

MOTOR SPORT LED FLAG LIGHT



McGeoch LED Technology has designed and built high power led light panels which supplement the marshalling flags at racing events.

The lights were trialed in worldwide Grand Prix races for all of the 2008 season and were hailed by marshals and drivers alike as a major step forward in track safety.

The 2008 British Grand Prix gave the best example of the advantages of this electronic flag due to the very poor visibility which British weather is famous for. Drivers could not see the marshals' flags at all, whereas the electronic flags were clearly visible. Obviously a missed safety car flag or red flag presents great dangers to the drivers.

Proving itself to be an essential factor in safety improvement the flag light is now a key feature of Motor Racing and can be seen in action at Grand Prix's worldwide.

The flags, which are controlled by radio from race control, or by a short cable to the marshal can be placed much nearer to the track and at the optimum position without the usual regard for the safety of the man waving the flag. They are clearly visible in normal conditions at a distance of over 1 kilometre.

Each flag has 720 high power LEDs which are split between red, green and blue colours with special mixing optics. An on-board computer mixes these individual primary colours to generate other colours which emulate the original cloth flags, including the striped oil flag. The computer decodes the radio signal from race control, energises the appropriate LEDs and also provides a return signal to indicate correct operation. It is possible to have a chequered flag display option but this was deferred to placate racing purists.

The light output is focussed to give a good balance between long range visibility and glare when the driver nears the corner. The flags are mounted on poles high above the track, usually near a corner and always at the end of the finish straight.

The electronic drivers are ruggedized to enable them to be powered by a trackside diesel generator. The original design brief was for 27,000 Nits of light energy. This quickly devolved into 'make it as bright as possible' and when practicalities were considered, the 3.5 Kilowatts available from a standard three pin plug dictated the power budget.

The heat produced is managed by a good mechanical/thermal design together with cooling fans which operate automatically only in warmer ambient temperatures.

The light weight rugged design allows for air, sea and road transportation to encompass worldwide racing events.



The Safety Car Light is a Key Feature of the Marshalling Safety System - Winner of the 2009 World Expo Award for Safety Initiative



General Features

- Integration with race control protocol
- Light weight
- Powered from trackside diesel generator
- Colours: red, green, blue, red/yellow and white
- Focused light output for good balance between long range visibility and glare
- Visibility 1km + in normal conditions
- Flashing capability
- Dimming capability
- Integrated cooling fans which operate automatically in warmer ambient conditions

Front Face

- 720 high performance LEDs in primary colours, with special mixer optics
- High contrast background and clear protective cover

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