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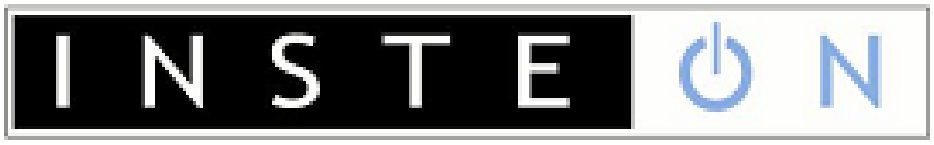

Motion Sensor

Revision: 20081031
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Author: Caroline Nguyen-Khac

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Change Log

Date	Description	Author
20080908	First Release	C. Nguyen-Khac
20081031	Reviewed	C. Nguyen-Khac

1 Introduction

This document lists the memory locations and commands *specific* to the Motion Sensor. It is in addition to regular INSTEON commands common to all INSTEON products and listed in the *INSTEON Developer's Guide*.

SmartLabs maintains this document separately to allow for frequent updating. It is to be used in conjunction with *two* larger documents, the *INSTEON Developer's Guide* and the *INSTEON Conformance Specification*. Please refer to those master documents for a thorough understanding of proper INSTEON command usage.

2 Memory Locations

Name	Value	Comments	Range
LED brightness	0x05	Controls the LED brightness of the unit. Default value is 0x64	00-255 (0x00-0xFF)
Timeout	0x06	Defines the timeout after motion detect. Each value increments the timeout by 30 sec starting at 0x00 (=30sec). Default value is 1min (0x01).	00-255 (0x00-0xFF)
Sensitivity	0x07	The unit only uses the intensity value when in night-only mode (JP-4) to determine if it is "night". The higher the value, the darker it needs to be for the unit to see night. Default value is 0x23	00-255 (0x00-0xFF)

3 I2 commands

Motion Sensor is an I2 device i.e. I1 commands are not supported.

Follows are a few guidelines to access the above mentioned memory locations using I2 commands in Docklight and a PLM to access the Motion Sensor.

Note: to access the Motion Sensor, one or more Access Point must be plugged in.

Note2: the Motion Sensor must be "awake" to hear the messages. Tip: put the Motion Sensor into linking mode to keep it awake for 4 min.

For the purpose of the examples, the Motion Sensor's ID is AA.AA.AA and the PLM's ID is 11.11.11

3.1 To read the values out of memory

Use the extended command 0x2E to read from memory.

The response to expect from the Motion Sensor is an extended message with the values in the following placement:

LED in Data 3

Timeout in Data 4

Intensity in Data 5

Example:

Send request to Motion Sensor

```
[TX] - 02 62 AA AA AA 1F 2E 00 00 00 00 00 00 00 00 00 00 00 00 00 00
[RX] - 02 62 AA AA AA 1F 2E 00 00 00 00 00 00 00 00 00 00 00 00 00 00 06 02
50 55 61 09 0D DB 29 27 2E 00  INSTEON Received

Receive message back from Motion Sensor
02 51 AA AA AA 11 11 11 13 2E 00 00 01 64 02 23 00 00 00 00 00 00 00 00 00
Extended INSTEON Received
```

LED (Data3) = 0x64

Timeout (Data4) = 0x02

Intensity (Data5) = 0x23

3.2 To set values in memory

Use the extended command 0x2E to set values in memory.

To set one value, you must send one message and define byte Data 2 and 3 as follows:

To set the LED, byte data 2 = 0x02

To set the Timeout, byte data 2 = 0x03

To set the Intensity, byte data 2 = 0x04

The value is defined in byte Data 3.

Example:

To set the Timeout to 3 min: define data 2 to 0x03 and data 3 to 0x05.

```
[TX] - 02 62 AA AA AA 10 2E 00 00 03 05 00 00 00 00 00 00 00 00 00 00 00 00
[RX] - 02 62 AA AA AA 10 2E 00 00 03 05 00 00 00 00 00 00 00 00 00 00 00 06
02 50 AA AA AA 0D DB 29 27 2E 00  INSTEON Received
```

3.3 Link Database

The link database is of the same format as all other INSTEON products, starting at 0x0FFF and going backwards with a capacity of 32K (~417 records)

To access the link database, I2 commands are available.

3.3.1 To read the database

Example:

```
[TX] - 02 62 AA AA AA 1F 2F 00 00 00 0F FF 00 00 00 00 00 00 00 00 00
[RX] - 02 62 AA AA AA 1F 2F 00 00 00 0F FF 00 00 00 00 00 00 00 00 00 00 06 02
50 AA AA AA 0D DB 29 27 2F 00  INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F FF 00 E2 01 00 5A EB 00 00 00 00
Extended INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F F7 00 E2 01 0C B3 53 00 00 00 00
Extended INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F EF 00 00 00 00 00 00 00 00 00
Extended INSTEON Received
```

3.3.2 To write to the database

```
Writing A2 11 11 11 11 7F 1F 00 00 into memory location [0x0FE7-0x0FEF]:

9/9/2008 17:16:31.01 [TX] - 02 62 0E 61 09 1F 2F 00 00 02 0F EF 08 A2 11 11 11
11 7F 1F 00 00
[RX] - 02 62 AA AA AA 1F 2F 00 00 02 0F EF 08 A2 11 11 11 11 7F 1F 00 00 06 02
50 AA AA AA 0D DB 29 27 2F 00  INSTEON Received

Re-reading the database:

[TX] - 02 62 AA AA AA 1F 2F 00 00 00 00 00 00 00 00 00 00 00 00 00 00
9/9/2008 17:16:50.69 [RX] - 02 62 AA AA AA 1F 2F 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 06 02 50 AA AA AA 0D DB 29 27 2F 00  INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F FF 00 E2 01 00 5A EB 00 00 00 00
Extended INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F F7 00 E2 01 0C B3 53 00 00 00 00
Extended INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F EF 00 A2 11 11 11 11 7F 1F 00 00
Extended INSTEON Received
02 51 AA AA AA 0D DB 29 11 2F 00 00 01 0F E7 00 00 00 00 00 00 00 00 00
Extended INSTEON Received
```

