encom
WIRELESS

Contact Closure Products

900 MHz

COMMPAK I/08, WEB I/0, WBCU

Experience the ENCOM difference!

Simple, powerful, wireless on/off control systems

ENCOM's Contact Closure products are saving lives and monitoring critical assets by providing simple, rugged and reliable wireless on/off control for public safety and industrial applications.

ENCOM's Contact Closure products use state-of-the-art 900 MHz frequency-hopping spread-spectrum technology. These products provide bulletproof wireless communication, operating in mission critical applications and preventing traffic accidents when employed in commercial vehicle inspection stations, traffic signal pre-emption systems and school-zone flashing beacon systems.

Contact Closure products integrate with numerous applications, adding agility and flexibility to existing systems. With infinite routing possibilities, remote operation and exact diagnostics, these products ensure effective, dependable operation for a host of applications without the installation costs and time constraints of wired systems. Solar powered options are complimented by the low power consumption each Contact Closure unit requires.

Simple to integrate, the Contact Closure series supports all typical system designs, including point to point, point to multipoint, and multipoint to multipoint. Operation is long range at up to 20 miles and multiple repeater levels are supported for extending communication. Latency is low, keeping delays at a minimum and innovative timer outputs can be pre-programmed for up to two hours, eliminating the need for timer relays while reducing costs. Bi-directional communication enhances confirmation ability.

Each unit is built and supported by over 25 years of industry experience, includes a five year warranty and comes with powerful, user-friendly ControlPAK or ZoneWatch software. These programs incorporate highly visual, straightforward tools for remote maintenance and configuration while precise diagnostics minimize issues and downtime. Also included is a spectrum analyzer for determining accurate noise levels and optimal operating frequencies.

Key Features:

- License free, frequency-hopping, spread-spectrum technology (900 MHz)
- Robust on/off control
- Operational in point-to-point, point-to-multipoint and multipoint-to-multipoint configurations
- Remote monitoring and control
- Range of up to 20 miles
- Includes ControlPAK or ZoneWatch software
- 5 year warranty

Key Benefits:

- Over 25 years of broad industry experience
- Proactive and adaptable solutions for a diverse range of applications
- Unmatched software management tools
- Scaleable and future proof technology platforms
- Personalized customer support programs and corporate culture
- Unequalled warranty and support programs
- Defined and measurable ROI

Available in Three ENCOM Models:

COMMPAK I/O 8

- 8 Inputs and 8 outputs
- Robust on/off control
- Can monitor multiple events
- Covers a broad range of applications
- Range of up to 20 miles

WEB I/0

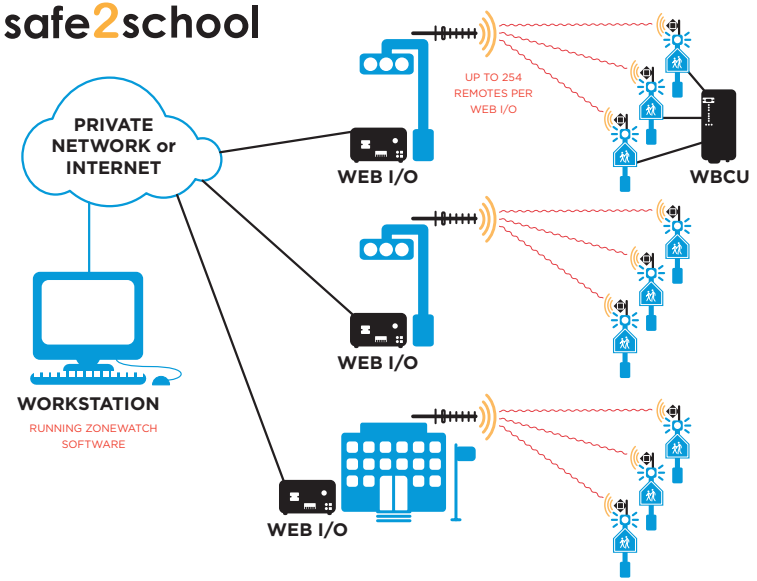
- Ethernet-based 900 MHz master radio
- Includes a web server
- Wide-area control of up to 254 remote units within a 20 mile radius
- Includes ZoneWatch software for centralized control

WBCU (Wireless Beacon Control Unit)

- 900 MHz remote radio to complement WEB I/0
- Integrated real time clock
- Expedited installation through plug-and-play design
- 2 relay outputs for seamless integration
- Built-in real time clock battery backup
- Internal storage ensures operation if communication is lost with master radio

Solution Example:
SCHOOL-ZONE FLASHING BEACONS

safe2school



For more information on ENCOM's Safe2School system, check out http://www.encomwireless.com/our-solutions/safe2school or refer to the Safe2School brochure.

Solution Portfolio:

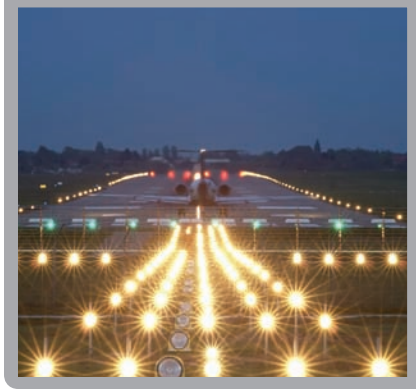
Intelligent Transportation Systems
- Traffic & Emergency Warning Systems
- Remote Vehicle Detection
- Emergency Vehicle Pre-Emption
- Gate Open & Closure
- Airfield Lighting
- School-Zone Flashing Beacons
- Traffic Ramp Metering
- Gate Open & Closure

Water/Waste Water Management
- Pump/Lift Stations
- Reservoir Monitoring
- Remote Valve Controls

Electrical Utilities
- Automated Meter Reading (AMR)
- Automatic Circuit Reclosures (ACR)
- Smart Grid Support
- Fault Monitoring

Industrial SCADA Networks
- Remote Irrigation Systems
- Dust Detection
- Pipelines
- Oil and Gas
- Mining

Private Networks
- LAN & WAN Extensions
- Business Continuity Planning
- Disaster Recovery Planning
- Mobile Workforce
- Hotspot Enablement



About ENCOM:

ENCOM, a Global Wireless Solutions Provider, creates field proven, cost-effective wireless data solutions for municipal and industrial clients, with applications involving:

- Intelligent Transportation Systems
- Public Safety Communications
- Municipal Corporate Security and IT Networks
- Water and Waste Water Management
- Electrical Utilities
- Oil and Gas

Who relies on ENCOM?

- Municipal Governments
- Corporate IT Departments
- Departments of Homeland Security
- Departments of Transportation
- Emergency First Responders
- Mobile Workforces
- Private Networks

Customer Testimonials:

- City of Aurora, Colorado
- City of Burnaby, British Columbia
- City of Calgary, Alberta
- City of Greely, Colorado
- Los Alamos County, New Mexico
- Macomb County, Michigan
- Missouri DOT
- North Carolina DOT
- City of San Jose, CA
- City of Tampa, Florida
- TxDOT

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RADIO SPECIFICATIONS			
Technology	Frequency-hopping, spread-spectrum technology (FHSS)		
Frequency Range	902-928 MHz		
Output Power	1mW, 10mW, 100mW, 1000mW		
Software Programmable	Yes		
Available Hop Patterns	64		
Number of RF Channels	128		
RF Channel Spacing	200KHz		
Error Checking	16 bit-CRC		
Encryption	16 bit		
Receiver Sensitivity / ER	-110 dBm @10-6 BER		
System Gain	145 dBm		
Antenna Port	RP TNC-F		
Certification	FCC, Industry Canada		
Operating Modes	Transceiver		
System Configurations	Point-to-point, point-to-multipoint, multipoint-to-multipoint		
GENERAL SPECIFICATIONS			
Input Power	6-30VDC		
Power Consumption	Typical @ 24 VDC		
	Normal	**Low current mode**	**Sleep mode**
Master	45 mA	9mA	N/A
Repeater	76 mA	9mA	N/A
Remote	45 mA	9mA	7.5 mA
Operating Environment	-40°F to 76°F (-40°C to 80°C)		
Humidity	0-95% non-condensing		
Enclosure Type	Milled aluminum, black powder coat		
Warranty	5 years		
SOFTWARE SPECIFICATIONS	• Radio configuration • I/O mapping • Spectrum analyzer • Remote diagnostics and configuration		

COMMPAK I/08 SPECIFICATIONS	
Dimensions	4.75"W x 1.73"H x 3.75"D
Weight	20 oz
INTERFACE SPECIFICATIONS	
Programming port	RJ12
Inputs	0-24 VDC (ground activated)
Outputs	8 digital open collector (max 500mA load current per output)
Indicators	Power, input, output, link
Conntector	Terminal block

WBCU SPECIFICATIONS	
Dimensions	4"W x 1.5"H x 8"D
Weight	24 oz
Input Power	6-30 V DC or 120 V AC
Backup Power	For 12 V DC applications
Memory	Non-volatile memory
Outputs	Two SPDT relays rated at 15 Amp 12 V DC or 120 V AC resistive loads
Power Consumption (@ 12 V DC)	**Standby:** 14 mA **1 Relay Active:** 47 mA **2 Relays Active:** 80 mA
Time Synch	Synchronizes with WEB I/O every 2 seconds.
INTERFACE SPECIFICATIONS	
Programming Port	• DB-9 male (RS-232) • Mini USB
Data and Power	CPC quick connect or terminal block
Wireless	Rev.Pol TNC Male

WEB I/O SPECIFICATIONS	
Power Requirements	**Voltage:** 8-30 V DC **Current Draw:** 75 mA @ 12 V DC
Ethernet Interface	10/100 Fast Ethernet connection
Web Server	Requires Internet Explorer 7.0 or newer
Remote Control Functions	Manual ON/OFF control of individual beacons, groups of beacons or entire zone
Scheduled Operation	Scheduled events can be programmable by year, month, day, start time, duration or day of the week; including morning and afternoon flash cycles, early dismissal days, holidays and special events. **Scheduled events can be programmed using the web interface or with ControlPAK/ZoneWatch software.**
Contact Closure Specs	• Two inputs (ground activated or up to +24 V DC activated) • Two open collector outputs
Security	Administrator and permission level credentials are available to ensure flexibility, control and advanced security features

Please visit **www.encomwireless.com** for customer cases, testimonials and additional information on all ENCOM products and services.

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