H-MOSS® Occupancy Sensors
Ceiling Sensors
Featuring Adaptive Technology

c(UL)us LISTED

**ATD2000CRP
ATD2000C**

**ATD1000CRP
ATD1000C
ATD500CRP
ATD500C**

**ATU2000CRP
ATU2000C**

**ATU1000CRP
ATU1000C
ATU500CRP
ATU500C**

All H-MOSS ceiling sensors with Adaptive Technology, contain the following standard features:

- Adaptive technology – "Install and forget" operation
- All digital sensing technology
- Photocell for daylight harvesting and relay to interface with auxiliary systems such as HVAC (RP models)
- Non-volatile memory – Learned and adjusted settings retained after power outage
- 24V DC, 33mA
- 32kHz (ATD/ATU500C & CRP - 40kHz)
- Mounting base included with sensor

Adaptive Technology, Dual (Ultrasonic and Passive Infrared)

Combines the excellent minor motion detection of ultrasonic with the outstanding passive infrared (PIR) long-range major motion detection.
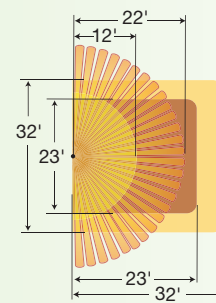
Coverage	Color	Catalog Numbers
2000 sq. ft. with photocell and isolated relay	White	ATD2000CRP
2000 sq. ft.	White	ATD2000C
1000 sq. ft. with photocell and isolated relay	White	ATD1000CRP
1000 sq. ft.	White	ATD1000C
500 sq. ft. with photocell and isolated relay	White	ATD500CRP
500 sq. ft.	White	ATD500C

Note: All ATD ceiling sensors must use a CU series control unit.

■ Ultrasonic Major Motion
■ Ultrasonic Minor Motion
□ Passive Infrared
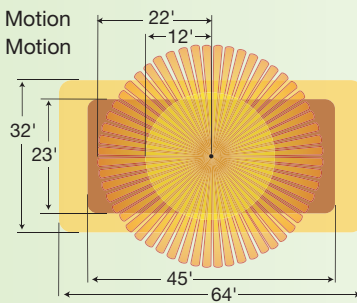

ATD2000CRP, ATD2000C

ATD1000CRP, ATD1000C

Adaptive Technology, Ultrasonic

Excellent minor motion detection.

Coverage	Color	Catalog Numbers
2000 sq. ft. with photocell and isolated relay	White	ATU2000CRP
2000 sq. ft.	White	ATU2000C
1000 sq. ft. with photocell and isolated relay	White	ATU1000CRP
1000 sq. ft.	White	ATU1000C
500 sq. ft. with photocell and isolated relay	White	ATU500CRP
500 sq. ft.	White	ATU500C

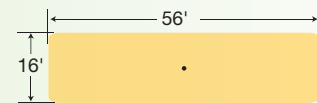*Note: All ATU ceiling sensors must use a CU series control unit.*

■ Ultrasonic Major Motion
■ Ultrasonic Minor Motion
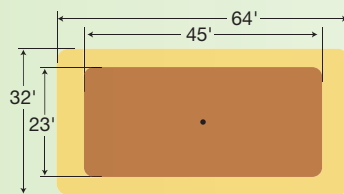
ATU2000CRP, ATU2000C
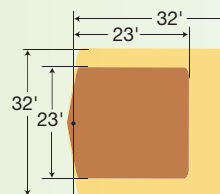
ATU1000CRP, ATU1000C

ATU2000CRP, ATU2000C
Hallway Application

HUBBELL **Wiring Device-Kellems** www.hubbell-wiring.com

H-MOSS® Occupancy Sensors
Specifications and Wiring Schematics
Dual Technology and Ultrasonic Wall Switches

Adaptive Dual Technology Wall Switch
AD1277 Series Wall Switches

Electrical	AD1277 Series
Power Supply	120/277V AC, 50/60 Hz.
Load Capacity	
Incandescent	0 to 800 watts.
120V AC	0 to 600 watts.
277V AC	0 to 1200 watts.
Agency Approvals	cUL US Listed.

Physical	
Housing	High impact plastic (UL-94-5V).
Lens	Dual element pyrometer and 12 element cylindrical hard lens.
Dimensions	Face 2.59"H x 1.73"W, 0.37"D (from wall out).
Mounting Height	42 to 54 inches above floor.

Environmental	
Operating	32°F to 104°F (0°C to 40°C); 0% to 95% non-condensing relative humidity.

Controls	
Time Delay	Digital, adaptive 4 to 30 minutes.
Ambient Light	Adjustable ambient light override, 10 to 500 foot candles.
Front Press Switch	Auto/Off.
Sensitivity	Adaptive 0% to 100%.
Service Switch	Air gap off.

Sensing Indicator	
Passive Infrared	Red LED.
Ultrasonic	Green LED.

Adaptive Technology Ultrasonic and Passive Infrared Wall Switches
AP1277 and AU1277 Series Wall Switches

Electrical	AP1277 Series, AU1277 Series
Power Supply	120/277V AC, 50/60 Hz.
Load Capacity	
Incandescent	0 to 800 watts.
120V AC	0 to 600 watts.
277V AC	0 to 1200 watts.
Agency Approvals	cUL US Listed.

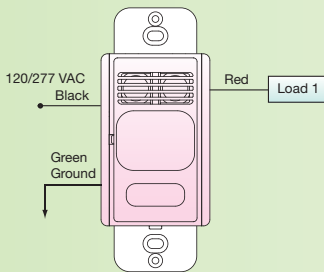| Physical	
Housing	High impact plastic (UL-94-5V).
Lens	Dual element pyrometer and 12 element cylindrical hard lens (AP1277 only).
Dimensions	Face 2.59"H x 1.73"W, 0.37"D (from wall out).
Mounting Height	42 to 54 inches above floor.

Environmental	
Operating	32° F to 104°F (0°C to 40°C); 0% to 95% non-condensing relative humidity.

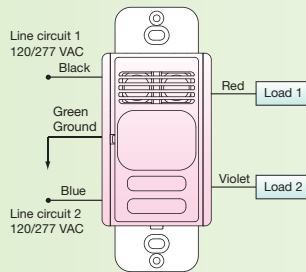| Controls	
Time Delay	Digital, adaptive 4 to 30 minutes. 20 minutes default.
Ambient Light	Adjustable ambient light override, 10 to 500 foot candles.
Front Press Switch	Auto/Off.
Sensitivity	Adaptive 0% to 100%.
Service Switch	Air gap off.

Sensing Indicator	
Passive Infrared	Red LED (AP1277 only).
Ultrasonic	Green LED.

Wiring Schematic AD, AU, AP, 1277 Series Wall Switch Sensors

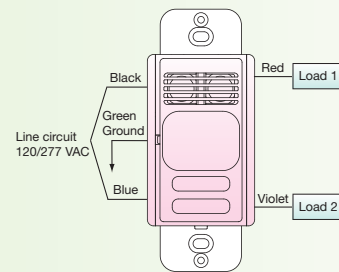**Single Circuit Wiring**

120/277 VAC Black — Red — Load 1
Green Ground

Dual Circuit Sensor, Wired for Dual Circuits

Line circuit 1 120/277 VAC Black
Green Ground
Blue
Line circuit 2 120/277 VAC
Red — Load 1
Violet — Load 2

Dual Circuit Sensor, Wired for Single Circuit

Black
Green Ground
Line circuit 120/277 VAC
Blue
Red — Load 1
Violet — Load 2

Single Circuit Sensor wired as 3-Way Sensor

Ground
Neutral
Green
Hot
Black
Red
Lighting Load A

Dual Circuit Sensor wired as 3-Way Sensor

Ground
Neutral
Green
Hot
Black
Red
Blue
Violet
Lighting Load A
Lighting Load B
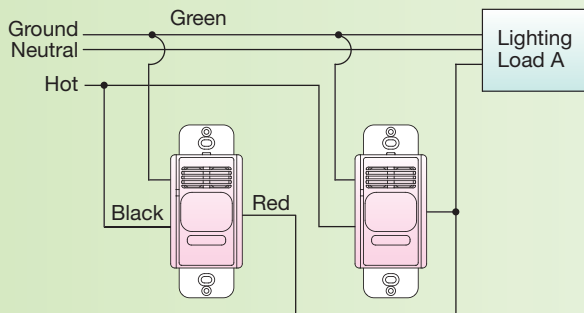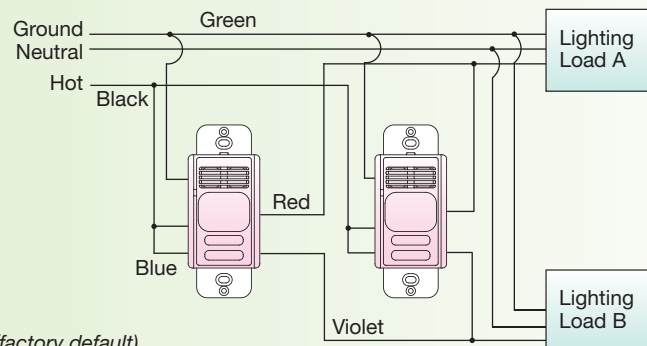
Note: Sensor is shipped with all dip switches in the OFF position (factory default).

Wiring Schematics
Ceiling and Wall Mount Sensors

Adaptive Dual Technology, Ultrasonic, and Passive Infrared Ceiling and Wall Mount Sensors
ATD, ATU and ATP Series Ceiling and Wall Mount Sensors

Single Circuit Application:
1 to 3 sensors wired to control unit with optional override off switch.
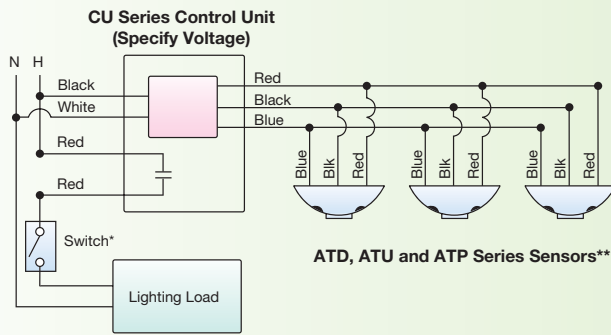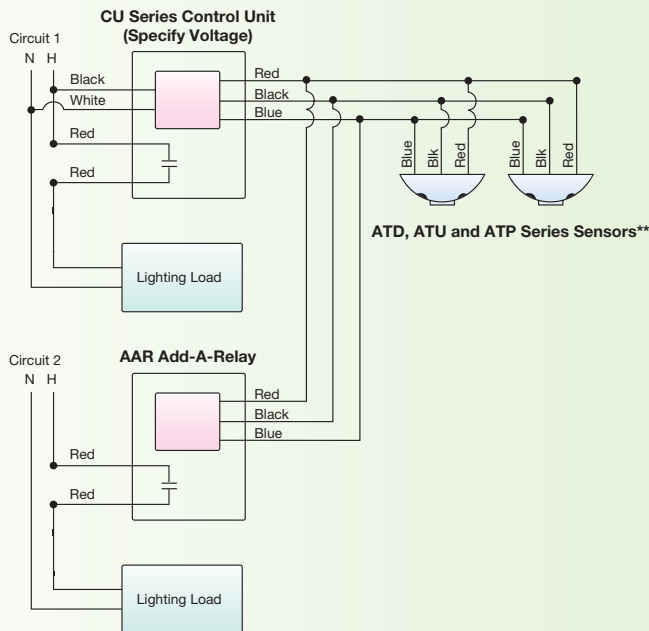
CU Series Control Unit (Specify Voltage)

N H

Black
White
Red
Red

Red
Black
Blue

Switch*

Lighting Load

Blue Blk Red   Blue Blk Red   Blue Blk Red

ATD, ATU and ATP Series Sensors**

* Optional Override Off Switch

Single Circuit Application:
Two control units wired in parallel to operate 4 to 6 sensors in a single zone. Maximum 3 sensors per control unit any sensor will activate lighting.

CU Series Control Unit (Specify Voltage)

N H

Black
White
Red
Red

Red (+24V)
Black
Blue

Blue Blk Red   Blue Blk Red

ATD, ATU and ATP Series Sensors**

White   Lighting Load

Blue   Black

CU Series Control Unit (Specify Voltage)

Black
White
Red
Red

Red (+24V)
Black
Blue

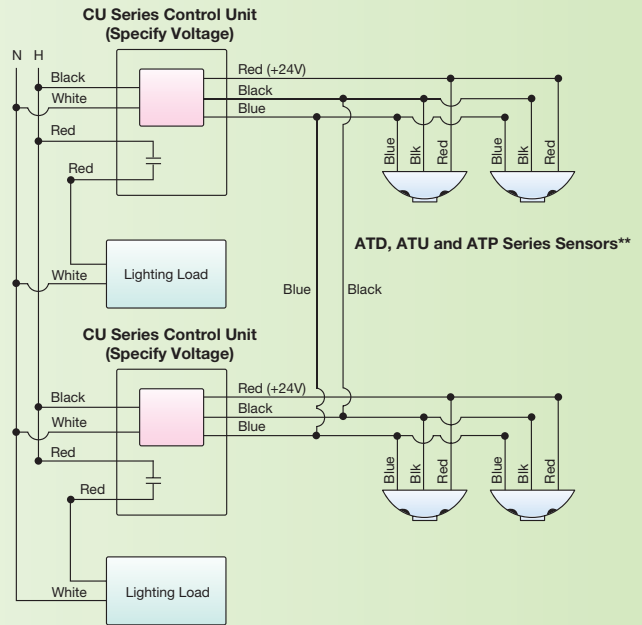Blue Blk Red   Blue Blk Red

White   Lighting Load

Two Circuit Application:
1 to 2 sensors wired to control unit and Add-A-Relay (control unit switches circuit 1, Add-A-Relay switches circuit 2).

CU Series Control Unit (Specify Voltage)

Circuit 1
N H

Black
White
Red
Red

Red
Black
Blue

Blue Blk Red   Blue Blk Red

Lighting Load

ATD, ATU and ATP Series Sensors**

AAR Add-A-Relay

Circuit 2
N H

Red
Black
Blue

Red
Red

Lighting Load

Two Circuit Application:
Two control units wired in two circuits to operate 3 to 6 sensors in a single zone. Maximum 3 sensors per control unit any sensor will activate both lighting loads.

CU Series Control Unit (Specify Voltage)

Circuit 1
N H

Black
White
Red
Red

Red (+24V)
Black
Blue

Blue Blk Red   Blue Blk Red

Lighting Load
White

ATD, ATU and ATP Series Sensors**

Blue   Black

CU Series Control Unit (Specify Voltage)

Circuit 2
N H

Black
White
Red
Red

Red (+24V)
Black
Blue

Blue Blk Red   Blue Blk Red

Lighting Load
White

**Note: For wiring sensors with isolated relay and photocell option (models with "RP" suffix): Photocell Option: Cap off Blue sensor wire. Connect Grey sensor wire to Blue control unit wire. Isolated Relay Option: Common-Blue/White wire, Normally Closed-Black/White wire, Normally Open-Yellow/White wire.