Union Cycliste Internationale

THE TIMEKEEPING GUIDE FOR PROVIDER

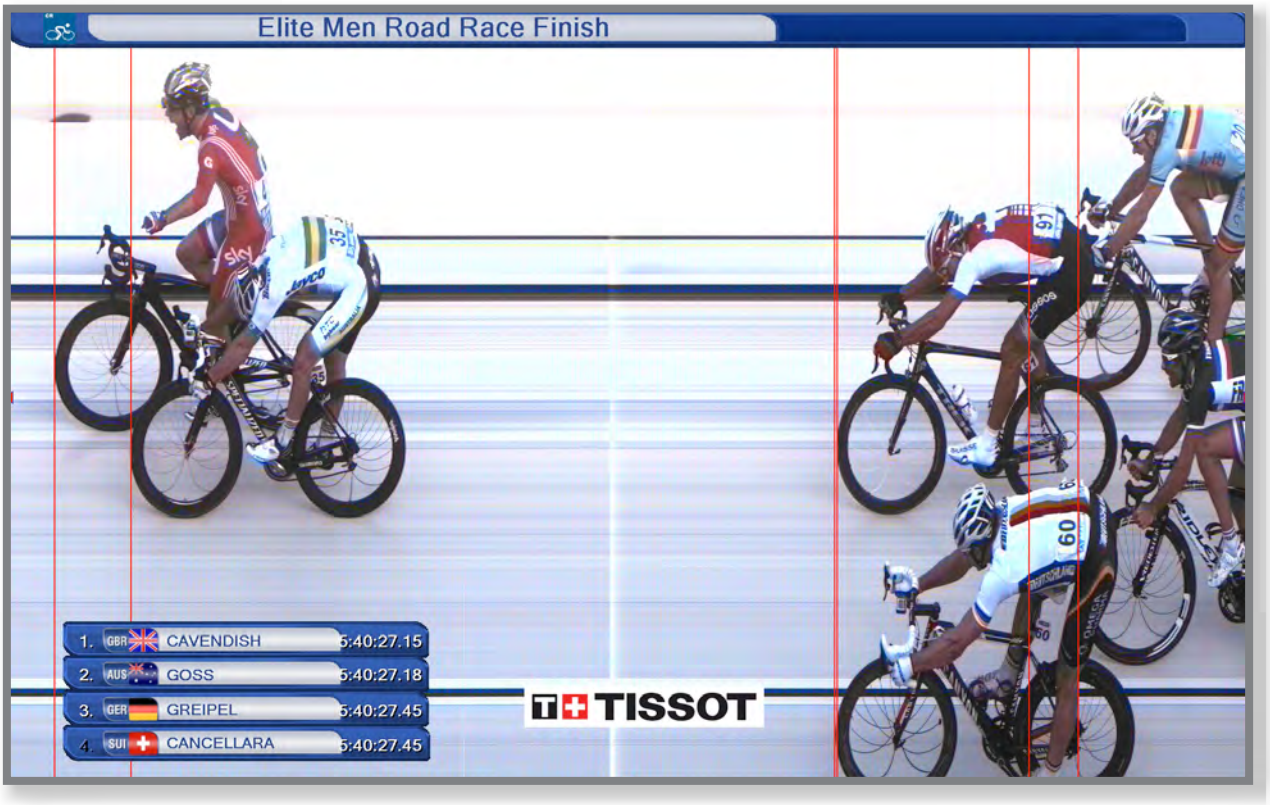

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Table of contents

Introduction

Section 1

The Timing Service Provider

Section 2

Specifications for a road race

Section 3

Specifications for individual time trials

Section 4

Specifications for team time trials

Section 5

Compiling classifications

Introduction

For several years new technology has allowed events to be monitored as they unfold. The finishes of cycle races on the road can be judged without the risk of errors inherent with officials carrying out their tasks solely by eyesight. Improved technology offers UCI officials and National Federations reassurance and convenience when controlling events and compiling classifications.

Nowadays information speeds its way around the world ever more quickly and the organisers of road events on the UCI international calendar must prioritise the efficient distribution of results. Consequently, organisers are obliged to make use of professional service providers qualified to carry out timekeeping operations and draw up event classifications.

The objective of this guide is to provide organisers and their timing service providers with all necessary information on the levels of equipment required when organising an event.

Section 1
The Timing Service Provider

The timing service provider is contracted by the organiser and operates under the latter's responsibility.

The timing service provider's mission is to supply, install and operate the technical resources to provide information and facilitate finish-line judging for the event: photo-finish equipment, the transponder system and displays.

The organiser and timing service provider must ensure the provision of the equipment described in the following specifications in accordance with the level of the event.

The timekeeper and the finish judge ensure that all the technical resources put in place by the organiser and the timing service provider conform to the UCI regulations and to this guide.

Section 2

Specifications for a road race

2.1 Photo-finish

2.1.1 Role of the equipment

The photo-finish is the reference material that allows all competitors to be allocated a finishing position and time.

2.1.2 The principle of the photo-finish

All the apparatus used must comply with the following definition:
Equipment that allows a time-indexed digital recording of images to an accuracy of one thousandth of a second.

A photo-finish comprises a series of high definition photos taken one after another. These images are automatically time stamped in a very accurate manner. Thus moving through the horizontal axis also moves through time. When all these images are placed end to end a photo-finish is created. Thousands of images are combined for each second and immediately displayed on the control screen.

Each slice of an image is a recording of the same place but at a different time.

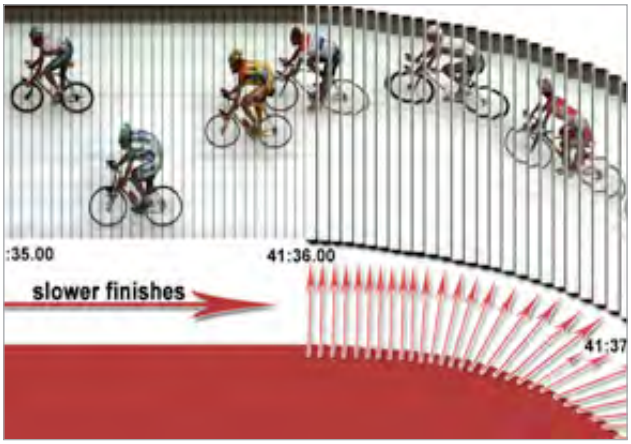


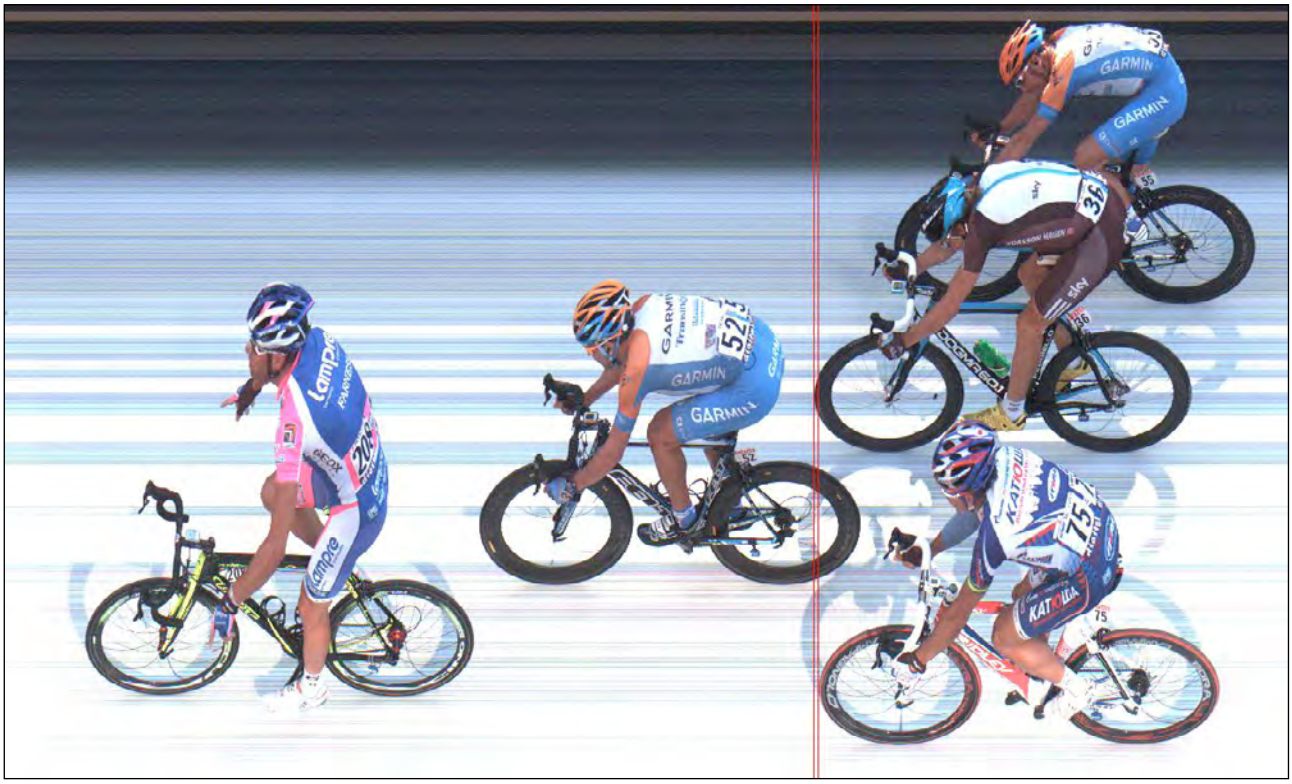
PHOTO-FINISH SOFTWARE

EXAMPLE CAMERA

2.1.3 Equipment Requirements

The equipment used must fulfil specific criteria in order to fully meet the requirements of cycle races:

a) Accuracy of photo-finish timing device
The timing device must be accurate to 1/1000 of a second and must keep time to 1 ppm (1/1000 of a second per hour of use).



9 MILLISECONDS BETWEEN THESE TWO RIDERS

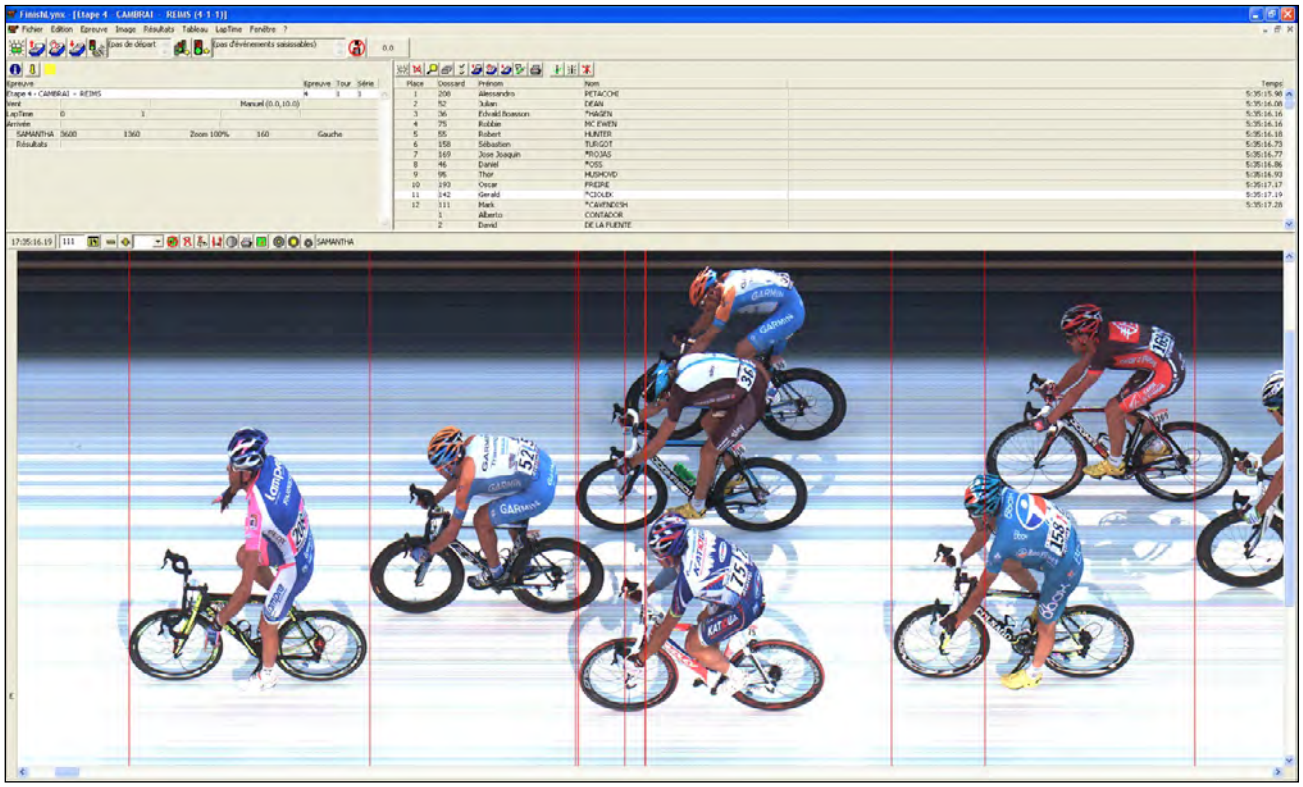
b) Image height in pixels
In order to display the riders' race numbers and to allow identification, a minimum size is imposed for images.
A threshold is established for the number of sensor pixels below which it is difficult to judge the finish of an event.

c) Speed of image acquisition
Dynamic resolution obliges a minimum speed of acquisition to be established. This factor allows proportional images to be obtained and makes it easier to separate the competitors.

d) Image acquisition mode
The gathering of images must be able to be initiated manually or automatically.
The automatic mode operates using a camera without a photocell or other devices on the finish line.

e) Timekeeping using race time
The photo-finish must be synchronised with the race time in cooperation with the official timekeeper.

f) Automatic brightness control
The equipment must be capable of adapting to variations in the light conditions at the finish, whether by means of software or hardware.
Adjustments must allow the riders' race numbers and frame numbers to be easily read.



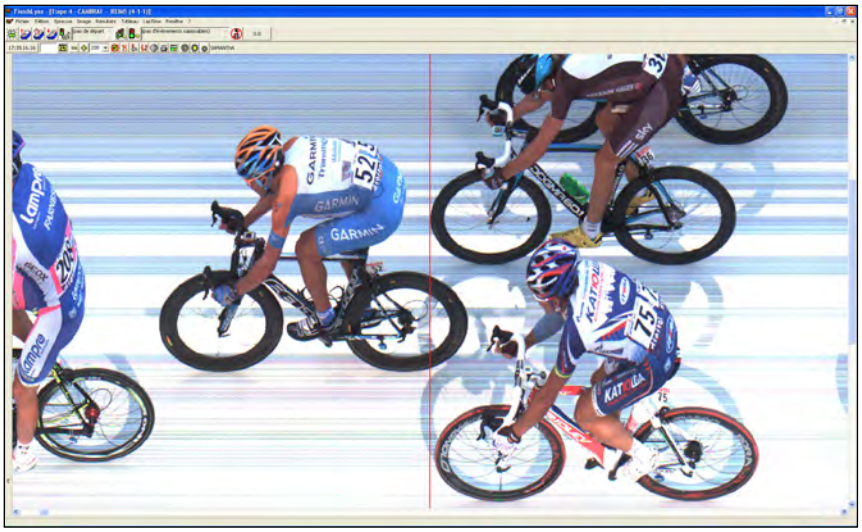
g) Acquisition capacities
Image size should not be limited over time. The system must be capable of recording images for several minutes.

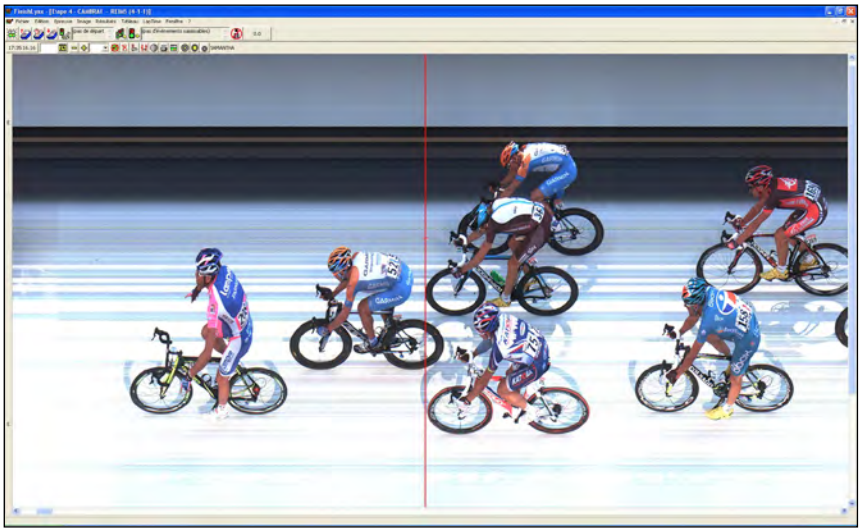
h) Real time
The image must be displayed on the control screen immediately upon capture, as the riders cross the finish line. The operator must be able to process the image without having to wait for the last competitor to finish.

i) Precision and zoom
The software must have a zoom feature to allow riders finishing close together to be separated.
When using the zoom, the line representing the vertical must keep its original size (1 pixel).

j) Timing software specification
The images must be recorded and archived for the current season. They must have the capability to be exported in a .jpg or .bmp format. Exported images must include the following information:

- Event title and date,
- Time line on the horizontal axis,
- Date and time of printing.



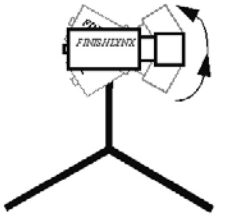


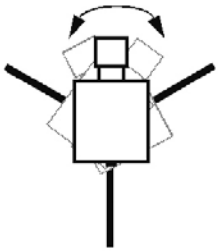
k) Interface with classification software
The photo-finish shall be interfaced with the classification software.

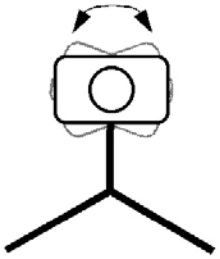
l) TV interface
The classifications must be sent to the graphic overlay service provider.

2.1.4 Installation

a) Installation height and angle
The camera must be positioned perpendicular to the finish line at a minimum height of 2 m.







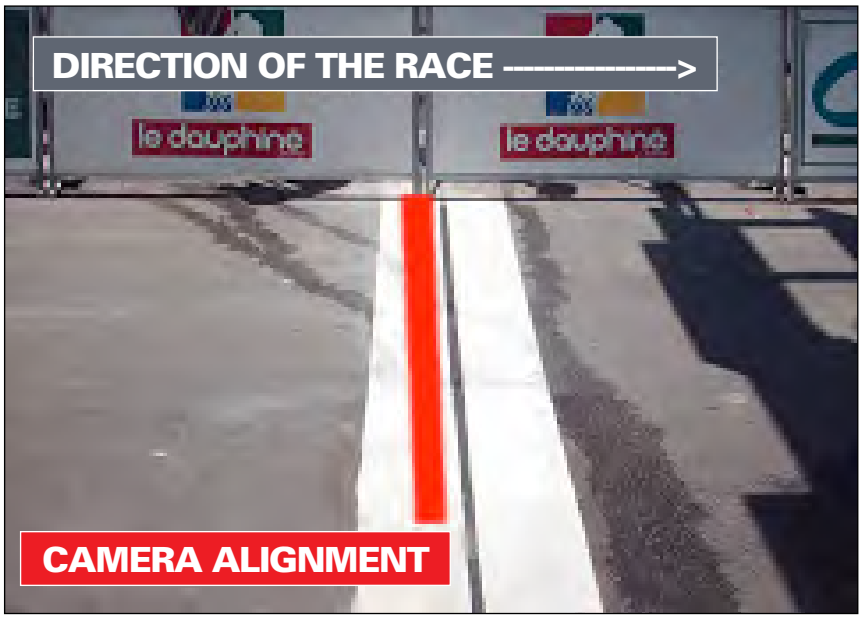
A minimum angle of 30° must be respected.

The camera must be perfectly parallel to the line.

The camera must be level.
Each camera must cover the entire width of the road.

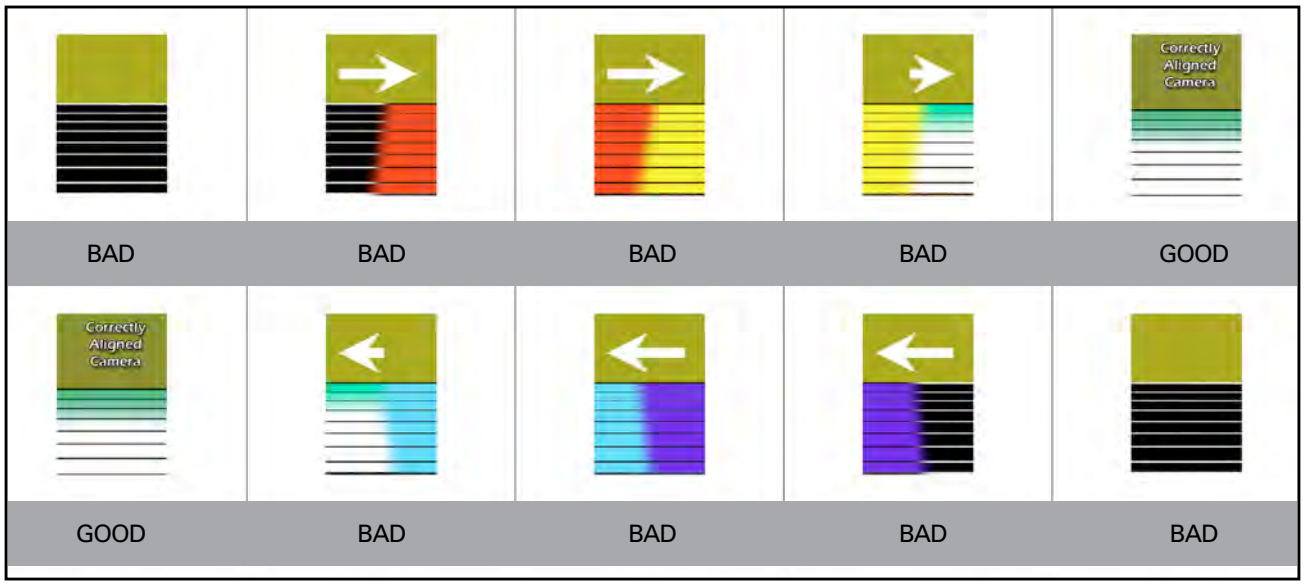
EACH CAMERA MUST COVER THE ENTIRE WIDTH OF THE ROAD.

b) Alignment with the line
The camera must be lined up with the white section just before the finish line in the direction of the race.
The white background allows the commissaires to check the camera alignment.



The camera, finish line and gantry must be perfectly aligned.

Checking using camera alignment photograph



c) Safety precautions
The installations must be powered by an uninterruptable power supply. The cameras must be connected to different computers.

d) Stability
The structure to which the camera is fitted must be equipped with stabilising supports.

2.1.5 Use of equipment

a) Synchronisation
The photo-finish cameras must be connected to the «official» timing device. The timekeeper appointed to the event issues a pulse to all timekeeping equipment.

The time reading used for the photo-finish must be «race time» and not time of day.

The official time used to draw up the classifications shall be that of the photo-finish. Time gaps shall be displayed and validated using this same timing device. In the event of a discrepancy with the manual timekeeping device, or at the request of the timekeepers or commissaires, a check of the photo-finish for time gaps between riders will be conducted.

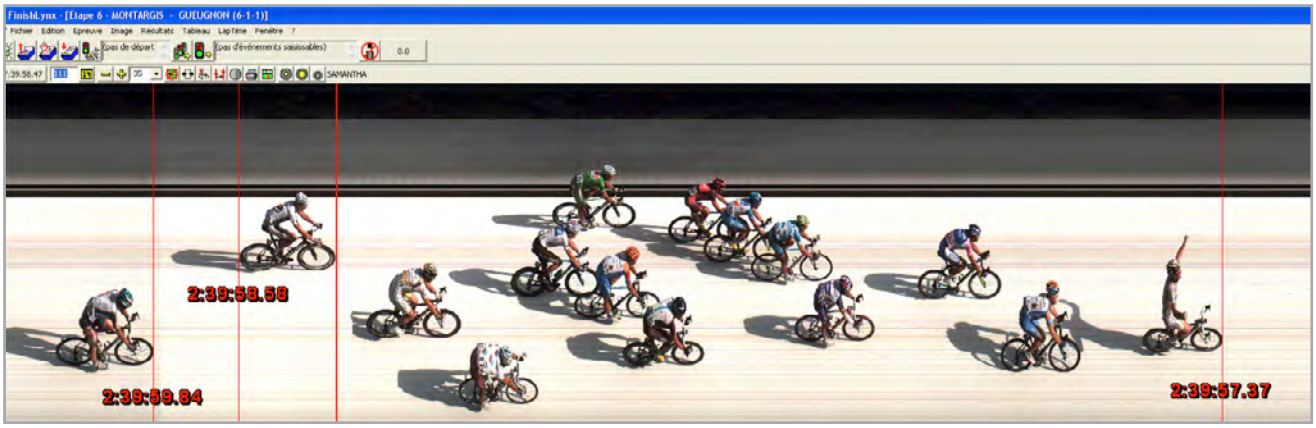
b) Use of the photo-finish
The operator conducts a complete reading of the photo-finish data in order to determine the order of arrival and race times, under the supervision of the commissaire responsible for the classifications. All riders must be recorded (including those who finish outside the time limit).

The time line must be placed perpendicularly to the tangent of riders' front wheels.

The operator notes the riders' race numbers when conducting the reading. Each rider's race time is recorded automatically. If there is a gap of greater than one second between the tangent of the rear wheel of the last rider in a group and the tangent of the front wheel of the first rider in the following group (or individual rider), the time shall be considered and allocated to the appropriate group. A group comprises at least two riders. The timing accuracy is 1/100 of a second when determining time gaps.

Race time must always be rounded down to the nearest second (the hundredths are disregarded). If a rider crosses the line at 2:01:10.99 (two hours, one minute, ten seconds and ninety-nine hundredths), the time given will be 2:01:10 (two hours, one minute and ten seconds).

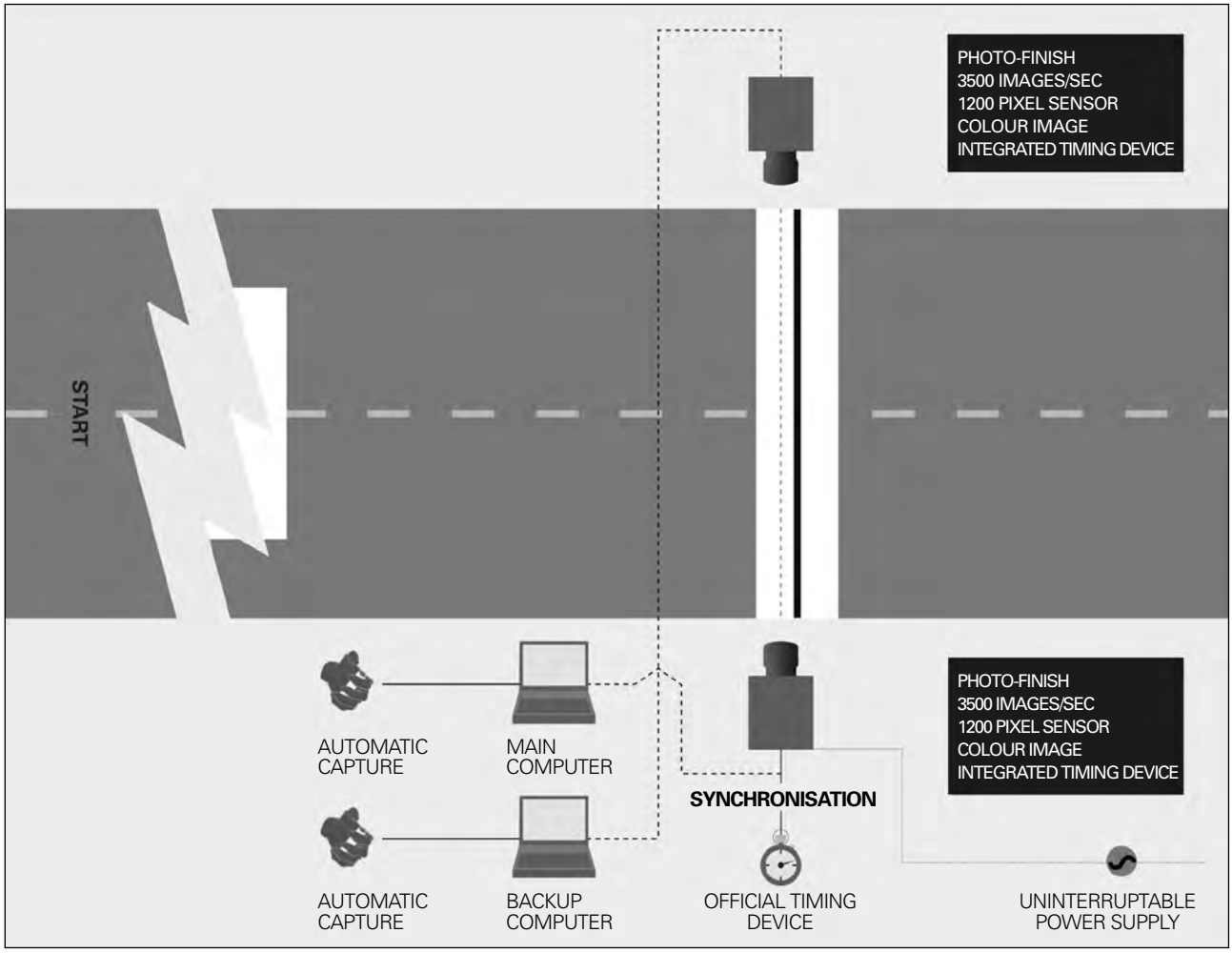
If a time gap is noted, the rider's time is rounded down to the second in accordance with the rule described above.



In this example, the first group has a time of 2:39:57.00.
The 15th rider has a time of 2:39:59.00 as the time gap to the previous rider is over one second.
If it is impossible to separate two competitors, they are declared to be tied for a placing and the following position is not allocated.

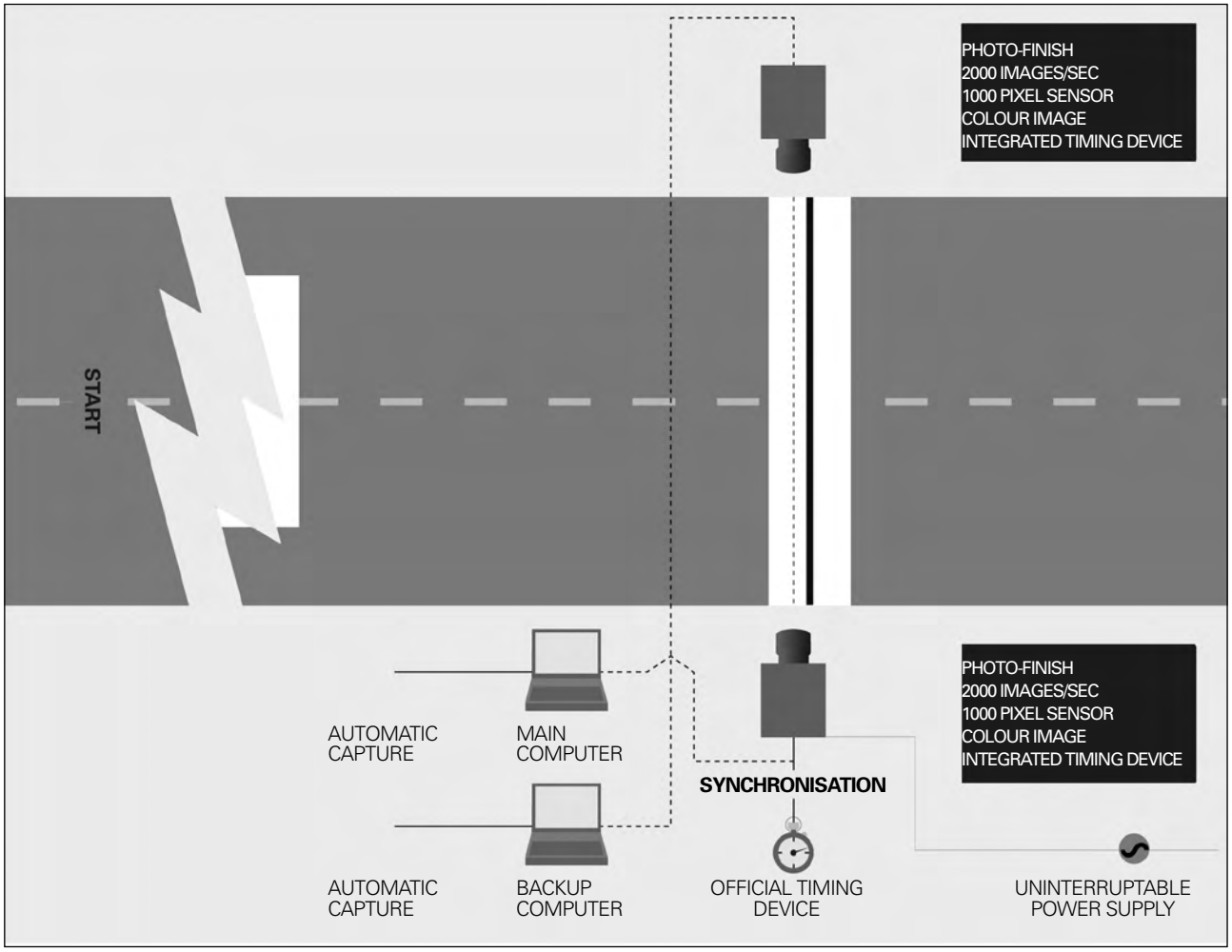
2.1.6 Configurations

Level 1



Timing device accuracy 1/1000 sec 1ppm	**Speed of acquisition** > 3500 images per second	**Image height in pixels** >1200 pixels	**Image quality** Colour	**Capture method** Automatic
Number of cameras 1 main camera 1 opposite	**Number of operators** 2 operators	**Synchronisation** 2 cameras	**Classification interface** Obligatory	

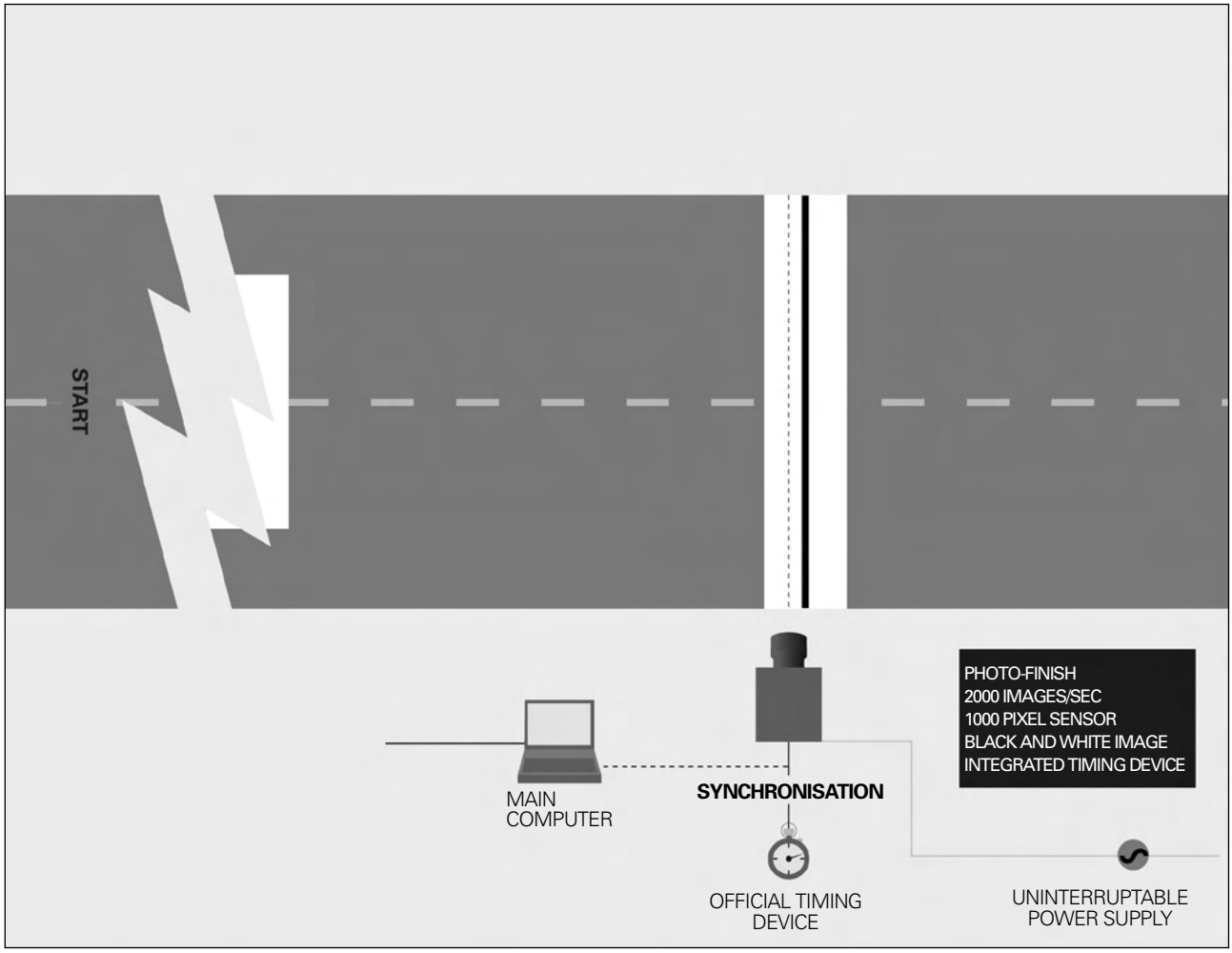
Level 2



Timing device accuracy	**Speed of acquisition**	**Image height in pixels**	**Image quality**	**Capture method**
1/1000 sec 1ppm	> 2000 images per second	>1000 pixels	Colour	Automatic

Number of cameras	**Number of operators**	**Synchronisation**	**Classification interface**
1 main camera 1 opposite	2 operators	2 cameras	Obligatory

Level 3



Timing device accuracy	Speed of acquisition	Image height in pixels	Image quality	Capture method
1/1000 sec 1ppm	= 2000 images per second	>1000 pixels	Black and white	Manual

Number of cameras	Number of operators	Synchronisation	Classification interface
1 main camera	1 operator	Yes	Recommended

2.1.7 Equipment that is not recommended

• Camcorder-type video systems that do not allow «visual recording tracks» but rather offer a simple display of the finish.
As the speed of acquisition is a maximum of 50 images per second, time-linked displays cannot be shown as is the case with a photo-finish.

• Equipment described as «Video-finish».

• Cameras linked to videocassette recorder systems.

• Systems that depend on the timing device of the transponder detection equipment.

• Webcams and any other equipment that does not have an integrated timing device.

2.2 Transponders

2.2.1 Functions of the equipment

This timing system is used to obtain a snapshot of the race at a specific location. It does not replace the obligatory use of photo-finish equipment.

2.2.2 Operating principle

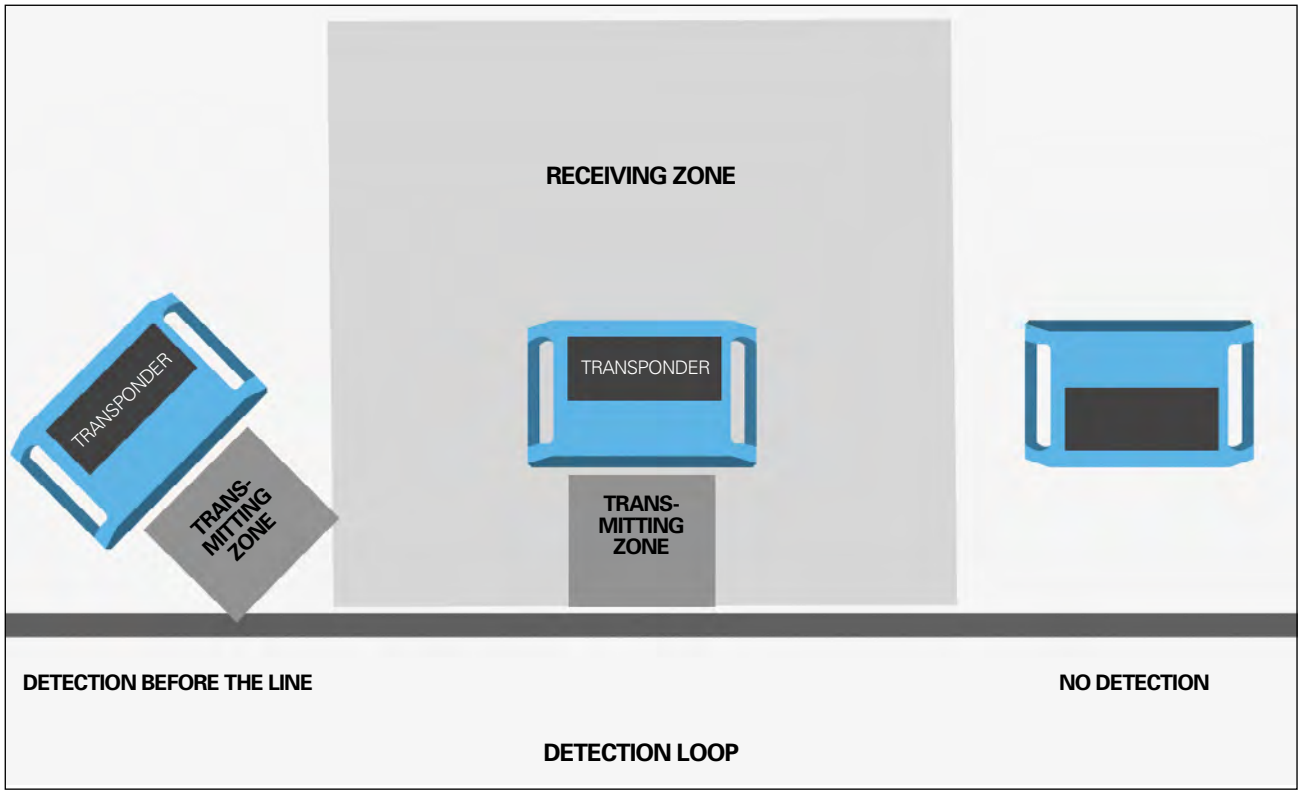
Only systems that operate by induction allow the optimal detection and, above all, accuracy required for road cycling.

A magnetic field created by a detection loop on the ground activates the transponder which then emits a signal.
The decoder analyses the signals and transmits the classification to an accuracy of 1/1000 of a second.

2.2.3 Limits of the system

Even if the measurement accuracy of the timing system is 1/1000 of a second, the position of the transponder on the bicycle is never exactly the same for all competitors.

The orientation of the transponder within the detection field can be significant and can afford an advantage to an individual competitor.



Using this timing system alone, checks cannot be conducted for bike changes or riders carrying several transponders.

The position of the transponder always vary slightly from one rider to another. The gap between two riders may only be centimetres or even millimetres in a sprint at over 60 km/h.

Time gaps between riders are determined by the difference between the tangent of the rear wheel of the last rider in a group and the tangent of the front wheel of the first rider in the following group (or individual rider).
This rule cannot be applied when time is measured using transponders.

2.2.4 Common equipment requirements

a) Detection technology
Magnetic induction.

b) Transponder types
Active (contain a battery).

c) Transponder weight
Less than 20 g, not including clip.

d) Accuracy required
Precision: 0.001 sec, 1/1000 of a second.

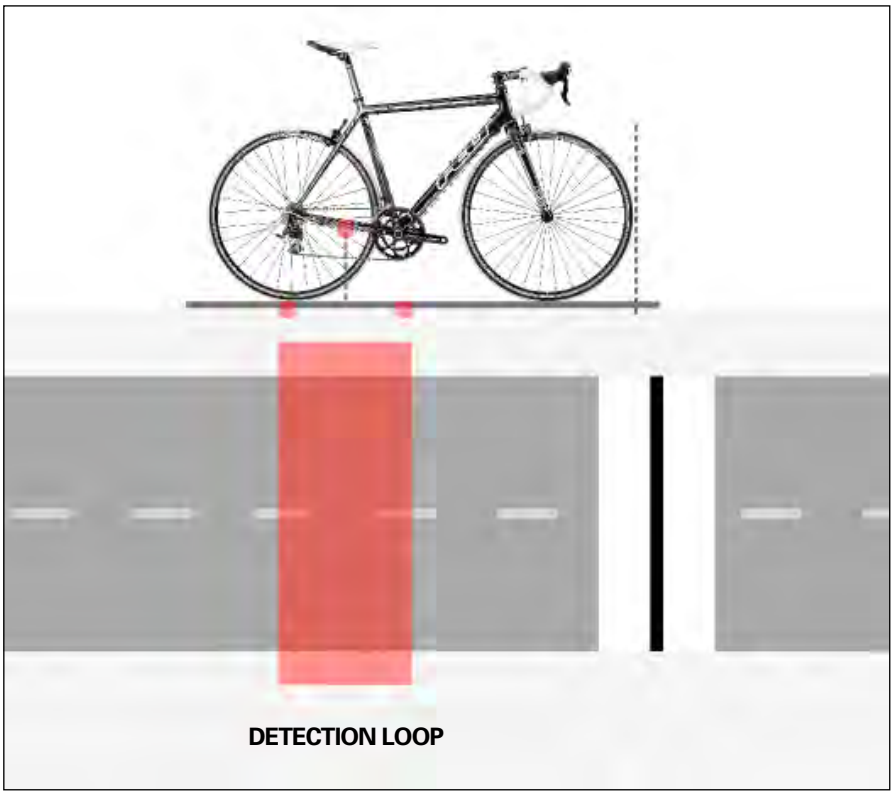
e) Anti-interference
The system must be able to process up to 50 simultaneous detections in five seconds.

f) Maximum detection speed
Up to 90 km/h.

g) Detection loop
This must comprise cables traversing the road. Mats or other devices over 5 mm thick are prohibited for safety reasons.

2.2.5 Installation

Transponders must be attached to the bicycle at a constant distance from the tangent of the front wheel.
They must not be carried by the athletes.



EXAMPLE POSITIONING: 120 CM FROM THE TANGENT
OF THE FRONT WHEEL

2.2.6 Use of the equipment

The use of transponders in a cycle race allows:

- a rider's position within a group to be established,
- the number of laps of a circuit to be monitored,
- the order of passing an intermediate point to be determined,
- information to be provided for TV production.

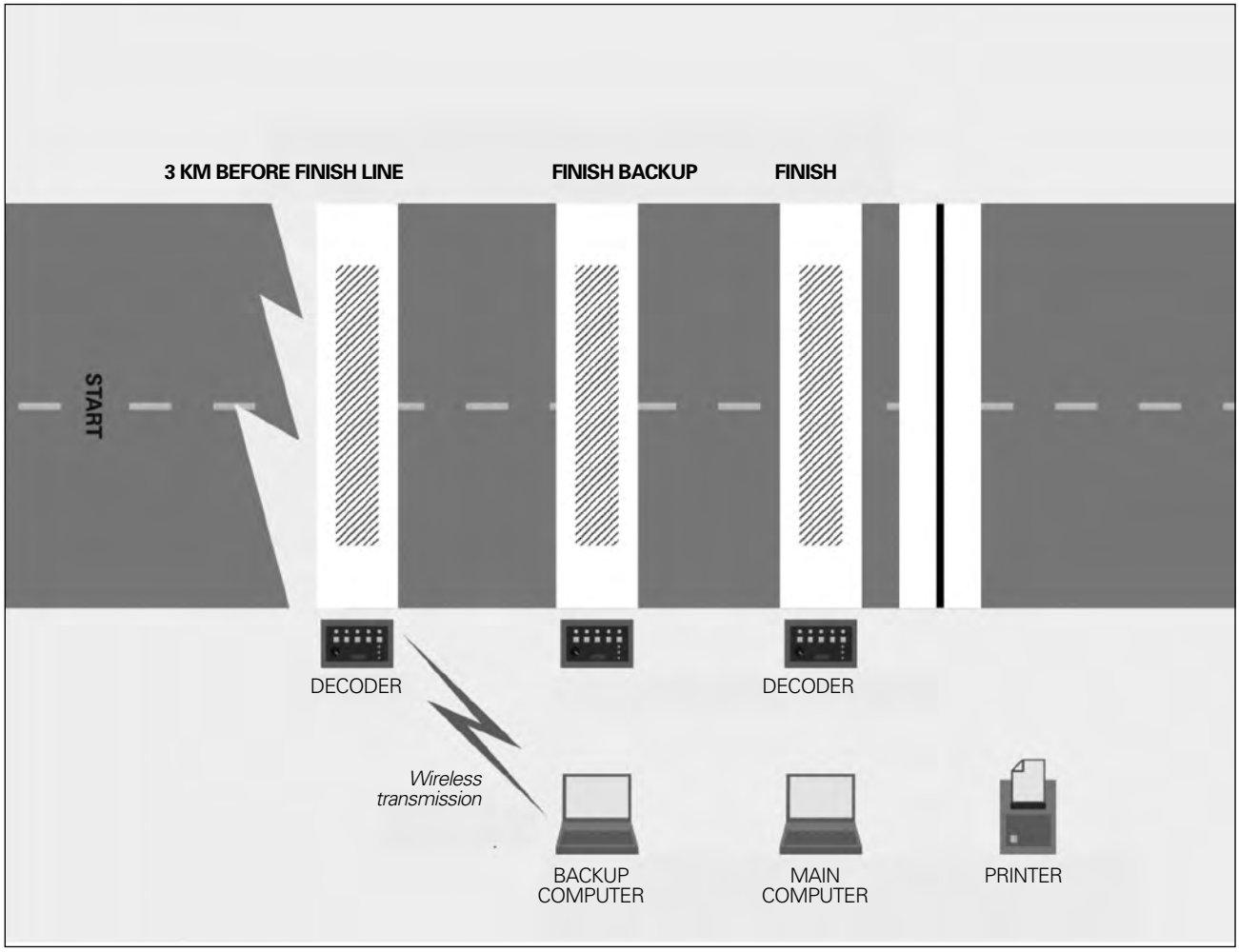
When a rider passes a point where time information is recorded, this information must be displayed immediately.

The classification drawn up from transponders cannot be used to determine the positions or times of riders at the finish.

The «backup» point at the finish (approximately 20 m before the finish reference point) is established as a precaution.
In stage races, information must be transmitted in real-time from a point located 3 km from the finish line, providing the finish line control post with information on the groups of riders. A printout of this status must be made available to the timekeepers and commissaires. The status report allows the position of each competitor in the various groups at 3 km from the finish to be established in the event of a crash during the final 3 km.

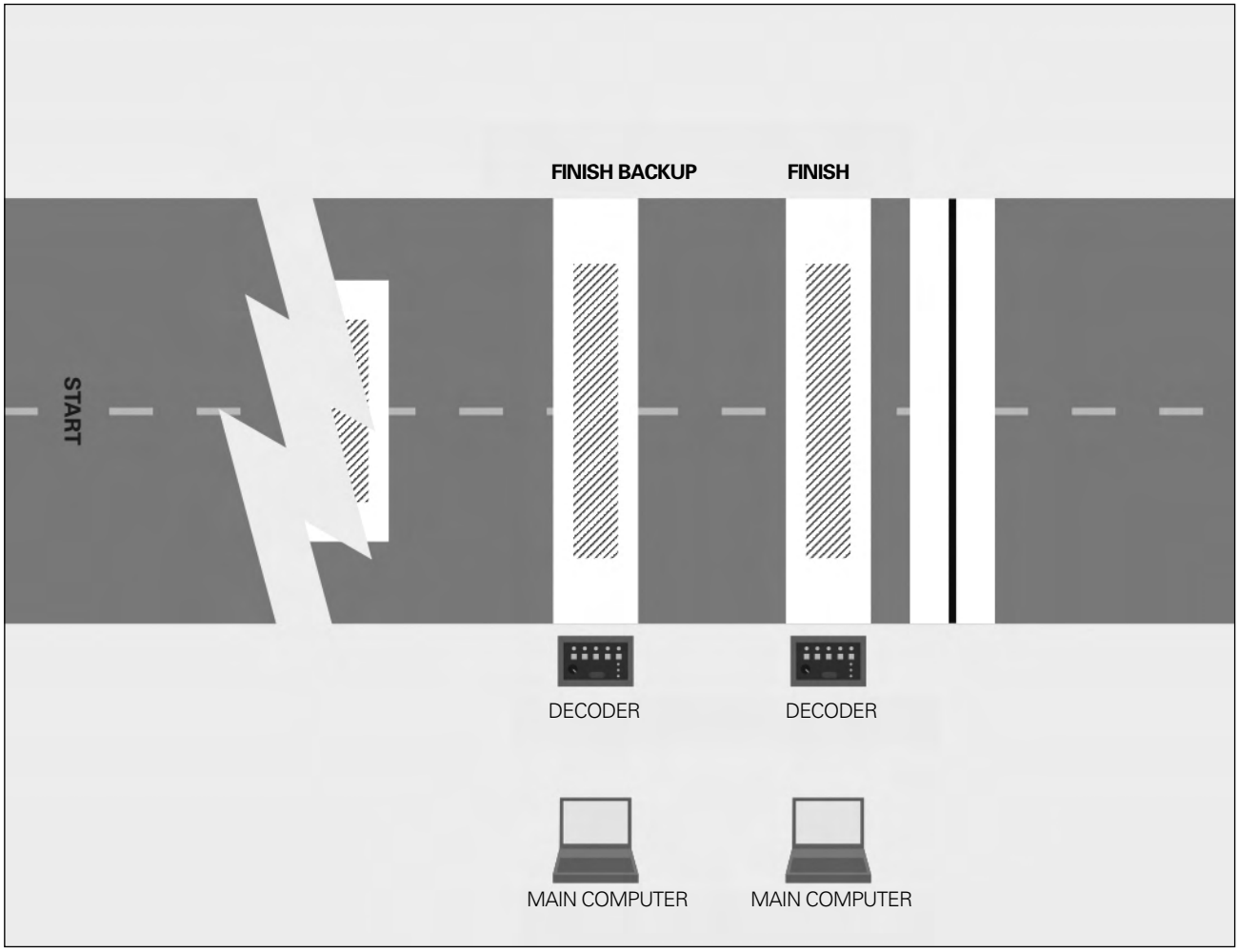
2.2.7 Configuration

Level 1



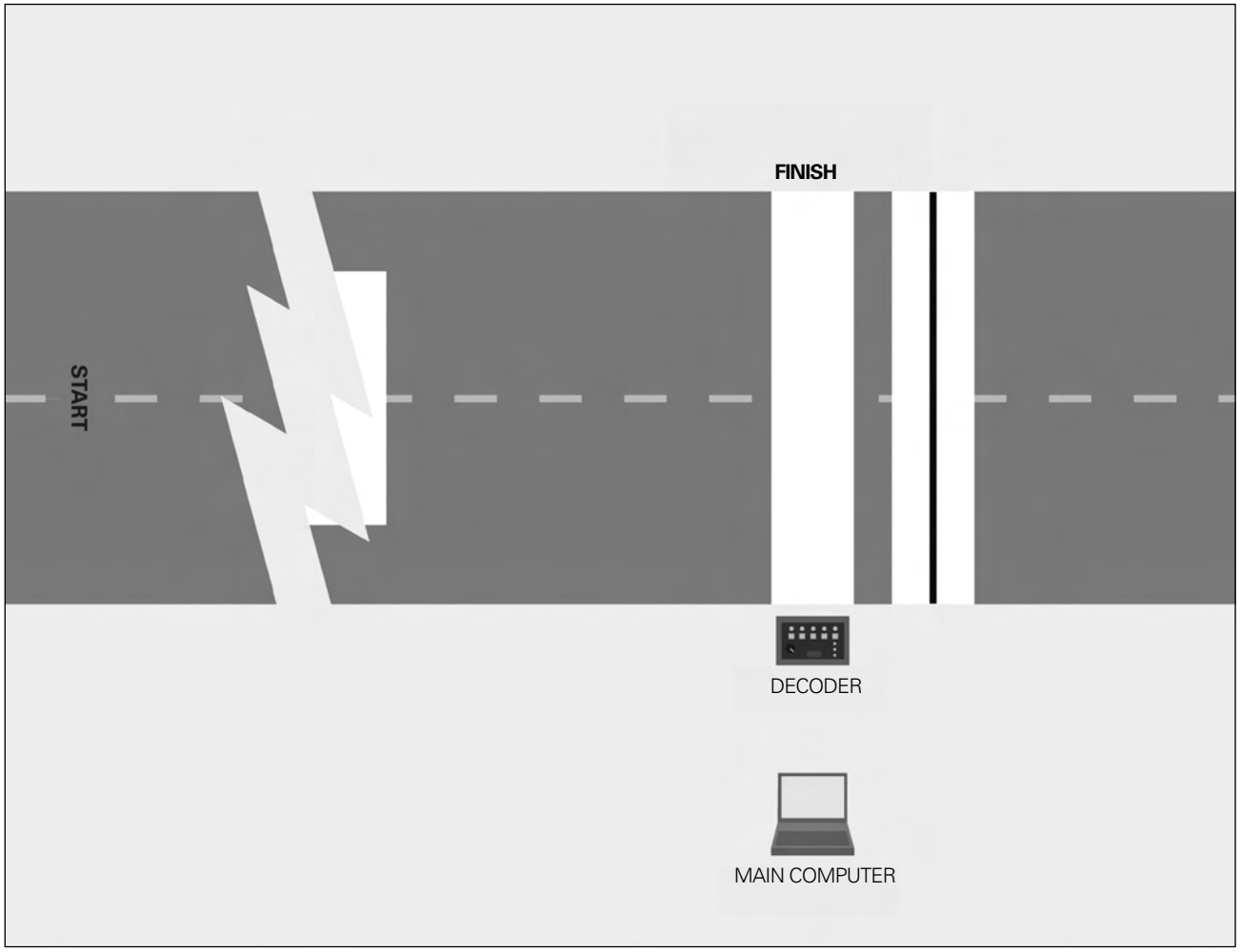
Transponder	Technology	System location	Number of transponders
Active < 20 g	Induction	Finish Finish backup 3 km before finish line 1 per rider	1 per competitor + 3-5 backup transponders per team

Level 2



Transponder	Technology	System location	Number of transponders
Active < 20 g	Induction	Finish Finish backup	1 per rider + 3 backup transponders per team

Level 3



Transponder	Technology	System location	Number of transponders
Active < 20 g	Induction	Finish	1 per rider

2.2.8 Equipment that is not recommended

• Identification using passive tags (usually labels):
Passive tags are activated when they pass through a field transmitted from an antenna at a frequency of 125 KHz or13.56 MHz depending on the type of tag used.
This type of system allows objects or people to be recognised at a maximum distance of 1 m in an undisturbed environment. The response time using this label is approximately 20 ms when a single label is in the antenna's field. If two or three labels are in the field, this leads to interference which is resolved to the detriment of response time which can rise to up to 100 ms. Such a system clearly can not be used for timekeeping to an accuracy of 1/1000 of a second.

• Radio-frequency identification:
The principle consists of providing each competitor with a small radio transmitter that produces a unique code.
This type of system circumvents interference problems (one or more competitors in the antenna's field) but it is not particularly accurate due to the omnidirectional radiation of the reception antenna. This type of system does not overcome possible interference (GSM , TV transmission, various remote controls, etc).

2.3 Display

2.3.1 Function of the equipment

The displays located on the finish line gantry provide riders and spectators with a certain amount of information on the race time and situation.

2.3.2 Equipment requirements

• The display must allow information to be read at a minimum distance of 100 m.

Level 1

Number of displays	Type of display	Information displayed
2	Double-sided Alphanumeric	Race time Time gap Classification information Time limits

Level 2

Number of displays	Type of display	Information displayed
2	Double- or single-sided Numeric	Race time

2.4 Required levels

	PHOTO-FINISH	TRANSPONDERS	DISPLAY
OLYMPIC GAMES	1	2	1
UCI WORLD CHAMPIONSHIPS	1	2	1
UCI WORLDTOUR – One-day Race	1	2 (recommended)	1
UCI WORLDTOUR – Stage Race	1	1	1
Europe Tour			
CONTINENTAL CHAMPIONSHIPS	2		
HC Events – One-day Race	1	2 or 3 (recommended)	2
HC Events – Stage Race	1	1 (recommended)	2
Class 1 Events	2		
Class 2 Events	3		
Africa Tour - America Tour – Asia Tour – Oceania Tour			
CONTINENTAL CHAMPIONSHIPS	3		
HC Events	2		
Class 1 Events	3		
Class 2 Events	3		

This table shows the minimum required level. An organiser also has the right to use a timing system suitable for a higher grade of event.

Section 3

Specifications for individual time trials

3.1 Timing

3.1.1 The principle of timing

Timing is extremely important in this type of event and indeed represents the essence of the competition.

The basic facilities are described below.

At the start:
Display or timing for each rider
At the finish:

Timing for each rider.

Special care must be taken regarding the information communicated to the riders and team managers.

3.1.2 Equipment requirements

a) Timing device
Time base: stabilised oscillator, accurate to 1 ppm.
Measurement precision: 1/25,000 sec.
Printer allowing the issue of a journal roll.

b) Photocell
Optical range of 15 m
Electronic transmitter and receiver (no reflector)
Maximum resolution: 0.125 ms
Event response: 1 ms

c) Tape switch
Event response time: 1 ms

d) Start/beeper clocks
Clock indicating the time of day.
Beeper that can be programmed to different cycles.

e) Photo-finish
Photo-finish equipment recording the passage of all competitors using time of day can be set up for the event.

3.1.3 Timing points

a) At the start
The equipment must have the following characteristics:

Configuration 1

Clocks displayed at start	Capture	Beeper	Timing unit	Operator
Cars Riders	Photocell or contact band	Yes	Yes with printer	Yes

Configuration 2

Clocks displayed at start	Capture	Beeper	Timing unit	Operator
Cars Riders	No	Yes	No	No

b) At the finish
The equipment must have the following characteristics:

Configuration 1

Timing unit	Capture	Photo-finish	Manual backup	Operator
2 units with printer	Photocell or contact band	Yes	Yes	Yes

Configuration 2

Timing unit	Capture	Photo-finish	Manual backup	Operator
1 unit with printer	Photocell or contact band	Yes	Yes	Yes

Configuration 3

Timing unit	Capture	Photo-finish	Manual backup	Operator
1 unit with printer	Photocell or contact band	No	Yes	Yes

c) Intermediate points

Configuration 1

Timing unit	Capture	Photo-finish	Manual backup	Operator
1 unit with printer	Photocell or contact band	No	Yes	Yes

Means of distributing information: race radio and display (optional)

3.1.4 Display

Size of characters: the display device must be able to be read from a minimum distance of 100 m.

Configuration 1

Number of displays	Type of display	Displayed information
2	Double-sided Alphanumeric	Race time Time gap Classification information Time limits

Configuration 2

Number of displays	Type of display	Displayed information
2	Double- or single-sided Numeric	Race time Time gap

Following page:
NUMERIC DOUBLE-SIDED DISPLAYS

3.1.5 Implementation

Synchronisation: All elements must be synchronised at least one hour before the start of the event in the presence of the timekeepers.

The automatic recalibration of race time based on GPS technology is not permitted.

The timekeepers appointed to the event carry out a manual check at the finish.

Times are taken using a capture device (photocell or contact strip). These are communicated to the official timekeeper and distributed.

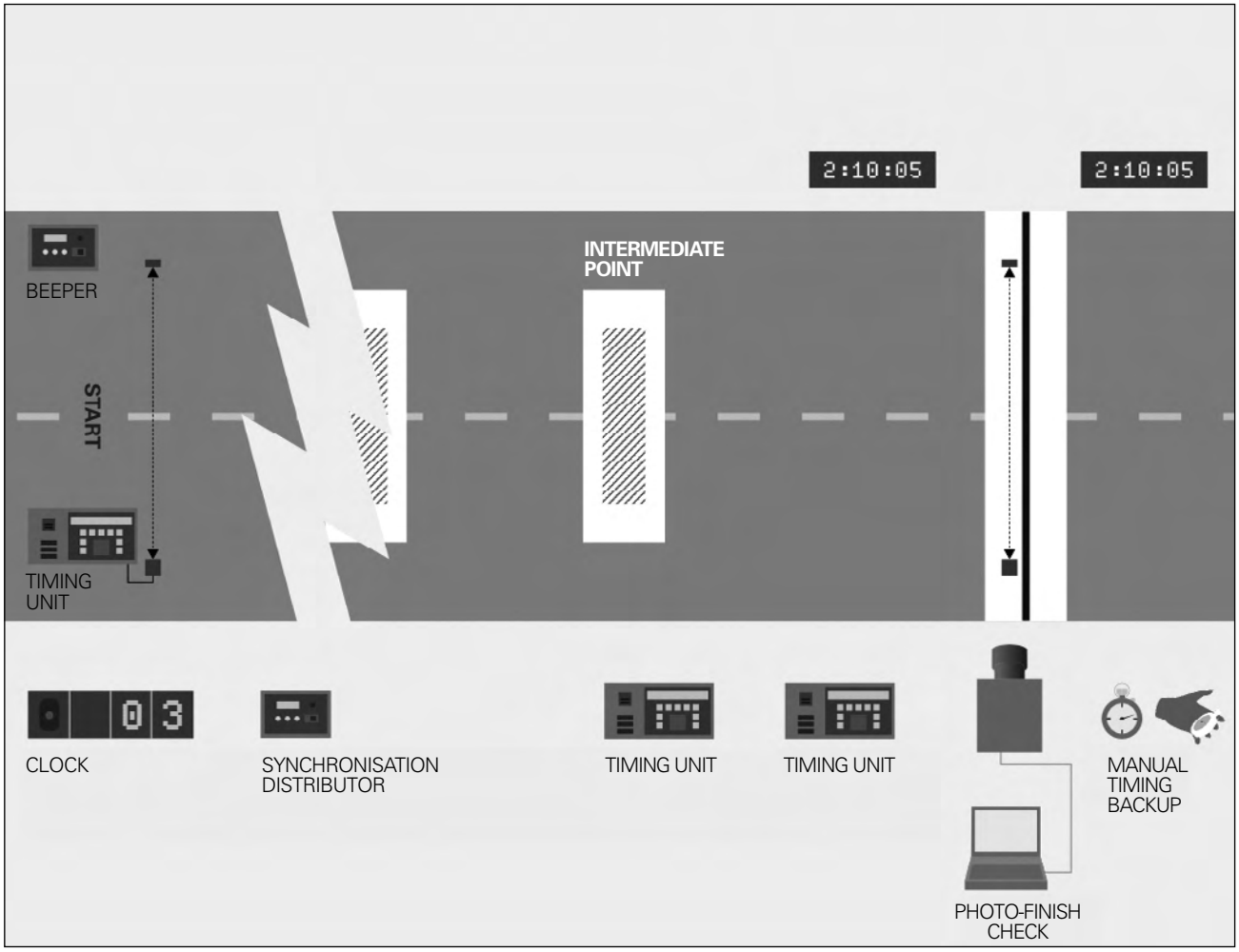
In the event of an equipment failure, the times taken by the timekeeper shall be used. If synchronised photo-finish equipment is available, these times shall be adopted.

If several riders finish together in a group, the times may be rectified using the times recorded by the photo-finish system.

The competitors are separated using times accurate to 1/100 of a second.
At all timing points, the operator must be able to provide the timing record that contains all the recorded events.
This record shall be retained for the duration of the event.

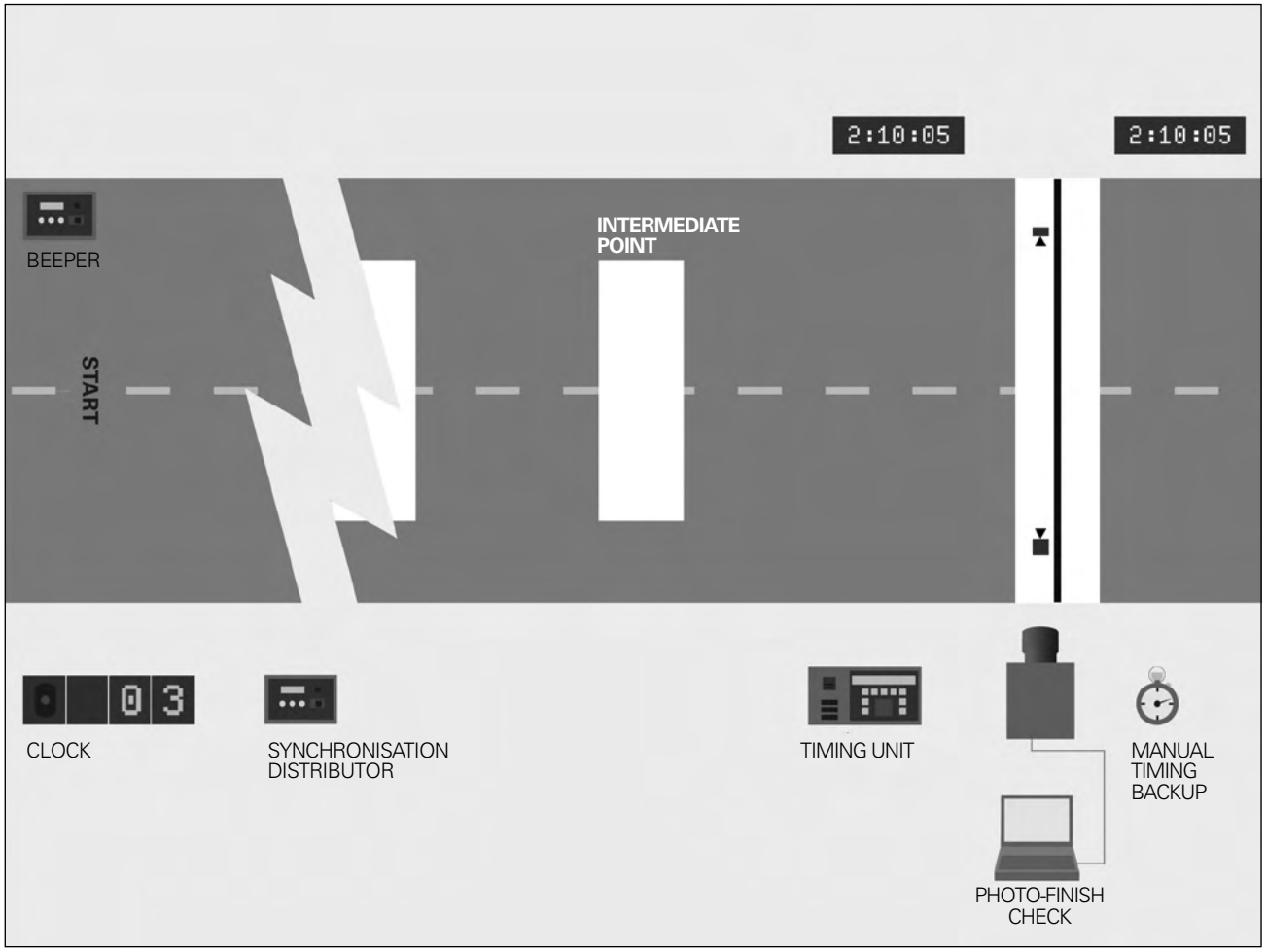
3.1.6 Configurations

Level 1



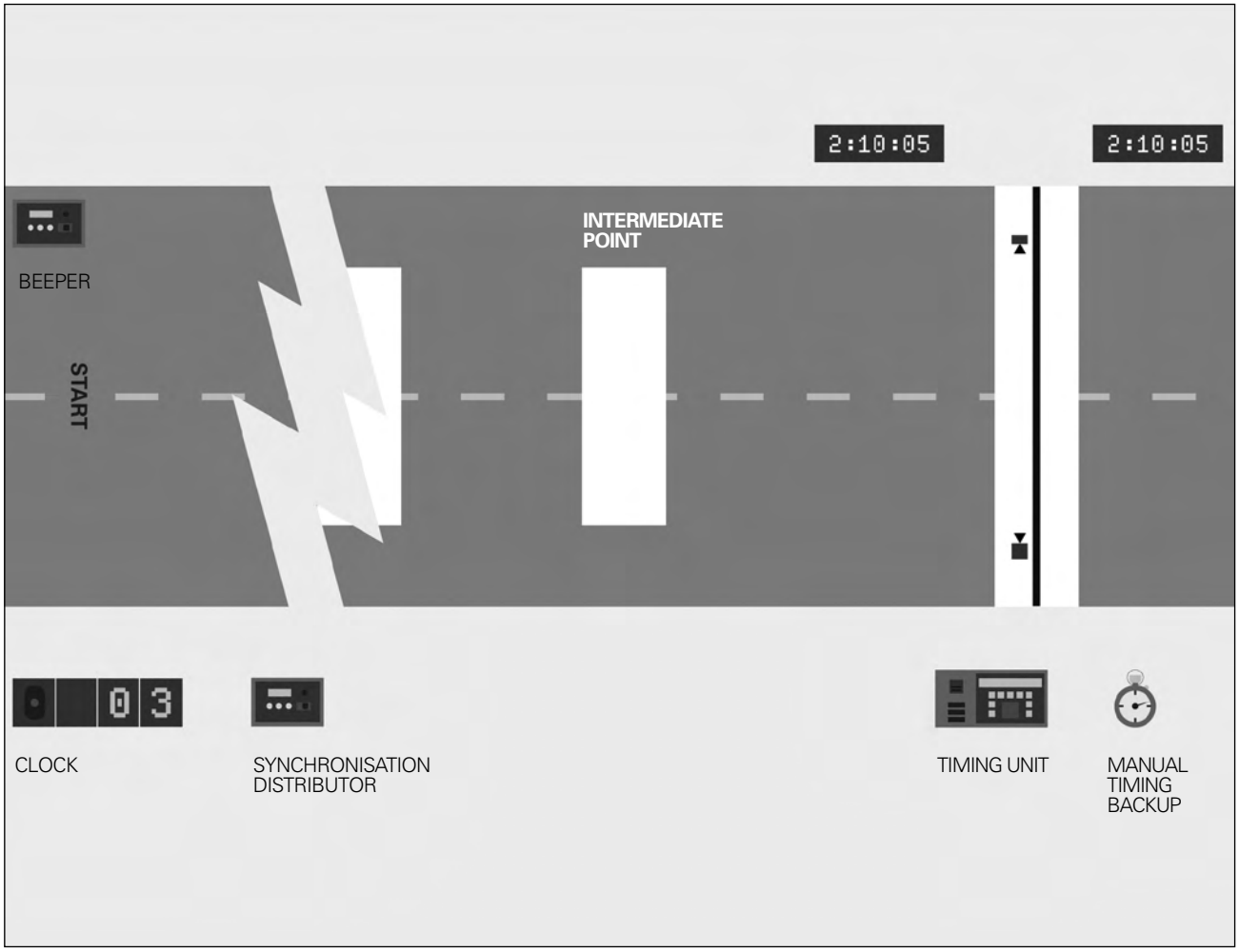
Start	Finish	Display	Intermediate point
Configuration 1	Configuration 1	Configuration 1	Yes

Level 2



Start	Finish	Display	Intermediate point
Configuration 2	Configuration 2	Configuration 2	Yes

Level 3



Start	Finish	Display	Intermediate point
Configuration 2	Configuration 3	Optional	Yes

3.2 Level required for specific events

	LEVEL
OLYMPIC GAMES	1
UCI WORLD CHAMPIONSHIPS	1
UCI WORLDTOUR	1 or 2
Europe Tour	
CONTINENTAL CHAMPIONSHIPS	2
HC Events	2
Class 1 Events	2
Class 2 Events	3
Africa Tour - America Tour – Asia Tour – Oceania Tour	
CONTINENTAL CHAMPIONSHIPS	3
HC Events	2
Class 1 Events	3
Class 2 Events	3

This table shows the minimum required level. An organiser also has the right to use a timing system suitable for a higher grade of event

Section 4
Specifications for team time trials

4.1 Timekeeping

4.1.1 Principle of timekeeping

In team time trials, the time is taken for the nth rider of the team depending on the specific regulations of the event. The rule for time gaps is applied in order to award a time to all riders.

4.1.2 Equipment requirements

• Timekeeping equipment
Identical to individual time trials.

• Photo-finish
Photo-finish equipment recording the passage of all competitors using time of day must be set up for the event.

4.1.3 Timing points

• Start
The configuration must offer the following features:

Clocks displayed at start	Capture	Beeper	Timing unit	Operator
Cars Rider	No	Yes	No	No

• Finish
The configuration must offer the following features:

Timing unit	Capture for display	Photo-Finish	Manual backup	Operator
1 or 2 units with printer	Photocell or contact band	Yes	Yes	Yes

4.1.4 Implementation

Synchronisation: All elements must be synchronised at least one hour before the start of the event in the presence of the timekeepers.

A distribution of the synchronisation must be made available by the timekeepers at start.

In team time trials, the starting time is not taken using a photocell, it is solely considered to be the scheduled start time.

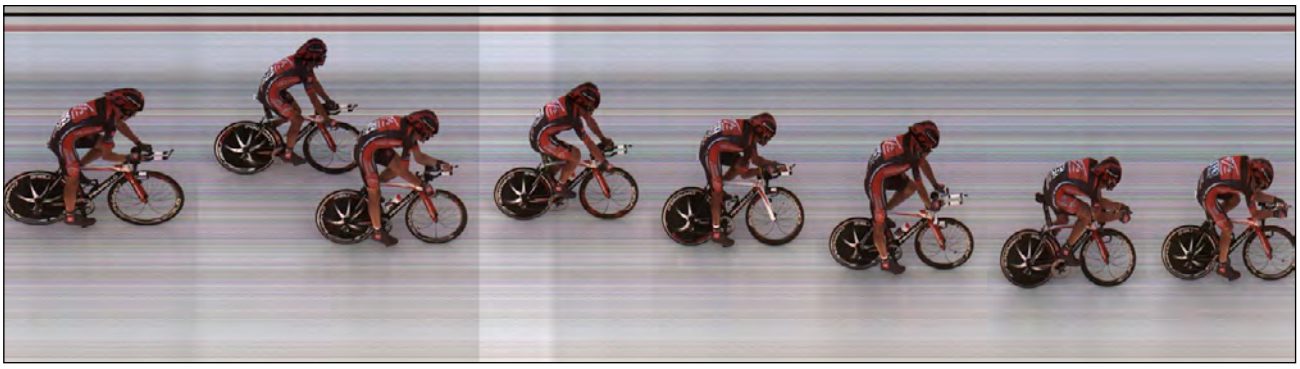
The photo-finish serves as the main system in awarding times to the riders.

Times allocated by photocell or manually can only be used for «unofficial times» when crossing the line. Times are corrected once the photo-finish has been read.

A document recording the order of passage of the riders and the times allocated shall be made available to the commissaires' panel.

The timekeepers appointed to the event conduct a manual backup check at the finish.

At the finish, the operator must be able to provide the photo-finish showing all the recorded events.
The photo-finish shall be retained for the duration of the event.



EXAMPLE PHOTO-FINISH

Section 5
Compiling classifications

5.1 List of classifications published by the service provider

The classifications are drawn up by the service provider under the supervision of the timekeeper and finish judge.

5.1.1 Basic rules

Classifications are drawn up with the assistance of software that complies with UCI regulations. The software must have the capacity to be amended to any change of the regulations.

The classifications shall be drawn up and validated by timekeepers or commissaires at the finish within a reasonable period of time.

The software shall be interfaced with timekeeping tools in order to avoid multiple information capture which can be a source of error.

The software must allow the various classifications to be printed and exported in the formats required by the UCI. A backup must be retained for the current year in order to allow the classification to be re-issued in the event of a relegation.

5.1.2 Chronology of issue of classifications

At race headquarters:
Verifications of riders entered and riders starting.
Drawing up lists in UCI formats (licence number including UCI code).

On the day of the event:
Printing provisional classifications for the media.
Printing classifications validated by commissaires.
Export to UCI by e-mail.

At the end of the event:
Printing the classifications in UCI format
(licence number including UCI code).

5.2 Example classifications

WÜRTH presents

TOUR DE SUISSE

Produced by KYOCERA

CLASSEMENT DE L'ETAPE 2

Verbania - Verbier

DIMANCHE 10 JUIN 2012

LE GRUYERE

Distance : *218,300 km*
Temps du Premier : *6h21'13"*
Moyenne : *34,358 km/h*

Pl	Dos	Nom Prénom	Eq.	Nat	B	P	Ecart
1	122	FARIA DA COSTA Rui Alberto	MOV	POR	*B:10"*		00"
2	98	SCHLECK Frank	RNT	LUX	*B:06"*		04"
3	114	NIEVE Mikel	EUS	ESP	*B:04"*		12"
4	12	CARUSO Giampaolo	KAT	ITA			13"
5	165	PINOT Thibaut	FDJ	FRA			''
6	158	ROCHE Nicolas	ALM	IRL			16"
7	177	SÖRENSEN Chris	SAX	DEN			''
8	154	GADRET John	ALM	FRA			''
9	121	VALVERDE Alejandro	MOV	ESP			18"
10	48	KREUZIGER Roman	AST	CZE			22"
11	47	KISERLOVSKI Robert	AST	CRO			''
12	51	DANIELSON Tom	GRM	USA			''
13	1	LEIPHEIMER Levi	OPQ	USA			''
14	33	LÖVKVIST Thomas	SKY	SWE			25"
15	133	KRUIJSWIJK Steven	RAB	NED			33"
16	92	FUGLSANG Jakob	RNT	DEN			37"
17	13	GUSEV Vladimir	KAT	RUS			43"
18	71	CUNEGO Damiano	LAM	ITA			47"
19	131	GESINK Robert	RAB	NED			01'04"
20	172	GUSTOV Volodymir	SAX	UKR			01'08"
21	26	MOSER Moreno	LIQ	ITA			01'20"
22	3	CATALDO Dario	OPQ	ITA			01'23"
23	81	FRANK Mathias	BMC	SUI			01'28"
24	191	KUNZLI Raymond	SPI	SUI			01'40"
25	108	VALLS FERRI Rafael	VCD	ESP			''
26	113	IZAGIRRE Gorka	EUS	ESP			''
27	112	ASTARLOZA Mikel	EUS	ESP			''
28	77	POSSONI Morris	LAM	ITA			''
29	43	KANGERT Tanel	AST	EST			''
30	181	BERTOGLIATI Rubens	TT1	SUI			''
31	107	POELS Wouter	VCD	NED	*B:02"*		01'46"
32	46	KESSIAKOFF Fredrik	AST	SWE			01'50"
33	143	DE CLERCQ Bart	LTB	BEL			''
34	93	GERDEMANN Linus	RNT	GER			02'01"
35	87	CUMMINGS Stephen	BMC	GBR			''
36	45	MURAVYEV Dmitriy	AST	KAZ			02'05"
37	136	SLAGTER Tom Jelte	RAB	NED			''
38	127	BRUSEGHIN Marzio	MOV	ITA			''
39	8	VELITS Peter	OPQ	SVK			02'14"
40	125	KARPETS Vladimir	MOV	RUS			''
41	124	HERRADA Jesus	MOV	ESP			02'17"
42	83	BOOKWALTER Brent	BMC	USA			02'23"
43	185	EL FARES Julien	TT1	FRA			02'26"
44	173	JUUL JENSEN Christopher	SAX	DEN			02'32"
45	188	PREIDLER Georg	TT1	AUT			02'35"
46	38	ZANDIO Xabier	SKY	ESP			02'42"
47	56	PETERSON Thomas	GRM	USA			02'45"
48	31	BARRY Michael	SKY	CAN			02'49"
49	195	EUSER Lucas	SPI	USA			''
50	96	MONFORT Maxime	RNT	BEL			''
51	135	TEN DAM Laurens	RAB	NED			''
52	198	VANDBORG BACH Brian	SPI	DEN			''
53	167	ROY Jérémy	FDJ	FRA			03'29"
54	57	VAN SUMMEREN Johan	GRM	BEL			03'42"
55	142	CORDEEL Sander	LTB	BEL			''
56	102	HOOGERLAND Johnny	VCD	NED			''
57	52	DEKKER Thomas	GRM	NED			''
58	84	BURGHARDT Marcus	BMC	GER			''
59	24	DUGGAN Timothy	LIQ	USA			''
60	134	MOLLEMA Bauke	RAB	NED			''
61	163	CHAINEL Steve	FDJ	FRA			03'58"
62	104	MARCATO Marco	VCD	ITA			04'46"
63	44	GAVAZZI Francesco	AST	ITA			''
64	141	BILLE Gaetan	LTB	BEL			''
65	187	MEGIAS Javier	TT1	ESP			''
66	128	ROJAS Jose Joaquin	MOV	ESP			''
67	103	LAGUTIN Sergey	VCD	UZB			''
68	184	EFIMKIN Alexander	TT1	RUS			''
69	14	HORRACH Joan	KAT	ESP			''
70	118	VELASCO Ivan	EUS	ESP			04'50"
71	18	SPILAK Simon	KAT	SLO			''
72	95	KLÖDEN Andreas	RNT	GER			05'33"
73	72	BERTAGNOLLI Leonardo	LAM	ITA			''
74	35	PUCCIO Salvatore	SKY	ITA			''
75	61	ALBASINI Michael	OGE	SUI			06'00"
76	66	MEYER Cameron	OGE	AUS			''
77	85	KOHLER Martin	BMC	SUI			06'10"
78	145	REYNES Vicente	LTB	ESP			''
79	75	MORI Manuele	LAM	ITA			''
80	155	MINARD Sébastien	ALM	FRA			''
81	17	KOLOBNEV Alexandr	KAT	RUS			''
82	123	GUTIERREZ José Ivan	MOV	ESP			''
83	186	CUSIN Remi	TT1	FRA			''
84	15	ISAYCHEV Vladimir	KAT	RUS			''
85	176	PAULINHO Sergio Miguel Moreir	SAX	POR			''
86	166	GESLIN Anthony	FDJ	FRA			''
87	23	DALL'ANTONIA Tiziano	LIQ	ITA			07'38"
88	34	NORDHAUG Lars-Petter	SKY	NOR			08'21"
89	58	WEGMANN Fabian	GRM	GER			08'25"
90	144	KAISEN Olivier	LTB	BEL			''
91	63	DAVIS Allan	OGE	AUS			''
92	138	WYNANTS Maarten	RAB	BEL			''
93	168	PINEAU Cédric	FDJ	FRA			''
94	5	STYBAR Zdenek	OPQ	CZE			''
95	161	BOUCHER David	FDJ	FRA			''
96	137	NIERMANN Grischa	RAB	GER			''
97	105	MORTENSEN Martin	VCD	DEN			''
98	97	RAST Gregory	RNT	SUI			''
99	94	DIDIER Laurent	RNT	LUX			''
100	196	FAIRLY Caleb	SPI	USA			''
101	153	BONNAFOND Guillaume	ALM	FRA			''
102	171	NUYENS Nick	SAX	BEL			''
103	88	VAN AVERMAET Greg	BMC	BEL			''
104	37	SWIFT Ben	SKY	GBR			''
105	27	OSS Daniel	LIQ	ITA	*B:02"*		''
106	22	AGOSTINI Stefano	LIQ	ITA			''
107	11	FREIRE Oscar	KAT	ESP			''
108	126	KONOVALOVAS Ignatas	MOV	LTU			''
109	6	TERPSTRA Niki	OPQ	NED			''
110	55	HOWES Alex	GRM	USA			''
111	162	BONNET William	FDJ	FRA			''
112	62	COOKE Baden	OGE	AUS			10'10"
113	2	BOONEN Tom	OPQ	BEL			''
114	67	O'GRADY Stuart	OGE	AUS			''
115	65	LANGEVELD Sebastian	OGE	NED			''
116	157	MONTAGUTI Matteo	ALM	ITA			''
117	156	MONDORY Lloyd	ALM	FRA			''
118	76	PETACCHI Alessandro	LAM	ITA			''
119	152	BÉRARD Julien	ALM	FRA			''
120	151	ELMIGER Martin	ALM	SUI			''
121	178	VINTHER Troels Rønning	SAX	DEN			''
122	32	HAYMAN Mathew	SKY	AUS			''
123	164	HUTAROVICH Yauheni	FDJ	BLR			''
124	116	SICARD Romain	EUS	FRA			''

Produced by KYOCERA

GENERAL PAR DOSSARD 3

Martigny - Aarberg

LUNDI 11 JUIN 2012

OPQ	Omega Pharma-QuickStep	
1	LEIPHEIMER Levi	13e à 37"
2	BOONEN Tom	126e à 10'52"
3	CATALDO Dario	21e à 01'15"
4	STEEGMANS Gert	154e à 14'18"
5	STYBAR Zdenek	93e à 08'40"
6	TERPSTRA Niki	88e à 08'26"
7	TRENTIN Matteo	145e à 14'10"
8	VELITS Peter	35e à 02'13"

KAT	Katusha Team	
11	FREIRE Oscar	99e à 08'54"
12	CARUSO Giampaolo	15e à 41"
13	GUSEV Vladimir	18e à 58"
14	HORRACH Joan	69e à 05'18"
15	ISAYCHEV Vladimir	83e à 06'41"
16	PAOLINI Luca	147e à 14'12"
17	KOLOBNEV Alexandr	82e à 06'41"
18	SPILAK Simon	68e à 05'17"

LIQ	Liquigas-Cannondale	
21	SAGAN Peter	129e à 12'52"
22	AGOSTINI Stefano	91e à 08'39"
23	DALL'ANTONIA Tiziano	87e à 07'56"
24	DUGGAN Timothy	58e à 04'13"
25	KING Edward	137e à 13'53"
26	MOSER Moreno	19e à 01'01"
27	OSS Daniel	89e à 08'31"
28	VIVIANI Elia	139e à 14'00"

SKY	Sky Procycling	
31	BARRY Michael	49e à 03'02"
32	HAYMAN Mathew	125e à 10'51"
33	LÖVKVIST Thomas	6e à 21"
34	NORDHAUG Lars-Petter	90e à 08'34"
35	PUCCIO Salvatore	74e à 05'57"
36	ROWE Luke	136e à 13'53"
37	SWIFT Ben	108e à 09'10"
38	ZANDIO Xabier	48e à 02'54"

AST	Astana Pro Team	
41	GUARNIERI Jacopo	149e à 14'13"
42	BAZAYEV Assan	119e à 10'34"
43	KANGERT Tanel	28e à 01'47"
44	GAVAZZI Francesco	64e à 05'03"
45	MURAVYEV Dmitriy	37e à 02'15"
46	KESSIAKOFF Fredrik	24e à 01'39"
47	KISERLOVSKI Robert	11e à 32"
48	KREUZIGER Roman	3e à 15"

GRM	Garmin-Barracuda	
51	DANIELSON Tom	10e à 29"
52	DEKKER Thomas	55e à 04'09"
53	FARRAR Tyler	140e à 14'02"
54	HAUSSLER Heinrich	118e à 10'33"
55	HOWES Alex	96e à 08'47"
56	PETERSON Thomas	51e à 03'18"
57	VAN SUMMEREN Johan	56e à 04'10"
58	WEGMANN Fabian	100e à 08'57"

OGE	Orica GreenEDGE	
61	ALBASINI Michael	73e à 05'51"
62	COOKE Baden	120e à 10'34"
63	DAVIS Allan	109e à 09'19"
64	KRUOPIS Aidis	148e à 14'12"
65	LANGEVELD Sebastian	113e à 10'20"
66	MEYER Cameron	75e à 05'57"
67	O'GRADY Stuart	114e à 10'26"
68	WILSON Matt	156e à 14'24"

LAM	Lampre - ISD	
71	CUNEGO Damiano	17e à 57"
72	BERTAGNOLLI Leonardo	81e à 06'36"
73	BOLE Grega	155e à 14'18"
74	HONDO Danilo	123e à 10'40"
75	MORI Manuele	86e à 06'57"
76	PETACCHI Alessandro	122e à 10'39"
77	POSSONI Morris	40e à 02'26"
78	VIGANO Davide	150e à 14'13"

BMC	BMC Racing Team	
81	FRANK Mathias	23e à 01'37"
82	BLYTHE Adam	158e à 18'37"
83	BOOKWALTER Brent	39e à 02'21"
84	BURGHARDT Marcus	57e à 04'12"
85	KOHLER Martin	77e à 06'23"
86	LODEWYCK Klaas	144e à 14'06"
87	CUMMINGS Stephen	30e à 01'59"
88	VAN AVERMAET Greg	97e à 08'48"

RNT	RadioShack-Nissan	
91	CANCELLARA Fabian	130e à 13'02"
92	FUGLSANG Jakob	12e à 33"
93	GERDEMANN Linus	36e à 02'13"
94	DIDIER Laurent	98e à 08'48"
95	KLÖDEN Andreas	71e à 05'32"
96	MONFORT Maxime	46e à 02'46"
97	RAST Gregory	106e à 09'06"
98	SCHLECK Frank	2e à 08"

VCD	Vacansoleil - DCM Procycling Team	
101	BOECKMANS Kris	131e à 13'39"
102	HOOGERLAND Johnny	60e à 04'25"
103	LAGUTIN Sergey	67e à 05'16"
104	MARCATO Marco	61e à 04'43"
105	MORTENSEN Martin	104e à 09'05"
106	NOVIKOV Nikita	143e à 14'06"
107	POELS Wouter	26e à 01'43"
108	VALLS FERRI Rafael	33e à 02'04"

EUS	Euskaltel - Euskadi	
111	ANTON Igor	135e à 13'51"
112	ASTARLOZA Mikel	29e à 01'55"
113	IZAGIRRE Gorka	25e à 01'39"
114	NIEVE Mikel	9e à 26"
115	PEREZ Ruben	127e à 10'54"
116	SICARD Romain	124e à 10'41"
117	URTASUN Pablo	138e à 13'53"
118	VELASCO Ivan	72e à 05'37"

MOV	Movistar Team	
121	VALVERDE Alejandro	7e à 23"
122	FARIA DA COSTA Rui	1 er en 6h31'22"
123	GUTIERREZ José Ivan	76e à 06'17"
124	HERRADA Jesus	41e à 02'27"
125	KARPETS Vladimir	42e à 02'30"
126	KONOVALOVAS Ignatas	92e à 08'40"
127	BRUSEGHIN Marzio	38e à 02'17"
128	ROJAS Jose Joaquin	65e à 05'04"

RAB	Rabobank Cycling Team	
131	GESINK Robert	20e à 01'09"
132	BRESCHEL Matti	134e à 13'50"
133	KRUIJSWIJK Steven	16e à 47"
134	MOLLEMA Bauke	54e à 03'52"
135	TEN DAM Laurens	47e à 02'46"
136	SLAGTER Tom Jelte	32e à 01'59"
137	NIERMANN Grischa	95e à 08'46"
138	WYNANTS Maarten	101e à 08'59"

LTB	Lotto-Belisol Team	
141	BILLE Gaetan	63e à 04'58"
142	CORDEEL Sander	59e à 04'19"
143	DE CLERCQ Bart	31e à 01'59"
144	KAISEN Olivier	105e à 09'05"
145	REYNES Vicente	80e à 06'29"
146	ROBERT Frederique	142e à 14'05"
147	SOHRABI Mehdi	157e à 14'25"
148	VANGENECHTEN Jonas	146e à 14'11"

ALM	AG2R La mondiale	
151	ELMIGER Martin	112e à 09'55"
152	BÉRARD Julien	116e à 10'30"
153	BONNAFOND Guillaume	110e à 09'30"
154	GADRET John	8e à 24"
155	MINARD Sébastien	84e à 06'42"
156	MONDORY Lloyd	121e à 10'35"
157	MONTAGUTI Matteo	117e à 10'33"
158	ROCHE Nicolas	5e à 21"

FDJ	FDJ-BigMat	
161	BOUCHER David	102e à 09'02"
162	BONNET William	103e à 09'03"
163	CHAINEL Steve	62e à 04'46"
164	HUTAROVICH Yauheni	128e à 11'16"
165	PINOT Thibaut	4e à 19"
166	GESLIN Anthony	85e à 06'48"
167	ROY Jérémy	53e à 03'46"
168	PINEAU Cédric	107e à 09'07"

SAX	Team Saxo bank	
171	NUYENS Nick	94e à 08'43"
172	GUSTOV Volodymir	22e à 01'33"
173	JUUL JENSEN Christopher	44e à 02'42"
174	MORKOV Michael	133e à 13'49"
175	KROON Karsten	132e à 13'46"
176	PAULINHO Sergio Miguel	78e à 06'26"
177	SÖRENSEN Chris	14e à 40"
178	VINTHER Troels Rønning	115e à 10'29"

TT1	Team Type 1 - Sanofi	
181	BERTOGLIATI Rubens	27e à 01'45"
182	BAZZANA Alessandro	141e à 14'03"
183	COLLI Daniele	153e à 14'16"
184	EFIMKIN Alexander	70e à 05'27"
185	EL FARES Julien	43e à 02'33"
186	CUSIN Remi	79e à 06'26"
187	MEGIAS Javier	66e à 05'05"
188	PREIDLER Georg	45e à 02'44"

SPI	Spidertech Powered by C10	
191	KUNZLI Raymond	34e à 02'10"
192	ANDERSON Ryan	159e à 19'11"
193	BOILY David	152e à 14'15"
194	BOIVIN Guillaume	151e à 14'15"
195	EUSER Lucas	52e à 03'33"
196	FAIRLY Caleb	111e à 09'39"
197	ROUTLEY William	160e à 19'42"
198	VANDBORG BACH Brian	50e à 03'15"

TOUR DE SUISSE

CLASSEMENT PAR POINTS 2

Verbania - Verbier

DIMANCHE 10 JUIN 2012

search.ch

Classement de l'Etape

Pl	Dos	Nom Prénom	Nat	Equipe	Points
Martigny - km 192.1					
1	21	SAGAN Peter	SVK	LIQ	6
2	27	OSS Daniel	ITA	LIQ	3
3	28	VIVIANI Elia	ITA	LIQ	1
Sembrancher - km 203.9					
1	21	SAGAN Peter	SVK	LIQ	6
2	107	POELS Wouter	NED	VCD	3
3	101	BOECKMANS Kris	BEL	VCD	1
Arrivée - km 218.3					
1	122	FARIA DA COSTA Rui Alberto	POR	MOV	15
2	98	SCHLECK Frank	LUX	RNT	12
3	114	NIEVE Mikel	ESP	EUS	10
4	12	CARUSO Giampaolo	ITA	KAT	9
5	165	PINOT Thibaut	FRA	FDJ	8
6	158	ROCHE Nicolas	IRL	ALM	7
7	177	SÖRENSEN Chris	DEN	SAX	6
8	154	GADRET John	FRA	ALM	5
9	121	VALVERDE Alejandro	ESP	MOV	4
10	48	KREUZIGER Roman	CZE	AST	3
11	47	KISERLOVSKI Robert	CRO	AST	2
12	51	DANIELSON Tom	USA	GRM	1

Classement Général

Pl	Dos	Nom Prénom	Nat	Equipe	Points
1	21	SAGAN Peter	SVK	LIQ	27
2	122	FARIA DA COSTA Rui Alberto	POR	MOV	15
3	98	SCHLECK Frank	LUX	RNT	12
4	91	CANCELLARA Fabian	SUI	RNT	12
5	114	NIEVE Mikel	ESP	EUS	10
6	26	MOSER Moreno	ITA	LIQ	10
7	12	CARUSO Giampaolo	ITA	KAT	9
8	151	ELMIGER Martin	SUI	ALM	9
9	48	KREUZIGER Roman	CZE	AST	8
10	165	PINOT Thibaut	FRA	FDJ	8
11	46	KESSIAKOFF Fredrik	SWE	AST	8
12	158	ROCHE Nicolas	IRL	ALM	7
13	61	ALBASINI Michael	SUI	OGE	7
14	177	SÖRENSEN Chris	DEN	SAX	6
15	3	CATALDO Dario	ITA	OPQ	6
16	154	GADRET John	FRA	ALM	5
17	121	VALVERDE Alejandro	ESP	MOV	4
18	136	SLAGTER Tom Jelte	NED	RAB	4
19	92	FUGLSANG Jakob	DEN	RNT	3
20	107	POELS Wouter	NED	VCD	3
21	27	OSS Daniel	ITA	LIQ	3
22	33	LÖVKVIST Thomas	SWE	SKY	2
23	47	KISERLOVSKI Robert	CRO	AST	2
24	51	DANIELSON Tom	USA	GRM	1
25	96	MONFORT Maxime	BEL	RNT	1
26	101	BOECKMANS Kris	BEL	VCD	1
27	28	VIVIANI Elia	ITA	LIQ	1

TOUR DE SUISSE

CLASSEMENT DE LA MONTAGNE 2

Verbania - Verbier

DIMANCHE 10 JUIN 2012

VAUDOISE ASSURANCE

Classement de l'Etape

Pl	Dos	Nom Prénom	Nat	Equipe	Points
Simplonpass - km 87.8					
1	192	ANDERSON Ryan	CAN	SPI	20
2	182	BAZZANA Alessandro	ITA	TT1	15
3	174	MORKOV Michael	DEN	SAX	10
4	75	MORI Manuele	ITA	LAM	6
5	194	BOIVIN Guillaume	CAN	SPI	4
Verbier - km 216.6					
1	98	SCHLECK Frank	LUX	RNT	20
2	51	DANIELSON Tom	USA	GRM	15
3	154	GADRET John	FRA	ALM	10
4	122	FARIA DA COSTA Rui Alberto	POR	MOV	6
5	177	SÖRENSEN Chris	DEN	SAX	4

Classement Général

Pl	Dos	Nom Prénom	Nat	Equipe	Points
1	98	SCHLECK Frank	LUX	RNT	20
2	192	ANDERSON Ryan	CAN	SPI	20
3	51	DANIELSON Tom	USA	GRM	15
4	182	BAZZANA Alessandro	ITA	TT1	15
5	154	GADRET John	FRA	ALM	10
6	174	MORKOV Michael	DEN	SAX	10
7	122	FARIA DA COSTA Rui Alberto	POR	MOV	6
8	75	MORI Manuele	ITA	LAM	6
9	177	SÖRENSEN Chris	DEN	SAX	4
10	194	BOIVIN Guillaume	CAN	SPI	4

WÜRTH presents

Produced by KYOCERA

TOUR DE SUISSE

TABLEAU D'HONNEUR 2ème ETAPE

Verbania - Verbier

218,300 km

ETAPE

Etappe		***LE GRUYERE***	
122	**FARIA DA COSTA Rui Alberto**		**Movistar Team**
Mannschaft			
MOV	**Movistar Team**		
Aktivste Fahrer		***SKODA***	
192	**ANDERSON Ryan**		**Spidertech Powered by C10**

GENERAL

Gesamt		***Würth***	
122	**FARIA DA COSTA Rui Alberto**		**Movistar Team**
Punkte		***search.ch***	
21	**SAGAN Peter**		**Liquigas-Cannondale**
Bergpreis		***Vaudoise Assurances***	
98	**SCHLECK Frank**		**RadioShack-Nissan**
Bester Schweizer		***Roland***	
81	**FRANK Mathias**		**BMC Racing Team**

PORTEURS MAILLOTS

Gelb		***Würth***	
122	**FARIA DA COSTA Rui Alberto**		**Movistar Team**
Weiss / Rot		***search.ch***	
21	**SAGAN Peter**		**Liquigas-Cannondale**
Grün		***Vaudoise Assurances***	
98	**SCHLECK Frank**		**RadioShack-Nissan**
Rot		***Roland***	
81	**FRANK Mathias**		**BMC Racing Team**