DAG RACE II

Revision date 09/21/2004

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1	09/21/2004	Creation

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ANNEX 1 / Metal base

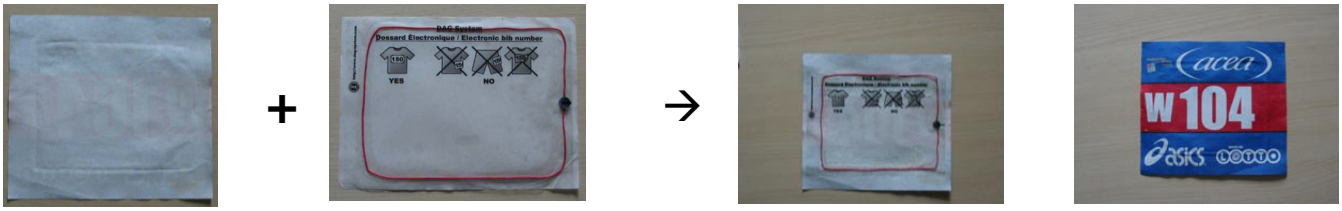
You have chosen to use the DAG System technology for timing your races and for creating race placings. You consequently agree to read through this document and to respect these instructions in order to ensure that the system's detection capacities remain at their optimum. You also undertake to sign and return page 22 to us.

1) THE DAG

11) BIB ⇔ DAG Assembly

The DAG is assembled by removing the silicone paper and positioning the pasted section (carrying the antenna wire and the micro-box) to the back of your race numbers. This step can also be carried out automatically using the DAG System machine (pasting and codification).
It is essential that the pasting phase is carried out before the codification phase in order to avoid any transfer errors.

1 - Bib number **2 – Disposable Dag** **3 – Electronic Bib Number**



12) Codification

Once the BIB ⇔ DAG assembly has been completed, you can programme the DAG's: i.e. the codification. This phase can be carried out in two different ways:

- Automatically, using the DAG System machine (pasting and coding)
- Manually, using the SETDAG programme (SETDAG manual)

13) Briefing the competitors

The following instructions are printed on the electronic number:

① **Only pin** the number **in the specially allocated spaces** at the four corners,

② **Make sure that** the number is **flat and not folded or crumpled**

CORRECT! **WHAT YOU MUST NOT DO!**

It is essential that the race committee explains these instructions to the competitors, whatever the type of event (both when handing out the numbers and via the sound system).

These instructions are obligatory and some are specific to certain sports:

- Cycling and roller-blading: the DAG should be worn at the top of the back
- Ski touring: the DAG should be worn on the thigh…

"A good briefing = a 100% successful race"

2) Setting up the system

21) Equipment check-list for the "DAG RACE II" kit

This check-sheet enables you to list your equipment before the race to check that you have not forgotten anything. The "Arrivée" timing Kit is available in 3 widths (2.3m, 4m and 6 m) and includes:

- The detection gate (2.3m) with:
  - 2 masts with integrated antenna cable ☑
  - 1 interface box with integrated beeper ☑
  - 1 metallic grid ☑
  - 2 metallic bases are to be supplied by you (Dimensions in annex 2) ☑

- A reader with:
  - 1 reader ☑
  - 1 10m coax cable ☑
  - 1 serial lead ☑

- 1 badger with:
  - 1 protective cover ☑
  - 1 racket antenna with cover ☑
  - 1 antenna cable ☑

- 2 Test DAGs that generate a continuous beep in any place in the antenna field

- Software programmes / CD:
  - WinLRD ID: acquisition of the reader data ☑
  - SETDAG: programming of the DAGs ☑
  - The tools for updating the operating programmes for the reader, the badgers. ☑

Important!

Make sure you use the latest programme updates supplied by DAG System.

Extra equipment (not supplied)

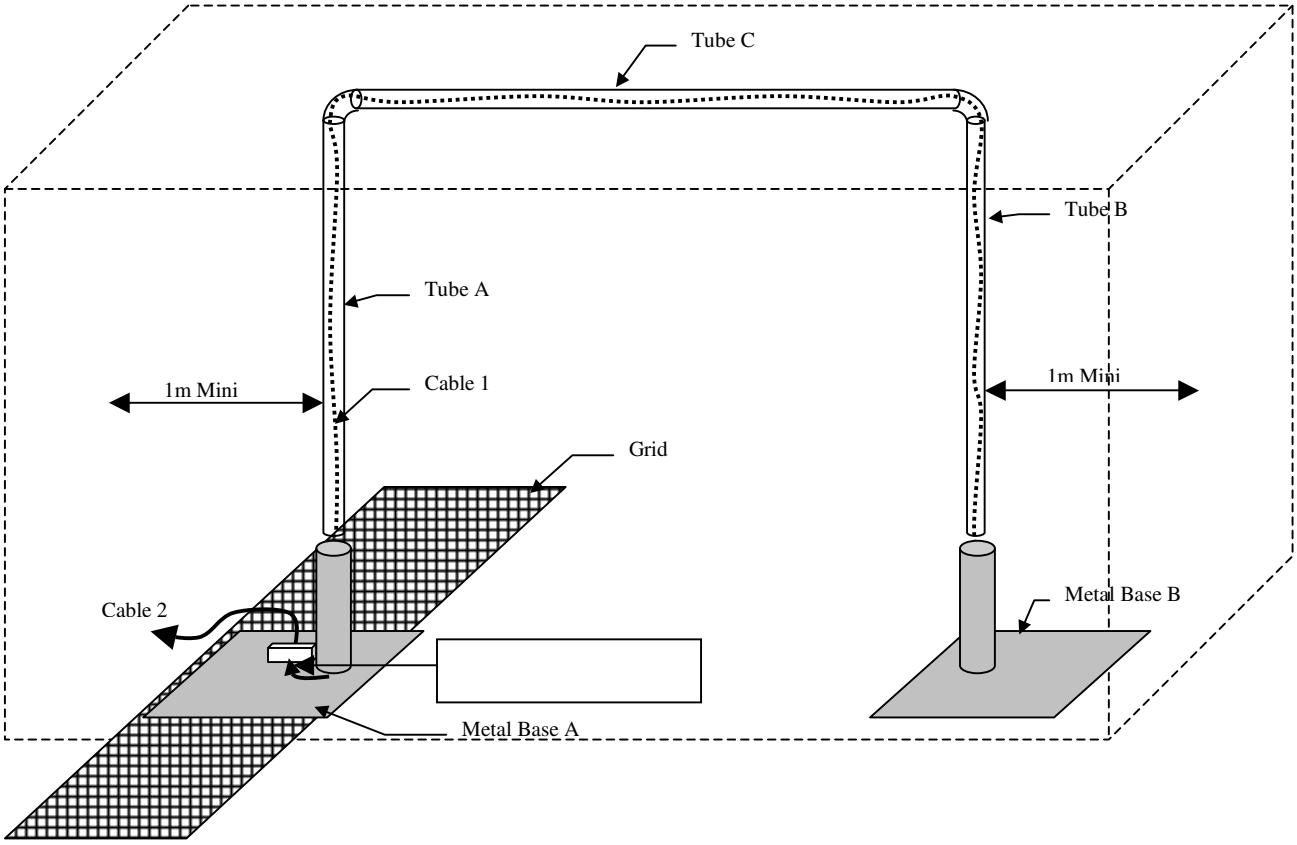
- Power back-up systems, generator if necessary ☐
- Computer: PC Pentium II, 300MHz, 64 Mb of RAM, Windows 98. ☐
- Placing programme. ☐
- Printer + paper ☐

Small equipment (not supplied)

- Disk for data back-up ☐
- Manual stopwatch ☐
- Stationary: pencils, scissors, tape/hooks, stapler ☐
- Multiple socket ☐
- Winder ☐

22) Connections and installation

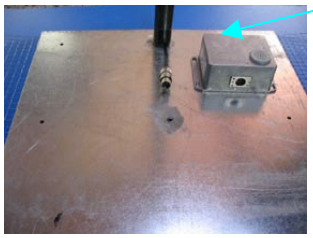
221) The antenna



1. Place the two metal bases on the ground

2. Lay the metallic grid under the metal base at the interface box end, beside the timing unit,

3. Fit the tubes into the bases. Make sure that the antenna plug is positioned on the interface box side

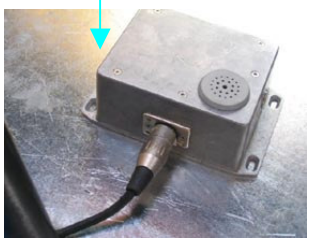


Do not paint the metallic plate: Connection between the metallic grid, metallic plate and auto setting box must be perfect.

4. When using antennae of over 2.3m, extend them to their maximum length,

Must be in direct contact with the metallic plate

5. Plug the antenna into the interface box.



The auto setting box is very important in the system. It allows the blackbox to have all the information from the antenna and obviously to have the best connection to receive detection.
The auto setting box tunes the antenna and must be in contact with the couple metal plate + metallic grid. So place it properly on the metallic plate

6. Plug the 10m coax cable into the interface box at one end and the other end to BNC plug of the reader .



7. Connect the reader to your computer with the RS 232 serial .
DAG System guaranty every detection with this wire, if you use another one you might loose some detections or data transmitted by the reader.

8. Connect the reader to the mains.


Important!

NEVER connect the reader to the mains before the antenna is assembled and connected to the reader.

Before switching on the reader, always check that all connections have been properly made.

223) Verification antenna field

Once switched on, the reader goes through an initialisation phase. The detection gate settings are set automatically. This phase takes a few seconds.

1. Start the acquisition phase

2. Check that the detection gate settings are correct:

- **With the DAG Test** . The settings are considered as correct when the DAG Test generates a continuous beep at every point of the gate at a distance of at least 1 m, both sides of the antenna. This verification method can be applied to all sizes of detection gate. The DAG Test must simulate the position of a competitor.

  If the detection quality is unacceptable (< 1 m on each side of the antenna), re-connect the gate by repeating each stage of the installation process, until the settings are correct. If the settings are still not right, move the gate a few metres and check that cable 1 is tight in tube B. Re-test the settings.

- **With the DAGs programmed for the race**. Important: a programmed DAG only beeps once every 2 secondes (default interval time between competitors). Wait 2 secondes, therefore, if you wish to re-present it (otherwise modify the interval time).

224) Timing zone

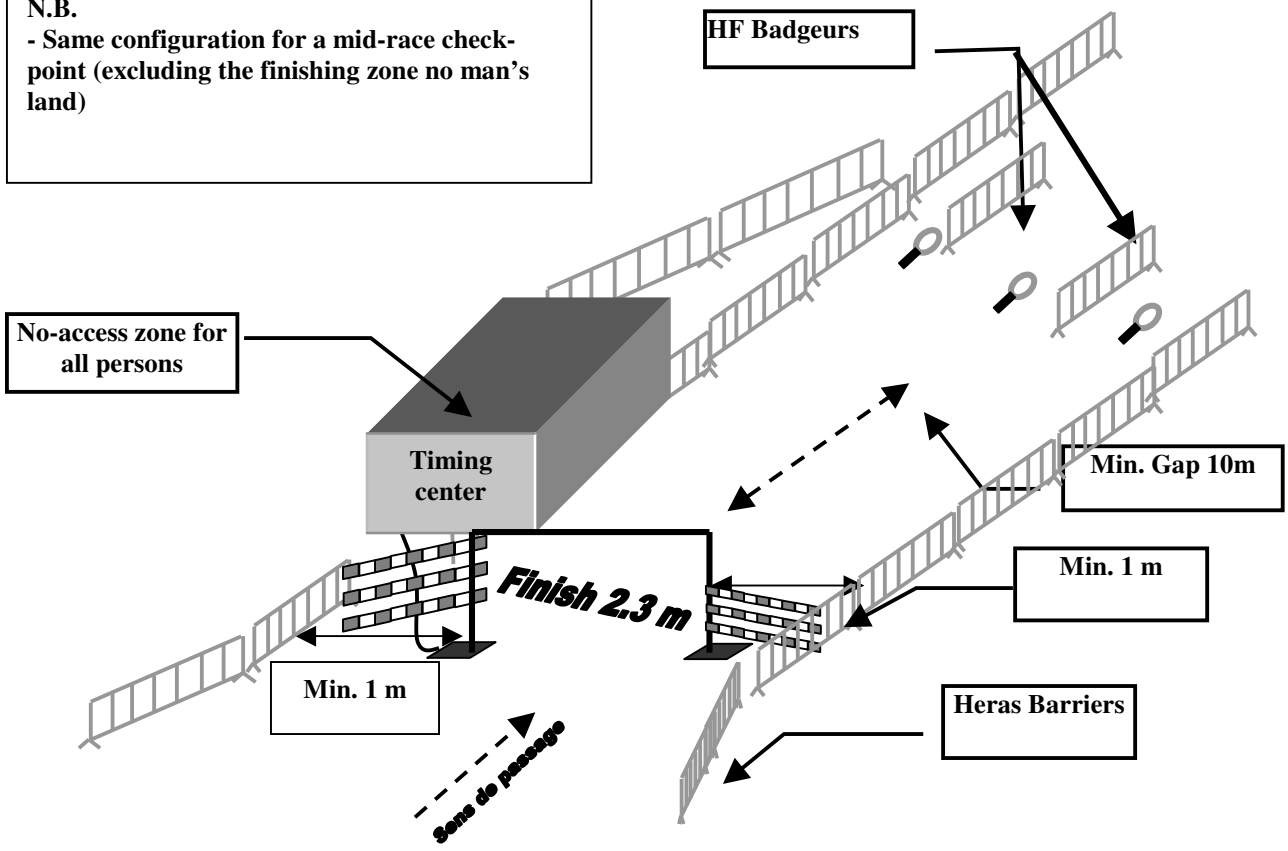
It is essential that the DAG system is set up as described below in order to obtain optimum results.

- Make sure that no spectators or non-racing competitors can approach the gate (and the connections) to avoid multiple parasite detection problems.
- Block off the sides of the gate so that competitors are funnelled through it.
- Cover the metallic grid with a protective carpet so that no one can catch their feet in it.
- Make sure that competitors are forced to cross your badger check-point (virtual) before leaving the finishing zone.
- Create a tunnel for the badger check-point with **small** barriers in order to channel competitors and to be certain that no-one is missed.

Conclusion: the area around the antenna and the space between the antenna and the badger check-point must imperatively be kept clear.

N.B
- No-one near the detector (minimum 4m)
- Beware of journalists! !

N.B.
- Same configuration for a mid-race check-point (excluding the finishing zone no man's land)



3) WINLRD ID

31) Purpose

The reader communicate with DAG. The DAG send his response to the reader, and the reader send the bib number to the PC by the serial cable. WINLRD ID receive the bib number and affect the PC current time.

WINLRD ID store the detection in a text file. It's the **export file**, you can choose the path and the name for this file. The extension is always **DAG**. The file contains several fields separate by tabulations. You can import this file in your ranking software as you want.

WINLRD ID can accept the same detections several times at 2 conditions:

1) The time from the last same detection should be greater than an inter-time defined by the user.
2) The detection should be different from the last one.

This rule is not for bib number 0, or DAG TEST. WINLRD iD accept every detection for bib number 0 or TEST.

AT each valid detection WINLRD send the bip order to the reader. Only one beep for each detection, but for a bib number 0 or TEST you can ear a beep while the DAG is in the antenna field. This is most efficient way to evaluate the antenna field.

You have also an badgeur to secure the fisnish line. WINLRD ID allows you to synchronize, clear and download the badgeur.

Caution, to operate with badgeur you have to use a serial cable. WINLRD ID manage only one peripheral (reader or badgeur) at a time. So to operate with badgeur you have to wait untile the end of the race or use another PC.

32) Installing WINLRD ID

WINLRD ID is the main software to manage detections from the reader.

First run the **setup.exe** file to install **WINLRD ID**.
Follow the instructions
After the installation is done, you can run **WINLRD ID**, by clicking on the shortcut placed on the desktop.

33) How to use WINLRD ID?

331) Initialization:

The initialisation is in 3 steps:

Step 1: Loading relation table. The installation software copy a **DAGTABLE.DTB** file on your PC. This file ensure relation between identifier write in bib and displayed number. By default identifier 1 display 1 and so on. You can change it as you want by a text editor.

Step 2: Open serial port to communicate with reader and other peripherals. **WINLRD ID** try to open 3 serial ports. If your PC have not enough serial port, a dedicated message box appears to indicate that the corresponding function is not available. You have to click on **OK** to continue.

Step 3: Select the export file. All detections will be stored in this file. You can select the last file by clicking on **YES**. If you choose **NO**, you can select the path and the name of the export file.

332) Export file:

In acquisition, all detections are stored in a export file with DAG extension. You can manage this file with your own software to make ranking.

How to change the export file?

If you want to use another export file, for example for each race

Click on **[File]**
Click on **[Choose export file]**
and select the path and he name for your export file.

How to export on disk the current export file?

Click on **[File]**
Click on **[Export]**
Or
Click on **[Export to Disk]**

How to setup the automatic export at periodic time?

Click on **[File]**
Click on **[Automatic export]**
Click on **[Save file]**
Enter in second the period between each automatic export.
Click on **[Enable autosave file]**
to enable the auto export function.

How to delete the content of the current export file?

Click on **[Service]**
Click on **[Delete file]**

333) Manage detections

How to start the acquisition?

Now, all detection are stored in the export file
Each valid detection is displayed and the auto tunning box make a beep.

Click on **[Service]**
Click on **[Start Acquisition]**

How to stop the acquisition?

Now, all detections are ignored

Click on **[Service]**
Click on **[Stop timer and Close files]**

How to define the time between two same detections?

By default the inter-time is set to 2 seconds.

Click on **[Service]**
Click on **[Setup inter-time]**
Enter in second the time between two same detections.

334) Manage badgeur

The badgeur are beyond the antenna. If a bib's runner is missing or destroyed, the reader can't read it. So the badgeur can input manually or reade closer the bib number. With the badgeur you are certain to have 100% of detection.

How to Download badgeur's file?

Connect the badgeur to your PC with the serial cable
Switch on the badgeur, wait until initialization is complete.

Click on **[Badgeur]**
Click on **[Download file]**

During transfert, a progress bar is displayed
At the end of transfert, the missing detections are inserted in the detections file and displayed in the detection's frame.

Click on **[OK]**

How to delete badgeur's file?

Erase all detections in the badgeur

Connect the badgeur to your PC with the serial cable
Switch on the badgeur, wait until initialization is complete.

Click on **[Badgeur]**
Click on **[Delete file]**

During erasing, a progress bar is displayed
At the end, the badgeur indicates 0 detection

Click on **[OK]**

How to setup badgeur's time?
Write the current PC time in the badgeur
Connect the badgeur to your PC with the serial cable
Switch on the badgeur, wait until initialization is complete.

Click on **[Badgeur]**
Click on **[Badgeur synchronisation]**
If the operation is correct
Click on **[OK]**
else check badgeur and cable and retry

335) WINLRD ID parameters

How to change the language?

Click on **[Sysop]**
Click on **[Change language]**

How to change the the serial port to manage detections?
By default WINLRD ID open COM 1, if your PC have another serial port you have to change it.

Click on **[Sysop]**
Click on **[Com port settings]**
Click on **[Show properties]**
Click on **[Line connection]**
Select your serial port whith port

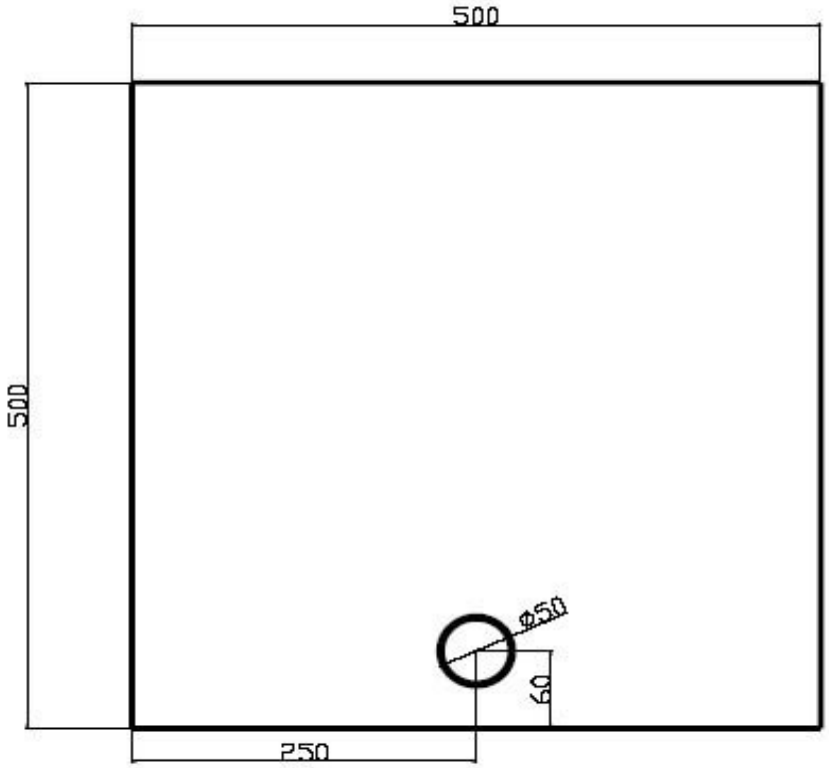
How to tune the antenna?
If you change the configuration of the antenna or you estimate that the antenna field is not enough, you can tune the antenna again.

Click on **[Sysop]**
Click on **[Tunning antenna]**

336) How to quit WINLRD ID?

Click on **[File]**
Click on **[Quit]**

ANNEXE I – METAL BASE



The metal base must be unpainted