

Product Description

The Lynxspring IBOX controller is a compact, embedded controller/server platform. It combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform. The IBOX makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

The IBOX is a member of the JENEsys™ suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. JENEsys™ products are powered by the revolutionary NiagaraAX Framework®, the industry's first software technology designed to integrate diverse systems and devices into a seamless system. Niagara supports a wide range of protocols including LonWorks™, BACnet™, Modbus™, and Internet standards. The AX Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of interoperable networks.



Features and Application Highlights

The IBOX is powered by the Niagara® AX Framework using the latest JAVA APIs and XML technology. The IBOX was developed with the integrator in mind, with a built-in user interface. The user interface requires no proprietary software and is accessible via a laptop, PDA, or operator workstation with the use of any Internet web browser. Its small footprint, multi-protocol support, and powerful capabilities offer extreme flexibility in meeting all integration needs.

The IBOX extracts data from the Air Fixture Network and transposes this data into BACnet or LON Values. These values are then made accessible to a building automation system over the customizable BACnet or LON Network.

- Standard: Two RJ-45 Ethernet Ports, one RS-232 port, and one RS-485 port
- Interoperable: BACnet or LON ready, with the addition of I/O and communication modules
- Versatile: Fully-customizable with an array of off the shelf software drivers
- Reliable: All program data is backed up in nonvolatile EEPROM
- Fast: Onboard Ethernet communication provides rapid data transmission

Mounting

WARNING: Do not mount in a location subject to electrical noise. This includes the proximity of large electrical contractors, variable frequency drives, electrical machinery, welding equipment, spark igniters, and any high voltage producing equipment.

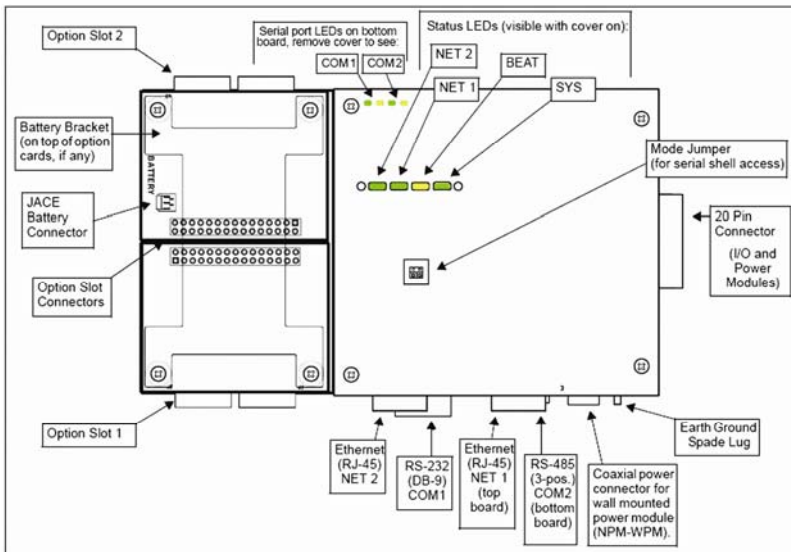
You must remove the IBOX cover to install this unit. The cover snaps onto the base with four plastic tabs (two on each end). To remove the cover, press in the four tabs on both ends of the unit, and lift the cover off. To replace the cover, orient it so the cutout area for communications ports are correct, and then push inwards to snap in place.

Mount the IBOX in a horizontal position. It is necessary to remove the cover before mounting. Mount on a 35mm wide DIN rail. The IBOX unit base has a molded DIN rail slot and locking clip. The following procedure provides step-by-step DIN rail mounting instructions for the IBOX.

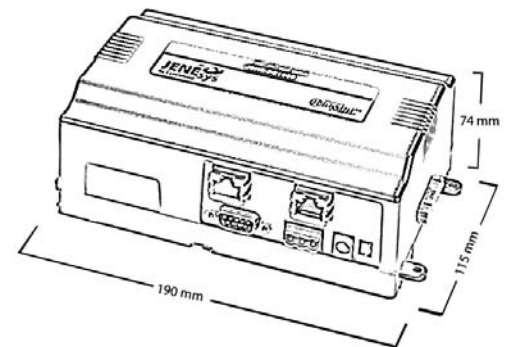
- Step 1** Securely install the DIN rail using at least two screws, near both ends of the rail.
- Step 2** Position the IBOX on the rail, tilting to hook DIN rail tabs over one edge of the DIN rail.
- Step 3** Push down and in to force the DIN rail clip to snap over the other edge of the DIN rail.
- Step 4** To prevent the IBOX from sliding on the DIN rail, place a screw in two of the four mounting tabs in the base of the IBOX.

Technical Data

- Platform**
- IBM PowerPC 405EP 250 MHz processor
 - 64MB SDRAM & 64 MB Serial Flash
 - Battery Backup - 5 minutes typical - shutdown begins within 10 seconds
 - Real-time clock - 3 month backup max via battery
- Communications**
- 2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)
 - 1 RS 232 Port (9 pin D-shell connector)
 - 1 RS 485 non isolated port (3 Screw Connector on base board)
- Optional Communications Cards**
- JCOM-1LON - Optional 78 Kbps FTT10 A LON Adapter
 - JCOM-1232 - Optional RS-232 port adapter with 9 pin D-shell connector
 - JCOM-2485 - Optional dual port RS-485 adapter; electrically isolated
- Operating System**
- QNX RTOS
 - IBM J9 JVM Java Virtual Machine
 - Niagara^{AX}
- Power Supply**
- JPWR-DRPM - Optional: 24 Volt AC/DC power supply module, Din Rail mounted
 - Optional Wall Power Modules –
(Note: All modules are universal input 90 – 240 volts, 50/60 Hz.; the model numbers below represent the various plug configurations only)
 - JPWR-WWPM-US - 120 Vac, 50- 60 Hz. US
 - JPWR-WWPM - 230 Vac, 50-60 Hz. Europe/Asia
 - JPWR-WWPM - 230 Vac 50-60 Hz. UK
- Chassis**
- Construction: Plastic, din rail or screw mount chassis, plastic cover
 - Cooling: Internal air convection
 - Dimensions: 6.313" (16.04 cm) W x 4.820" (12.24 cm) H (including connectors) x 2.438" (6.19 cm) D
- Environment**
- Operating temperature range: 0° to 50 °C (32°F to 122°F)
 - Storage Temperature range: 0° to 60°C (32°F to 140°F)
 - Relative humidity range: 5% to 95%, non-condensing
- Agency Listings**
- UL 916, C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment", CE, FCC part 15 Class A, C-tick (Australia)



DIMENSIONS





Ordering Information

Model #	Description
IBOX-SA	Stand Alone IBOX Controller with web enabled user interface
IBOX-LON	IBOX with LonWorks Integration support
IBOX-MSTP	IBOX with BACnet MSTP Integration support
IBOX-IP	IBOX with BACnet IP Integration support

Standard (Normal) Integration Points *

Point Number	Description
1	Space Temperature
2	Space Temperature Set Point
3	Cooling Command – Duty Cycle
4	Heating Command – Percent Heat
5	Air Switch Alarm
6	System Operating Mode
7	Manual Damper Command
8	Damper Action – Direct or Reverse

Additional (Extended) Integration Points **

Point Number	Description
9	Space Temperature Deadband Value
10	Space Temperature Deadband Selection
11	Manual Heating Command

* If using the normal point list you can connect up to 62 AirFixture devices to (1) IBOX

** If using the extended point list you can connect up to 32 AirFixture devices to (1) IBOX