# april systems design ltd

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# **Trap monitor**

Solar powered Text message system for trap activation monitoring.



With the requirement to monitor traps at frequent regular periods and in order to reduce the distress on target or non-target animals, a trap monitor has many advantages:

- Eases the 7 day constant visiting.
- Allows many more traps to be maintained by one person.
- Lessens the time a target trapped animal is detected and processed
- Reduces the time a non-target trapped animal is detected and released
- Less frequent human visits means less scent and site disturbance
- Tamper and tilt detection to ensure any unwelcome interference is detected quickly

# The unit provides:

### Trap detection

The magnetic sensor detects the door of the trap being closed, and sends a text message. See above example. The unit repeats the text message ( if programmed to ) after 2 hours then every 4 hours if the trap is not opened. The message is tagged with "new" or "rpt" to distinguish between messages.

## > Tamper detection

The cable to the sensor is monitored - disconnecting the case connector or breaking this wire will trigger the tamper text message.

#### > Tilt detection

If the unit is tilted over 45 degrees then the system will transmit a 'tilt alarm message'.

#### **Unit Features:**

# > Solar Power

The battery is able to power the unit for over a year with no transmissions. The solar panel charges the battery and will power the system indefinitely with up to two transmissions per day, in a partial shade position.

- If the system detects a low battery when transmitting then 'low battery' is included in the message.
- The system includes a shunt regulator to stop the over charge of the battery in very sunny conditions.

#### > Phone numbers

Up to three numbers can be programmed in A,B and C. This can be done by putting the unit into programming mode and texting the unit with the new number to use. Any combination of the three can be selected, and they can be easily changed. The numbers are listed on each text as in the example above.

# > Base message

The unit can be set to contact a base system that can monitor a large number of units and text the relevant contact on duty at that time.

#### Unit name

The unit name or location can be programmed in by text ( in the above example the unit name is imaginatively called "trap unit").

#### > Text costs

The unit can be fitted with any standard contract or pay-as-you-go SIM card. Typical pay-as-you-go costs are 4p - 12p per text, some networks are cheaper if the number texted is on the same network. The top-up card supplied with the unit has the units phone number on and can be used at most shops or on-line to top-up the text credit account.

Each activation of the unit will read the current credit level and display it on the next text generated. In the above example the current credit on the unit is £9.40

# Phone network coverage

Some network providers have better coverage in remote areas than others. Check with the office for your area

# Unit weather / water resistance

The enclosure and connectors of the unit are IP65 rated this will resist weather and a short immersion; do not leave in an immersed position or in standing water. Do not drill hole or screw through the unit's case, to mount use the mount holes and screws provided.

For more information

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