

- Long Range Universal Receiver (up to 1.2km\*)
- Garage Door Alarm Module
- Gate Alarm Module
- Pulse Stretcher



# *WiPS*

**WIRELESS PROTECTION SYSTEM**

Available in 403 or 433 MHz modules.



**WiPS** can be used as a wireless or hard wired Gate or Garage Door Alarm module, Universal Receiver, Pulse Stretcher, Signal Repeater or a Perimeter Beam bypass. In **ALARM MODE** it is assumed that a magnetic alarm contact will be wired to the GATE SWITCH input and the relay output will be connected to a house alarm either directly or via a remote control that is coded into a receiver in the alarm panel. An advantage of **WiPS** is that it can be activated using a remote control or push button.

### WiPS FEATURES

- Alarm function – when connected to a magnetic alarm contact **WiPS** automatically changes into an alarm module.
- Universal Remote Receiver – accepts most Keeloq remotes.
- Learns up to 30 remote buttons – multiple buttons from a single remote can be learned to allow zoning of receivers.
- 230V 5A relay output with both **Normally Open** and **Normally Closed** contacts available.
- 15mA Standby Current.
- Typical 500m line of sight operating range (see specifications).
- Relay output can be either Latching **or** Pulsing when in receiver mode.
- Output pulse can be set from 1sec to 18hrs.
- LED output to indicate the relay status with no inline resistor required.

### FUNCTIONALITY

**WiPS** has two modes of operation namely **ALARM MODE** and **RECEIVER MODE**. Selection of these modes are automatic and no switch settings are required.



In this mode **GATE SWITCH** connection is left **UNCONNECTED**. When the output relay is set to **PULSE** an additional feature “**Party Mode**” is also available.

### OUTPUT RELAY SET IN PULSE MODE:

If **WiPS** receives a valid signal, it will **PULSE** its output relay for a pulse period that you have programmed.

In this mode “**Party Mode**” can be activated by holding down the remote button or external push button for 6 seconds. After 6 seconds the relay output will **LATCH** allowing the controlled device to be permanently triggered until a new valid signal is received.

### OUTPUT RELAY SET IN LATCH MODE:

If **WiPS** receives a valid signal, it will automatically change its relay output. The relay will remain in the new state until another valid signal is received.

## PROGRAMMING REMOTES

### REMOTE LEARNING

**WiPS** can store multiple buttons from one remote control to its memory with a maximum of 30 remote control buttons. This is useful if multiple **WiPS** modules are used. For example, you can program one button to bypass the perimeter beams and also open the gate at the same time. The second button can be programmed to bypass the garden perimeter beams only.

- Press and hold the remote button.
- While holding the remote button place a jumper across the **LEARN** pins.
- The LED will briefly flash indicating that a button has been learnt.
- Remove the jumper.

**REMOTE ERASING**

- Place the jumper across the ERASE pins.
  - The LED will flash 4 times to warn you that the remotes will be erased after which it will burn solid.
  - When the LED remains on solid, all the remotes have been erased.
- Remove the jumper.

**PULSE / LATCH PROGRAMMING**

The pulse output period can be programmed for up to 18 hours. To program the output pulse place a jumper on the PULSE pins for the desired pulse period as described below. You must remove the jumper after you have selected the pulse period.

When the jumper is placed across the PULSE pins, the LED will start flashing once per second. Each flash indicates one second of pulse period. Once 60 seconds are reached, the LED will continue flashing once per second but the flashes will be shorter. Each flash now indicates a one minute interval. The module pulse period is thus programmed in second increments for the first minute and then in one minute increments after the first minute. See table below

Desired Output Pulse Time:	Leave jumper ON for:
<b>35 seconds</b>	35 seconds
<b>30 minutes</b>	1 minute and 30 seconds
<b>1 hour</b>	2 minutes
<b>2 hours</b>	3 minutes
<b>6 hours 24 minutes</b>	7 minutes and 24 seconds

To place the output relay in LATCH MODE, leave the jumper across the PULSE / LATCH pins. (The STATUS LED will flash for 18 minutes).



In this mode **WiPS** functions as an alarm module. A magnetic alarm contact can be fitted to the gate or garage door to detect if it has been forced open. A valid remote signal or external push button signal will temporarily disarm **WiPS** for a programmed stand open period set by you while the magnetic contact is open. Once the magnetic contact is closed again, **WiPS** will automatically reset. If the magnetic contact is forced open without receiving a valid signal the relay will trigger the house alarm immediately.

**WiPS** can be programmed to have a stand open period of up to 18hrs. If the stand open period is exceeded because an intruder has placed an object over the beams, **WiPS** will trigger the house alarm.

To set **WiPS** in ALARM MODE ensure that the connections are done as per ALARM MODE diagram, make sure the magnetic contact is closed then simply apply power. This will automatically put **WiPS** into ALARM MODE.

### LIMITED OPEN PERIOD (no jumper on PULSE pins):

If the magnetic contact is forced open **WiPS** will wait one second before it triggers the house alarm. The output relay will pulse for the period that you have pre-programmed into the memory (1sec to 18hours).

If a valid signal is received the output relay will not pulse. If the gate stands open for longer than the stand open period that has been programmed to the **WiPS** memory, then it will automatically trigger the house alarm. If the magnetic contact is closed within the stand open period, then **WiPS** will reset and it will not trigger the house alarm. Should you wish to exceed the stand open period, then "Party Mode" can be activated to allow the gate to remain open indefinitely without triggering the house alarm.

### SETTING UP THE GATE OR GARAGE ALARM:

- Close the gate.
- With the **WiPS** power off ensure that the magnetic alarm contact is installed on the gate and it must be wired to the GATE SWITCH on **WiPS**.
- Apply power to **WiPS**, the LED will blink to indicate normal status.
- Now setup STAND OPEN period and ALARM TRIGGER PULSE period as on pg 6.

### STAND OPEN PERIOD

This is the maximum period that the gate is allowed to stand open before it triggers the alarm when the house alarm is armed.

- Open the gate.
- Set the STAND OPEN period by placing the jumper over the PULSE/LATCH pins while the gate is open, usually longer than the combined gate run time and the autoclose time e.g. if the gate runs open for 20 secs and autoclose is set to 30 secs and it runs closed for 20 secs, then the stand open period must be a minimum of 2 min. (If autoclose is not used then select a stand open of  $\pm 5$  min).
- Remove the jumper.

### ALARM TRIGGER PULSE PERIOD

This is the length of time that **WiPS** will send one trigger pulse to the house alarm when the gate is forced open e.g. if set to 5 secs then the house alarm will receive a 5 secs trigger pulse. If **WiPS** is hard wired then the pulse period can be set to 1 sec. If a transmitter is used to transmit the signal wirelessly, then it is recommended that a minimum of 3 secs pulse is programmed to **WiPS**.

- Close the gate and ensure the magnetic contact is closed.
- Place the jumper over the PULSE/LATCH pins for length of pulse that you require. On for 1 sec if **WiPS** is hard wired or a minimum of 3 secs if wireless.
- Remove the jumper.

The gate/door will now open when it receives a valid trigger and the house alarm will only sound if the gate remains open for longer than the stand open period that has been programmed by you. The relay output will trigger the alarm pulse period that you have programmed.

*NOTE: If **WiPS** receives a valid signal during the stand open period (i.e. before the alarm has sounded) then the stand open period will be extended.*

### INFINITE OPEN PERIOD (jumper left on PULSE pins):

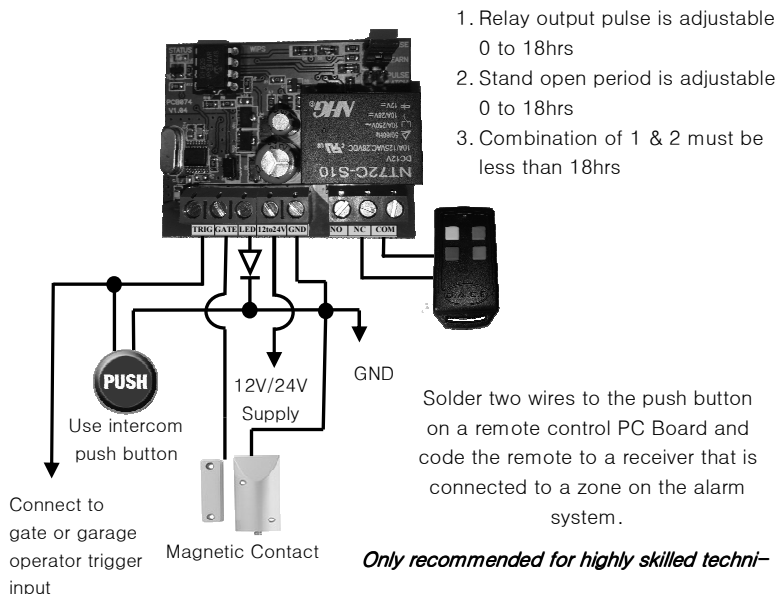
In this mode the output relay will give a one second pulse if the magnetic contact is forced open. If a valid signal was received prior to the magnetic contact being opened, then **WiPS** will not give an output pulse and the magnetic contact can remain open indefinitely. If the magnetic contact is closed then **WiPS** will automatically reset.

*NOTE: If there is a loss of power to the **WiPS**, it will not remember its last state.*

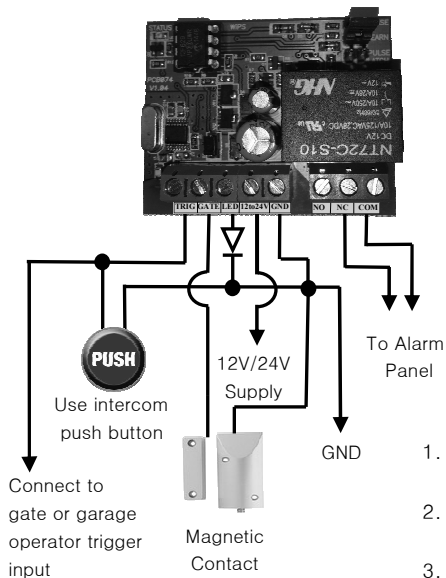
*The sum of the stand open period and the pulse period cannot exceed 18hrs*

**TYPICAL APPLICATION:-** Connect WiPS to a magnetic contact switch that is fitted to any household gate or garage door and integrate it with the house alarm system or connect directly to a siren .

## Connecting WiPS to Alarm Panel with Remote Control

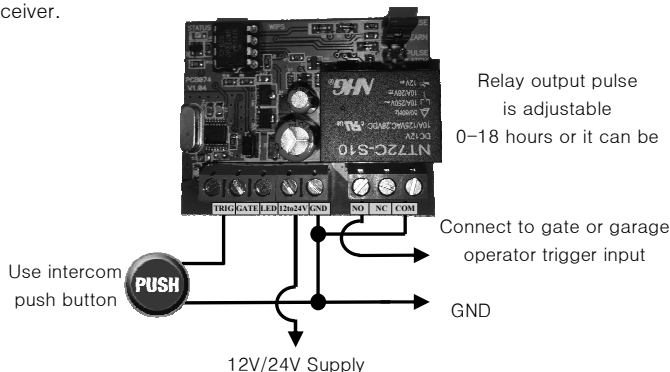


## Hard wiring WiPS to Alarm Panel



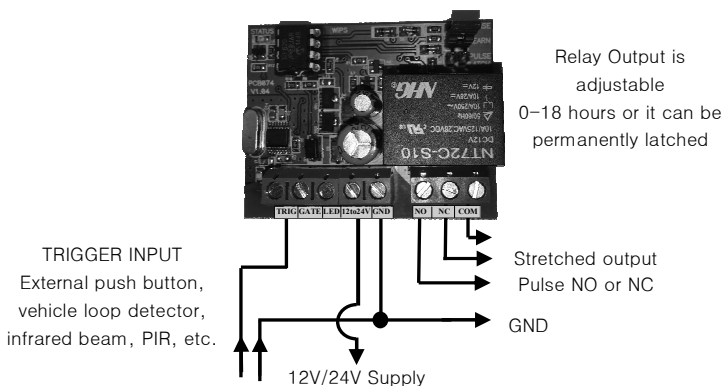
1. Relay output pulse is adjustable 0 to 18hrs
2. Stand open period is adjustable 0 to 18hrs
3. Combination of 1 & 2 must be less than 18hrs

TYPICAL APPLICATION:– Use **WiPS** to code multiple makes of remotes to one receiver.

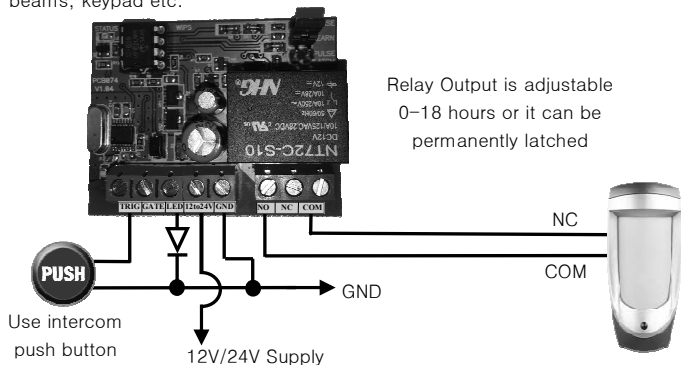


## Pulse Stretcher

TYPICAL APPLICATION:– Use **WiPS** to switch on garden lighting, sound a siren or bypass an electric fence gate or activate a ground loop for a predetermined period.

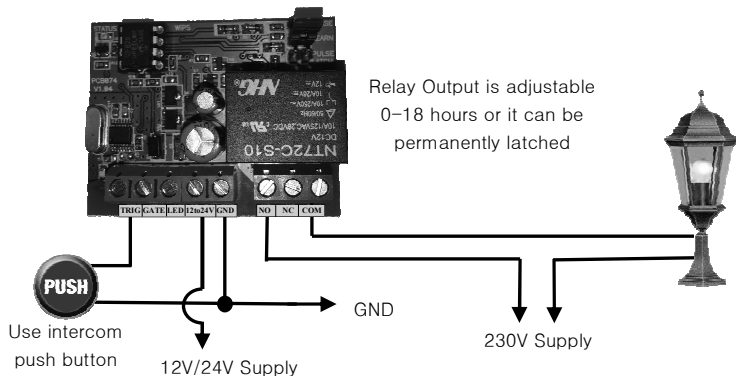


TYPICAL APPLICATION:- **WiPS** can be used to bypass a PIR in the garage, garden perimeter beams, keypad etc.

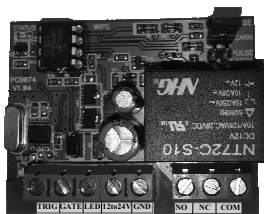


## Pillar Light Switching

TYPICAL APPLICATION:- Switch pillar or garden lighting



**TYPICAL APPLICATION:**– If the gate is a long distance from the house and therefore extra range is required, a second **WiPS** with a transmitter can be installed halfway up the driveway. The **WiPS** at the gate will transmit to the second **WiPS**, which will in turn trigger the house alarm.



Relay Output is adjustable  
0–18 hours or it can be  
permanently latched

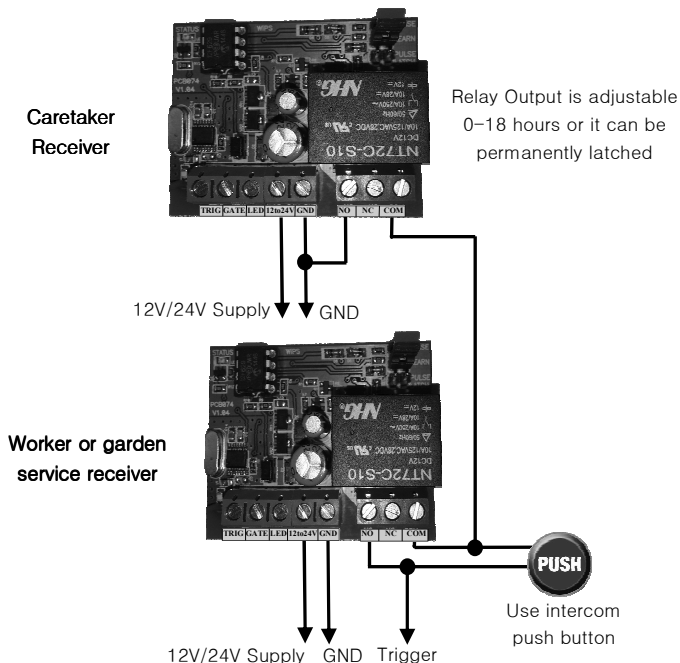
12V/24V  
Supply

GND

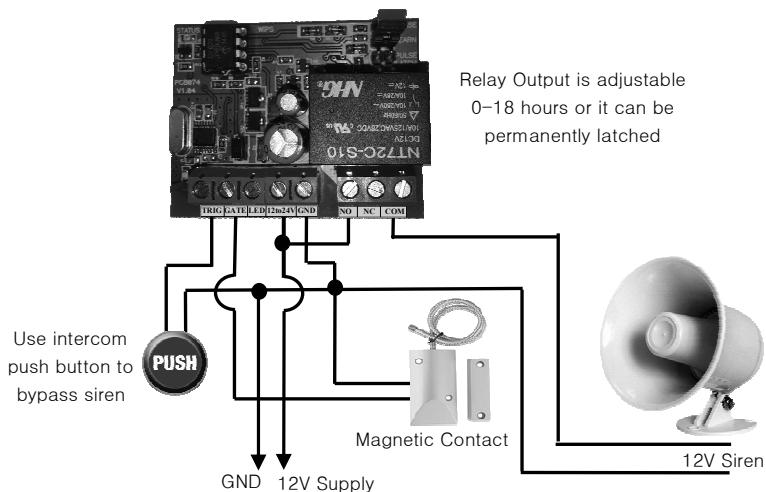
Solder two wires to the push button on a  
remote control PC Board and code the  
remote to a receiver that is connected to a  
zone on the alarm system.

*Only recommended for highly skilled technicians*

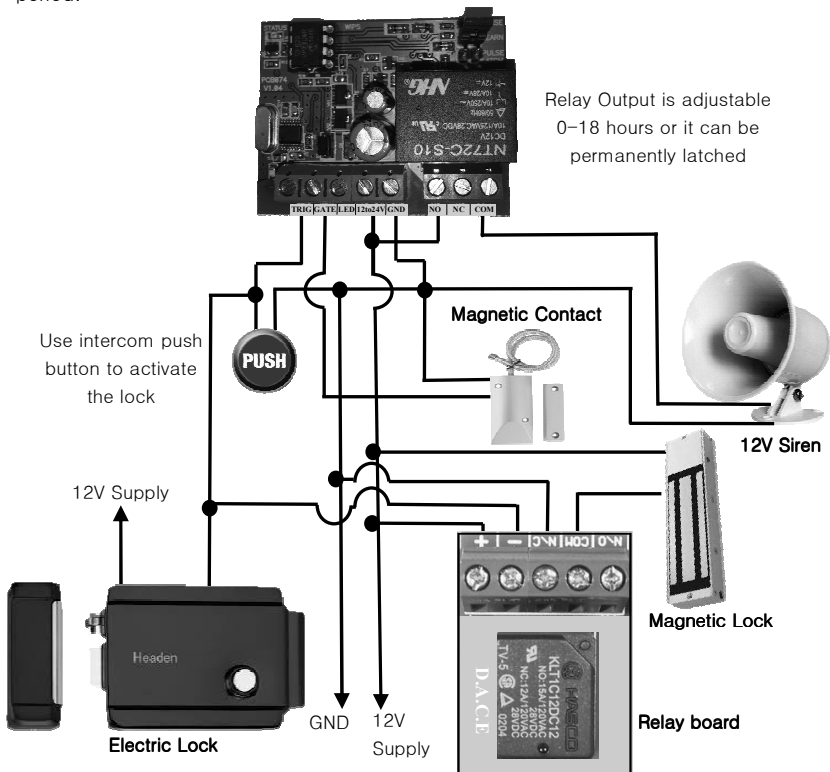
**TYPICAL APPLICATION:**– Using two **WiPS**, a caretaker can control the second **WiPS**, which will allow workers or a garden service who have remotes or an external push button to access a property for the period that is programmed into the caretakers **WiPS**. The access time for the workers can be programmed up to 18hrs.



TYPICAL APPLICATION:- **WiPS** can be connected to a magnetic contact switch that is fitted to a pool gate and a siren can be wired to alert when a toddler/child accesses the pool area.



TYPICAL APPLICATION:- **WiPS** can be connected to a magnetic or electric lock that will sound a siren if the door is left open for longer than the programmed stand open period.



Supply Voltage:	12~24V DC
Standby Current Consumption:	15mA
Output Relay:	AC Rating 230V AC at 5A DC Rating 30V DC at 5A
Remote Buttons Stored:	30
Maximum Pulse Time:	18 hours (first minute is adjustable in 1 second increments)
Receiver frequency:	403MHz / 433.92MHz (depending on purchased model)
Receiver compatibility:	Most Keeloq remotes.
Expected Range* :	<ul style="list-style-type: none"> <li>• 1.2km – Open area on hill top with direct line of sight.</li> <li>• 750m – Open field with minimal vegetation.</li> <li>• 500m – Open area with some vegetation.</li> <li>• 300m – Sparsely built up area.</li> <li>• 150m – Densely built up area.</li> </ul>

For more information visit [www.dace.co.za](http://www.dace.co.za)



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