This product is programmable by use of a 433.920MHz RF programmer. You will also need to purchase a magnetic programming activation key.

The 7 way block header (PH1) is for factory programming use only. Connecting any other device to this header may damage the product.

RF programmer part number:- DP-PROG-433-A Programming activation key part number:- DPTXDA-A-MK

## **BASIC SPECIFICATION**

Protocol - Pocsag Alphanumeric Power output - 10mW to 500mW (Set at factory & subject to aerial used) Frequency - 429 to 462MHz (Other frequencies available on request) Baud rate - 1200 (512, 1200 programmable) Master ID - 0661320 (Any ID division of 8) Prefixed message bank - 999 Messages can be programmed Repeat transmission - Yes (1 - 99) Repeat interval - Yes (Multiple of 15 seconds) (1 - 99) Text size - Lower case or Upper case Numeric value added to end of message - Yes (1 - 999) Board dimensions - L 85 x W 55 x H 20 mm (H - Includes height of U4 PIR module/other components)

## DC POWER REQUIREMENTS

PSU Constant DC supply using TB1 connector @ 500mW

DC supply:- 12 - 28 volt maximum (Connector TB1) Standby consumption:- 3ma Transmitter on consumption:- 200ma (Only on for the duration of the transmitters transmission) RF programming consumption:- 15ma

Battery supply using J1 & J2 @ 500mW

DC supply:- 3.6 or 4.1 volts maximum (Factory configured) Standby consumption:- 2uA - 200uA Transmitter on:- 260ma (Only on for the duration of the transmitters transmission) J1 & J2 each can have a battery pack attached. Two packs can be fitted at the same time to increase its capacity. Either fit one or two battery packs as required. RF programming consumption:- 26ma

We are able to offer a complete power supply/Battery pack solution should you require it. Please contact our sales team.

#### PROGRAMMING

Please see standard universal programming sheet for Direct Page products. This will allow you to program the Freq, Baud rate, Repeats, Repeat interval, Text format, Seven digit ID.

### ACTIVATING PROGRAMMING

RF programmer part number:- DP-PROG-433-A Programming activation key part number:- DPTXDA-A-MK

To start programming you must first place the activation key over the "P" sign on the circuit board in side of the case (if cased). The LED will flash to show you have entered programming mode. The activation key must be left there while programming is carried out. If powering the device by battery/batteries please note when activated this will draw a high current from the battery.

The programming key should only be left on the product for a few seconds while programming using a battery. If powered by DC source then key can be left on as long as you require.

Please note - While the programming key is on the product this will stop all other functions such as transmitting calls etc. Please do not present programming key while the product is transmitting.

### POWERING UP THE PRODUCT

See diagram for PCB 197 layout

### External PSU supply

When externally powering the device always use a 12 - 28 volt DC supply (Connector block TB1). If the voltage exceeds 28 volts you will damage the product. If the voltage is lower than 12 volts DC then this product may not work correctly.

### **Battery**

When powering from a battery using J1 & J2 then please make sure each battery pack does not exceed DC 3.6 volts. Build option at factory to allow product to be produced for using a DC 4.1 volt battery pack if required. Individual battery must have a minimum capacity of 1.1Ah. The battery can be Li-ion rechargeable or standard lithium battery pack. Battery pack size approximately 50 x 35 x 7mm (Not supplied with product). These can be supplied with product if required.

When powering up the product it may transmit if you have an external device connected to TB2 which powered up at the same time from the same supply. If no external devices are connected then no transmission will occur.

Make sure you have programmed the product with the correct settings to match your receiving device before triggering the device.

## TRIGGER INPUTS

The product can be triggered in a number of different ways:-

Using TB2 you may connect an external PIR or Microwave detector which has a volt free relay (These two triggers are pull to ground. Trigger 1 to COM or trigger 2 to COM). Please note Trigger 1 is an extension of the on board PIR U4 three way pin header. Only one single device can be connected, at any one time to either Trigger 1 (TB2) or U4 PIR board position.

Using U4 board position our PIR part number PAN-PIR-TYPE-A (With flying leads) or PAN-PIR-TYPE-B (Without flying leads). This can be powered and the trigger connected via the three way pin header on the PC197 circuit board. Trigger 2 is an individual trigger port on its own. See diagram for connections. We can offer different PIR modules with various detection zones. Please contact our sales team.

We do not recommend connecting any other devices than specified by us to the PIR on board three way pin header U4 or you may damage this product. This type damage will not be covered under our standard warranty terms. (The trigger is open source)

Please note, We do not recommend the PIR module being placed on a flying cable. If you wish to do this please do not exceed 10 cm in cable length and fit a 100 nf capacitor. External interference can affect the product when long lead lengths are used.



# PCB 197 layout



PIR - Product code - PAN-PIR-TYPE-B

Trigger port TB2

