



FlexiPanel

BlueControl

Switch relays using Bluetooth from your PC, PDA or mobile phone



Summary

BlueControl allows you to turn up to four relays on or off from a Windows PC, Pocket PC or certain high-end cellphones.

Features

- Four SPCO switching relays.
- Pulse output or latching output.
- FCC / CE /certified Class Bluetooth V2.0 radio, 100m range, integral antenna.
- PIN code security.
- Powered by 12V DC.



Figure 2 – Bluetooth Remote Controller (Case not shown; appearance may vary)

Device Compatibility

BlueControl is compatible with Windows PCs, Pocket PCs and Microsoft Windows Mobile cellphones.

All devices must be equipped with a Bluetooth radio. If it is a Class II radio with 10m range, the operating range may be limited by that device.

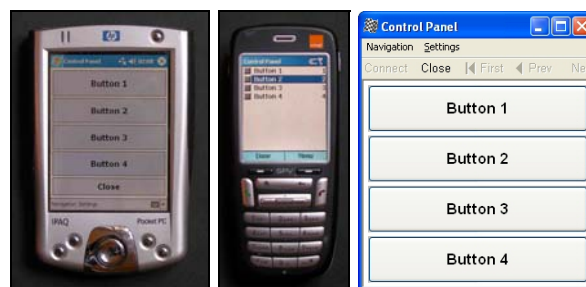


Figure 3 – Remote device main screens (Pocket PC, Windows Mobile, Windows)

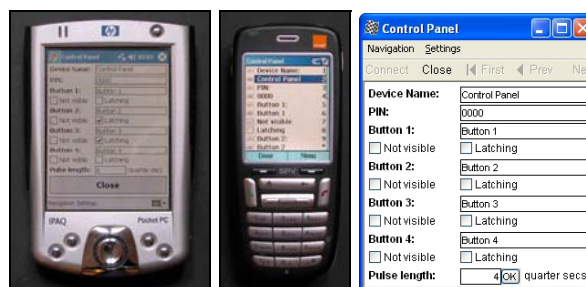


Figure 4 – Remote device settings screens (Pocket PC, Windows Mobile, Windows)

Applications

- Lighting control
- Access control
- Power control

Ordering Information

Table 1. Ordering information	
Part No	Description
BLUECONTROL	BlueControl Remote Control

Manufactured to ISO9001:2000



BlueControl Installation

Installation of this product should be completed by an electrician or competent technician. If in doubt seek assistance.

Install BlueControl in an area where you would expect good radio reception, e.g. at least 1 meter above the ground and not in a metal enclosure.

12V should be applied to the 12V connector on screw terminal TB5. Refer to figure 5.

Connect the relays as required. Each relay has a common connection marked *COM*, a normally-closed connection marked *NC* and normally-open connection marked *NO*. *Relays are not to be used for mains isolation purposes – the power supply input must be isolated.*

Software Installation

Remote controller software must be loaded onto the PC, PDA or phone which will be used to control BlueControl. This software is called FlexiPanel Client and can be downloaded free from www.flexipanel.com. Download the appropriate version of the software and follow the instructions on the website in order to install it. Once completed this is referred to as a BlueControl Transmitter.

Normal operation

For normal operation, the jumper SIL1 should be connected across pins *a* and *b*. (see figure 5). Normal operation is indicated by LED D4 on the circuit board blinking every four seconds.

When a BlueControl Transmitter connects to BlueControl, LED D4 will change to being mostly on, blinking off every four seconds, indicating that connection has been successful. On BlueControl Transmitter, four buttons are displayed, (see figure 3). Each one controls a different relay.

Settings mode

The settings mode allows you to make the following changes to BlueControl:

- The Bluetooth device name
- PIN code security
- The name displayed on each button
- The number of buttons displayed
- Whether the buttons have a momentary or latching action

To enter settings mode, connect the jumper SIL1 across pins *b* and *c*. The settings mode screen is displayed, as shown in figure 4.

Modify the settings as follows:

Device name: Sets the name of BlueControl as it appears when other Bluetooth devices are searching for it. The device name may be up to 15 characters long.

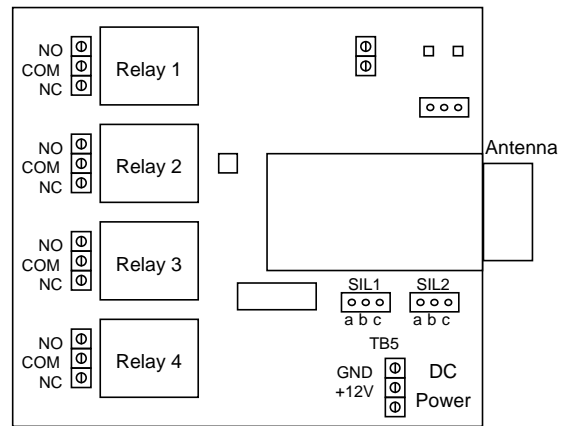


Figure 5 – BlueControl Connections
(Not all components shown may be present)

The name change will not take effect until the next time the device is powered up. Even then, devices which 'saw' it with a previous name may continue to use the previous name for some time afterwards.

PIN code: Sets the PIN code used for a secure connection. A PIN code is required; it is not optional. (It is usual to specify four zeroes as a PIN code if it is not to be a secret.)

If any other PIN code is specified, then that code must be specified in order to connect to BlueControl. Please bear in mind that most cellphones can only use the digits 0-9 for PIN codes. PIN codes may be up to 15 characters long. The new PIN code will not take effect until the next time the device is powered up.

The PIN code is cleared each time the settings mode jumper switch is connected. This enables the PIN code to be reset if it has been forgotten.

Button 1/2/3/4: Specifies the text which appears on the control. The text may be up to 30 characters long.

Not visible: Specifies that a particular control is not visible and the relay is not used.

Latching: Specifies a latching control, i.e. press once for on and then once again for off. If latching is not specified, pressing the button will cause the relay to energize for half a second and then turn off automatically.

Pulse Length: Specifies the length of relay pulses, in quarters of a second.

When your changes are complete, reconnect the jumper across pins *a* and *b* of SIL1 (see figure 5). The settings mode screen is displayed, as shown in figure 4. If you modified the PIN code or device name, you will also need to disconnect and reapply DC power.

Technical Specifications

Physical

Max operating temperature	-20°C to +75 °C
Max storage temperature	-30°C to +85 °C
Dimensions L x W x H	110 mm x 85 mm x 35 mm

Electrical

Supply Voltage (unregulated)	12V
Typical current, no remote device unconnected	10 mA
Typical current, remote device connected	40 mA
Additional current per energized relay	55 mA
Relay rating (note 1,2)	10A / 250V AC 15A / 28V DC

1. High voltages must NOT be present unless the case is shut.
2. Relays are not to be used for mains isolation purposes – the power supply input must be isolated.

Radio

Max RF output power	Class I = 100mW = +20dBm
RF frequency range	2402MHz to 2480MHz
RF channels	79
Frequency hopping	1600 Hz
Range	100m nominal (note 1)

1. If remote controlling device is only Class II, range will be limited to around 10m – 15m.

FCC, CE and IC approval

The radio has been pre-qualified and is listed in the Bluetooth Qualified Products as B00524. The radio has 'modular approval' for USA and certain European countries, provided the existing integral antenna is used. The CE mark on the module indicates that it does not require further R&TTE certification.

Ordering Contact

BlueControl is manufactured and distributed by



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Technical Information

BlueControl is owned and designed by:



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