

# Work Zone Safety - Eco Synchro4D

Lighting the way to a safer work zone

Independently proven to improve night-time work zone safety



Unique independently field proven technology

Improves approach lane discipline and safer driver approach speeds through better driver recognition of merging taper

2011 ASSHTO TIG Focus technology - worthy of nationwide consideration

FHWA MUTCD 6F.83 08 compliant

Deploy in any order - no master or slave

D cell batteries offering up to 5 x battery life of 24x7 operation

Geared to automatic 'Dusk till Dawn' operation



## 'Dusk till Dawn' Work Zone Sequential LED Taper Guide

The Eco Synchro4D lamp is a brand new member of the award winning Synchro lamp family. The Eco Synchro4D was designed to offer clients a 'Dusk till Dawn' D cell battery powered, lower cost version to compliment the highly successful 24/7 SynchroGUIDE.

The Eco Synchro4D is triggered by a photocell for automatic night-time operation requiring no intervention after being initially switched on and will offer continual duration operating life times of circa 6 months.

The Eco Synchro4D 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.

Unlike arrow boards and static lights, the delineation is not spot based but is continual for the entire taper length, a critically important feature during hours of darkness and poor weather conditions where visibility is reduced.

## Technology that leads by example

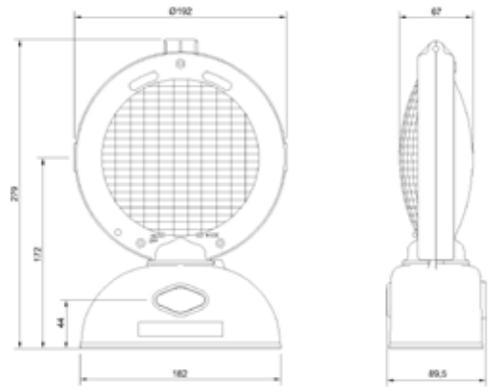
Deploying Eco Synchro4D is a highly visible safety action for your work zone with proven safety benefits and results that can be achieved fast.

Only slightly more costly than conventional warning lights, and with a high return on investment, the technology will engender public support for an easy to understand safety improvement.



## Technical Data

<b>Part Code</b>	ESD6S/AW/P/N/YA
<b>Display Technology</b>	<p>Single LED. Visible in all Dusk till Dawn lighting conditions, current controlled to maintain a constant light output as the battery voltage drops. The lamp utilizes a sequential flashing Type A intensity pulse.</p> <p>When the lamps are placed in a line they give the impression of a single light source traveling along the lamps from front to back.</p> <p>Lights must be deployed in accordance with FHWA WZ54 memorandum in order to be crash compliant.</p> <p>High clarity Uni-Directional self colored polycarbonate lens. See operating lifetime table with battery options below.</p>
<b>Power Supply</b>	Each lamp to be fitted with 4 x 1.5V D cell batteries.
<b>Flash Rate</b>	60 Pulses per minute.
<b>Operating Life (4 batteries)</b>	Based on 4 batteries fitted of type Rayovac Alkaline 1.3Ah (or equivalent), continuous operating life approximately 165 days (5.5 months)
<b>Independent Data</b>	<p>UKTRL Safety Benefit Analysis 2005 - result - UK highways agency incorporate as standard on all UK High speed works Zones 2006.</p> <p>USA - Missouri SWZDI Cost Safety Benefit Analysis - 2011 - Result - Missouri DOT incorporate as standard on all nighttime interstate work zones and ASSHTO TIG select as focus technology worthy of nationwide consideration.</p>
<b>Operating Temperature</b>	-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.
<b>Weight</b>	Without fastener hardware, the nominal body weight is 0.56kg (1.2lbs). The lamp accepts 4 off ANSI 13 D cell 1.5V batteries. Typically these batteries each weigh between 165g - 175g (0.3 - 0.4lbs) - depending upon chemistry type, capacity and manufacturer.
<b>Mechanical</b>	Polypropylene body giving a very robust case in all extremes of ambient temperature, the lenses are manufactured from high impact polycarbonate. A steel thief proof mounting bolt, not included, passes through body of lamp for fixing to a variety of category 1 barricade devices.
<b>Dimensions</b>	See diagram to the 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').

Each lamp requires four 1.5V D cell batteries type ANSI 13 or equivalent (not included).

When the lamps are deployed they give the visual impression of a single 'Type A' light source travelling a clear path along the taper from front to back.

## About Unipart

The Unipart Group is a leading UK manufacturer, full service logistics provider and consultant in operational excellence.

Operating across a range of market sectors, including automotive, manufacturing, mobile telecoms, rail, retail and technology, Unipart offers a breadth of services to a wide range of blue chip clients internationally.

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