Set-Up and Operating Instructions for MS13A Indoor Motion Detector

The MS13A Motion Detector sends Wireless Radio Frequency (RF) signals to an X10 Transceiver (RR501 or TM751) or any X10 security system base receiver. The receiver then passes the signals onto your house wiring to turn on lights (or appliances) around your home. You plug your lights and appliances into X10 Modules (sold separately). The MS13A also works with the CM11A Two-Way Computer Interface to initiate macros (routines) so you can set up a "coming home" routine which is initiated by the Motion Detector as soon as it "sees" you.

Note: The default state is to turn lights on when the MS13A detects motion **at all times** (even if it's not dark). Or you can set it to turn lights on when it detects motion only at night. It can also turn lights on at dusk and off at dawn. Care should be taken therefore to place the MS13A where it sees plenty of sunlight during the day (such as near a window). If you place it in a dark corner it might not be able to tell the difference between day time and night time. Care should also be taken not to place the MS13A near the light it is controlling, otherwise when the light turns on it might "fool" the MS13A into thinking it's daytime!

Remove the battery cover on the front of the MS13A and install two AAA alkaline batteries. Leave the cover off for now. The unit defaults to Housecode A and Unit Code 1, and it defaults to see motion all the time - day and night, so plug in an X10 RF Transceiver (model RR501 or TM751, sold separately) or any X10 security system base receiver (sold separately) and set it to Housecode A. Plug a lamp into an X10 Lamp Module (sold separately) and set it to Housecode A and Unit Code 1. Plug the module into any AC outlet.

To test the MS13A: Press the **House** button once. The MS13A transmits the "device ON" RF signal and the red LED flashes. Press the **Unit** button once. The MS13A transmits the "device OFF" RF signal and the red LED flashes. (The default setting is A1). Replace the battery cover.

Place the MS13A on a shelf or mount it on a wall at least 6 feet above the ground. Let it settle for a minute and then walk past it. The lamp connected to any X10 Module set to A1 turns on. The light turns off approx. 1 minute later (default) as long as no motion has been detected. You can also turn the light off from any X10 controller or set up a CM11A Computer Interface (sold separately) to initiate a macro when it receives A1. This macro could for example turn on a group of lights (e.g. B2, C7, and H9) when you walk into a room and turn them off after a preset time. For wall mounting, remove the batteries, screw the MS13A to a wall and replace the batteries.

To turn lights on when it gets dark. The MS13A sends signals when it detects dusk and dawn so it can turn a light on when it gets dark and turn it off when it gets light (in addition to turning lights on when it detects motion). To have it turn a light on at dusk and off at dawn plug the light into an X10 Module and set it to the same Housecode as the MS13A and to a Unit Code that is **one number higher** than the Unit Code of the module that turns on when motion is detected. I.E. if the MS13A turns on A1 when it detects motion, it will turn on A2 when it gets dark and turn it off when it gets light.

Options:

To change the Unit Code that the MS13A transmits: Press and hold the **Unit/Off** button (under the battery compartment lid) the red LED flashes first and then blinks the current setting. Release and immediately press the button the desired number of times for the Unit Code you want to set and **hold the button on the last press**. 3 seconds after the last press (while holding the button) the red LED blinks back the number of times for the code you set. Release the button.

To change the House Code that the MS13A transmits: Press and hold the **House/On** button (under the battery compartment lid) the red LED flashes first and then blinks the current setting (once for A, twice for B, etc.). Release and immediately press the button the desired number of times for the House Code you want to set (once for A, twice for B, etc.) and **hold the button on the last press**. 3 seconds after the last press (while holding the button) the red LED blinks back the number of times for the code you set. Release the button.

To set whether you want the MS13A to transmit EVERY time it sees motion or only at night:

Press the **Unit/Off** button once. The red LED flashes. Then press **and hold** the **House/On** button. The green LED turns on. 3 seconds later the MS13A reports its dusk/dawn setting as follows:
The red LED blinks once if the MS13A is set to detect motion at all times.
The red LED blinks twice if the MS13A is set to detect motion only when it's dark.
To change this, Press the **Unit/Off** button once. The red LED flashes. Then press **and hold** the **House/On** button. The green LED turns on. 3 seconds later the MS13A reports its dusk/dawn setting. Release and immediately press the **House/On** button once for operation at all times, or twice for operation only at night.
Hold the button for 3 seconds on your last press. The red LED then reports the setting with one or two blinks.

To change the delay after motion is detected before an OFF code is transmitted:

Press the **House/On** button once. The red LED flashes. Press **and hold** the **Unit/Off** button. The green LED turns on. 3 seconds later the red LED reports its delay setting as follows:

1 blink for 1 minute.
2 blinks for 2 minutes.
3 blinks for 4 minutes.
4 blinks for 8 minutes.
5 blinks for 16 minutes.
6 blinks for 32 minutes.
7 blinks for 64 minutes.
8 blinks for 128 minutes.
9 blinks for 256 minutes.

To change this, Press the **House/On** button once. The red LED flashes. Press **and hold** the **Unit/Off** button. The green LED turns on. 3 seconds later the red LED reports its delay setting. Release and immediately press the **Unit/Off** button the number of times for the delay you want. Hold the button pressed for 3 seconds on the last press. The red LED then reports the setting with the appropriate number of blinks as above. Release the button.

NOTES:

After replacing batteries, you need to wait 30 seconds before the MS13A will see any motion.

After a transmission, you need to wait 10 seconds before the MS13A will see you.

The default House and Unit Code transmitted when motion is detected is A 1-ON.

The default for motion detection is detect at all times (day and night).

The default time out after which (default) A 1-OFF is sent is 1 minute.

The default House and Unit Code transmitted when dusk/dawn is sensed is A 2-ON at dusk, A 2 -OFF at dawn.