

VIR – Veypor Infra-Red Triggered Lap Timing

The Veypor Infra-Red lap timer system add-on (VIR) allows extremely accurate and automatic lap timing with 1/100th of a second accuracy.

Select the VIR Triggered mode from the Circuit Timer Menu to use the VIR lap timer. Laps are automatically detected each time the trackside transmitter is passed.

VIR Operation

An Infra Red lap timing system consists of two components:

- 1 –Trackside beacon/transmitter** - projects an infra-red beam across the track, usually at the start line.
- 2 – Receiver unit (VIR)** - mounted on the vehicle so that it moves through the trackside beacon's IR beam as the vehicle passes by.

Upon detection of the infra-red transmitter beam the Veypor automatically records the lap time, and lap number with very high accuracy and without the need for user intervention.

Most tracks have beacon systems available for use. The VIR Lap Timer was tested with the following beacon transmitters and should work with most others on the market:

- Alfano
- XT Racing
- Mychron (AIM)

VIR Installation

The receiver is installed on the side of the vehicle facing the trackside beacon/transmitter and at the same height. Plug the existing wiring harness into the VIR and plug the VIR into the Veypor.



Proper installation and alignment of the VIR receiver is important for receiving accurate lap times:

- The receiver box should be securely fastened using the included tie wraps or by bolting the mounting flanges directly to the vehicle.
- Ensure that no objects are obstructing the line of sight view from the transmitter to the VIR receiver.
- Glass reflects infrared and shortens the range so try to avoid mounting the receiver behind windows.
- The light from multiple transmitters can conflict. Transmitters usually throw their beam in a 30-degree cone. Multiple transmitter beams can mix or cancel out.
- Do not put the receiver in a spot where it directly faces the sun. Sunlight has infrared in it, which shortens the range of the system.
- The transmitter beam can bounce off of walls or signs and back into the receiver.
- Rain shortens the range of infrared light.
- Exhaust pipes radiate infrared. Do not aim the receiver over them.

When using the HUD add-on the HUD is connected to the Veypor before the VIR. Connection order is:

Veypor <- VHUD <- VIR <- Wiring Harness

VIR Specifications:

Mode	VHUD Displayed Data
Accuracy	Better than 1/100 th of a second.
Range	Depends on transmitter power. Usually over 60 ft. when used with 12V powered beacons.
Storage Temperature Range	-4 degrees F to 160 degrees F (-20C to 75C)
Operating Temperature Range	32 degrees F to 140 degrees F (0C to 60C)
Dimensions (VIR device only)	W: 1.5" (38mm) L: 1.25" (32mm) H: 0.8" (20mm)
Weight (VIR device only)	2 oz. (57g)
Supply Voltage	7-16V
Current Draw	< 20mA

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