SensorNet 1-Position Junction Box (J-Box)

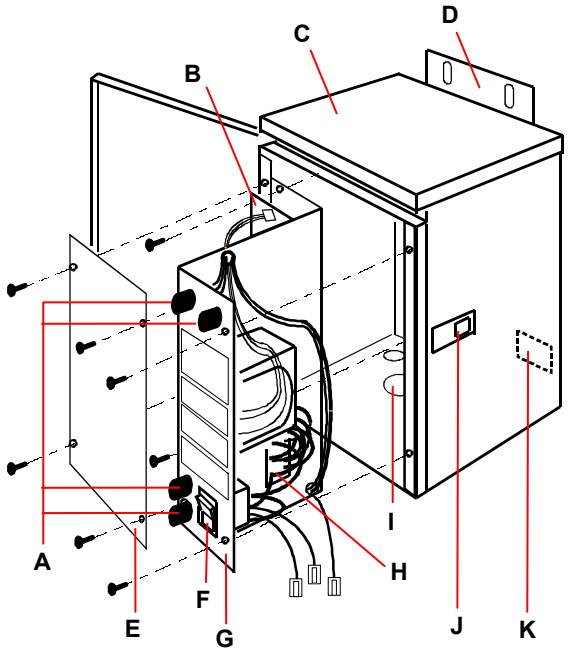
This weather-resistant box provides power and data communications for one SpeedDome or SpeedDome Ultra camera dome. One of these boxes ships with each Outdoor SensorNet SpeedDome.

IMPORTANT: Regulatory Requirements and other declarations on page 4.

If you need assistance...

Call your sales representative.

Figure 1. J-Box Components



A. Fuses
B. PC board (PCB)
C. Enclosure
D. Mounting Bracket
E. Cover plate
F. On/Off switch
G. Chassis
H. TB1 connector
I. Knockouts
J. Latch
K. TB2 connector

Installation Requirements

NEVER PIERCE the enclosure. Always mount the J-Box vertically and within 7.6m (25ft) of the outdoor camera domes.

The installation must satisfy the following requirements:

- Follow the SensorNet Network Guide section to ensure proper network design.
- Minimize exposure to environmental extremes by mounting the J-Box and the SpeedDome in a sheltered area when possible.
- Always use dedicated, unswitched 24 hour AC power, supplied in accordance with local codes and with proper grounding.
- Ensure that the J-Box's power On/Off switch and fuses are accessible.
- Always use the four mounting bolts for wall and pole mount installations.
- Use the clamp package provided when banding a camera dome to a pole.

Installation Process

Parts Required

Installation Kit (0351-0739-02) includes:

a) Anchor, toggle and bolt, 1/4x4	4	2880-0040
b) Anchor, wedge, bolt, 1/4x4	4	2880-0052
c) Screw, #10x1-1/24	4	2812-7816
d) Flat washer, wide, type B, #10	4	2848-9306
e) Conn, Plug Tublr, 1 x 4 Posn	1	2109-0254-03
f) Conn, Plug, Tublr 1 x 5 Posn	1	2109-0254-04
g) Grommet, Edge, Continuous	1ft	3100-0029-01
h) Bushing, STR RLF	1	3100-0035-11

Mounting the J-Box

1. **Disconnect power to the J-Box at the circuit breaker.**
2. **Remove the four screws from the cover plate and remove the plate.**
3. **Remove the four screws securing the chassis to the enclosure.**
4. **Disconnect the wires from TB2 and remove the chassis from the enclosure.**

5. **Remove the necessary knockouts from the bottom plate of the enclosure to provide data and power cable access.**

6. **Using the enclosure's mounting brackets as a template, mark the mounting hole locations on the designated area of the wall.**

7. **Drill holes at the marked areas to accommodate the required mounting hardware.**

8. **Secure the enclosure in place using either the four hollow wall anchors for sheetrock, concrete anchors for blocks, or wood screws for plywood.**

9. **Pull the cables through the knockout holes in the bottom plate and align the conduit (if any) with the holes.**

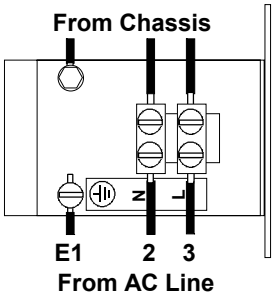
Connecting Power to the J-Box

> 230Vac operation requires changes to chassis jumpers and fuses. Refer to the chassis panel for details.

1. **Remove cover plate and chassis (Figure 1) to access connector TB2 at rear of enclosure.**

2. **Connect incoming AC wires to the TB2 connector for 115Vac or 230Vac operation using Figure 2 and its associated tables.**

Figure 2. TB2 Power Connections



Chassis Connections

Color	Pin	Function
Green/ Yellow	E1	Ground
Black	2	Neutral
Black	3	Line

AC Line Connections

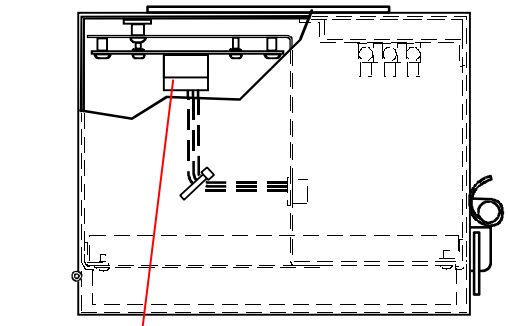
Color North America	Color Europe	Pin	Function
Green/Yellow	Green/Yellow	E1	Ground
White	Blue	2	Neutral
Black	Brown	3	Line

Connecting Power to the PC Board

1. **Replace the four screws that secure the chassis in the enclosure.**

2. **Connect AC power to the printed circuit board (PCB) by inserting the polarized connector from the chassis into the P7 connector on the PCB. See Figure 3.**

Figure 3. Top View and P7 Connector



PCB Power Connector (P7)

P7 Connector

Color	Pin	Function
Black	4	28Vac
Green	5	Ground
Black	6	28Vac

Connecting the Camera Dome to the J-Box

Video cables are connected directly to the video control system — not terminated at the J-box. Power and data lines must be connected to the J-box.

Video Cable Connection

Attach the video cable from the camera dome to the appropriately-labeled cable leading to the video control system.

Power and Data Connections and Terminations

1. **Strip the three power and two data leads from the composite cable and attach them to a 5-position compression connector, following the P1 Connector table from Figure 4.**

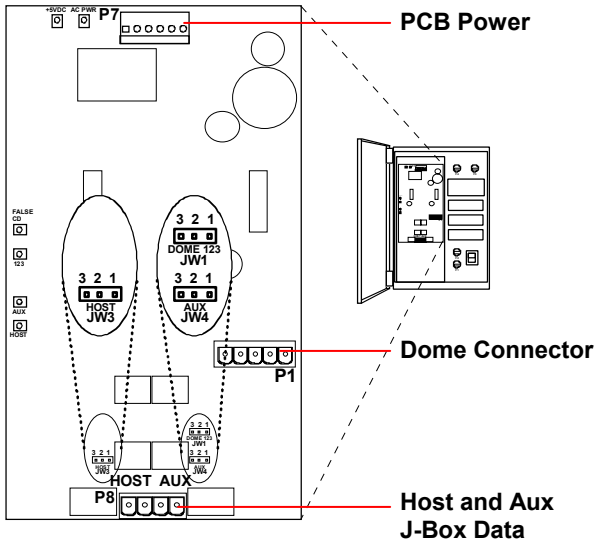
2. **Plug the compression connector into port P1 on the PCB.**

3. **Wire the SensorNet data cable coming from the host device (and any cables going to an auxiliary J-Box or other SensorNet device) to a 4-position compression connector, following the P8 Connector table from Figure 4.**

4. **Plug the compression connector into port P8 on the PCB.**

5. **Set jumpers JW1, JW3, and JW4 on the PCB (see Figure 4) to the correct position. Shorting pins 1–2 terminates the device. Refer to the SensorNet Network Guide to determine the necessary terminations for the chosen network topology.**

Figure 4. PCB Connectors and Jumpers



P8 Connector

Color	Pin	Function
Orange	1	Host +
Yellow	2	Host –
Orange	3	Auxiliary +
Yellow	4	Auxiliary –

P1 Connector

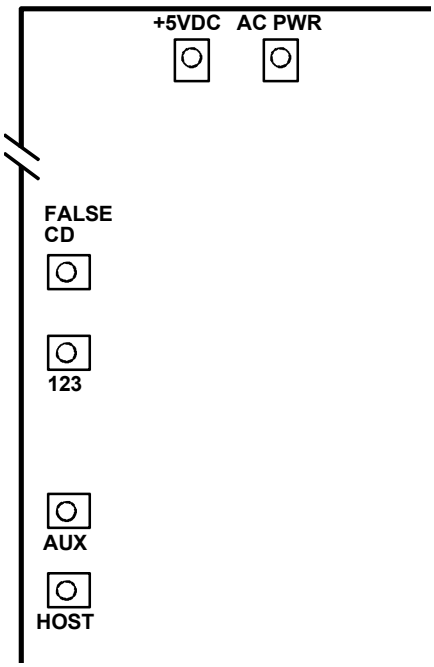
Color	Pin	Function
Orange	1	SensorNet +
White	2	28Vac
Red	3	Ground
Black	4	28Vac
Yellow	5	SensorNet –

Data and Power LED Indicators

The LED indicators on the PCB (see Figure 5) allow visual verification of SensorNet signals and power to the dome port and host/auxiliary ports. They illuminate to indicate the following conditions:

- **AC PWR** is yellow when 24Vac from the transformer to the PCB is present.
- **+5VDC** is green when DC power from the on-board regulator is present.
- **FALSE CD** is red for .5 sec if the device receives a false pulse (indicating noise on the SensorNet cable).
- **123** is yellow for 30ms to indicate communications activity from dome port 1.
- **AUX** is yellow for 30ms to indicate communications activity from the auxiliary port.
- **HOST** is yellow for 30ms to indicate communications activity from the host port.

Figure 5. On-Board LEDs



Specifications

Electrical

Power Source (50–60Hz) .. 100–120/200–240Vac
Power Consumption: ..... 250W max.
Voltage Output:..... 28Vac, 5A max.
Fuses F1, F2: ..... 2A, 250V, Slow Blow
Fuses F3, F4: ..... 6.3A, 250V, Slow Blow

Dimensions

Height: 32cm (12.6in.)
Width:..... 21cm (8.27in.)
Depth: 16cm (6.3in.)
Weight:..... 8.5kg (18.7lb)

Declarations

REG ID: JB-SNET-O

Regulatory Requirements

This product can only be used with American Dynamics products and other approved products from Sensormatic Electronics Corporation products.

When the unit is hard wired, the disconnect device (circuit breaker) must be readily accessible.

Use only polarized plug/cordsets; non-polarized plugs invalidate regulatory approvals. Use only approved cordsets.

The socket outlet must be installed near the equipment and easily accessible.

FCC COMPLIANCE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EQUIPMENT MODIFICATION CAUTION: Equipment changes or modifications not expressly approved by Sensormatic Electronics Corporation, the party responsible for FCC compliance, could void the user's authority to operate the equipment and could create a hazardous condition.

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