SBX REMOTE I/O

Integrated I/O | 900 MHz Remote Unit

HARMONY from ENCOM Wireless
Connect Everything. Anywhere. Every time.

The Harmony SBX Remote I/O device is a cost-effective, easy-to-integrate means of adding smart wireless connectivity to your system. By collecting performance data and managing remote sites without site visits, Harmony optimizes operations through improved system performance and reduced maintenance costs. Harmony Series wireless devices combined with STRATOS ELITE Central Software enable agencies to 'connect everything' through a private Wide Area Network or the 4G LTE Cellular system. This system is not simply a wireless connection, it is an end-to-end wireless monitoring and control solution designed for both small- and large-scale deployments.

With Harmony you can:

- Easily obtain real time status updates from your remote sites and log data for future analysis to improve operations (power status, solar performance, battery charge, beacon flash status, and sensor data).
- Create and download schedules or manually control devices from anywhere you have an Internet connection.
- Receive customizable alerts and alarms directly to your inbox , enabling you to react to issues anywhere – every time.
- Leverage existing network infrastructure to connect your sites without on-going costs or use 4G LTE Cellular to connect anywhere your cellular phone works.

Harmony can connect with a wide variety of remote devices and is perfectly suited to these common applications:

- **School Zone Flashing Beacons** – track power status (AC or Solar), create/edit schedules, override individual or groups of beacons, confirm beacon flash status, log historical data
- **Solar Powered Sites** – monitor solar charge output, battery charge, load levels.
- **Intelligent Traffic Cabinets** - monitor doors, remote power cycling, environmental conditions (temp, humidity etc)
- **Collecting SCADA information** - water / wastewater, oil and gas, electrical utilities, agriculture
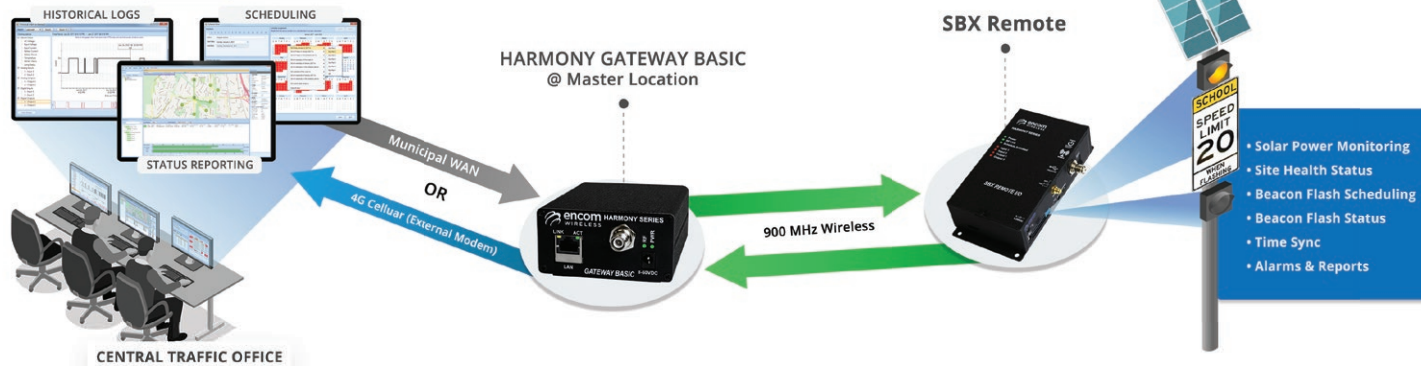
Harmony SBX Remote I/O Device Overview:

Combine the Harmony SBX Remote I/O device with any of the Harmony Gateway products and STRATOS ELITE Central Software to build an end to end monitoring and control solution. The Harmony SBX Remote I/O features a powerful and field proven 900MHz FHSS radio that creates a wireless network to an associated Harmony Gateway at ranges up to 20 miles. Up to 254 Harmony SBX Remote I/O units can communicate with one Harmony Gateway. The Harmony SBX Remote I/O integrates seamlessly with new or existing School Zone Flashing Beacons or Solar Power Systems and provides instant connectivity, capabilities of your systems with ease.

Bring Harmony to your network with ENCOM Wireless and call today for a free consultation.

STRATOS ELITE

encom WIRELESS

GENERAL SPECIFICATIONS:

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Input Power:	6-30 VDC or 100V-240VAC
Power Consumptions @ 12 VDC:	Standby: 15 mA
LED Indicators:	PWR, RF Link, Schedule, Input 1 & 2 and Output 1 & 2
Operating Temperature:	-40 to 176F (-40 to 80C), up to 95% humidity
Enclosure:	Aluminum, Black Powder Coat (3.75"W x 1.75"H x 7.5"D)
Lamp Fail detection:	Yes- Direct Current Monitoring
Loss of A/C detection and reporting:	Yes – battery backup enables alarm reporting
Input voltage & current monitoring:	Yes
Solar Panel Voltage Monitoring:	Yes
Battery Charging Current monitoring:	Yes
Lamp ON Current Monitoring:	Yes- Output 1 & 2
Integrated Battery Back-up:	Yes
Calendar:	365 days
Scheduling:	Yes
Manual Overrides	2 Local / 2 Remote

RADIO SPECIFICATIONS:	
Technology:	(FHSS) with repeater capability
Frequency Range:	902-928 MHz, ISM Band
Output Power:	1mW, 10mW, 100mW, 1000mW
Receiver Sensitivity:	-110dBm @ 10-6 BER
Encryption:	32-bit
Certification:	FCC, Industry Canada
Antenna Port:	RP TNC-F

CONNECTIVITY:	
USB Port:	Local Programming
900 MHz Radio:	Yes
GPS	Yes- Optional
Configuration, Monitoring & Control:	Stratos Elite, ControlPAK

I/O:	
Digital Input:	2 - 0 to 48V
Digital Output:	2 (SPDT 3 Amp)
Analog Input:	2- 0 to 50 VDC, 12 Bit Resolution
Analog Output:	2- 0 to 5 VDC, 12 Bit Resolution

Site Monitoring Functions

- LED beacon on/off status – confirmed with current monitoring.
- Beacon lamps fail alarms
- Low battery voltage detection and alarms
- Solar panel voltage data logging
- Solar power charge output data logging
- Power fail reporting – integrated battery backup inside Harmony Device
- General purpose I/O enabling other applications.

Control Functions:

- Centralized schedule management for school zone beacons - make schedule changes or manually turn on/off individual or groups of beacons from anywhere with STRATOS Elite.
- Accurate time synchronization at all sites - never set a time clock in the field again.
- Remote power cycle function – reset power on field devices from anywhere.
- Two hardwired inputs for push buttons / detection switch connections.
- Two 0 to 5 V analog outputs for external device control.

Harmony SBX Remote I/O Connectivity Features:

- Simply connect Harmony SBX Remote I/O directly to solar power system and flashing beacon relays for instant wireless monitoring and control.
- Integrated 900 MHz 1W radio to communicate with gateway master radio up to 20 miles away
- USB port for local/ offline programming
- Optional GPS available for location tracking