

SAFETY FIRST

Ensure that the site is surveyed for buried services and that any electrical supply is isolated before commencing work.

All materials to be handled using suitable mechanical equipment or sufficient manpower for the weight of the item being handled.

TOOLS & MATERIALS REQUIRED

Tri-head Key.
5mm Allen key.
Electrical Screwdriver.

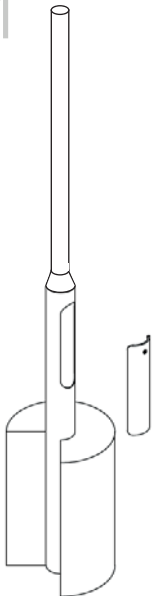
Side Cutters
13mm spanner
Ø14mm drill

PACKING LIST

Box 1 - Solar panel
Box 2 - Solar PULSA 4x4
Box 3 - Solar Panel support, channel clips , battery and regulator.

INSTALLATION

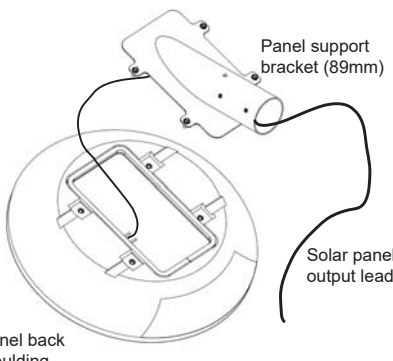
1



The Solar PULSA 4x4 is supplied as a kit designed to fit onto a pre-installed 89/168 column. The column manufacturer should be consulted to provide a column and foundation plan suitable for the equipment to be mounted and environmental conditions peculiar to the site. The solar panel includes an 89mm socket which should be accommodated in the design.

Weights and dimensions of the Solar PULSA 4x4 equipment are shown overleaf to help with calculating loads.

2



Assemble the solar panel support by uncoiling the solar panel output lead and feeding it through the panel support bracket as shown.

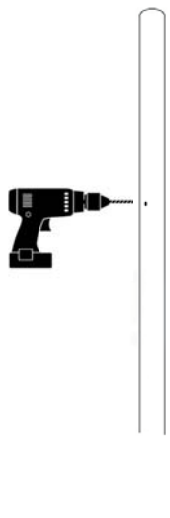
Place the bracket over the aperture in the panel back moulding and secure with the 4 Tri-head screws supplied.

Panel back moulding

Panel support bracket (89mm)

Solar panel output lead

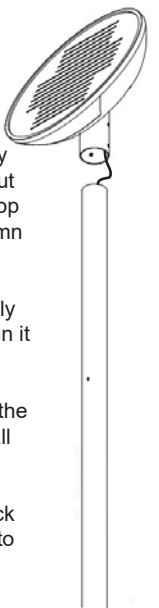
3



Consider how the PULSA 4x4 power cable will be routed to the column base housing. Drill the post to suit the route.

Surface protect any bare metal and ensure any holes are free from burrs and sharp edges.

4




Take the solar panel assembly and feed the solar panel output lead down the post from the top so that it emerges in the column base housing.

Place the solar panel assembly on the top of the post and align it to point directly South.

Ensure that nothing impedes the solar panels view of the sun all year round.

Tighten the grub screws to lock the solar panels assembly onto the post.

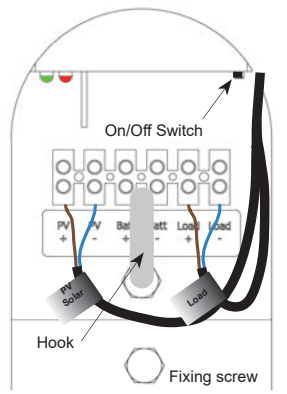
5



Fix the PULSA 4x4 to the post using slide in channel clips.

Route the PULSA supply cable down into the large base compartment, protecting any exposed cable with suitable conduit.

6



Moving to the column base remove the existing wooden board and replace with the regulator board assembly supplied

Connect the Solar panel output lead to the PV terminals and the PULSA supply cable to the Load terminals as shown.

On/Off Switch

PV Solar

Load

Hook

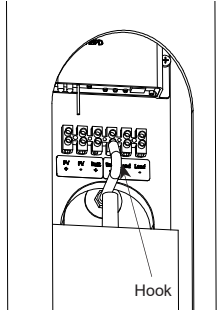
Fixing screw

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7

Take the battery pack and hang it from the hook on the regulator board. Connect the battery to the battery connector.

Repeat for the second battery pack which is hung from the same hook using the extension loop.



Locate the regulator On/Off Switch and press to switch on.

The PULSA 4x4 will flash briefly.

Finally replace the column door.

8

The PULSA can now be programmed with switching times.



SMART PULSA
Use the SIMPOD transfer device to upload switching data to the PULSA Wirelessly.



GPRS PULSA
Use the SIMPOD transfer device or the dedicated Website to upload switching data to the PULSA.



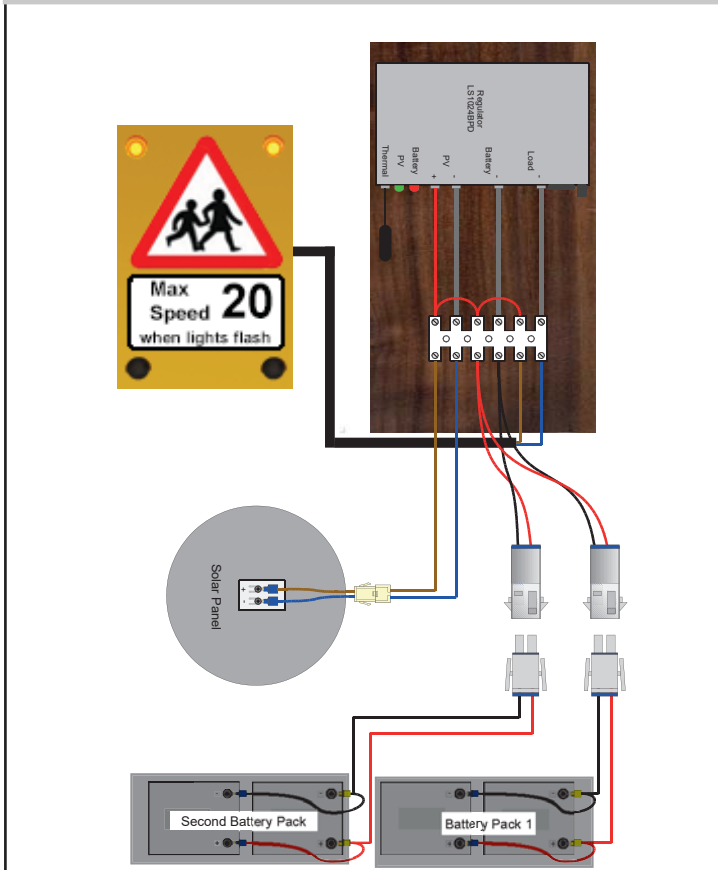
Ensure that the GPRS installation card is completed and handed to the Website administrator.

Please see the SMART PULSA and GPRS PULSA user guides for more details.

REGULATOR STATUS

Indicator	Colour	Status	Instruction
PV	Green	On Solid	PV Connection normal but low voltage (irradiance) from PV, not charging.
	Green	Flashing (1Hz)	In Charging
	Green	Flashing (4Hz)	PV reverse polarity
Battery	Green	OFF	No PV voltage (night time) or PV connection problem
	Green	On Solid	Normal
	Green	Flashing (1Hz)	Full
	Green	Flashing (4Hz)	Over voltage
	Orange		Under voltage
	Red		Over discharged
Red		Battery overheating	

CIRCUIT DIAGRAM



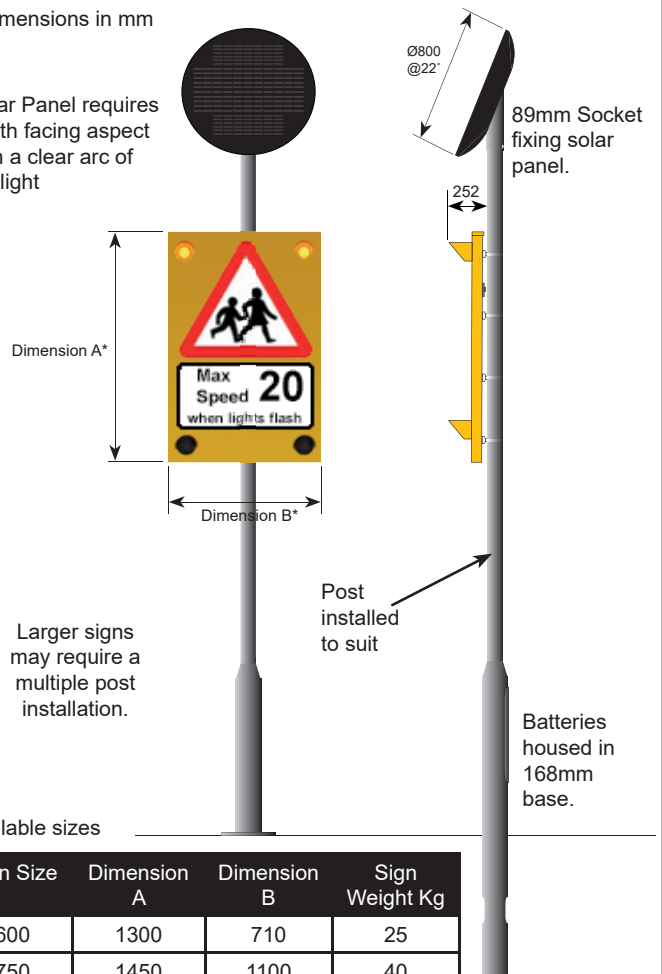
PRODUCT WEIGHTS

Solar PULSA	See table
Solar Panel	13 kg
Battery	5.1 kg per pack x 2

DIMENSIONS

All dimensions in mm

Solar Panel requires south facing aspect with a clear arc of sunlight



*Available sizes

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

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