Set-Up and Operating Instructions for MS13A HawkEye Motion Detector

The MS13A Motion Detector sends Wireless Radio Frequency (RF) signals to an X-10 Transceiver (RR501 or TM751) or any X-10 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 X-10 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 MS13A has a built-in photocell that detects when it's dark. It can therefore turn lights on when it sees motion and it's dark. Or you can set it to transmit EVERY time it sees motion (even if its not dark). 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. The unit defaults to Housecode A and Unit Code 1, and it defaults to see motion all the time.
Plug in an X-10 RF Transceiver (model RR501 or TM751, sold separately) or any X-10 security system base receiver (sold separately) and set it to Housecode A. Plug a lamp into an X-10 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 and the MS13A will transmit "device on" RF signal and the red led will flash. Press the unit button once and the MS13A will transmit "device off" RF signal and the red LED will flash. (The default setting is A1).

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 X-10 Module set to A1 will turn on. The light will turn off approx. 1 minute later (default) as long as no motion has been detected. You can also turn the light off from any X-10 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.

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 X-10 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 button (under the battery compartment lid) the red LED flashes first and then blinks the current setting. Release and press the button the desired number of times for the Unit Code you want (once for Unit Code 1, twice for Unit Code 2, etc.). Hold the button on the last press. 3 seconds later the red LED will blink to confirm your setting. The light blinks each time you press, and confirms your entry by blinking the number of times you pressed the button about 3 seconds after your last press.

To change the House Code that the MS13A transmits:
Use the same procedure as above to change the Housecode (pressing the House button instead). One press for Housecode A, two presses for B, etc. Hold the button for 3 seconds on the last press. To check what code you've set: press and hold the House or Unit code button - the red LED blinks back the appropriate number of times for the code that is set.

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

Press the Unit button once. The red LED flashes.
Press and hold the House button. The green LED turns on. 3 seconds later the MS13A will report its dusk/dawn setting as follows:
The red LED will blink once if the MS13A is set to detect motion at all times.
The red LED will blink twice if the MS13A is set to detect motion only when it's dark.
To change this release and press the House 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 will then report the setting with one or two blinks.

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

Press the House button once. The red LED flashes.
Press and hold the Unit button. The green LED turns on. 3 seconds later the red LED will report 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 release and press the Unit button the appropriate number of times for the delay you want and hold the button pressed for 3 seconds on the last press.

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.