# simmonsigns

Installation Guide

#### SAFETY FIRST

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

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

#### **TOOLS REQUIRED**

Tri-head key 5mm AF Allen key 13mm Ring open ended spanner Phillips screwdriver Small spade electrical screwdriver Wire strippers

#### INSTALLATION

- 1. Open the Pulsa unit by unscrewing the two Tri-head screws on the back of the unit.
- 2. You may find the he following operations easier by removing the VariFix back door from the PULSA. This is done by unplugging the mains input lead from the main circuit board, then remove and retain the two countersunk hinge mounting screws using a 5mm AF Allen key. (Fig 2)
- Assuming that the mounting post has already been drilled, deburred and surface protected, feed the supply cable through the supply post and into the back of the Vari-fix back door through the cable entry gland.
- 4. Ensure that the cable entry gland is tightened onto the incoming supply cable, and if necessary, use silicone sealant for cables of smaller diameter than the gland can cope with.
- 5. Select the appropriate Vari-fix post fixing kit for the mounting post diameter. A full list of options can be found at the end of this document.
- With the back door located in line with the post cable hole, offer one of the U-Bolts around the mounting post and penetrate the two projecting Rotaplugs into the slotted rebates in the Vari-fix
- 7. Retain the U-Bolts with the 2 No. M8 form C washers and nuts. Securing the Rotaplug sealing plates in place. (Fig 1)
- To achieve the correct assembly of the Vari-fix U-Bolt system, slacken the 2 No. M8 nuts and tighten the 2 No. M8 ½ nuts until the 4 raised lugs on the Vari-fix firmly engage with the post diameter.
- 9. When secure, re-tighten the 2 no. M8 ½ nuts, which, as they are tightened, will force the tapered rota plugs into the slotted Vari-fix holes to form a weather proof seal. Note:- This is particularly important as failing to tighten the half nuts will compromise the IP rating and sealing of the PULSA casing.
- 10. Repeat this procedure for other U-Bolt assembly.

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Fig. 2



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- 11. Wire the feed cable from the Pulsa board into the 3 pin plug located on the gear tray.
- 12. Wire the incoming mains cable into the plug socket located on the gear tray.
  - L Line
  - E Earth
  - N Neutral
- 13. Fit the cable restraint clamp and terminal cover.
- 14. Re-attach the PULSA body to the Vari-fix backdoor using the retained screws.
- 15. Plug the mains input lead back into the main circuit board.
- 16. Finally close body onto Vari-fix back plate and securely tighten Tri-head fixings.

#### VARI-FIX U-BOLT AND BANDING CLEAT SET

When installing the Pulsa, the vari-fix system provides three fixed diameter options using 76mm, 89mm and 114mm stainless steel U-bolt sets and where the mounting post is of a larger diameter or irregular section, the vari-fix banding cleat set can be used in conjunction with conventional stainless steel 20mm banding.

#### INVINCA VARI-FIX SALES CODE OPTIONS

Var/76 - 76mm U-Bolt set Var/89 - 89mm U-Bolt set Var/114 - 114mm U-Bolt set Vari/Band - Banding Cleat set for universal fixing Var/Pul/Plt/Fx - Pulsa vari-fix plate fixing set c/w template Drawing:- SC/P/9 Issue 3 Var/Pul/Hor/Kt - Pulsa horizontal mounting kit (used in conjunction with standard twist in toggles).

#### **OPERATION**

The SMART PULSA features a 2 year programmable controller with manual over-ride by means of a concealed magnetic switch.

#### PROGRAMMING

If the calendar function is enabled, the SMART PULSA is programmed using the Simmonsigns SIMPOD (version 2) wireless transfer device. Full details of operation can be found in the user guide supplied with the SIMPOD (version 2).

#### MANUAL OPERATION/OVER-RIDE

Manual operation provides the facility to operate the SMART PULSA outside the times defined by the programmer or when the calendar function is disabled. This is useful for unforeseen operations such as on sports days or after hours events.

Manual operation is activated by a secret magnetic switch positioned at the bottom of the SMART PULSA. When the magnetic key-fob (supplied) is swiped between two rivet registers at the bottom of the SMART PULSA casing, an internal timer is activated which will operate the SMART PULSA for a pre-set period before automatically switching off. To adjust the 'auto-off period' please see below.

**NB:** If the over-ride overlaps a programmed schedule then the program will have precedence.

To adjust the manual operation period, a rotary switch is provided on the main circuit board inside the SMART PULSA. The switch has ten positions numbered 0 to 9. Each click of the switch advances the timer by 10 minutes, position 1 representing 10mins and 9 representing 90mins. In position 0 the manual operation timer is disabled and will require a second swipe to turn the PULSA off.

#### **DIP SWITCHES**

A bank of DIP switches provides specialist operation of the SMART PULSA. Under normal circumstances these should remain factory set. For normal operation, as described above, all switches will be off (left).

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### **GPRS** Pulsa Fit

Installation Guide

#### **RESET BUTTON**

Pressing the reset button will restore the PCB to factory settings. Existing calendars will remain loaded on the PCB. Our technical support team may ask you to perform a reset should you report problems.

#### **TEST BUTTON**

Pressing the test button will illuminate the main LED arrays and perform system checks which will illuminate a number of green LED's on the main board. Our technical support team may ask you to perform this test should you report problems.

#### FOLLOWING THE SUCCESSFUL INSTALLATION OF THE GPRS PULSA OBSERVE THE FOLLOWING;

- 1. On the modem, following power up, the 'Power' indicator on the modem will illuminate green and the 'Status' indicator will rapidly flash red.
- 2. After a short period of time the rate of which the 'Status' indicator flashes should slow to a flash of every four seconds. This indicates successful registration onto the mobile network.
- 3. Alternating with the red the 'Status' indicator will also flash green to indicate that a GPS signal has been acquired.
- 4. Assuming successful registration onto the mobile network the GPRS Pulsa is now ready for programming via the website or manual operation via text message.
- 5. For security reasons further details on using the website or the text message format can be obtained by contacting Simmonsigns Ltd.



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