Wireless Control Systems
Why Click' INELS Wireless?

Significant energy savings
- Complete control and regulation of your heating and lighting means energy is only consumed when needed - reducing your energy bills and your carbon footprint.

Simple & flexible installation
- No additional cables or wall cutting needed. Receivers can be installed behind light fittings or into suitable installation boxes.

- Flexible positioning makes RF Control ideal for installation within existing or newly constructed buildings. With RF Control, you can move switches freely and re-locate when required. Switches can be mounted on glass, wood or walls etc.

- Transmitters are powered by battery and so do not require any wiring or additional power supply.

- Universal input transmitter converts up to 4 push-button switches - enabling existing devices to be connected to the system.

- Operates on 868MHz frequency band which provides robust communications.

Complete control
- Allows portable and remote control up to a distance of 200m.

- Control and adjustment of lights, on/off or create lighting scenes.

- Control shutters, blinds, gates, latches and garage doors.

- Manual or automatic control.

- Monitor window or door opening.

- Simulate occupancy when you are away from home.

Leading the way in intelligent automation
Range Overview

Transmitters

Basic
- RFWB-20/G: 2 Channel Switch Controller
- RFWB-40/G: 4 Channel Switch Controller
- RF KEY: 4 Channel Remote Switch Controller Key Fob

Moderate
- RFIM-40B: 4 Channel Universal RF Switch Adapter
- RF Pilot: 40 Channel Remote Control
- TP-83: Wireless Room Thermostat
- RFTC-10G: Temperature Regulator

Advanced
- RF TOUCH: Advanced Control of Multiple RF Devices
- RFTI-10B: Wireless Thermo-Sensor
- JA-82M: Wireless Window/Door Contact
- J A-83P: RF Compact PIR Sensor (Indoor use only)

Receivers

Basic
- RFDEL-71B: Multifunctional Dimming Actuator c/w Switch Input
- RFSAI-61B: 1 Channel Multifunctional Switching Actuator c/w Switch Input
- RFSA-61B: 1 Channel Multifunctional Switching Actuator with Antenna
- RFSC-61: 13A Switching Socket

Moderate
- RFJ A-12B/24V DC: Shutter Actuator (24V DC)
- RFDAC-71B: Dimming Actuator 1-10V Analogue Output
- RFSA-62B: 2 Channel Switch Actuator
- RFJ A-12B/230V: Shutter Actuator 230V AC

Advanced
- RFSA-66M: 6 Channel Multifunctional Switch Receiver
- DIM-6: 2000W Remote dimmer unit
- RFRP-20/B: Signal Repeater (with un-switched 13A power outlet)
Typical Installations

Each installation will require at least:

1 x Transmitter 1 x Receiver

For a simple switching circuit all you need is a transmitter (switch or remote) and a receiver (also referred to as an actuator). More complex installations will utilise multiple units and multiple types of unit. The following illustrations detail a few examples of installations of varying complexity.

Basic

You will need:

- RFWB-20/G (2 Channel Switch)
- RFSA-61B (Switching Actuator)

Guideline installation:

This setup utilises the RF Pilot to give the user full control of up to 40 actuators. The setup demonstrates the use of dimming actuators, 2-channel switching actuators and shutter actuators. The setup also indicates the use of the Universal RF switch adapter used in conjunction with Click Deco Mini-grid modules in order to match decorate switches throughout the installation.

With the RF Pilot, the user can set scenes that control groups of receivers.

You will need:

- RFJ A-12B (Shutter Actuator)
- RFIM-40B (Universal RF) Switch Adapter
- RF Pilot (Remote Control)
- RFSA-62B (2 Channel) Switch Actuator
- RFDA-71B (1 Dimming) Actuator

Connect the receiver to the lighting circuit, usually connected inside an adaptable box and placed into the ceiling void. The unit will require a permanent live and neutral feed.

Fix the switch to standard single gang back-box or use the sticky pads provided to fix the switch to any surface.

Up to 32 transmitters (switches) can be paired with a single receiver (actuator), making it simple to create complex switching circuits.

If you have any questions regarding typical installations, please contact us.

call: 01827 63454  fax: 01827 63362  email: sales@scolmore.com  visit: www.scolmore.com
Typical Installations

**Advanced**

**All controlled from a single point.**

**Simulated Occupancy**
The RF Touch allows you to set daily and weekly programs for multiple groups of actuators allowing you to create complex routines that will run whether you are at home or away.

These routines can also be used effectively to save energy around the home, by ensuring your devices are switched off when they are not required.

**Scene Setting**
The RF Touch, as well as the RF Pilot, can group multiple actuators together and allow you to quickly set them to a predetermined level or status.

For example: The User creates “Movie Mode” which dims multiple zones of lights via a dimming actuator and switches off another zone via a switching actuator.

Also useful for setting “master off” functions.

**Heating Control**
The RF Touch presents an interface that can allow the user to connect a temperature sensor to a switching actuator that can in turn be connected to a number of heating appliances. This action combined with a weekly/daily program can allow the user to control the heating appliance based on both temperature and time.

**Door / Window Status Feedback**
Monitor the status of windows and doors on your property. Combine this function with a switching or dimming actuator to create a circuit that activates or deactivates when the door or window is open or closed.

**Garage Doors**
Use Shutter actuators and a key fob to control garage doors or gates remotely.

Can also be used with RF Touch, RF Pilot and other wall-mounted switches.

**Lighting Control**
Create remote control outdoor lighting circuits to enable the user to switch the lights on or off when approaching or leaving the property.

**Temperature Monitoring**
The RF Touch can be connected to a number of thermostat devices and display their results on screen. This allows the user to get temperature feedback on any room or even outdoors.
Transmitters

Wireless Switches | Key Fob | Universal Module
Temperature Regulator | Thermo-Sensor & Thermostat | Window Door Contact | Remote Controller

Transmitters are RF system devices powered by batteries and are used for controlling receivers.
**Transmitters**

**Temperature Regulator | Thermo-Sensor & Thermostat | PIR Sensor**

- **RFTC-10G** - RF Transmitter: Zone / Room Temperature Regulation / Measuring Device
- **RFTI-10B** - RF Transmitter: Wireless Thermo-Sensor
- **TP-83** - Hand held Room Thermostat / 24 Hour 7 Day Time Programmer
- **RFSG-1M** - 230V Single Channel Switch Transmitter (Din Rail Mount)
  - Transmits a continuous signal with input status ON or OFF. Programs to function 1 of switching actuators.
- **AN-E** - External Antenna (3m fitted cable)
  - For use with RFSA-61M, RFSA-66M & RFSG-1M
  - For thermo-sensor accessories see page a22

**Window Door Contact | Remote Controller | Window Door Contact**

- **JA-82M** - Hand held Window / Door Contact
- **JA-83M** - RF Magnetic Door/Window Surface Contact
- **RF PILOT** - Hand held 40 Channel Remote Controller
- **JA-83P** - RF Compact PIR Sensor (Indoor use only)

**Standards:** EN 60669, EN 300220, EN 301489
**Dimensions:** JA-82M: 25mm x 192mm x 9mm, JA-83M (Main): 31mm x 75mm x 23mm, (Magnet) 16mm x 56mm x 15mm
**Battery Type:** JA-82M: CR 2354 (x2), JA-83M, JA-83P: CR 123A (x1), RF PILOT: AAA (x2)
Combined Modules
Central Unit | Switching Actuator With Thermo-Sensor

Combined units are both transmitting & receiving devices in the RF control system.

Standards:
- 5)7RXFK EN 60730
- RFSTI-11B: EN 60669, EN 300220, EN 301489

Dimensions:
- 5)7RXFK 94mm x 94mm x 24mm
- RFSTI-11B: 49mm x 49mm x 21mm

Combined Modules
- RFT-WBK Wireless Touch Screen Controller - Black (RF Touch)
- RFT-WWH Wireless Touch Screen Controller - White (RF Touch)
- RFSTI-11B * 16A Wireless Switching Actuator With Thermo-Sensor

* For use with RF Touch unit only

RF Touch supplied with DC Adaptor. Can be hard wired into the rear of the unit via 230V supply.
Receivers
Switching Actuator | Dimming Actuator
Shutter Actuator | Analogue Actuator

Receivers are available in three categories - switching actuators, dimming actuators and shutter actuators

- **RFSA-61B**: 16A 1 Channel Multifunction Switching Actuator
- **RFSA-62B**: 8A 2 Channel Multifunction Switching Actuator
- **RFSAI-61B**: 16A Switching Actuator C/W Control Input
  - Can utilise retractive switch in conjunction with the 3V DC switch input.
- **RFSA-61M**: 16A 1 Channel Multifunction Switching Actuator
- **RFSA-66M**: 8A 6 Channel Multifunction Switching Actuator
- **RFSC-61**: 13A 240V Switching Socket
- **AN-E**: External Antenna (3m fitted cable)
  - For use with RFSA-61M, RFSA-66M & RFSG-1M

**Standards**:
- EN 60669
- EN 300220
- EN 301489
- BS1363

**Dimensions**:
- **RFSA-61B, RFSA-62B, RFSAI-61B**: 49mm x 49mm x 21mm
- **RFSC-61**: 90mm x 17.5mm x 64mm
- **RFSA-61M**: 90mm x 52mm x 65mm
- **RFSA-66M**: 90mm x 21mm x 64mm

**Cable Length**:
- **RFSA-61B, RFSA-62B, RFSAI-61B**: 90mm
- **RFSC-61**: 90mm
- **RFSA-61M, RFSA-66M**: 90mm

**Relay Current Ratings**: AC1
Standards: EN 60669, EN 300220, EN 301489
Dimensions: RFDA-71B, RFDEL-71B, RFDAC-71B: 49mm x 49mm x 21mm, DIM-6: 105mm x 90mm x 65mm
Cable Length: RFDA-71B, RFDEL-71B, RFDAC-71B: 90mm

Standards: EN 60669, EN 300220, EN 301489
Dimensions: RFJA-12B/230V: 49mm x 49mm x 21mm, RFJA-12B/24V: 49mm x 49mm x 13mm
Cable Length: 90mm
**Repeater**

Signal Repeater

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**Accessories**

**Thermo-sensor**

Accessories compatible with RF control devices.

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**Receivers**

**RFRP-20/B**

240V Signal Repeater (with un-switched 13A power outlet)

Extends the range by up to 200 metres for up to 20 receivers

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**Standards:** EN 60730 / BS1363

**Dimensions:** 60mm x 12mm x 80mm
Follow these very simple, easy to follow instructions when programming functions:

**STEP 1 - ACTIVATE**
Press & hold the ‘programming’ button on the receiver for 2 seconds (the status LED will flash with a 1 second interval).

**STEP 2 - SELECT FUNCTION**
To assign the chosen transmitter device button & function, press the required button the number of times to match the function number required at one second intervals - SEE TABLE 1 on opposite page (e.g. for transmitter function 2, press the button 2 times).

**STEP 3 - ONLY REQUIRED FOR FUNCTION 5 & 6 FOR ALL OTHER FUNCTIONS GO TO STEP 4**

**STEP 4 - SAVE AND EXIT**
To exit programming mode press the ‘programming’ button for 1 second only.

**TO DELETE A SINGLE FUNCTION**

**TO DELETE ALL STORED FUNCTIONS**
### Installation Guidelines

To ensure correct and safe operation of a device please follow the installation guidelines below:

- Do not install into an exterior or wet environment
- Ensure sufficient cooling for dimmer loads nearing 250VA - Each receiver has an internal over temperature protection which will switch the device output off when the system is overloaded
- Do not install RF components into metal and steel distribution boards as this will reduce the radio-frequency signal
- The range of radio signal within the RF Control system depends on building construction and physical location of the devices - see Table 1 below
- Do not connect inductive and capacitive loads to one device at the same time - see Table 2 on previous page.

### Functions

#### Switching & Dimmer Functions

**Switching Functions**

<table>
<thead>
<tr>
<th>Function</th>
<th>Press button</th>
<th>Press for ON, release for OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function 1</td>
<td>Press button</td>
<td>Press for ON, release for OFF</td>
</tr>
<tr>
<td>Function 2</td>
<td>'On' button</td>
<td>Press for ON</td>
</tr>
<tr>
<td>Function 3</td>
<td>'Off' button</td>
<td>Press for OFF</td>
</tr>
<tr>
<td>Function 4</td>
<td>On/Off button</td>
<td>Press for ON, press again for OFF</td>
</tr>
<tr>
<td>Function 5</td>
<td>'Off' delay</td>
<td>Press for ON, device will turn off after pre-determined time period as set in step 3 of programming (2 secs - 30 mins max)</td>
</tr>
<tr>
<td>Function 6</td>
<td>'On' delay</td>
<td>Press to start timer. 'On' delay will be as pre-determined in step 3 of programming (2 secs - 30 mins)</td>
</tr>
</tbody>
</table>

**Dimmer Functions**

<table>
<thead>
<tr>
<th>Function 1</th>
<th>Scene recall / OFF</th>
<th>Press button and release</th>
<th>Press button and hold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function 2</td>
<td>Scene recall / OFF - anti-tamper</td>
<td>Press to recall scene, press again to turn OFF</td>
<td>Press button for more than 1 second to set scene brightness</td>
</tr>
<tr>
<td>Function 3</td>
<td>Scene recall - fade ON / fade OFF - push to recall scene</td>
<td>Press to recall scene</td>
<td>Press button for more than 1 second to set scene brightness</td>
</tr>
<tr>
<td>Function 4</td>
<td>Scene recall - fade OFF</td>
<td>Press to recall scene</td>
<td>Press button for more than 1 second to set scene brightness</td>
</tr>
<tr>
<td>Function 5</td>
<td>Variable fade up to Max (user definable)</td>
<td>Press to start fade up time to maximum brightness</td>
<td>N/A</td>
</tr>
<tr>
<td>Function 6</td>
<td>Variable fade down to OFF (user definable)</td>
<td>Press to start fade down to OFF</td>
<td>N/A</td>
</tr>
<tr>
<td>Function 7</td>
<td>On/Off</td>
<td>Press once for ON, press again for OFF</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Load types**

- **R - Resistive**
- **L - Inductive**
- **C - Capacitive**

### Table 1: Transmission of Radio-Frequency Signals Through Various Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Transmission Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick</td>
<td>60-90%</td>
</tr>
<tr>
<td>Metal bars</td>
<td>0-10%</td>
</tr>
<tr>
<td>Glass</td>
<td>80-95%</td>
</tr>
<tr>
<td>Reinforced concrete</td>
<td>20-60%</td>
</tr>
<tr>
<td>Plastic</td>
<td>0-10%</td>
</tr>
</tbody>
</table>

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**Diagram:**

- Standard accessory plate fitted with reductive switch modules
- Universal input module RFI-40B
- Switching actuator (receiver) RFSA61-B