Xtra.Driver Information Display

The Xtra.Driver Information Display is a unique steering wheel mountable display, designed to be used at rental kart centres.
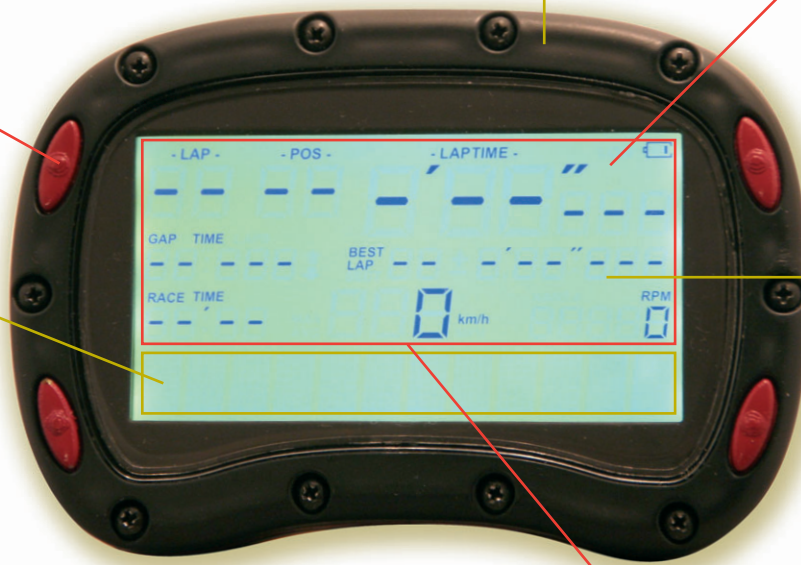
Apart from showing real time racing data, the system can also display race flags, (safety) instructions, active speed limits and penalties during the race. Commercial banners or personalised welcome messages can be shown to drivers in the pits while waiting for the race to start.

Robust housing protects internal electronics from heavy vibrations and other harsh conditions

Large visible characters provide excellent readability

Button functions can be locked for the drivers

Text line for banners, (safety) instructions, or (welcome) messages

Powerful white backlight ensures perfect visibility in cases of low ambient light

Information is displayed in large visible characters, providing excellent readability to the driver. A white backlight ensures perfect visibility even in cases of low ambient light. The backlight can also come on automatically at the moment new information is available on the display.

The track operator can fully configure the display and decide which items on the display must be shown or not.

(Real time) Race data area

Remote Kart & Track Control
Xtra.**Robust** Xtra.**Track Safety**
....
the new standard

Accessories Xtra.Driver Information Display

Network cable

Lap sensor

• *Charging adapter*
• *Bulk charging system*
• *Speed sensor*

Specifications

Dimensions	LxWxT = 125 x 84 x 37 mm
Display type	LCD
Viewing area	85 x 45 mm
Backlight	Yes, strong white leds
Backlight intensity	Controllable
Batteries	Integrated High Capacity rechargeable battery pack
Race data items	• Position • Laptime • Best laptime • Gap to other karts • Elapsed race time • Elapsed laps • Speed (km/h or MPH) • RPM / Kart number
Pre-defined race flags and instructions	• RED FLAG, YELLOW FLAG, BLUE FLAG, GREEN FLAG, BLACK FLAG, FINISH and START • PENALTY • GO TO PITS • RACE STARTED • STOP • FUEL • IN • END
General purpose text area	12 characters display. Strings up to 255 characters can be shown.
Battery level indicator	Available
Battery life indication after full charge	30 days continuously on (backlight off, no sensors attached)
Data source inputs	• All relevant devices equipped with our kart network port. • Speed sensor • Lap sensor • RPM sensor
Displayed items	All race data items can be shown or hidden by easy to use configuration.
Software upgradeable	Yes
Power save	10 ... 999 sec, off
Weight	Approx. 400 grams
Temperature range	-10 ... +55 Degrees Celsius

Input Source

Item	Kart network	Speed sensor	Lap sensor	RPM sensor
Laptime	*1		Yes	
Position	*1			
Elapsed laps	*1		Yes	
Best laptime	*1		Yes	
Gap	*1			
Speed	*2	Yes		*3
RPM	*4			Yes
Elapsed race time	*1		Yes	
Messages	Yes			

1 Data coming from timing computer system and broadcasted to the Xtra.Shutdown transponder. Through the kart network port this information is forwarded to the Xtra.Driver Information Display.

2 An estimate of the speed is calculated from the RPM information measured by the Xtra.Shutdown transponder.

3 An estimate of the speed is calculated from the measured RPM.

4 RPM is measured by way of the Xtra.Shutdown transponder and by way of the network port forwarded to the Xtra.Driver Information Display.

The unique Xtra.Driver Information Display from the Haardt Electronic Engineering BV, can provide drivers at each moment of a race event with relevant information, for example :

Phase 1 : **While waiting in the kart for the race to start:**
• Commercial banners
• (Personalised) welcome messages
• Safety instructions

Phase 2 : **Start of the race**
• Message indicating start of the race

Phase 3 : **During the race**
• Real time race information
• Race flags
• Penalties
• Active speed limits

Phase 4 : **Race time is expired, but karts are still driving on the track**
• Race finish, or GO TO PITS message
• Driver position

Phase 5 : **When the kart enters the pits**
• Instructions to pick up printed laptimes at the bar.
• 'Step out of the kart' safety instructions
• 'Thanks for visiting your kart centre' message.

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ELECTRONIC ENGINEERING

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