



Model: WPUCS-24-XL

## Wireless Tank Switch / Pump Up/Down Control System

### FEATURES & BENEFITS

- Wireless Bridge Between Tank Switches & Pump System Works with 2 Dry-contact Level Switches
- Up To 1 Mile (LOS) Transmit/Receive Distance
- Weatherproof NEMA 4X Rated Enclosures
- Dual Switch Input for Pump Up/Down Operation
- Receiver Features DPDT Control Latching Relay
- License Free Point-to-point Radio Operation
- No Field Programming Required

### APPLACATIONS

- Tank Monitoring or Water Level Alarm
- Level & Flow Control or Irrigation Systems
- Pump Up / Down Control



### DESCRIPTION

Model WPUCS-24-XL Wireless Level Switch/ Pump Control System provides a wireless bridge between two dry-contact level switches and a set of latching and control relays connected to a pump. When a tank upper level switch activates dues to a lowering of the tanks water level a signal is sent via a license free radio signal to the receiver unit up to 6 miles (Line-of-site) away to energize the latching relay. Once the water level reaches the bottom of the tank the second float switch is activated and the signal to the receiver turns on the pump control relay. As the water level rises again the pump is held on by the latching relay. Once the water level reached the top of the take and deactivated the top level switch the latching relay opens, this in turn also causes the control relay to drop out and turn of the pump. The system resets itself and waits for the next pump up/down cycle.

*Application Example: Two float Switches Controlling Pump Up / Drain Down Operation*



## General Specifications

**Radio Frequency:** 2.4 GHz  
**Immunity:** Frequency Hopping Spread Spectrum  
**RF Power Output:** 63mW  
**RF Impedance:** 50 Ohm nominal  
**Transmitter/Receiver Code Matching:** Factory set  
**Antennas:** 5dBi Antenna (2 Included)  
**Antenna Extension Cables:** 9ft (2 Included)  
**Transmit/Receive Distance** (with Included antennas)  
 Indoor/Urban 100ft, 600ft Outdoor Line-of-site  
**Transmit/Receive Distance** (with optional antennas)  
 Indoor/Urban 300ft, 1 Mile Outdoor Line-of-site  
**Enclosures:** NEMA 4X, Polycarbonate  
**Cables Entry:** PG11 Cable Glands

## Transmitter Specifications

**Control Input:** Dry-contact Switches  
**RF Power Output:** 63 mW  
**Power:** Can be Hardwired, Battery or Solar  
**Hardwired** – 12-24V DC or 120V AC 50/60 Hz @ 2W  
**Optional Solar** – Includes Panel, Battery, Charger

## Receiver/Controller Specifications

**Power:** 12V DC or 120V AC 50/60 Hz @ 4W  
**RF Input Impedance:** 50 Ohm nominal  
**Control Relay:** DPDT, 10A 120/240VAC

## Available Options

Model Number	Description
WRCS-24-SPK	Solar Power Kit
WRCS-24-LD-ANT	Long Distance Antenna Set

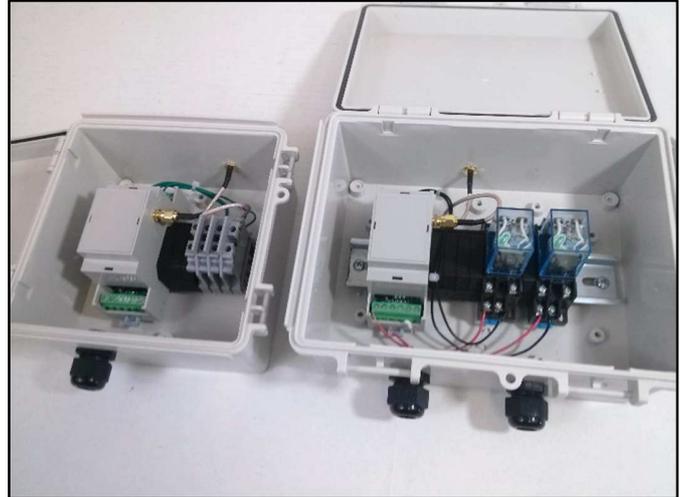
Solar Power Kit Includes Solar Panel, Charge Controller, Deep-cycle Battery, System Enclosure

## Regulatory Approvals & Location Use

Approved for Use in USA, Canada only  
 FCC Part 95 (No license required)  
 FCC(USA) 4214A-XBEE  
 IC (Canada) 4214A-XBEEPRO

Note: Model: WPUCS-24-XL Systems are sold as "Matched Set" Products. You will receive one transmitter unit and one control receiver unit. They are factory programmed to only talk to each other. You can use multiple units in the field within the same area without them effecting each other's operation.

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Receiver Features Latching & Control Relays



System Includes NEMA 4X Rated Enclosures



Standard Antenna/Cable Set Included with System

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Optional Long Distance Antenna Set



Optional Solar Power System for Switch Transmitter

### Models Available

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Models with higher capacity relays and contactors are available. Contact us for more information.

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Note: Continued product improvements make specifications subject to change without notice.  
Check [www.imagineinstruments.com](http://www.imagineinstruments.com) for the latest product information and updates

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