Central Base Station
Load Ratings: 120VAC; 8W max
Operating Temperature: -20 to +55 C

ŝynapse®

WARNING AND CAUTIONS:
- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER** AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!
- **Risk of Electric Shock -** Local codes may require more than one disconnect switch. De-engergize all disconnect switches before servicing the equipment.
- Use this device with copper or copper clad wire only.
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.
- Switched output is energized by default at power up

WARNINGS AND CAUTIONS:
- Disconnect power at circuit breaker or fuse when servicing, installing or removing fixture or changing lamps.
- **Mounting:** It is critical to the performance of this device that the antenna be oriented vertically. It must be mounted with door latch/lock on the right.
- Metal conduit and connector must be grounded.

INSTALLATION GUIDE

DESCRIPTION

The **Central Base Station** (CBS) is a SimplySNAP component that can be installed anywhere you need wireless push-button lighting control, such as municipal ballparks, hockey arenas, basketball facilities, and other multi-use complexes.

The heart of the Central Base Station is the SS420/450 site controller, contained in the NEMA 4X enclosure. An optional bank of 5 buttons allows for controlled manual access to site lighting controls.

The Central Base Station makes it easy for electricians to quickly install the SimplySNAP site controller and enables quick and simple access to a switch station that can be programmed to meet the needs of the end-user.

PRODUCT NUMBERS

CBSSW-450-001:	SS450-based Model w/ 5-button switch
CBSSW-420-002:	SS420-based Model w/ 5-button switch
CBS-450-001:	SS450-based Model (gateway only)
CBS-420-002:	SS420-based Model (gateway only)

FEATURES

- 5-button switch for easy control of all lights
- Allows for restricted control of a SimplySNAP lighting system
- Perfect for sporting venues

SPECIFICATIONS

Dimensions	: 15.5" x 13.5" x 7.7" (393 x 342 x 195 mm)
Input Power	: 120VAC, +/- 10%; 8W max; 6kV surge protection
Operating Temperature	: -20°C to +55°C
Radio	: SNAP 2.4GHz ; 802.15.4 Wi-Fi 2.4Ghz; 802.11 b/g/n

CAUTION
- The Central Base Station must be installed in accordance with national, state, and local electrical codes and requirements
- All work must be performed by qualified personnel
- Disconnect all power before installation or service
- Metal conduit and connector must be grounded
- The switched output (LOAD) is energized by default at power up

NEEDED MATERIALS

Mounting Hardware: Using hardware appropriate for the installation, use all four (4) 0.310" diameter mounting holes to mount the unit

Screwdriver: A #2 Phillips screwdriver is required to remove the junction box cover

Conduit: Weather-proof 3/4" conduit fitting is needed. The power entry point is sized for a 3/4" NPT (1.12" diameter).

Note: To maintain IP rating of the unit, it **must** be installed with a weather-proof 3/4" conduit fitting at the power entry point.

WARNING: TO AVOID FIRE, SHOCK, OR DEATH: TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND VERIFY THAT POWER IS OFF BEFORE WIRING!

INSTALLATION INSTRUCTIONS

WARNING: DO NOT INSTALL THE CENTRAL BASE STATION IN DIRECT SUNLIGHT. If installing the Central Base Station outdoors, ensure that the Central Base Station is provided some means of shading from direct sunlight. Installing the unit in direct sunlight will substantially reduce maximum operating temperature. Please install unit in shaded area or provide a non-metallic sunshade that will not obstruct RF signals.

1. Select an installation location for the Central Base Station. The best location provides direct line of sight between the Central Base Station and at least two other lighting controllers in the network. The antennas inside the Central Base Station rely on free space around them for best RF performance so avoid an installation near network cabling, AC power lines or metal pipes. Finally **avoid installing the Central Base Station in direct sunlight.**

2. There are two ways to mount the Central Base Station (CBS): using a pole strap (step 4), or screwing the CBS to a wall with the screw holes (step 4).

WARNING: The CBS must be mounted vertically with the conduit coming out of the bottom of the unit, or the wireless signals may be compromised. DO NOT install the CBS horizontally.

3. You can mount the CBS to a pole using any L-com pole straps that are compatible with the L-com© NB141207 NEMA box.

4. Using four (4) screws that can fit the .31 diameter mounting holes and capable of supporting 61 lbs of weight, screw the CBS to the wall.

5. With the CBS box mounted, you must have a licensed electrician pull power into the junction box according the national, state, and local electrical codes and requirements. The electrician is to connect line, neutral, and ground inside the junction box in such a way that the surge protection device is in-line between power in and wires exiting the top of the junction box, internally.The junction box is in the bottom right-hand corner of the CBS with three connection points that the power will need to be wired to:

    - **Black is Line**
    - **White is Neutral**
    - **Green/Yellow is Ground**

NOTE: The Power entry cable is not provided. The power entry hole is 3/4" knockout (1.115) and a sealed power entry connector and conduit is required in order for the box to meet NEMA 4X standards.

NOTE: The Central Base Station holds a rating of IP65 when the door is closed AND latched AND all enclosures ports (power and Ethernet) are properly sealed. Failure to properly seal the enclosure ports or close AND latch the door will void the IP65 rating.

WARNING: THERE ARE NO SERVICEABLE COMPONENTS INSIDE THE CENTRAL BASE STATION, except for the Surge Protection Device which should only be replaced by a licensed electrician. The Surge Protection Device replacement part number is LSP10120S.

CONNECTING ETHERNET CABLE

To connect an Ethernet cord to the SS420/450 inside the CBS, you need to unscrew the cap to the external Ethernet jack on the bottom left of the Central Base Station. If you are mounting indoors, you can just plug the Ethernet cord into the jack.

If mounting the CBS outdoors, use the provided unterminated weather-resistant Ethernet cable that screws into the external Ethernet jack. You will need to have qualified personnel wire the provided cable to standard Ethernet cable. Ideally, you would connect the provided cord with standard Ethernet cable inside a junction box to provide the standard Ethernet cable with weather-resistance.

TROUBLESHOOTING

In the event of a strong surge, this unit will protect itself and disconnect from AC power until the surge protection device (SPD) is replaced. Need for replacement is indicated by lack of power to the box and the lights being controlled by the unit being held in the on state. SPD replacement part number: Littelfuse LSP10120S

SYMBOL DEFINITIONS

Danger — Hazardous Voltage. Contact will cause an electrical shock or burn. This unit must be serviced by trained personnel only.

Electrical Ground

CERTIFICATIONS

Contains FCC ID : U9O-SM220 & QOQWF111
Contains IC : 7084A-SM220 & 5123A-BGTWF111

REGULATORY INFORMATION

RF Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada (IC) certifications: This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicable aux appareils numeriques de la class B prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

FCC certifications and regulatory information (USA only)

FCC Part 15 Class B: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) These devices may not cause harmful interference, and (2) These devices must accept any interference received, including interference that may cause harmful operation.

RADIO FREQUENCY INTERFERENCE (RFI) (FCC 15.105): This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Re-orient or relocate the receiving antenna; (2) Increase the separation between the equipment and the receiver; (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected; (4) Consult the dealer or an experienced radio/TV technician for help.

Declaration of Conformity (FCC 96-208 & 95-19): Synapse Wireless, Inc. declares that the product name "SM220" to which this declaration relates, meet the requirements specified by the Federal Communications Commission as detailed in the following specifications:

*   Part 15, Subpart B, for Class B equipment
*   FCC 96-208 as it applies to Class B personal computers and peripherals
*   This product has been tested at an External Test Laboratory certified per FCC rules and has been found to meet the FCC, Part 15, Emission Limits. Documentation is on file and available from Synapse Wireless, Inc.

If the FCC ID for the module inside this product enclosure is not visible when installed inside another device, then the outside of the device into which this product is installed must also display a label referring to the enclosed module FCC ID. Modifications (FCC 15.21): Changes or modifications to this equipment not expressly approved by Synapse Wireless, Inc., may void the user's authority to operate this equipment.