

# **ISAACS** & Associates .... SMART WIRELESS

# Quick, Easy Installation

Enhanced 5+ Mile Range



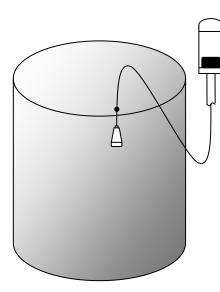






**Extend the** Range of any **Isaacs System** with our SmartRepeater





SMARTSWITCH

**Remote Pump Control - Monitors In-Tank Float Switch and Provides** 

### **PLUG & PLAY SIMPLICITY**

The Isaacs *Smart*Switch<sup>™</sup> transmitter monitors the float switch in the tank. When the water level falls and the switch closes, the transmitter sends a turn-on signal to the receiver at the pump. When the water level rises and the switch opens again, the transmitter sends the *turn-off* signal.

No power is needed at the tank; the transmitter is battery powered with a long-life (up to 5 years) lithium battery. The transmitter also monitors its battery condition and notifies the receiver when a battery change is required.

At the pump site, the turn-on signal from the transmitter causes the receiver to energize the pump auto circuit. The turn-off signal from the transmitter de-energizes the circuit to stop the pump.

#### **ISAACS SPREAD SPECTRUM RELIABILITY**

Isaacs SmartSwitch<sup>™</sup> systems utilize 900MHz, frequency hopping, spread spectrum digital radio technology to reliably transmit switch openings and closures from remote locations.

The Isaacs spread spectrum transmitter sends each actuation signal multiple times across a range of frequencies. With data encoded in our proprietary communications protocol and unique digital addressing, Isaacs radios are virtually interference immune.

#### TYPICAL SYSTEM COMPONENTS

Automatic Remote Control of Pump

-		
1 ea	TD810	810 <i>Smart</i> Switch <sup>™</sup> Std Transmitter
1 ea	KR800	810 <i>Smart</i> Switch <sup>™</sup> Receiver Pkg
1 ea	TS0655S	Wide Angle Mech Float Switch
1 ea	TS0100	480/240 to 120 VAC Transformer

#### **NO FCC LICENSE REQUIRED**

Optimum radio performance (2+ mile range with standard system) requires line of sight between transmitter and receiver with respect to ground or foliage. Our enhanced transmitter, the TD811, and the Isaacs SmartRepeater are available for sites with major obstacles or extreme range.

#### **NO CONTROL WIRE NEEDED**

Avoid the time, effort, and expense of running control cable between the tank and pump. *Smart*Switch<sup>™</sup> components are conveniently packaged in weatherproof enclosures with integrated internal antennas for guick, easy installation.

CONTACT US:

**Order from:** C A Briggs Company 622 Mary Street; Suite 101 Warminster, PA 18974 Phone: 267-673-8117 - 800-352-6265 Fax: 267-673-8118 Sales@cabriggs.com - www.cabriggs.com



# 800 SERIES

# RADIO

- 900 MHz, Frequency-Hopping, Spread-Spectrum, Digital Radio...
- Proprietary Communications Protocol...
- Unique Transmitter I.D. Codes...
- and Diversity Reception ...

### ...All Combine to Create a Robust, Reliable, Virtually Interference Immune Wireless Control System

• with No FCC License Required

# **OPERATIONAL**

- Superior Range: 2+ miles (Standard System), 5+ miles (Enhanced System)
- Fully Supervised Operation Including Dedicated Fault Alarm Relay Output
- Long-Life, Lithium Battery Powered Transmitters Ideal for Off-Grid Applications
- 12 VDC-Powered Transmitter Options Available
- Low Power Consumption Ideal for Solar Power

# PHYSICAL

- Integrated, Internal Antennas No Separate Installation Required
- Lightweight, Conduit-Ready, Weatherproof Enclosure
- Quick, Easy Installation

# **OPTIONS**

- SmartRepeater<sup>™</sup> Available for Sites with Major Obstacles or Extreme Range
- Compact, Handheld Transmitters Create Push-Button Remote Control for Any Equipment or Process

### 800 SERIES SPECIFICATIONS

Radio: 902 - 928 MHz; frequency hopping, spread spectrum.

**Power Requirements:** Transmitter (fixed, line powered): 11 - 14 Vdc; 40 mA (Standard) or 110 mA (Enhanced). Transmitter (fixed, battery powered): 3 V, 2/3A lithium battery (Panasonic CR123A, Duracell 123A, or equivalent); 3 - 5 yr typical battery life (Standard) or 1 - 2 yr typical battery life (Enhanced). Transmitter (handheld): 3 V lithium battery (Panasonic CR2 or equivalent); 3 - 5 yr typical battery life. Receiver: 11 - 14 Vdc; 150 mA typical, 400 mA maximum. Repeater: 12 - 16.5 Vdc or Vac; 100 mA.

Transmitter Input: Fixed: dry contacts (NO or NC). Handheld: push-button.

**Typical Range** (line of sight): 2+ mi. (Standard), 5+ mi. (Enhanced), or 2,000 ft. (Handheld). Site environmental conditions unique to each installation including temperature, mounting height, obstructing terrain, foliage, or structures, and local 900 MHz noise may affect achievable range.

**Receiver Outputs:** SPDT (Form C) relay(s) (1 A @ 28 Vdc). Fault: 1. Actuation: 1 (RD810), 4 (RD811), or 5 (RD812). **Maximum Transmitters per Receiver:** 1 (RD810), 4 (RD811), or 16 (RD812).

**Enclosure:** Transmitter (fixed) and Receiver: PPG Delfleet<sup>®</sup> Evolution coated PVC with integrated 1" FNPT fitting. Transmitter (handheld): NEMA 1 molded plastic. Repeater: All-weather molded plastic.

**Operating Environment:** 90% relative humidity, non-condensing. Transmitter (fixed) and Repeater: -4°F to 140°F (-20°C to 60°C). Transmitter (handheld) and Receiver: 32°F to 140°F (0°C to 60°C).

Weight: Transmitter (fixed): 2.2 lb (1.0 kg). Transmitter (handheld): 2 oz (57 g). Ŕeceiver: 2.9 lb (1.4 kg). Repeater: 1.7 lb (770 g).

**Dimensions:** Transmitter (fixed) and Receiver: 4.9" diam x 11" (125 mm x 280 mm). Transmitter (handheld): 3.0" x 1.6" x 1.0" (77 mm x 41 mm x 26 mm). Repeater: 7" x 7" x 3" (178 mm x 178 mm x 77 mm).

Digital Radios for Automated Monitor & Control of Equipment and Processes



Superior Range

Superior Reliability



Plug & Play Simplicity





# **ISAACS** & Associates Inc. SMART WIRELESS

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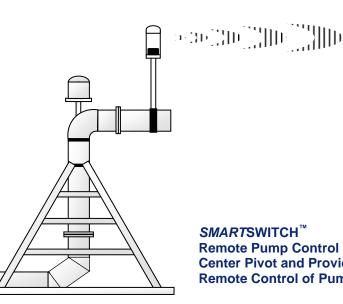






Extend the Range of any **Isaacs System** with our SmartRepeater'





SMARTSWITCH<sup>™</sup> **Remote Pump Control - Monitors Center Pivot and Provides Automatic Remote Control of Pump Operation** 

### **PLUG & PLAY SIMPLICITY**

The Isaacs *Smart*Switch<sup>™</sup> transmitter monitors the center pivot's wet circuit (for full remote control) or safety circuit. When the center pivot is turned on, the transmitter sends a turn-on signal to the receiver at the pump. When the pivot is turned off or safety's off, the transmitter sends the turn-off signal.

No power is needed from the center pivot; the transmitter is battery powered with a long-life (up to 5 years) lithium battery. The transmitter also monitors its battery condition and notifies the receiver when a battery change is required.

At the pump site, the *turn-on* signal from the transmitter causes the receiver to energize the pump auto circuit. The turn-off signal from the transmitter de-energizes the circuit to stop the pump.

#### **ISAACS SPREAD SPECTRUM RELIABILITY**

Isaacs SmartSwitch<sup>™</sup> systems utilize 900MHz, frequency hopping, spread spectrum digital radio technology to reliably transmit switch openings and closures from remote locations.

The Isaacs spread spectrum transmitter sends each actuation signal multiple times across a range of frequencies. With data encoded in our proprietary communications protocol and unique digital addressing, Isaacs radios are virtually interference immune.

TYPICAL	SYSTEM	COMPONENTS

1 ea	TD810	810 SmartSwitch <sup>™</sup> Std Transmitter
1 ea	KR800	810 S <i>mart</i> Switch <sup>™</sup> Receiver Pkg
1 ea	TS0642	Tx Interface Relay (DPDT)
1 ea	TS05401	Tx Span Pipe Mounting Bracket
1 ea	TS0100	480/240 to 120 VAC Transformer

### **NO FCC LICENSE REQUIRED**

Optimum radio performance (2+ mile range with standard system) requires line of sight between transmitter and receiver with respect to ground or foliage. Our enhanced transmitter, the TD811, and the Isaacs SmartRepeater are available for sites with major obstacles or extreme range.

### **NO CONTROL WIRE NEEDED**

Avoid the time, effort and expense of running control cable between the pivot and pump. *Smart*Switch<sup>™</sup> components are conveniently packaged in weatherproof enclosures with integrated internal antennas for guick, easy installation.

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# OPERATIONAL

- Superior Range: 2+ miles (Standard System), 5+ miles (Enhanced System)
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- Low Power Consumption Ideal for Solar Power

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# **OPTIONS**

- SmartRepeater<sup>™</sup> Available for Sites with Major Obstacles or Extreme Range
- Compact, Handheld Transmitters Create Push-Button Remote Control for Any Equipment or Process

### 800 SERIES SPECIFICATIONS

Radio: 902 - 928 MHz; frequency hopping, spread spectrum.

**Power Requirements:** Transmitter (fixed, line powered): 11 - 14 Vdc; 40 mA (Standard) or 110 mA (Enhanced). Transmitter (fixed, battery powered): 3 V, 2/3A lithium battery (Panasonic CR123A, Duracell 123A, or equivalent); 3 - 5 yr typical battery life (Standard) or 1 - 2 yr typical battery life (Enhanced). Transmitter (handheld): 3 V lithium battery (Panasonic CR2 or equivalent); 3 - 5 yr typical battery life. Receiver: 11 - 14 Vdc; 150 mA typical, 400 mA maximum. Repeater: 12 - 16.5 Vdc or Vac; 100 mA.

Transmitter Input: Fixed: dry contacts (NO or NC). Handheld: push-button.

**Typical Range** (line of sight): 2+ mi. (Standard), 5+ mi. (Enhanced), or 2,000 ft. (Handheld). Site environmental conditions unique to each installation including temperature, mounting height, obstructing terrain, foliage, or structures, and local 900 MHz noise may affect achievable range.

Receiver Outputs: SPDT (Form C) relay(s) (1 A @ 28 Vdc). Fault: 1. Actuation: 1 (RD810), 4 (RD811), or 5 (RD812). Maximum Transmitters per Receiver: 1 (RD810), 4 (RD811), or 16 (RD812).

**Enclosure:** Transmitter (fixed) and Receiver: PPG Delfleet<sup>®</sup> Evolution coated PVC with integrated 1" FNPT fitting. Transmitter (handheld): NEMA 1 molded plastic. Repeater: All-weather molded plastic.

**Operating Environment:** 90% relative humidity, non-condensing. Transmitter (fixed) and Repeater: -4°F to 140°F (-20°C to 60°C). Transmitter (handheld) and Receiver: 32°F to 140°F (0°C to 60°C).

Weight: Transmitter (fixed): 2.2 lb (1.0 kg). Transmitter (handheld): 2 oz (57 g). Ŕeceiver: 2.9 lb (1.4 kg). Repeater: 1.7 lb (770 g).

**Dimensions:** Transmitter (fixed) and Receiver: 4.9" diam x 11" (125 mm x 280 mm). Transmitter (handheld): 3.0" x 1.6" x 1.0" (77 mm x 41 mm x 26 mm). Repeater: 7" x 7" x 3" (178 mm x 178 mm x 77 mm).

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# 800i SERIES

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- Long-Life, Lithium Battery Powered Transmitters Ideal for Off-Grid Applications
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- Low Power Consumption Ideal for Solar Power

# **PHYSICAL**

- Integrated, Internal Antennas No Separate Installation Required
- Lightweight and Compact Easily Retrofit Existing Systems with Wireless
- Quick, Easy Installation

# **OPTIONS**

- SmartRepeater<sup>™</sup> Available for Sites with Major Obstacles or Extreme Range
- Compact, Handheld Transmitters Create Push-Button Remote Control for Any Equipment or Process

#### **800i SERIES SPECIFICATIONS**

Radio: 902 - 928 MHz; frequency hopping, spread spectrum.

Power Requirements: Transmitter (fixed, line powered): 11 - 14 Vdc; 40 mA (Standard) or 110 mA (Enhanced). Transmitter (fixed, battery powered): 3 V, 2/3A lithium battery (Panasonic CR123A, Duracell 123A, or equivalent); 3 - 5 yr typical battery life (Standard) or 1 - 2 yr typical battery life (Enhanced). Transmitter (handheld): 3 V lithium battery (Panasonic CR2 or equivalent); 3 - 5 yr typical battery life. Receiver: 11 - 14 Vdc; 150 mA typical, 400 mA maximum. Repeater: 12 - 16.5 Vdc or Vac; 100 mA.

Transmitter Input: Fixed: dry contacts (NO or NC). Handheld: push-button. Typical Range (line of sight): 2+ mi. (Standard), 5+ mi. (Enhanced), or 2,000 ft. (Handheld). Site environmental conditions unique to each installation including temperature, mounting height, obstructing terrain, foliage, or structures, and local 900 MHz noise may affect achievable range.

Receiver Outputs: SPDT (Form C) relay(s) (1 A @ 28 Vdc). Fault: 1. Actuation: 1 (RD800), 4 (RD801), or 5 (RD802). Maximum Transmitters per Receiver: 1 (RD800), 4 (RD801), or 16 (RD802).

Enclosure: NEMA 1 molded plastic. Operating Environment: 90% relative humidity, non-condensing. Transmitter (fixed) and Repeater: -4°F to 140°F (-20°C to 60°C). Transmitter (handheld) and Receiver: 32°F to 140°F (0°C to 60°C).

Weight: Transmitter (fixed/handheld): 2 oz (57 g). Receiver: 10 oz (280 g). Repeater: 7 oz (204 g). Dimensions: Transmitter (fixed): 3.5" x 1.7" x 0.9" (89mm x 43mm x 23mm). Transmitter (handheld): 3.0" x 1.6" x 1.0" (77 mm x 41 mm x 26 mm). Receiver and Repeater: 6.4" x 3.6" x 1.1" (162mm x 91mm x 28mm).

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# **Superior** Reliability



# **Plug & Play** Simplicity

