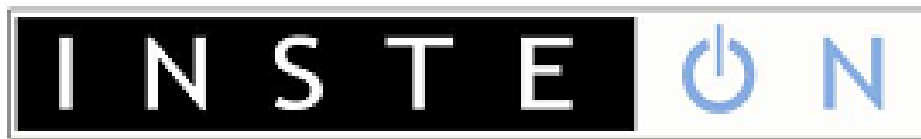


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MEMORY MAPS

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Change Log

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20080306	First Release	C. Nguyen-Khac
20080311	Revised Release	C. Nguyen-Khac
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20080314	Added the KeypadLinc™ I2, I/O Linc™ I2 maps	C. Nguyen-Khac
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20081031	Added Motion Sensor	C. Nguyen-Khac
20090505	Updated with InLineLinc Relay with Sense	C. Nguyen-Khac
20110215	Updated with new devices	B. Volz

1 Introduction

This document lists currently defined memory addresses of shipping INSTEON devices in a collection of tables. These addresses can be accessed using the peek and poke commands defined in the INSTEON developer's guide (page 162).

SmartLabs, Inc. 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.

Note: for more information on more products, please refer to code.insteon.net and available datasheets.

2 Memory Maps

The following tables list the memory maps for the following INSTEON devices:

- The External EEPROM for I1 and I2 code bases regroup the following INSTEON devices:
 - SwitchLinc™ Dimmer (2476D, 2476DH, 2477D, 2477DH)
 - SwitchLinc Relay (2476S, 2476SS)
 - SwitchLinc Relay Timer (2476ST)
 - INSTEON 2-Wire Dimmer (2474D)
 - INSTEON 2-Wire On/Off (2474S)
 - LampLinc™ (2456D3, 2457D2, 2457D2X)
 - LampLinc 2 pin (2456D2) Discontinued
 - ApplianceLinc™ (2456S3, 2456S3E)
 - Icon SwitchLinc Dimmer (2876DB)
 - Icon SwitchLinc Relay (2876SB)
 - Icon ApplianceLinc (2856S3B)
 - 220V / 240V 30 AMP Load Controller(Dual-Band) (2477SA1/2477SA2)
 - Icon LampLinc 2 pin (2856D2B)
 - ToggleLinc™ Dimmer (2466D)
 - ToggleLinc Relay (2466S)
 - In-LineLinc™ Dimmer (2475D)
 - In-LineLinc Relay (2475S) Discontinued
 - In-LineLinc Relay with sense (2475S2)
 - OutletLinc™ (2473)
 - TimerLinc™ (2456S3T)
- I/O Linc™ (2450)
- RemoteLinc™ (2440)
- KeypadLinc™ Dimmer (firmware 29 and below) (2486D, 2484DWH8)
- KeypadLinc Dimmer (firmware 2A and above) (2486D)
- KeypadLinc Relay (2486S)
- ControLinc™ (2430)
- Motion Sensor (2420M)

2.1 External EEPROM for I1 code base

Name	Value	Comments
EELEDBL	0x1A	LED brightness level for SwitchLinc™
EELast	0x20	Last on level - it goes to that level on power up
EERamp	0x21	Ramp rate
EESALAD1	0x22	Operating flag
EEFLAGb2	0x23	
EEMinutes	0x24	Default minutes for SwitchLinc™ Timer
EEX10BaseHouse	0x30	X10 House Code
EEX10BaseUnit	0x31	X10 Unit Code
EEX10Last	0x32	Local On Level when sending an x10 on or local control

2.2 External EEPROM for I2 code base

Name	Value	Comments
EELast	0x20	Last on level - it goes to that level on power up
EERamp	0x21	Ramp rate
EESALAD1	0x22	Operating flag
EEX10BaseHouse	0x30	X10 House Code
EEX10BaseUnit	0x31	X10 Unit Code
EEX10Last	0x32	Local On Level when sending an x10 on or local control

2.3 I/O Linc I2

For more information, please refer to the I/O Linc datasheet (code.insteon.net)

Name	Value	Comments
EELast	0x20	Last on level - it goes to that level on power up
EERamp	0x21	Ramp rate
EESALAD1	0x22	Operating flag
EESALAD3	0x24	
EEX10InBaseHouse	0x2F	
EEX10InBaseUnit	0x2E	
EEX10BaseHouse	0x30	X10 House Code
EEX10BaseUnit	0x31	X10 Unit Code
EEX10Last	0x32	Local On Level when sending an x10 on or local control
EEMomentaryI	0x33	

EEGroup1House	0x252	House Code for group 1
EEGroup1Unit	0x253	Unit code for group 1
EEGroup2House	0x254	
EEGroup2Unit	0x255	
EEGroup3House	0x256	
EEGroup3Unit	0x257	
EEGroup4House	0x258	
EEGroup4Unit	0x259	
EEGroup5House	0x25A	
EEGroup5Unit	0x25B	
EEGroup6House	0x25C	
EEGroup6Unit	0x25D	
EEGroup7House	0x25E	
EEGroup7Unit	0x25F	
EEGroup8House	0x260	
EEGroup8Unit	0x261	

2.5.2 Firmware 2A and above (I2)

Name	Value	Comments
EELast	0x20	Last on level - it goes to that level on power up
EERamp	0x21	Ramp rate
EESALAD1	0x22	Operating Flags; byte = [X X ShowIR X X X ResumeDim Lock]
EEb2Flags2	0x23	Byte = [X X X X DimBrL LED NoLEDs 8Key X] Note: the bit is set for 8Key, is 0 for 6key
EETimerFlags	0x24	For KeypadLinc™ Countdown Timer only
EEX10BaseHouse	0x30	House code for the load
EEX10BaseUnit	0x31	Unit code for the load
EEX10Last	0x32	Local On Level when sending an x10 on or local control for the load
;40 TO 240 X10 SCENE SPACE		
EELEDOnLEDMask1	0x241	These masks are used when LEDs are linked to other LEDs (On the same KeypadLinc™)
EELEDOnLEDMask2	0x242	
EELEDOnLEDMask3	0x243	
EELEDOnLEDMask4	0x244	
EELEDOnLEDMask5	0x245	
EELEDOnLEDMask6	0x246	
EELEDOnLEDMask7	0x247	
EELEDOnLEDMask8	0x248	
EENonToggleButtons	0x249	0 is a toggle button, 1 is a non toggle button
EELEDoffLEDMask1	0x24A	These masks are used when LEDs are linked to other LEDs (On the same KeypadLinc™)
EELEDoffLEDMask2	0x24B	
EELEDoffLEDMask3	0x24C	
EELEDoffLEDMask4	0x24D	
EELEDoffLEDMask5	0x24E	
EELEDoffLEDMask6	0x24F	

EELEDOffLEDMask7	0x250	
EELEDOffLEDMask8	0x251	
EENonToggleOnOff	0x252	For a non-toggle button, 0 = Off, 1 = On
EEGroup1House	0x253	House Code for group 1
EEGroup1Unit	0x254	Unit code for group 1
EEGroup2House	0x255	
EEGroup2Unit	0x256	
EEGroup3House	0x257	
EEGroup3Unit	0x258	
EEGroup4House	0x259	
EEGroup4Unit	0x25A	
EEGroup5House	0x25B	
EEGroup5Unit	0x25C	
EEGroup6House	0x25D	
EEGroup6Unit	0x25E	
EEGroup7House	0x25F	
EEGroup7Unit	0x260	
EEGroup8House	0x261	
EEGroup8Unit	0x262	
EELEDState	0x263	current on level (needed for non-toggle buttons)
EEb3LEDLevel	0x264	current LED brightness level (range = 3-7F)
EEX10All	0x265	Bit flag for groups X10 command All On/ All Off or just On/Off
ldatabase	0x2A0	Ramp Rate for group 0
ldatabase	0x2A1	On level for group 0
ldatabase	0x2A2	Ramp Rate for group 1
ldatabase	0x2A3	On level for group 1
ldatabase	0x2A4	Ramp Rate for group 2
ldatabase	0x2A5	On level for group 2
ldatabase	0x2A6	Ramp Rate for group 3
ldatabase	0x2A7	On level for group 3
ldatabase	0x2A8	Ramp Rate for group 4
ldatabase	0x2A9	On level for group 4
ldatabase	0x2AA	Ramp Rate for group 5
ldatabase	0x2AB	On level for group 5
ldatabase	0x2AC	Ramp Rate for group 6
ldatabase	0x2AD	On level for group 6
ldatabase	0x2AE	Ramp Rate for group 7
ldatabase	0x2AF	On level for group 7
ldatabase	0x2B0	Ramp Rate for group 8
ldatabase	0x2B1	On level for group 8

2.6 KeypadLinc Relay

EEGroup8House	0x261	
EEGroup8Unit	0x262	
EELEDState	0x263	Current on level (needed for non-toggle buttons)
EEb3LEDLevel	0x264	Current LED brightness level (range = 3-7F)
EEX10All	0x265	Bit flag for groups X10 command All On/ All Off or just On/Off
EETriggerGroup	0x266	
ldatabase	0x2A0	Ramp Rate for group 0
ldatabase	0x2A1	On level for group 0
ldatabase	0x2A2	Ramp Rate for group 1
ldatabase	0x2A3	On level for group 1
ldatabase	0x2A4	Ramp Rate for group 2
ldatabase	0x2A5	On level for group 2
ldatabase	0x2A6	Ramp Rate for group 3
ldatabase	0x2A7	On level for group 3
ldatabase	0x2A8	Ramp Rate for group 4
ldatabase	0x2A9	On level for group 4
ldatabase	0x2AA	Ramp Rate for group 5
ldatabase	0x2AB	On level for group 5
ldatabase	0x2AC	Ramp Rate for group 6
ldatabase	0x2AD	On level for group 6
ldatabase	0x2AE	Ramp Rate for group 7
ldatabase	0x2AF	On level for group 7
ldatabase	0x2B0	Ramp Rate for group 8
ldatabase	0x2B1	On level for group 8

2.7 ControlLinc

Name	Value	Comments
IESize	0x10	Internal EEPROM size
IEFlags	0x11	Firmware Operating Flags
		Byte = [X X X X LED X Prog Silent]
X10Data	0x30	House Code/Unit Code combined in one byte - 0x30 is for button 1, 0x31 = button 2, 0x32 = button 3 etc...
X10Data2	0x40	Contains 20 if the button has no X10 address.

2.8 Motion Sensor

For more information, please refer to the Motion Sensor datasheet (code.insteon.net)

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.	00-255 (0x00-0xFF)
		Default value is 0x23	