

## Set-Up and Operating Instructions for MS12A Occupancy Sensor/Motion Detector

The MS12A 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 MS12A 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.

Remove the battery cover on the front of the MS12A and install two AAA alkaline batteries. The unit defaults to Housecode A and Unit Code 1, so if that's what code you want it to control, you are finished setting up the MS12A. Refit the battery cover.

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.

Place the MS12A 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. 6 minutes later 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. Note that the MS12A has a built-in photocell that detects when it's dark. It therefore only turns lights on when it's dark. It does not transmit during daylight. Care should be taken therefore to place the MS12A where it sees plenty of sunlight during the day (such as near a window). If you place it in a dark corner, it might always turn lights on (even during the day). Care should also be taken not to place the MS12A near the light it is controlling, otherwise when the light turns on it might "fool" the MS12A into thinking it's daytime!

**To change the Unit Code for the MS12A:** Press and hold the Unit button (under the battery compartment lid) until the red light blinks twice, then 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.). The light blinks each time you press, and confirms your entry by blinking the number of times you pressed the button about 2 seconds after your last press. Use the same procedure to change the Housecode (pressing the House button instead). One press for Housecode A, two presses for B, etc. To check what code you've set: press and release the House or Unit code button - the light blinks back the appropriate number of times for the code that is set.

**To test the MS12A:** Set the RR501, TM751, or security console to the same Housecode as the MS12A. Walk past the MS12A. OR: Press its Housecode button to turn the desired light ON. Press its Unit Code button to turn the desired light OFF. (Note: the lights blinks to appropriate number of times for the code that is set).

**To turn lights on when it gets dark.** The MS12A 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, when it's dark). 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 MS12A 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 MS12A turns on A1 when it detects motion, it will turn on A2 when it gets dark and turn it off when it gets light.

**F.C.C. CAUTION - THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.**

**NOTE: NO CHANGES OR MODIFICATIONS MAY BE MADE TO THE UNITS. ANY CHANGES MADE TO THE UNITS WILL VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**