1. System Description

Realtimes 3 is a high-speed pulse transmission/reception system designed for professional regularity racaes training and timing.

Operation: The transmitter TX (located on the ground, connected to a pressure switch called pressostat or photocell) instantly sends the pulse to the receiver RX module inside the cockpit, which is connected to the onboard devices.

Advantages: Allows immediate knowledge of the pass error without having to leave the vehicle, cutting training times in half and optimizing technical learning.

Transmission Latency: imperceptible pulse transfer of 0.0004 seconds.

2. Technical Specifications and Power Supply

Power Supply: 2 x AA alkaline batteries (MN 1500 / LR6) 1.5V or 2 equivalent Ni-MH rechargeable batteries per module.

Battery Status: displayed directly on each module's screen.

Available Channels: 80 different channels to avoid interference or to allow simultaneous training for multiple crews.

TX Inhibition Time: approximately 3 seconds after each transmitted pulse, useful for avoiding false detections caused by the rear wheels passing over the switch.

3. Configuration and Main Controls

3.1 Power On / Off

Use the switch located next to the antenna on each module.

3.2 Mode Selection (TX / RX)

Each module can operate in simultaneous transmission/reception or in single mode (recommended choice):
Press and hold the "M" button at the top left for more than 1 second until the function on the display starts flashing. Press the same button again to scroll through the modes:

TX ONLY: Module to be placed on the ground, connected to the pressostat/photocell.
RX ONLY: Module to be placed in the cockpit, connected to the stopwatches.
TX/RX: Combined mode.

3.3 Channel Setting

To enable communication between modules, set both TX and RX to the same channel.
Use the triangular "Ch" buttons to scroll through the channels (from 1 to 80) until the desired channel is selected.
Note: In case of malfunctions due to local electromagnetic interference, change the channel on both modules.

3.4 Reception and Synchronization Test

Pressing the large round "Test" button on the TX module should cause the RX module to confirm reception by lighting up the green Led. Pressing the Test button also allows the synchronization of stopwatches connected to the RX unit.

4. Installation and Startup Procedure

Transmitter Module (TX):

-Set to TX ONLY mode and choose a channel.
-Place the module on the ground on a tripod.
-Connect the pressostat or photocell to the PR/PHC socket located on the right side of the module.

Receiver Module (RX):

-Set to RX ONLY mode and set the same channel as the TX.
-Mount the module on the car's dashboard using the supplied accessories.
-Connect one of the Output sockets on the left side to the onboard stopwatch.
-Use the second Output socket for a secondary instrument (e.g., printer-stopwatch, Hanhart memory stopwatch).

5. Operating Modes and Configurations

Option A – Basic Configuration with C200 / C300

Connection: Connect the RX receiver to the BLIZZ Timing C200/300 cgronometer, set to *CL* (clock) function with the acoustic signal (beep) enabled.
Usage: Start a free countdown or a fixed-minute countdown. Upon passing over the pressostat, the C200/300 will show the latest pass time.

Example: 40:59.95 -> 5 hundredths ahead (early).
Example: 41:00.08 -> 8 hundredths behind (late).

Option B – Integrated Configuration with Hanhart Delta E-200

Connection: Synchronize the stopwatches by placing the C200/300 on "*Sync*" and the Hanhart on "*Split 00*". Usage:
The first passage over the pressostat starts both stopwatches.
Disconnect the C200/300 from RX and connect it to the co-driver's manual push button.
The pass time recorded by Hanhart shows the driver's error; the difference between the time on the RX module and the one manually operated by the co-driver measures the split error.
In case of reading error, check the polarity of the Hanhart stopwatch cable.

Option C – Chained Timed Stages (P.C.)

Setting: Program a sequence of timed stages (P.C.) on the C200/300.
Usage:
Upon passing over the pressostat, the pulse will advance the stopwatch to the next stage immediately, as if the co-driver had split the time with hundredth-of-a-second precision. On C200/300 stopwatches, the driver's error will be shown on the display for 15 seconds and saved in the device memory.

Option D – Chained P.C. with Time Recording (C200/300 + Hanhart)

Connection: Prior synchronization of the stopwatches is not required.
Usage:
The C200/300 is activated by the co-driver's push button.
The Hanhart is connected to the RX module: it records the actual session time (up to 65 passes).
The final error will result from the algebraic sum (as in competitions) of the co-driver's opening error and the driver's closing error.

Option E – Extended Timed Stage (two close pressostats)

Connect two pressostatsto a single TX module placed in the middle (15–30 m distance between the two pressostats) to cover a timed stage of 30 to 60 meters. (Note: Extension cables not included).

Option F – Complex Circuits and Club Races

Configure 4 or 5 modules in TX ONLY mode paired with their respective pressostats and arranged along the track (even kilometers apart). Each transmitter will communicate independently with the RX module on board the vehicle as it passes nearby.