **long press** on the **A4 button stops** the **reference stopwatch** (the dashes disappear)

To **restart** the **reference stopwatch**, **press** the **A4 button**

5. Program

5.3 Program 3

A **long press** on **button B4 resets** and **stops** the **reference chronometer**

The **timing functions** of the **three stopwatches** are **identical** to **those** of **program 1**, see pages 22-25

To turn off the device, the reference stopwatch must be inactive

5.4 Program 4

Program 4 works in the **same way** as **program 3**

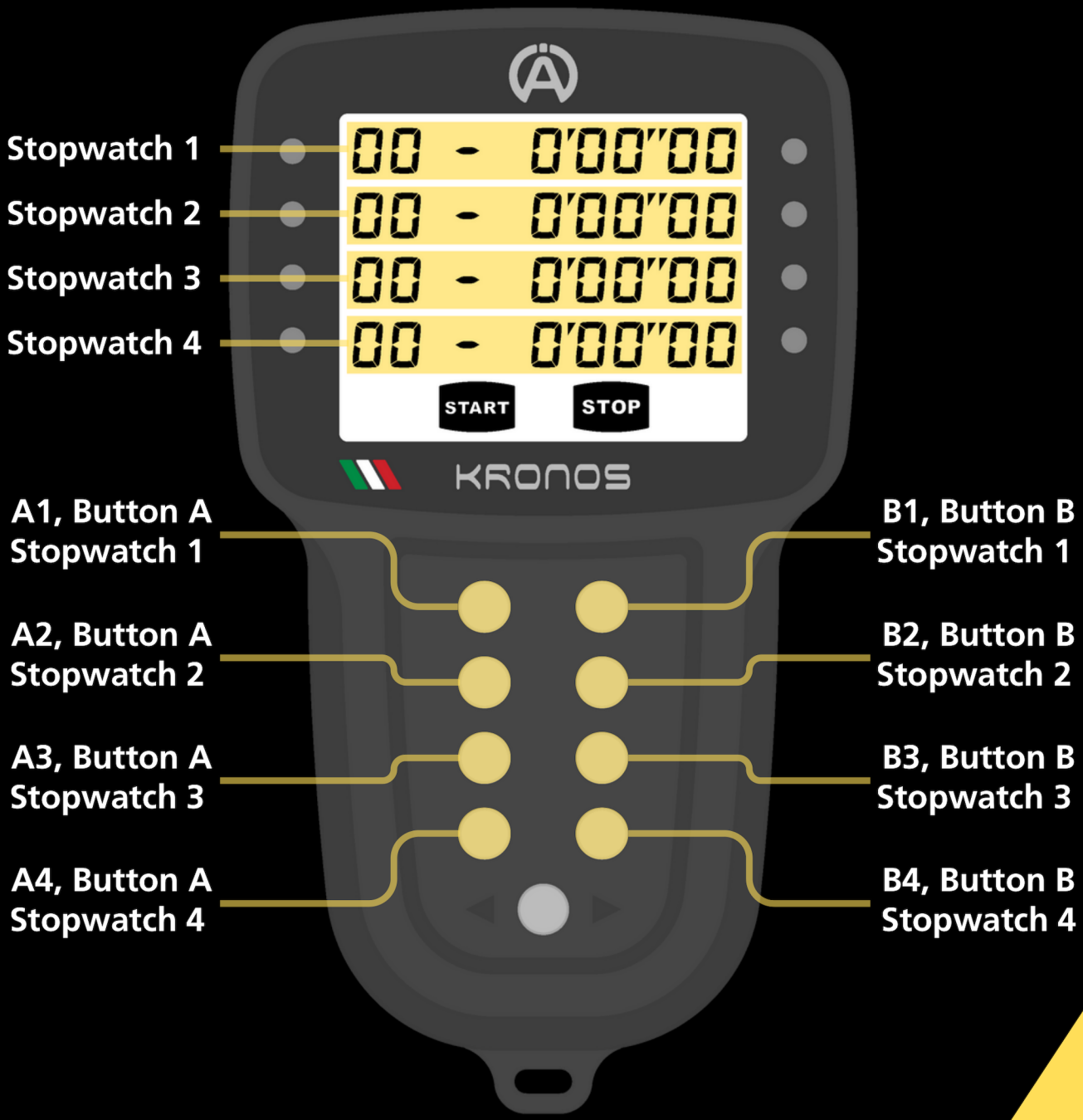
The **only difference** is that the **lap time displayed scrolls during timing**

When a **new lap** or **sector** is **acquired**, the **Kronos shows** for **5 seconds** the **time** of the lap or sector that has **just been completed**, **after this time** the **lap time being timed** will be **shown scrolling**

5. Program

5.5 Program 5

Program 5 allows the simultaneous management of 4 stopwatches, each independent of the others. It differs from programs 1 and 2 in that all the stopwatches are started simultaneously



5. Program

5.5 Program 5

The **4 stopwatches** are **started simultaneously** by **pressing button A1**

Once the **simultaneous timing** has **been started**, **program 5 does not differ from program 1**, see the explanation of the first program on pages 22-25

5.6 Program 6

Program 6 works in the **same way** as **program 5**

The **only difference** is that the **lap time displayed scrolls during timing**

When a **new lap** or **sector** is **acquired**, the **Kronos shows** for **5 seconds** the **time** of the lap or sector that has **just been completed**, **after this time** the **lap time being timed** will be **shown scrolling**

5. Program

5.7 Program 7

Program 7 allows you to manage 2 independent stopwatches simultaneously. Below each stopwatch is the current lap time

5. Program

5.7 Program 7

The **information shown** on the **screen is**:

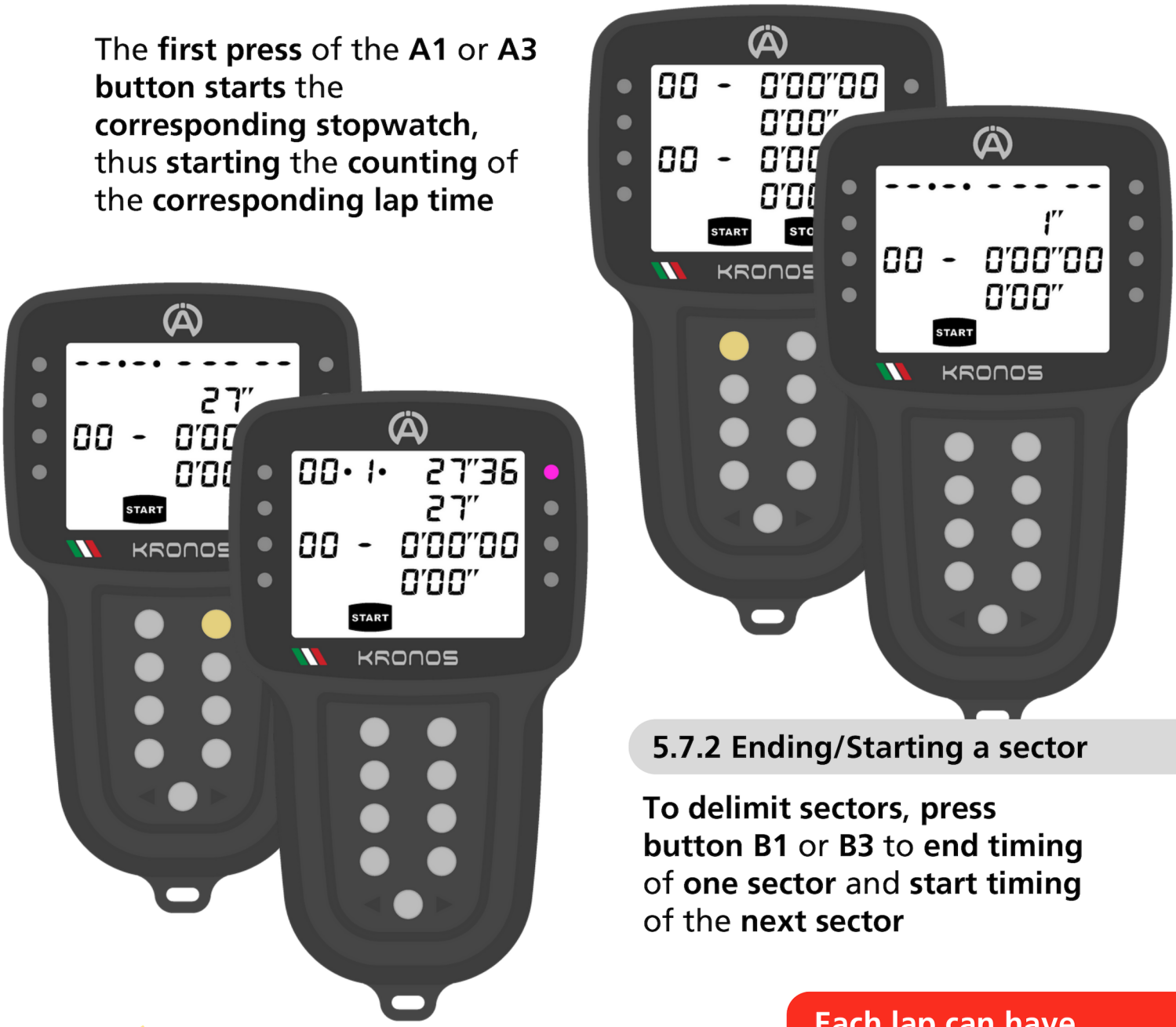
5. Program

5.7 Program 7

5.7.1 Starting timing

Program 7 can **manage 2 independent stopwatches** simultaneously. **As soon as** a **stopwatch** is **started**, the **lap time** is **displayed scrolling below** it; as soon as a lap is completed, the lap time counter starts from zero to time the next lap

The **first press** of the **A1** or **A3 button starts** the **corresponding stopwatch**, thus **starting** the **counting** of the **corresponding lap time**



5.7.2 Ending/Starting a sector

To delimit sectors, press button B1 or **B3** to **end timing** of **one sector** and **start timing** of the **next sector**

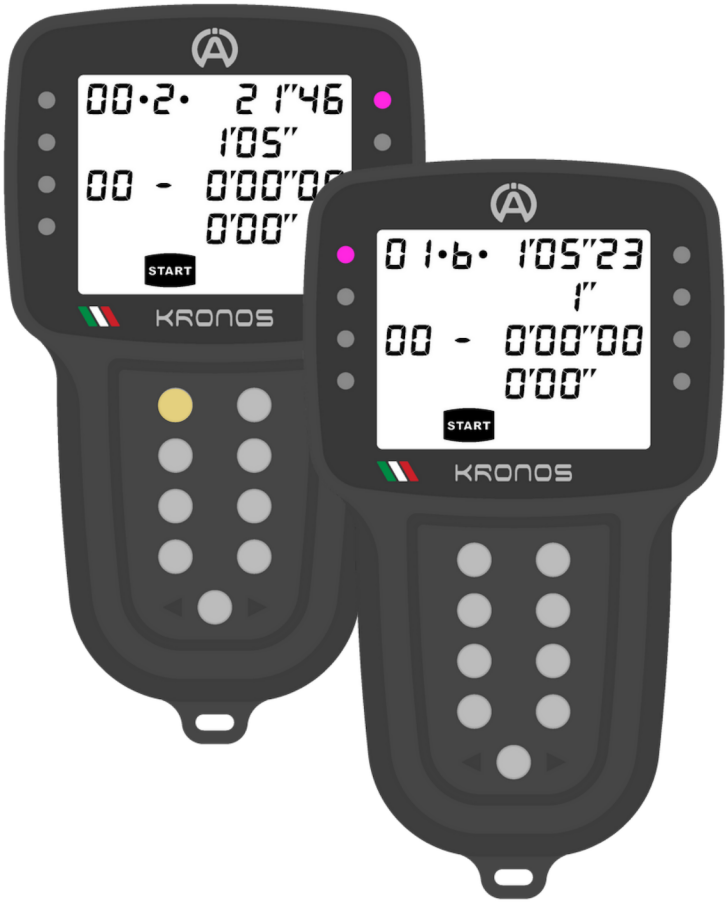
Each lap can have up to 9 sectors

5. Program

5.7 Program 7

5.7.3 Ending/Starting a lap

Press the **A1** or **A3 button again** to **end** the **current lap** and **start timing** the **next lap**



As soon as a **lap** is **done**, the **device shows** the **time**

If it is the **best lap**, the letter **"b" (BEST) appears**. **Otherwise**, the **letter "L"** (LAP) **appears**

The **counter below** will **start counting** the **time** of the **new lap from zero**

If sectors have **been assigned** to the **lap** in **question**, the **time** of the **last sector** will **first** be **displayed** for **two seconds**, **followed by** the **time** of the **lap just completed**

5. Program

5.7 Program 7

5.7.4 Deleting data during timing

To **stop** a **stopwatch** and **delete** all **data recorded up to that moment**, **long press** the **respective A** and **B buttons** at the **same time**

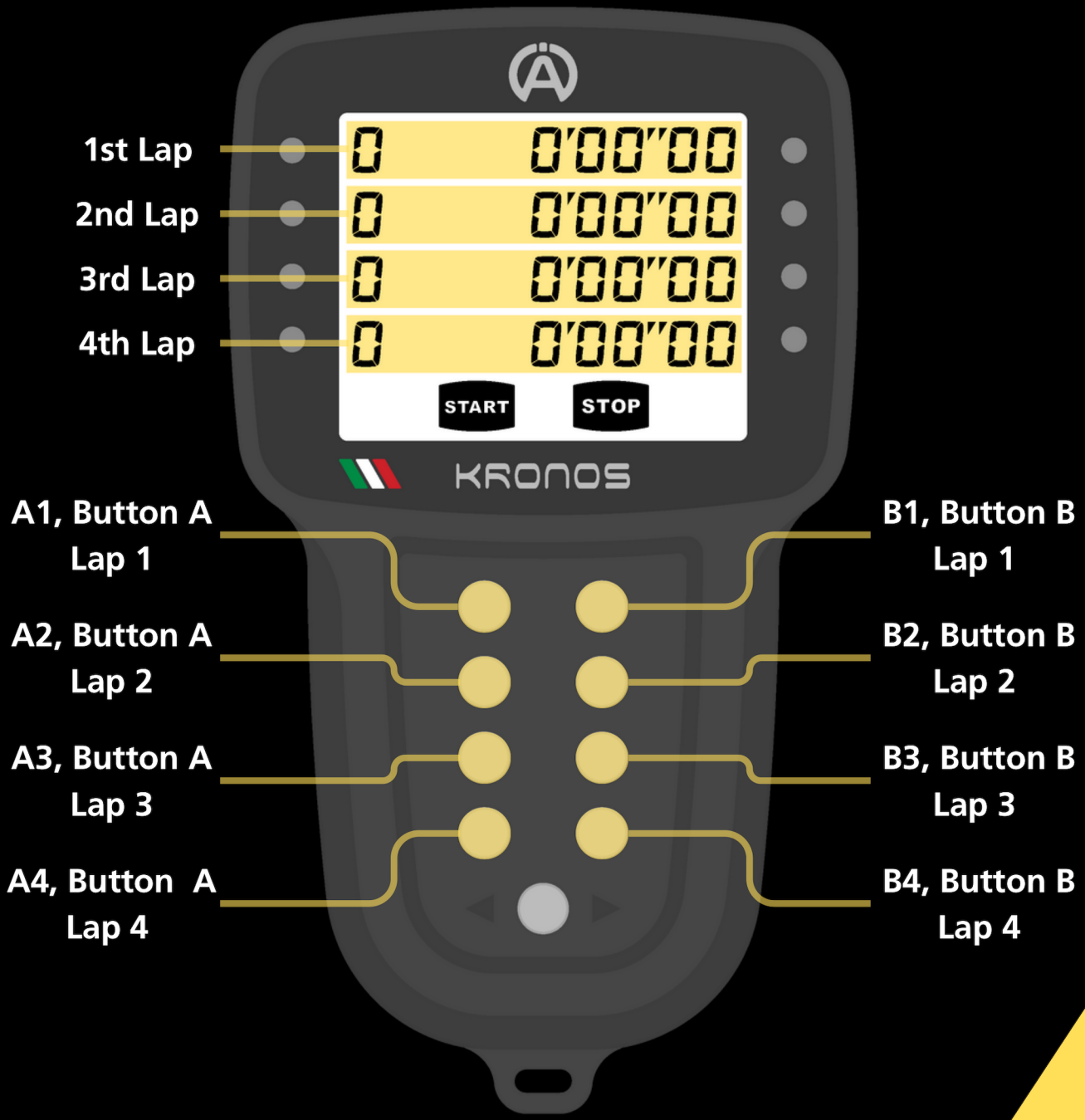
5.7.5 Stopping timing

To **stop timing**, **press** and **hold** the **action button**, the **device** will **stop** all **active stopwatches** and **switch** to **STOP status**, see page 9

5. Program

5.8 Program 8

Program 8 allows you to time the same driver for 4 consecutive laps showing the data of the laps just timed



5. Program

5.8 Program 8

The **information shown** on the screen **is**:

5. Program

5.8 Program 8

The **first press** of **button A1 starts** the **timing** of the **first lap**

The **number 1** is **displayed** to **indicate that** the **first sector** is **being timed**

The **lap time** is **displayed** in **tenths** of a **second increments**

To **delimit** the **sectors**, **press button B1** to **stop** the **timing of** a **sector** and **start** the **timing** of the **next sector**

The **time** of the **cumulative sector** just **timed** is **displayed**, **after 5 seconds** the **lap time** is **displayed again**, **scrolling** in **tenths** of a **second**

5. Program

Press A2 to **stop** the **first lap** and **start** the **second lap**

The **cumulative time** of the **last sector**, i.e. the total time of the lap, is **displayed** on the **first** lap **stopwatch**

The **running time** is **shown** on the **stopwatch** of the **second lap**

After displaying the **time** of the **first lap** and **while timing** the **first sector** of the **second lap**, the **stopwatch** of the **first lap** will **display** the **time** of the **first sector**

Program 8, when timing a sector, always shows the time taken for the same sector in previous laps

To **stop** the **fourth and final lap, press button A4 again**. The **device stops timing** by **switching** to the **STOP status**

7.1 Battery replacement

To **replace** the **battery**, **pull** the **appropriate tab** to **remove** the **red rubber cap** on the back of the Kronos

Use only high-quality CR2450 batteries

To **release** the **device's battery**, **gently push down** on the **battery latch** with **your thumb**, as **shown** in the **figure**

7.1 Battery replacement

Insert the **new battery** with the **positive end facing upwards** and **push it into** the **Kronos until** the **latch clicks into place**

Then, refit the red **rubber cap, ensuring** it is **correctly inserted** to **prevent water infiltration**

V: 0.0.1

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