

SynchroGUIDE

SEQUENTIAL WORKZONE TAPER WARNING LAMP

Independently-proven to improve night-time work zone safety
Improves lane discipline and reduces average speed on approach to work zone
by affording better driver recognition of the merging taper



FHWA MUTCD 2009 edition introduced guideline 6F.62 12 A series of sequential flashing warning lights may be placed on channelizing devices that form a merging taper in order to increase driver detection and recognition of the merging taper. With night time work zone driver exposure increasing, SynchroGUIDE is the technology solution to meet this requirement and combat the increased accident risk.



Already mandatory on all UK high speed work zone tapers.

2011 - AASHTO TIG selected the approach as a technology worthy of consideration nationwide



A global workzone safety industry standard, the SynchroGUIDE has no master/slave arrangement or interconnecting wires. It rapidly deploys up to 256 lamps in any order with same positive results every time.

The SynchroGUIDE lamp series was designed to be a simply deployable low cost counter measure device which would not only dynamically enhance the visibility of the work zone entrance but at the same time improve driver lane discipline and approach speeds by providing a clear directional guide.

The SynchroGUIDE combines the latest in LED lamp and lens technology with intelligent synchronization wireless communications technology to improve night-time driver recognition of the merging taper and help meet the challenge of reducing work zone fatalities and secondary effects.



- Unique independently field proven technology
- Intelligent wireless technology - no wires
- Deploys in any order - no master or slave
- Dynamic merging taper guide for drivers
- ITE compliant
- NCHRP 350 Crash Compliant
- Up to 256 lamps can be deployed in sequence
- FHWA MUTCD 6.F.13 Compliant

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Specifications

Part code	BAB6N/AW/P/H/A1					
Display Technology	High Intensity Single Super bright LED. Visible in all lighting conditions, current controlled to maintain a constant light output as the battery Voltage drops. High clarity Uni-Directional self colored polycarbonate lens. See operating lifetime table with battery options below.					
Power Supply	Nominal Voltage 6V, Nominal current 41ma. Each lamp can be fitted with 2 x 6V 25samphr batteries.					
Storage Tray	Designed to store 5 lamps, manufactured from high impact ABS. (not supplied as standard).					
Flash Rate	60 Pulses per minute.					
Operating life time	Part Code	Zinc Carbon x 2 (6.5 Ah) ANSI 908	Alkaline (12Ah) ANSI908A.A C	Heavy Duty Alkaline (20Ah)	Dorman DAAB25 Zinc Air Alkaline	Dorman DAAB 50 Zinc Air Alkaline
	BAB6N/A W/P/H/A1	270hrs	500hrs	830hrs	1040hrs	1870hrs
Independent Data	<p>A UK TRL (Transportation Research Laboratory) independent field study conducted during 2002 on the analysis of the safety benefit of deploying sequential Dorman SynchroGUIDE lamps as oppose to static lamps involved alternating the deployment of both types of lamp at the same location over the same night time periods of between 2200 to 0300 hrs over a 2 week period. Loops were stationed every 100M in the closed lane from the entrance to the lamps up to 1100m, the graph opposite shows the traffic counts recorded at every 100m intervals from the zone entrance. The yellow bar is for static lamp and the green bar is for the sequential Dorman SynchroGUIDE lamp.</p> <p>The results were an impressive endorsement for the technology with a significant improvement on driver lane discipline in advance of the safety zone with deployment of the sequential lamps. The effectiveness of the sequential lamps is seen consistently from a point 500M from the taper, but also has an effect in half the cases at 600M from the taper.</p> <p>Further testing conducted by University of Missouri as part of the SWZDI initiative in 2011- indicated a 5:1 cost-safety benefit ratio on night time work zone deployment with significant improved lane discipline and reduced average approach speeds to the taper.</p>					
Operating Temperature	-29° C to +66° C (-20° F to +150° F). All circuitry within the lamps is fully 'burn in' tested for 24 hrs @ +/- 45° C and moisture protected.					
Weight	Without fastener hardware, the nominal body weight is 0.69kg. (1.5lbs) The lamp accepts 2 off AINSI-908, IEC 4R25X, 6 volt batteries. Typically these batteries weigh 450g – 700g (1 – 1.5lbs) – depending upon chemistry type, capacity and manufacturer.					
Mechanical	Polypropylene body giving a very robust case in all extremes of ambient temperature the lenses are manufactured from high impact polycarbonate. All lamps come with carrying handle fitted as standard. A steel thief proof mounting bolt passes through body of lamp for fixing to a variety of category 1 barricade devices.					
Dimensions	See diagram bottom right for dimensions.					

Operation

The lamps may be switched on (by pressing the concealed switch) and placed in line with a spacing between each lamp from 2.2M (7') to 20M (65').

It is essential that all of the opaque lenses face in same direction. The Lamps may be placed with a stagger of up to 2M (6.5').

The SynchroGUIDE has been designed with a tough polypropylene body giving a very robust battery case in all extremes of ambient temperature. A steel thief proof mounting bolt passes through the body of the lamps requiring a special key for removal – discouraging vandalism and allows light to be mounted to a variety of barricade devices.

The computer designed lenses are manufactured from high impact polycarbonate.

Each light source is a single high output LED, current controlled to maintain a constant light output as the battery voltage drops.

Each lamp requires two 6v batteries type ANSI 908 or equivalent (not included).

When the lamps are deployed they give the visual impression of a single light source travelling a clear path along the taper from front to back. Each lamp has a low output steady light to aid direction indication.

