

TIMING INSTALLATIONS – NOISE LEVEL

WHAT IS NOISE?

Electromagnetic interference (EMI), also called **radio-frequency interference (RFI)** when in the radio frequency spectrum, is a disturbance generated by an external source that affects an electrical circuit by electro-magnetic induction, electrostatic coupling, or conduction. Noise around a timing system may degrade the detection of a transponder or even cease to detect transponders at all.

HIGH NOISE LEVEL : WHAT TO DO?

If the noise level is higher than 40, you will start to experience missed detections and it will be necessary to check the timing system:

- Check the connection cables, defective connectors, poor termination or corrosion can all contribute towards increased noise.
- Check the loop (cable, resistance, loop box, coax cable and connectors).
- Check all the electrical devices and power supplies on the same power network as the timekeeping room (one by one, disconnect all devices until you find the device affecting the timing system).

INDICATED NOISE LEVEL

Every 5 seconds, the decoder sends to the computer the current noise level status. This information is also sent for every transponder detection. This status can be viewed in the timing software and on the decoder LCD.

On ELITE software
For STA / BOX loops

834	100	1	STA	BEAUFORT Bert	01-43 45 244	2:26:01	39	1
835	29	1	STA	BLOEM Albert	01-44 03 217	2:53:38	34	1
836	52	1	STA	LIEBEREKEN	01-44 15 820	2:46:29	35	1
837	72	1	STA	MAES Charlotte	01-44 16 260	2:56:70	34	1
838	99	1	STA	DERDAELE Dy.	01-44 16 759	4:35:39	38	9
839	15	1	STA	BALLY Stéphanie	01-44 24 554	2:50:29	35	1
840	26	1	STA	VAN GLABEKE	01-44 33 629	2:38:59	34	1
841	777	1	BOX	(17733) ????	01-44 46 031	Pis	40	1

Chronomètres : 18 - 18 Clients connectés : 9

On ELITE software
For others loops

18	24	1	STA	BEAUFORT Bert	01-43 45 244	2:26:01	39	1
19	24	1	STA	BLOEM Albert	01-44 03 217	2:53:38	34	1
20	24	1	STA	LIEBEREKEN	01-44 15 820	2:46:29	35	1
21	24	1	STA	MAES Charlotte	01-44 16 260	2:56:70	34	1
22	24	1	STA	DERDAELE Dy.	01-44 16 759	4:35:39	38	9
23	24	1	STA	BALLY Stéphanie	01-44 24 554	2:50:29	35	1
24	24	1	STA	VAN GLABEKE	01-44 33 629	2:38:59	34	1
25	25	1	BOX	(17733) ????	01-44 46 031	Pis	40	1

Information available at each transponder frame



INTERPRETING THE NOISE LEVEL

Noise : 0 - 29 Perfect level for transponder detection

Noise : 30 - 39 Average level of transponder detection

Noise : 40 and more High risk of NOT DETECTING the transponders