





DESCRIPTION

The PULSA 4x4 is a reflective school warning sign with flashing high intensity LED corner signals available in various sizes and configurations. Now available with our latest thoroughly tested solar engine, featuring a low visual impact design solar panel, advanced technology batteries and a low energy LED signal board with various control options. The system is designed to run the PULSA 4 x 4 for 3 hours per day, 5 days per week, all year round with 12 days autonomy.



SMART PULSA 4x4, holds up to 2 year programming transferred from the SIMPOD device.



GPRS PULSA 4x4 web connected signal board with browser based programming and reporting from anywhere in the world with GPRS coverage.

The SOLAR PULSA is supplied as a kit which fits onto a pre-installed column(s).

SOLAR ENGINE

Solar Panel	750mm diameter, mono crystalline panel with 12 V, 60 Watt output. Impact resistance IK10. Solar panel set at 22°.
Solar Panel Housing	Rotationally moulded UV stabilised (UV8) black polyethylene moulding with galvanised steel support pillar powder coated black.
Battery	4 x 12 V / 9 Ah Absorbent Glass Mat (AGM) batteries mounted in the large base, providing 12days autonomy
Regulator	High efficiency PWM regulator mounted in post base.
Ingress Protection	IP54 (Solar Panel assembly)

PULSA 4x4 SIGNAL BOARD

Body	3mm aluminium, acid cleaned, chromate primed and polyester powder coated Grey. Complete with horizontal mounting channel. Fitted with one GORE® vent.
Access Door	Removable front panel with secure access to internal elements via six security screws. Includes high performance EPDM seal.
LED Array	Ø150mm super high intensity 5mm LEDs with 64 @ 17° angle spread in the centre cluster and 32 @ 30° in the outer ring. Flash rate nominally 75 / minute. Mounted behind a 5mm polycarbonate lens with die cast LM6-M aluminium lens cowls, degreased chromate primed and polyester powder coated black.
Control Board	Purpose designed LED control circuitry, conformally coated for moisture protection and mounted on a quick release system. Configurable switching options.
Mounting Hardware	All external fasteners are stainless steel. Slide in toggle clips required for site post arrangement.
Ingress Protection	IP56.

POST REQUIREMENT

Specification	Pre-installed 89mm x 168mm mild steel large base post, galvanised after manufacture, conforming to BS EN 40 with a recommended height of 4 metres. Post not supplied .
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SWITCHING OPTIONS

Product	SMART PULSA	GPRS PULSA
SELF TIMER Requires a magnetic swipe to start then operates until the adjustable in-built timer expires.	✓	✓
SIMPOD 2 - year programmable timer using SIMPOD wireless programming kit	✓	✓
INTERNET Web based programming using a GPRS mobile connection	✗	✓
TEXT Send Text from mobile phone to activate.	✗	✓

The GPRS PULSA requires a sim card and air time contract to enable it to download programs and send alerts. The program, once downloaded, will continue to work even if the GPRS connection fails.

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PROGRAMMING

SIMPOD

The SIMPOD is a purpose designed data transfer device, allowing computer generated switching information to be downloaded and taken to site. On site the SIMPOD uses ZIGBEE wireless technology to communicate with the nearest Smart Pulsa to upload the switching information without the need to open the unit. The SIMPOD is programmed via computer and is supplied with serial cable and USB Adaptor. The latest software can be freely downloaded from our website.



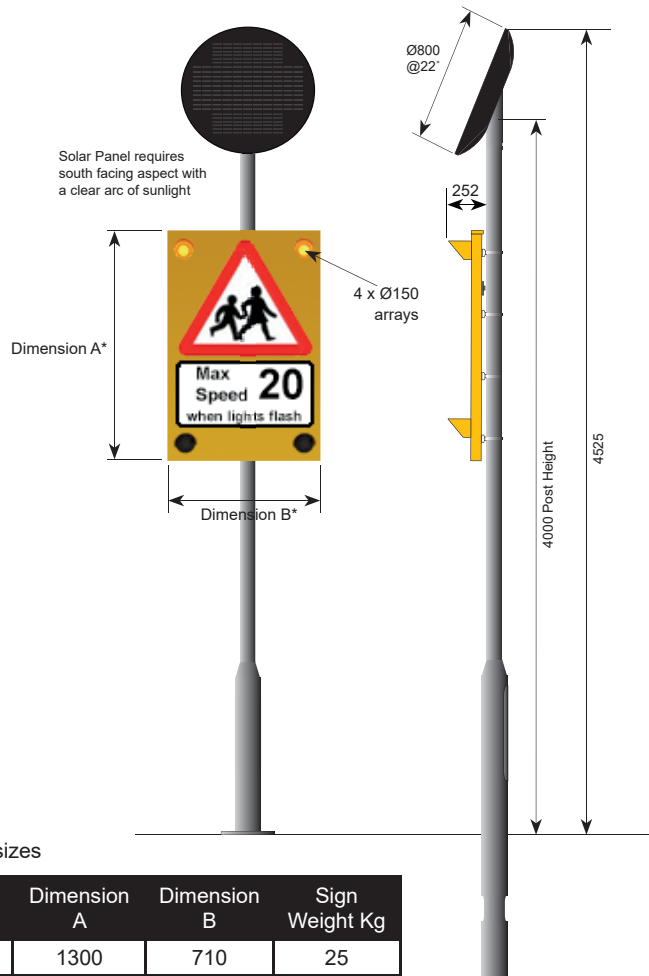
SIMPOD Data Capacity	16 x 2 year calendars
Range	UP to 3 metres (adjustable)
Battery	9v PP3 (supplied)
Dimensions	135 x 70 x 25 mm
Software	Requires Widows XP or above

WEB PROGRAMMING

The GPRS PULSA communicates directly with our specially developed web site. This enables remote programming and interrogation of the GPRS PULSA, which in turn polls operational reports back at set times. In the event of a malfunction, the GPRS PULSA can send texts or e-mail alerts to up to 6 nominated recipients. Requires Internet Explorer version 7 or above and is also compatible with browsers on iOS and Android.



DIMENSIONS



*Available sizes

Sign Size	Dimension A	Dimension B	Sign Weight Kg
600	1300	710	25
750	1450	1100	40
900	1800	1200	53

All dimensions in mm

CONFIGURATION EXAMPLES



Yellow Reflective Backing

Grey Non-reflective Backing

PACKAGING

All items are shipped on one pallet (Pallet not included in weight):

Total Product Weight:	600 sign - 50 kg
	750 sign - 65 kg
	900 sign - 78 kg

Solar panel assembly 13kg
PULSA 4x4 - see table above
Battery packs x 2 - 10.2 kg
Regulator assembly 0.5 kg
All cables included. - 1 kg
Post not supplied

Why we use ABSORBENT GLASS MAT (AGM) BATTERIES

Comparison with other battery technology*

BATTERY	Lead Acid	Gel	AGM	Lithium	Ni-cad
Product Life span (Years)	2 - 3	2 - 4	8 - 12	5 - 6	4 - 5
Temperature Range	-18°C to 45°C	-18°C to 50°C	-40°C to 65°C	-20°C to 65°C	-20°C to 65°C
No. Discharge Cycles @80%	450	500	1500	1300	1100
Transportation Safety	Medium Risk	Low risk	No Risk	High Risk	Medium Risk

*Manufacturers data

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