Siren Module Developer Notes (Ver: 0xE2 - 0xE2)

Product Name	Insteon Siren
SKU	2868-222
Category	0x07
Sub-category	0x1E
Firmware Version	0xE1

Introduction

Hardware Inputs

Siren Module has 3 buttons.

Up arrow

Down arrow

Set button

Hardware Outputs

91db Siren at a distance of 10cm

Red / Green LED

- Red = Disarmed
- Green = Armed

Beeper

Software settable properties

Modes

Software can define two different modes that Insteon devices can trigger the Siren: Home, and Away. The siren can be configured to trigger when only home, only away, or either home or away. In addition, a controller can also be configured to arm only home, only away, or both home and away.

Device Groups

Siren has 1 controller group, a triggering group that will be activated when siren is triggered.

Device Group	Description
01	Sounding triggered

Siren has 6 responder groups. These groups will either arm or trigger the siren when activated.

Device Group	Description

01	Triggers Alarm (Siren or Chime) in Home mode
02	Arms/Disarms Siren in Home mode
03	Triggers Alarm in Away mode
04	Arms/Disarms Siren in Away mode
05	Triggers Alarm
06	Arms/Disarms Siren

Device Properties

Programming Lock

LED Blink on traffic

LED state

Alert Duration

Alert Type

Behavior

Arming

The Siren Module has the ability to trigger an alert based on current armed / disarmed state. The Siren will not sound on a group activation unless it has been armed. When receiving the group on command to arm the Siren Module, there will be a countdown from the time the message is received at the Siren Module and when the device is actually armed. This countdown is hard-coded to about 45 seconds. During this period, the Siren Module will beep by every second to indicate that the Siren will be armed when the beeping stops. The countdown may occur without this audible alert if the group fast off command is sent instead of the group on command. If the direct command to arm is issued, the Siren Module will immediately arm.

Triggering

The siren module will trigger a loud siren or chime when triggered if the Siren Module is armed. A triggering device, will be linked to a specific group that will dictate which armed mode will activate an Alert. ie: Siren is armed home, only incoming triggers that have been linked to the siren module's home group will trigger an alert. The Siren has a configurable duration of 1 to 127 seconds. The Siren may be configured to trigger immediately or 30 seconds after the trigger is received.

Insteon Commands Supported

Messages that can be sent by the Siren

In this section, we include any information where the Siren Module may send out message that is not a direct response to an incoming Insteon Message. i.e: the set button is held.

Set Button Held

This command is sent from the Siren Module after the SET Button is held down for at least 3 seconds. The Siren Module will be put into linking mode and will stay in linking mode for 4 minutes. After this timeout period, if another Insteon device has not linked to it, the Siren Module will drop out of linking mode and emit a long beep.

Message Broadcast				
Command	Button Held / Entered a Linking Mode			
Message Type	Broadcast			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information	Device Category	1 byte	10	10
Broadcast Information	Device Sub Category	1 byte	16	16
Broadcast Information	Firmware Version	1 byte	9B	9B
Message Flags	Broadcast	1 byte	8X	8F
Command 1	Button Held / Entered a Linking Mode	1 byte	01	01
Command 2	Hardware Rev	1 byte	00	00
Notes				

Example

```
AA BB CC 10 16 9B 8F 01 00
```

Assign to ALL-Link Group

After the Siren Module is put into linking mode, and then subsequently receives a broadcast message that another device is put into linking mode, the Siren Module will automatically message the target device to add the Siren Module to its ALL-Link database with the defined group as a responder at its current state. In addition, the Siren Module will add a ALL-Link database entry for the target device in its own ALL-Link database.

Request

Direct Message				
Command	Assign to ALL-Link Group			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Target Device ID	3 bytes	*varies*	11 22 33
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Assign to ALL-Link Group	1 byte	01	01
Command 2	Group Number	1 byte	*varies*	01
Notes				

Response

Message Acknowledge				
Command	Assign to ALL-Link Group Acknowledge			
Message Type	Acknowledge			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Target Device ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Direct Message Acknowledge	1 byte	2X	2F
Command 1	Assign to ALL-Link Group	1 byte	01	01
Command 2	Group Number	1 byte	*varies*	01
Notes				

Example

```
Assign to ALL-Link Group Request: AA BB CC 11 22 33 CF 01 01
Assign to ALL-Link Group ACK: 11 22 33 AA BB CC 2F 01 01
```

Delete From ALL-Link Group

After the Siren Module is put into unlinking mode, and then subsequently receives a broadcast message that another device is put into linking mode, the Siren Module will automatically message the target device to remove the Siren Module to its ALL-Link database with the defined group. In addition, the Siren Module will remove the ALL-Link database entry for the target device in its own ALL-Link database.

Request

Direct Message				
Command	Delete From ALL-Link Group			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Target Device ID	3 bytes	*varies*	11 22 33
Message Flags	Direct Message	1 byte	0X	0F
Command 1	Assign to ALL-Link Group	1 byte	02	02
Command 2	Group Number	1 Byte	*varies*	01
Notes				

Response

Message Acknowledge				
Command	Delete from ALL-Link Group Acknowledge			
Message Type	Acknowledge			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Target Device ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Direct Message Acknowledge	1 byte	2X	2F
Command 1	Assign to ALL-Link Group	1 byte	02	02
Command 2	Group Number	1 Byte	*varies*	01
Notes				

Example

```
Delete from ALL-Link Group Request: AA BB CC 11 22 33 0F 01 01
Delete from ALL-Link Group ACk: 11 22 33 AA BB CC 2F 01 01
```

RF Beacon

This command is sent out when the device is placed into RF test mode. RF test mode is initiated when the set button on the device is tapped 4 times in rapid succession. The RF beacon will send out a 0 Max Hops broadcast, which will cause any beacon supported devices within range to respond by blinking its own LED green, red, or white

Message Broadcast				
Command	RF Beacon			
Message Type	Group Broadcast			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information		3 bytes	00 00 00	00 00 00
Message Flags	0 Max Hop Broadcast	1 byte	80	80
Command 1	Test RF	1 byte	03	03
Command 2	0/1 for phase	1 byte	00 / 01	00
Notes				

This message does not have an Insteon response from a target device. ie: ACK

Example

```
RF Beacon: AA BB CC 00 00 00 80 03 00
```

Alert Triggered

When the Siren Module is triggered, it will alternate broadcasting Fast On and Fast Off activations for group 1 every 2 seconds for the duration of the alert.

Message Broadcast				
Command	Alert Triggered			
Message Type	Group Broadcast			
Message Direction	From Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information	Group Number	3 bytes	00 00 01	00 00 01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Fast On	1 byte	12	12
Command 2	01	1 byte	01	01
Notes				

Message Broadcast				
Command	Alert Triggered			
Message Type	Group Broadcast			
Message Direction	From Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information	Group Number	3 bytes	00 00 01	00 00 01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Fast Off	1 byte	14	14
Command 2	Group 1	1 byte	01	01
Notes				

Example

```
Alert Triggered: AA BB CC 00 00 01 CF 12 01
Alert Triggered: AA BB CC 00 00 01 2F 14 01
Alert Triggered: AA BB CC 00 00 01 CF 12 01
Alert Triggered: AA BB CC 00 00 01 2F 14 01
```

Direct Communication Messages

Assign to ALL-Link Group

After the Siren Module is put into linking mode, and then subsequently receives a broadcast message that another device is put into linking mode, the Siren Module will automatically message the target device to add the Siren Module to its ALL-Link database with the defined group as a responder at its current state. In addition, the Siren Module will add a ALL-Link database entry for the target device in its own ALL-Link database.

> This command is only used internally during the tap - tap linking process

Request

Direct Message				
Command	Assign to ALL-Link Group			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Assign to ALL-Link Group	1 byte	01	01
Command 2	Group Number	1 byte	*varies*	01
Notes				

Response

The proper response for this message is a standard ACK with Command 1 and Command 2 returned exactly as the request.

Message Acknowledge				
Command	Assign to ALL-Link Group Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Direct Message Acknowledge	1 byte	2X	2F
Command 1	Assign to ALL-Link Group	1 byte	01	01
Command 2	Group Number	1 byte	*varies*	01
Notes				

Example

```
Assign to ALL-Link Group Request:  11 22 33 AA BB CC 0F 01 01
Assign to ALL-Link Group ACK:   AA BB CC 11 22 33 2F 01 01
```

Delete From ALL-Link Group

After the Siren Module is put into unlinking mode, and then subsequently receives a broadcast message that another device is put into linking mode, the Siren Module will automatically message the target device to remove the Siren Module to its ALL-Link database with the defined group. In addition, the Siren Module will remove the ALL-Link database entry for the target device in its own ALL-Link database.

> This command is only used internally during the tap - tap linking process

Request

Direct Message				
Command	Delete From ALL-Link Group			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Target Device ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Direct Message	1 byte	0X	0F
Command 1	Assign to ALL-Link Group	1 byte	02	02
Command 2	Group Number	1 Byte	*varies*	01
Notes				

Response

The proper response for this message is a standard ACK with Command 1 and Command 2 returned exactly as the request.

Message Acknowledge				
Command	Delete from ALL-Link Group Acknowledge			
Message Type	Acknowledge			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Target Device ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Direct Message Acknowledge	1 byte	2X	2F
Command 1	Assign to ALL-Link Group	1 byte	02	02
Command 2	Group Number	1 Byte	*varies*	01
Notes				

Example

```
Delete from ALL-Link Group Request: AA BB CC 11 22 33 0F 01 01
Delete from ALL-Link Group ACk: 11 22 33 AA BB CC 2F 01 01
```

RF Beacon

If the Siren Module Receives this command it will beep.

Message Broadcast				
Command	RF Beacon			
Message Type	Broadcast			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Device ID	3 bytes	*varies*	11 22 33
Broadcast Information	No data	3 bytes	00 00 00	00 00 00
Message Flags	0 Max Hop Broadcast		80	80
Command 1	Test RF	1 byte	03	03
Command 2	0/1 for phase	1 Byte	00 / 01	00
Notes				

Example

```
RF Beacon: 11 22 33 00 00 00 80 03 00
```

Exit Linking Mode

If the Siren Module is in linking or unlinking mode, this command will force the Siren Module to exit linking mode after the ACK. If the Siren module is not currently in a linking or unlinking mode, the siren module will respond with an ACK, but no further action is taken.

Request

Standard Length Message				
Command	Exit Linking Mode			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Exit Linking Mode	1 byte	08	08
Command 2	No Data	1 byte	00	00
Notes				

Response

The proper response for this message is a standard ACK with Command 1 and Command 2 returned exactly as the request.

Standard Acknowledge				
Command	Exit Linking Mode Acknowledge			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	varies	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Standard Direct Message	1 byte	2X	2F
Command 1	Insteon Engine Version Request	1 byte	08	08
Command 2	Ignored	1 byte	00	00
Notes				

Example

```
Ping Request:  AA BB CC 11 22 33 0F 08 00
Ping ACK:   11 22 33 AA BB CC 2F 08 00
```

Enter Linking Mode

This command puts the Siren Module into Linking Mode in the specified group. The Siren Module has 1 controller group and 6 responder groups. A controller link will trigger sequence of Fast On and Fast off broadcasts during an alert

Request

Extended Message				
Command	Enter Linking Mode			
Message Type	Direct Message			
Message Direction	To Device			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	1 byte	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Enter Linking Mode	1 byte	09	09
Command 2	Group	1 byte	*varies*	01
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	F6	F6
Notes				

Response

The proper response for this message is a standard ACK with Command 1 and Command 2 returned exactly as the request.

Acknowledge				
Command	Enter Linking Mode Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Standard Direct Message	1 byte	2X	2F
Command 1	Enter Linking Mode	1 byte	09	09
Command 2	Same value passed in request message	1 byte	varies	01
Notes				

After the Siren Module sends the ACK, it will then broadcast its Device Category, Subcategory, Firmware Revision, and Hardware Revision and enters into linking mode.

Message Broadcast				
Command	Button Held / Entered a Linking Mode			
Message Type	Broadcast			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information	Device Category	1 byte	10	10
Broadcast Information	Device SubCategory	1 byte	16	16
Broadcast Information	Firmware Version	1 byte	9B	9B
Message Flags	Broadcast Message	1 byte	CX	CF
Command 1	Button Held / Entered a Linking Mode	1 byte	01	01
Command 2	Hardware Rev	1 byte	00	00
Notes				

Example

```
Enter Linking Mode Request:   AA BB CC 11 22 33 1F 09 01 00 00
00 00 00 00 00 00 00 00 00 00 00 F6
Enter Linking Mode ACK:    11 22 33 AA BB CC 2F 09 01
Link Mode Entered Broadcast:  AA BB CC 10 16 9B CF 01 00
```

Enter Unlinking Mode

This command puts the Siren Module into Unlinking Mode.

Request

Standard Length Message				
Command	Enter Unlinking Mode			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard 10 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Enter Unlinking Mode	1 byte	0A	0A
Command 2	Group	1 byte	*varies*	01
Notes				

Response

The proper response for this message is a standard ACK with Command 1 and Command 2 returned exactly as the request.

Acknowledge				
Command	ID request Acknowledge			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Enter Unlinking Mode	1 byte	0A	0A
Command 2	Same value passed in request message	1 byte	varies	01
Notes				

After the Siren Module sends the ACK, it will then broadcast its Device Category, Subcategory, Firmware Revision, and Hardware Revision and enters into linking mode.

Message Broadcast				
Command	Button Held / Entered a Linking Mode			
Message Type	Broadcast			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information	Device Category	1 byte	10	10
Broadcast Information	Device SubCategory	1 byte	16	16
Broadcast Information	Firmware Version	1 byte	9B	9B
Message Flags	Message Broadcast	1 byte	8X	8F
Command 1	Button Held / Entered a Linking Mode	1 byte	01	01
Command 2	Hardware Rev	1 Byte	00	00
Notes				

Example

```
Enter Unlinking Mode Request:   AA BB CC 11 22 33 0F 10 01
Enter Unlinking Mode ACK:   11 22 33 AA BB CC 2F 10 00
Entered a Link Mode:    AA BB CC 10 16 9B 8F 01 00
```

Insteon Engine Version

The Insteon Engine Version request will ask the Siren Module what is the maximum level of the Insteon engine it supports

Request

Standard Length Message				
Command	Insteon Engine Version			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Insteon Engine Version Request	1 byte	0D	0D
Command 2	No Data	1 byte	00	00
Notes				

Response

The Insteon Engine Version response is a standard length ACK. It will respond with the exact parameters sent in command 1, and it will respond with 0x03 in command 2, which corresponds with an i2cs

Standard Length Message				
Command	Insteon Engine Version Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 byte	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Standard Direct Message	1 byte	2X	2F
Command 1	Insteon Engine Version Request	1 byte	0D	0D
Command 2	i2CS	1 byte	02	02
Notes				

Example

```
Insteon Engine Version Request:  AA BB CC 11 22 33 0F 0D 00
Insteon Engine Version ACK:   11 22 33 AA BB CC 2F 0D 02
```

Ping

The ping is checks that Siren Module is able to respond over Insteon

Request

Standard Length Message				
Command	Ping			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Ping	1 byte	0F	0F
Command 2	Ignored	1 byte	varies	00
Notes				

Response

The ping response is a standard length ACK. It will respond with the exact parameters sent in command 1 and command 2

Acknowledge				
Command	Ping Acknowledge			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Standard Direct Message	1 byte	2X	2F
Command 1	On	1 byte	0F	0F
Command 2	Ignored	1 byte	varies	00
Notes				

Example

```
Ping Request:  AA BB CC 11 22 33 0F 0F 00
Ping ACK:   11 22 33 AA BB CC 2F 0F 00
```

ID Request

This command asks for the Siren Module's Device Category, Subcategory, Firmware Revision, and Hardware Revision. It is the same information the Siren Module sends when it goes into Linking Mode.

Request

Standard Length Message				
Command	ID Request			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	ID Request	1 byte	10	10
Command 2	Ignored	1 byte	varies	00
Notes				

Response

The ID request response is acknowledged with an ACK. After the ACK is sent to the controller, it will broadcast its Device Category, Subcategory, Firmware Version, and Hardware Revision information in a separate message.

Acknowledge				
Command	ID request Acknowledge			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	ID Request	1 byte	10	10
Command 2	Same value passed in request message	1 byte	varies	00
Notes				

Message Broadcast				
Command	Button Held / Entered Linking Mode			
Message Type	Group Broadcast			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
Broadcast Information	Device Category	1 byte	10	10
Broadcast Information	Device SubCategory	1 byte	16	16
Broadcast Information	Firmware Version	1 byte	9B	9B
Message Flags	Broadcast	1 byte	8X	8F
Command 1	Button Held / Entered Linking Mode	1 byte	01	01
Command 2	Hardware Rev	1 Byte	00	00
Notes				

Example

```
ID Request:   AA BB CC 11 22 33 0F 10 00
ID Request ACK:  11 22 33 AA BB CC 2F 10 00
ID Request Data: AA BB CC 10 16 9B 8F 01 01
```

Trigger Siren (Group)

The group command sent to a Siren to trigger the Siren Module is armed. The Siren Module will trigger its response based on the link properties defined in the Siren Module's database.

Group Broadcast				
Command	Activate			
Message Type	Group Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	Alert Group Number	1 byte	01	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	On	1 byte	11	11
Command 2	Ignored	1 byte	01	00
Notes				

Standard Length Message				
Command	Trigger Alert			
Message Type	Group Cleanup			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Group Cleanup Message	1 byte	4X	4F
Command 1	On	1 byte	11	11
Command 2	Group Number	1 byte	varies	01
Notes				

Acknowledge				
Command	Cleanup Acknowledge			
Message Type	Group Cleanup Acknowledge			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller Id	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	6X	6F
Command 1	Group Cleanup Acknowledge	1 byte	11	11
Command 2	Same as above	1 byte	*varies*	01

Group Broadcast				
Command	Success Report			
Message Type	Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	Command 1 for group activation	1 byte	11	11
Broadcast Information	Number of devices to be cleaned up	1 byte	*varies*	03
Broadcast Information	Alert Group Number	1 byte	01	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Success Report	1 byte	06	06
Command 2	Number of devices controlled by this group that were unable to be reached via cleanup messages	1 byte	*varies*	01
Notes				

Example

```
Group Broadcast:  11 22 33 AA BB CC CF 11 01
Group Cleanup:   11 22 33 AA BB CC 4F 11 14
Ack of Group Cleanup: AA BB CC 11 22 33 6F 11 14
Success Report:   11 22 33 11 01 01 CF 06 00
```

Arm Siren (Group)

The group command sent to a Siren to arm. The Siren Module will arm the mode based on link properties defined in the Siren Module's database. It takes 45 seconds for the Siren Module to arm when activated via this command. If set, the Siren Module will arm and beep during this countdown phase. After countdown, the Siren Module LED will be green indicating an Armed state.

> Any activations from other arming controller groups while in countdown will change the final armed mode (home, away, both), but the countdown timer does not reset.

Group Broadcast				
Command	Arm Siren (group)			
Message Type	Group Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	Group Number	1 byte	*varies*	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	On	1 byte	11	11
Command 2	Ignored	1 byte	*varies*	01
Notes				

Standard Length Message				
Command	Trigger Alert			
Message Type	Group Cleanup			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Group Cleanup Message	1 byte	4X	4F
Command 1	On	1 byte	11	11
Command 2	Group Number	1 byte	00-FF	01
Notes				

Acknowledge				
Command	Cleanup Acknowledge			
Message Type	Group Cleanup Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller Id	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	6X	6F
Command 1	Group Cleanup Acknowledge	1 byte	11	11
Command 2	Same as above	1 byte	00-FF	01

Group Broadcast				
Command	Success Report			
Message Type	Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	Command 1 for group activation	1 byte	11	11
Broadcast Information	Number of devices to be cleaned up	1 byte	*varies*	03
Broadcast Information	Arm Group Number	1 byte	02	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Success Report	1 byte	06	06
Command 2	Number of devices controlled by this group that were unable to be reached via cleanup messages	1 byte	*varies*	01
Notes				

Example

```
Group Broadcast:  11 22 33 00 00 01 CF 11 00
Group Cleanup:   11 22 33 AA BB CC 4F 11 01
Ack of Group Cleanup: AA BB CC 11 22 33 6F 11 01
Success Report:   11 22 33 11 01 01 CF 06 00
```

Arm Siren Silently (Group)

The group command sent to a Siren to trigger the Siren Module is armed. The Siren Module will trigger its response based on the link properties defined in the Siren Module's database. It takes 45 seconds for the Siren Module to arm when activated via this command. There is no audible alert during this countdown. After countdown, the Siren Module LED will be green indicating an Armed state.

Group Broadcast				
Command	Arm Siren Silently (group)			
Message Type	Group Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	Group Number	1 byte	*varies*	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	On	1 byte	12	12
Command 2	Ignored	1 byte	*varies*	00
Notes				

Standard Length Message				
Command	Arm Silently			
Message Type	Group Cleanup			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Group Cleanup Message	1 byte	4X	4F
Command 1	On	1 byte	12	12
Command 2	Group Number	1 byte	00-FF	01
Notes				

Acknowledge				
Command	Cleanup Acknowledge			
Message Type	Group Cleanup Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller Id	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	6X	6F
Command 1	Group Cleanup Acknowledge	1 byte	12	12
Command 2	Same as above	1 byte	00-FF	01

Group Broadcast				
Command	Success Report			
Message Type	Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	Command 1 for group activation	1 byte	12	12
Broadcast Information	Number of devices to be cleaned up	1 byte	*varies*	03
Broadcast Information	Arm Group Number	1 byte	02	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Success Report	1 byte	06	06
Command 2	Number of devices controlled by this group that were unable to be reached via cleanup messages	1 byte	*varies*	01
Notes				

Example

```
Group Broadcast:  11 22 33 00 00 01 CF 12 00
Group Cleanup:    11 22 33 AA BB CC 4F 12 01
Ack of Group Cleanup: AA BB CC 11 22 33 6F 12 01
Success Report:   11 22 33 12 01 01 CF 06 00
```

Disarm Siren(Group)

The Group command sent to a Siren disarm it. This command will disarm the Siren from any mode regardless of the applicable mode as defined in the link database. This command also silences any active alarms.

Group Broadcast				
Command	Disarm Siren (group)			
Message Type	Group Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	n/a	1 byte	00	00
Broadcast Information	Group Number	1 byte	*varies*	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Off	1 byte	13	13
Command 2	ignored	1 byte	*varies*	00
Notes				

Standard Length Message				
Command	Arm Silently			
Message Type	Group Cleanup			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Group Cleanup Message	1 byte	4X	4F
Command 1	Off	1 byte	13	13
Command 2	Controller Group	1 byte	varies	01
Notes				

Acknowledge				
Command	Cleanup Acknowledge			
Message Type	Group Cleanup Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller Id	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	6X	6F
Command 1	Group Cleanup Acknowledge	1 byte	13	13
Command 2	Same as above	1 byte	00-FF	01

Group Broadcast				
Command	Success Report			
Message Type	Broadcast			
Message Direction	From Controller Device			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
Broadcast Information	Command 1 for group activation	1 byte	12	12
Broadcast Information	Number of devices to be cleaned up	1 byte	*varies*	03
Broadcast Information	Arm Group Number	1 byte	02	01
Message Flags	Group Broadcast	1 byte	CX	CF
Command 1	Success Report	1 byte	06	06
Command 2	Number of devices controlled by this group that were unable to be reached via cleanup messages	1 byte	*varies*	01
Notes				

Example

```
Group Broadcast:  11 22 33 00 00 01 CF 13 00
Group Cleanup:   11 22 33 AA BB CC 4F 13 01
Ack of Group Cleanup: AA BB CC 11 22 33 6F 13 01
Success Report:   11 22 33 13 01 01 CF 06 00
```

Trigger Siren (Direct)

The direct-message command sent to a Siren to trigger the siren to sound immediately regardless of the armed state. The Siren Module will trigger its alert based on the current chime type.

Request

Standard Length Message				
Command	Trigger Alarm			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	On	1 byte	11	11
Command 2	Delay and Duration	1 byte	varies	14
Notes				

Response

Acknowledge				
Command	Trigger Alert Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	On	1 byte	11	11
Command 2	Delay and Duration	1 byte	14	14
Notes				

Example

```
Trigger Siren: 11 22 33 AA BB CC 0F 11 14
Acknowledge: AA BB CC 11 22 33 2F 11 14
```

Stop Siren (Direct)

The direct-message command sent to a Siren to trigger a siren immediately based on current chime type.

Request

Standard Length Message				
Command	Stop Siren			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Off	1 byte	13	13
Command 2	Ignored	1 byte	00	00
Notes				

Response

Acknowledge				
Command	Stop Siren			
Message Type	Ack			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Off	1 byte	13	13
Command 2	Ignored	1 byte	00	00
Notes				

Example

```
Stop Siren:  11 22 33 AA BB CC 0F 13 00
Acknowledge: AA BB CC 11 22 33 2F 13 00
```

Siren Remaining Alarm Status

The Siren state can be checked with two variations. When the Siren Module is actively sounding, the Siren Module can be asked to return the amount of time that is remaining in the alarm. A returned value of 0 indicates the Siren is not currently alarming. The Siren's Armed / Disarmed state and mode can be queried as well.

Request

Standard Length Message				
Command	Siren Status			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Status	1 byte	19	19
Command 2	00 - Remaining siren Duration	1 byte	00	00
Notes				

Response

Acknowledge				
Command	Siren Status			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Database Delta This response indicates the number of times the database has changed	1 byte	*varies*	A8
Command 2	Remaining Alert Duration This response indicates the remaining time for the current alert. A value of 0 indicates no current alert. Command 2 ~ remaining time in seconds ex: 0x20 ~ 32 seconds remaining Siren Armed / Disarmed State This response indicates if the Siren is disarmed or armed in a mode 0x00 - Disarmed 0x01 - Armed Home 0x03 - Armed Away 0x04 - Armed Both	1 byte	00	20
Notes				

Example

```
Status Request: 11 22 33 AA BB CC 0F 19 00
Acknowledge: AA BB CC 11 22 33 2F A8 20
```

Get Siren Armed Status

Retrieves the Siren device's armed status (armed, disarmed or arming), armed mode (home, away or both) and countdown to the armed state if in the arming state.

Request

Standard Length Message				
Command	Siren Status			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Status	1 byte	19	19
Command 2	0x03 - Armed / Disarmed State	1 byte	03	03
Notes				

Response

Acknowledge				
Command	Siren Status			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Status - The same command 1 is passed back in the Acknowledge	1 byte	*19*	19
Command 2	Siren Armed / Disarmed + Countdown bit 0 - bit 5 - Remaining Arming Countdown time bit 6 - Home armed bit 7 - Away armed	1 byte	*varies*	C9
Notes				

Example

```
Status Request: 11 22 33 AA BB CC 0F 19 03
Acknowledge: AA BB CC 11 22 33 2F 19 C9
```

Read Operating Flags

The direct-message command sent to a Siren Module to read the operating flags for the device. It will display the current flags for Programming Lock, Blink on Insteon Traffic, Siren Armed State, LED State, Cleanup Reports, RF Hopping State

Request

Standard Length Message				
Command	Read Operating Flags			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*Varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Read Operating Flags	1 byte	1F	1F
Command 2	Operating Flags	1 byte	00	00
Notes				

Response

Standard Length Message				
Command	ID request Acknowledge			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Standard Direct Message	1 byte	2X	2F
Command 1	Read Operating Flags	1 byte	1F	1F
Command 2	Operating Flags		varies	00
	0 - RF will only hop powerline Original messages 1 - RF will hop any powerline pessage	1 bit	varies	0
	0 - No cleanup report 1 - cleanup report	1 bit	1	1
	Ignored	1 bit	1	1
	0 - LED On 1 - LED Off	1 bit	varies	1
	No Data	1 bit	0	0
	0 - Armed 1 - Disarmed	1 bit	varies	1
	0 - Blink on Insteon Traffic On 1 - Blink on Insteon Traffic Off	1 bit	varies	0
	0 - Programming lock off 1- Programming lock on	1 bit	varies	0
Notes	This message is can be used to check the current armed state of the Siren Module			

Default Values are shown in the Operating Flags section in the Appendix

Example

```
Read Op Flags: 11 22 33 AA BB CC 0F 1F 00
Acknowledge: AA BB CC 11 22 33 0F 2F 1F64
```

Programming Lock On

The direct-message command sent to a Siren to set programming lock on

Response

Extended Length Message				
Command	Arm			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Set programming lock on	1 byte	00	00
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	E0	E0
Notes				

Request

Acknowledge				
Command	Programming Lock On			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating Flags	1 byte	20	20
Command 2	Programming Lock On	1 byte	00	00
Notes				

Example

```
Set Operating Flags: 11 22 33 AA BB CC 1F 20 00 00 00 00 00 00
00 00 00 00 00 00 00 00 E0
Acknowledge:   AA BB CC 11 22 33 2F 20 00
```

Programming Lock Off

The direct-message command sent to a Siren to set programming lock to off.

Request

Extended Length Message				
Command	Programming Lock Off			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Set programming lock off	1 byte	01	01
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	DF	DF
Notes				

Response

Acknowledge				
Command	Programming Lock Off			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating Flags	1 byte	20	20
Command 2	Programming Lock Off	1 byte	01	01
Notes				

Example

```
Set Operating Flags: 11 22 33 AA BB CC 1F 20 01 00 00 00 00 00
00 00 00 00 00 00 00 00 DF
Acknowledge:   AA BB CC 11 22 33 2F 20 01
```

Blink on Traffic On

The direct-message command sent to a Siren to turn blink the LED when any Insteon traffic is detected. Insteon traffic does not need to be specifically need to be addressed to the module for the LED to blink when traffic is detected

Request

Extended Length Message				
Command	Blink on Traffic On			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Blink on Traffic On	1 byte	02	02
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	DE	DE
Notes				

Response

Standard Length Message				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating flags	1 byte	20	20
Command 2	Programming Lock Off	1 byte	02	02
Notes				

Example

```
Set Operating Flags: AA BB CC 11 22 33 1F 20 02 00 00 00 00 00
00 00 00 00 00 00 00 00 DE
Acknowledge:   11 22 33 AA BB CC 2F 20 02
```

Blink on Traffic Off

The direct-message command sent to a Siren Module to turn off the LED blinking on Insteon Traffic

Request

Extended Length Message				
Command	Blink on Traffic Off			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Blink on Traffic Off	1 byte	03	03
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	DD	DD
Notes				

Response

Standard Length Message				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating flags	1 byte	20	20
Command 2	Programming Lock Off	1 byte	02	02
Notes				

Example

```
Set Operating Flags: AA BB CC 11 22 33 1F 20 02 00 00 00 00 00
00 00 00 00 00 00 00 00 DB
Acknowledge:   11 22 33 AA BB CC 2F 20 02
```

Disarm

The direct-message command sent to a Siren to disarm a siren immediately.

Request

Extended Length Message				
Command	Disarm			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Disarm	1 byte	04	04
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	DB	DB
Notes				

Response

Acknowledge				
Command	Disarm			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 bytes	2X	2F
Command 1	Set operating flags	1 byte	20	20
Command 2	Programming Lock Off	1 byte	04	04
Notes				

Example

```
Set Operating Flags: AA BB CC 11 22 33 1F 20 04 00 00 00 00 00
00 00 00 00 00 00 00 00 DB
Acknowledge:   11 22 33 AA BB CC 2F 20 04
```

Arm

The direct-message command sent to a Siren to immediately arm the module in the specified mode

Request

Extended Length Message				
Command	Arm			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Arm	1 byte	05	05
User Data 1	Mode	1 byte	*varies*	01
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	*varies*	DA
Notes				

Response

Acknowledge				
Command	Arm			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating flags	1 byte	20	20
Command 2	Arm	1 byte	05	05
Notes				

Example

```
Set Operating Flags: AA BB CC 11 22 33 1F 20 05 01 00 00 00 00
00 00 00 00 00 00 00 00 DA
Acknowledge:   11 22 33 AA BB CC 2F 20 05
```

LED Off

Turns the LED on the Siren Module off

Request

Extended Length Message				
Command	LED off			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	Led Off	1 byte	08	08
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	D8	D8
Notes				

Response

Acknowledge				
Command	LED Off			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating flags	1 byte	20	20
Command 2	Programming Lock Off	1 byte	08	08
Notes				

Example

```
Set Operating Flags: AA BB CC 11 22 33 1F 20 05 00 00 00 00 00
00 00 00 00 00 00 00 00 D8
Acknowledge:   11 22 33 AA BB CC 2F 20 08
```

Extended Command

LED On

Turns the LED on the Siren Module on

Request

Extended Length Message				
Command	Arm			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended 20 Bytes			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Operating Flags	1 byte	20	20
Command 2	LED on	1 byte	09	09
User Data 1	No data	1 byte	00	00
User Data 2	No data	1 byte	00	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	D7	D7
Notes				

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating flags	1 byte	20	20
Command 2	Programming Lock Off	1 byte	09	09
Notes				

Example

```
Set Operating Flags: AA BB CC 11 22 33 1F 20 09 00 00 00 00 00
00 00 00 00 00 00 00 00 D7
Acknowledge:   11 22 33 AA BB CC 2F 20 09
```

Extended Command

Read Extended properties

The direct-message command to read the extended properties

Request

Extended Length Message				
Command	Read Extended Properties			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Extended Properties	1 byte	2E	2E
Command 2	No data	1 byte	00	00
User Data 1	Group / Button	1 byte	01	01
User Data 2	Read extended data	1 byte	0	00
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	D1	D1
Notes				

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Extended Properties	1 byte	2E	2E
Command 2	No data	1 byte	00	00
Notes				

Extended Length Message				
Command	Read Extended Properties			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1F	1F
Command 1	Set Extended Properties	1 byte	2E	2E
Command 2	No Data	1 byte	00	00
User Data 1	Group / Button	1 byte	01	01
User Data 2	Return of Extended Data	1 byte	01	01
User Data 3	No data	1 byte	00	00
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	Alert Type	1 byte	*varies*	00
User Data 8	Delay and Duration	1 byte	*varies*	14
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	varies	BC
Notes				

Example

```
Read Extended Properties: AA BB CC 11 22 33 1F 2E 00 01 00 00 00
00 00 00 00 00 00 00 00 00 D1
Acknowledge:    11 22 33 AA BB CC 2F 2E 00
Return Extended Properties: 11 22 33 AA BB CC 1F 2E 00 01 01 00
00 00 00 00 14 00 00 00 00 00 BC
```

Set Current Alarm Duration / Delay / Countdown behavior

The direct-message command sent set the current duration for the device if triggered using direct commands. This is current value that will be used during state linking. When linking to an Alerting Group, duration of an alert event of the Siren Module is specified with this command. The duration may be settable from 1 - 120 seconds. This command also sets if the Siren Module will trigger immediately after an activation or after a 30 second delay. When linking to an Arming Group, this command specifies the countdown behavior when the device is arming. The device may arm silently or beep for the 45 second countdown.

Request

Extended Length Message				
Command	Set Alarm duration			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Extended Properties	1 byte	2E	2E
Command 2	No data	1 byte	00	00
User Data 1	Group / Button	1 byte	01	01
User Data 2	Write to Duration Property	1 byte	06	06
User Data 3	Delay and Duration	1 byte	varies	DA
User Data 4	No data	1 byte	00	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	*varies*	FA
Notes	This is the same command used to set a dimmable device's On Level			

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller Id	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set Extended Properties	1 byte	2E	2E
Command 2	No data	1 byte	00	00
Notes				

Example

```
Set Duration: AA BB CC 11 22 33 1F 2E 00 01 06 DA 00 00 00 00 00
00 00 00 00 00 F1
Acknowledge: 11 22 33 AA BB CC 2F 2E 00
```

Set Current Alarm Type

The direct-message command sent set the current Alarm type. There are two different alarm types, a loud siren and a chime

Request

Extended Length Message				
Command	Set current Alarm Type			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Set Extended Properties	1 byte	2E	2E
Command 2	No data	1 byte	00	00
User Data 1	Group / Button	1 byte	01	01
User Data 2	Write to Alarm Type Properties	1 byte	05	05
User Data 3	Alert Type	1 byte	varies	00
User Data 5	No data	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	CC	CC
Notes	This is the same command used to set a dimmable device's Ramp Rate			

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Set operating flags	1 byte	2E	2E
Command 2	No Data	1 byte	00	00
Notes				

Example

```
Set Delay:  AA BB CC 11 22 33 1F 2E 05 00 00 00 00 00 00 00 00
00 00 00 00 00 CC
Acknowledge: 11 22 33 AA BB CC 2F 2E 05
```

Read Database

The direct-message command to read the ALL-Link database

Request

Extended Length Message				
Command	Read Database			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	00	00
User Data 1	Group / Button (ignored)	1 byte	01	01
User Data 2	0 = Request to send data	1 byte	0	00
User Data 3/4	Starting address	2 byte	00 FF	00 FF
User Data 5	Number of Records 0 displays all records from starting from given address until the last used address	1 byte	00	00
User Data 6	No data	1 byte	00	00
User Data 7	No data	1 byte	00	00
User Data 8	No data	1 byte	00	00
User Data 9	No data	1 byte	00	00
User Data 10	No data	1 byte	00	00
User Data 11	No data	1 byte	00	00
User Data 12	No data	1 byte	00	00
User Data 13	No data	1 byte	00	00
User Data 14 / Checksum	Checksum	1 byte	D1	D1
Notes				

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	00	00
Notes				

Extended Length Message				
Command	Read Extended Properties			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1F	1F
Command 1	Set Extended Properties	1 byte	2E	2E
Command 2	No Data	1 byte	00	00
User Data 1	Group / Button	1 byte	01	01
User Data 2	Return of Extended Data	1 byte	01	01
User Data 3-4	Address	2 bytes	*varies*	00FF
User Data 5	No data	1 byte	00	00
User Data 6-13	Database Entry	7 bytes	00	00
User Data 14 / Checksum	Checksum	1 byte	varies	BC
Notes				

Example

```
Read Database:  AA BB CC 11 22 33 1F 2F 00 01 00 00 FF 00 00 00
00 00 00 00 00 00 D1
Acknowledge:  11 22 33 AA BB CC 2F 2E 00
Return Database: 11 22 33 AA BB CC 1F 2E 00 01 01 00 FF 00 A2 01
11 22 33 03 00 01 BC
```

Write Database

The direct-message command to write to the ALL-Link database

Request

Extended Length Message				
Command	Write Database			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	00	00
User Data 1	Group / Button (ignored)	1 byte	01	01
User Data 2	Write data	1 byte	02	02
User Data 3/4	Starting address	2 byte	00 FF	00 FF
User Data 5	Number of Bytes to write Values > 08 are ignored	1 byte	*varies*	08
User Data 6-13	No data	7 bytes	*varies*	00
User Data 14 / Checksum	Checksum	1 byte	D1	D1
Notes				

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	00	00
Notes				

Example

```
Write Database: AA BB CC 11 22 33 1F 2F 00 01 00 00 FF 00 00 00
00 00 00 00 00 00 D1
Acknowledge: 11 22 33 AA BB CC 2F 2E 00
```

Add/Modify Existing Database Record

Direct Message to modify an existing database record. If an existing database record exists for a matching device group and ID, If an existing database record does not exist, the entry will be added to the end of the database table.

Request

Extended Length Message				
Command	Add / Modify Database			
Message Type	Direct Message			
Message Direction	To Siren			
Message Length	Extended (20 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Extended Direct Message	1 byte	1X	1F
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	00	00
User Data 1 - 5	Add/Modify data	4 bytes	01 03 00 00 08	01 03 00 00 08
User Data 6	Record Control Flags	1 byte	*varies*	62
User Data 7	Device Group	7 bytes	*varies*	00
User Data 8-10	ID	3 bytes	*varies*	11 22 33
User Data 11	Delay / Duration / Countdown	1 byte	*varies*	03
User Data 12	Alarm Type	1 byte	*varies*	01
User Data 13	Siren Group	1 byte	*varies*	05
User Data 14 / Checksum	Checksum	1 byte	*varies*	D1
Notes				

Response

Acknowledge				
Command	Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	00	00
Notes				

This command may also respond with a special NAK that will indicate the previous message failed because the database was full and the operation was not successful.

Acknowledge				
Command	NAK			
Message Type	NAK			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	AX	AF
Command 1	Extended Properties	1 byte	2F	2F
Command 2	No data	1 byte	F9	F9
Notes				

Example

```
Write Database: AA BB CC 11 22 33 1F 2F 00 01 03 00 00 22 01 11
22 33 00 00 00 02 42
Acknowledge: 11 22 33 AA BB CC 2F 2E 00
```

Beep

The direct-message command sent to the Siren Module to beep. This command is useful for verifying connectivity and physically locating devices.

Request

Standard Length Message				
Command	Beep			
Message Type	Direct Message			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Controller ID	3 bytes	*varies*	11 22 33
To Address	Siren ID	3 bytes	*varies*	AA BB CC
Message Flags	Standard Direct Message	1 byte	0X	0F
Command 1	Beep	1 byte	30	30
Command 2	01	1 byte	01	01
Notes				

Response

The Siren Module will Acknowledge the Insteon message, and audibly beep.

Acknowledge				
Command	Trigger Alert Acknowledge			
Message Type	Acknowledge			
Message Direction	From Siren			
Message Length	Standard (10 Bytes)			
	Description	**Length**	**Message**	**Example**
From Address	Siren ID	3 bytes	*varies*	AA BB CC
To Address	Controller ID	3 bytes	*varies*	11 22 33
Message Flags	Acknowledge	1 byte	2X	2F
Command 1	Beep	1 byte	30	30
Command 2		1 byte	01	01
Notes				

Example

```
Beep:   11 22 33 AA BB CC 0F 11 14
Acknowledge: AA BB CC 11 22 33 2F 11 14
```

Memory Map

EEPROM Structure Overview

Location	Comments
	All-Link Record
	Ack
	Siren
...	Controller
	Last record, 416 total links allowed
	Addressing below 0x0300 is ignored by the database

Siren Record Format

Field	Description
Record Control	Record Control Flag Bits: Bit 7: 1 - Record is in use, 0 = Record is available Bit 6: 0 = Responder to (slave of) device ID Bit 5: Not used Bit 4 and bit 3: SmartHops (keeps track of what the start hop should be) Bit 2: Not used Bit 1: 1 - Record has been used before, 0 = High water mark Bit 0: Not used
Group	All-link group number this device ID belongs to
ID	Device ID
Data 1	Delay and Duration
Data 2	Tone Type
Data 3	Alert Record Type

Field	Description

Record Control	Record Control Flag Bits: Bit 7: 1 - Record is in use, 0 = Record is available Bit 6: 0 = Responder to (slave of) device ID Bit 5: Not used Bit 4 and bit 3: SmartHops (keeps track of what the start hop should be) Bit 2: Not used Bit 1: 1 - Record has been used before, 0 = High water mark Bit 0: Not used
Group	All-link group number this device ID belongs to
ID	Device ID
Data 1	Ignored
Data 2	Ignored
Data 3	Arm Record Type

Example usage

Modes

Check armed status of Siren Module

```
Read Operating Flags: 11 22 33 AA BB CC 0F 0F 00
Acknowledge:   AA BB CC 11 22 33 0F 2F 64 //bit 2 is set indicating the
Siren Module is armed
```

Immediately trigger siren for 10 seconds

```
Set Chime Type: AA BB CC 11 22 33 1F 2E 00 01 06 0A 00 00 00 00 00 00 00
00 00 00 C1
Acknowledge: 11 22 33 AA BB CC 2F 20 00
Direct On:  AA BB CC 11 22 33 0F 11 07
```

Using tap tap linking to create a trigger event for siren

```
Set Duration 30 seconds:   AA BB CC 11 22 33 1F 2E 00 01 06 14 00 00 00
00 00 00 00 00 00 00 B7
Acknowledge:      11 22 33 AA BB CC 2F 2E 00
Set Siren Type:      AA BB CC 11 22 33 1F 2E 00 01 05 00 00 00 00 00 00
00 00 00 00 00 CC
Acknowledge:      AA BB CC 11 22 33 2F 2E 00
(Controller into Linking Mode)
Linking Mode Broadcast:    11 22 33 03 33 9F 8F 01 01
Siren into linking Mode:   AA BB CC 11 22 33 0F 09 01 00 00 00 00 00 00
00 00 00 00 00 00 00 F6
Acknowledge:      11 22 33 AA BB CC 2F 09 01
Linking Mode Broadcast:    AA BB CC 07 11 0E 8F 01 01
Assign to Group:     AA BB CC 11 22 33 0F 02 01
Acknowledge:      11 22 33 AA BB CC 2F 02 01
```

Using tap tap linking to create a arm event for siren

```
Set Arm Countdown to Audible:  AA BB CC 11 22 33 1F 2E 00 01 06 80 00 00
00 00 00 00 00 00 00 00 4B
Acknowledge:      11 22 33 AA BB CC 2F 2E 00
(Controller into Linking Mode)
Linking Mode Broadcast:    11 22 33 03 33 9F 8F 01 00
Siren into linking Mode:   AA BB CC 11 22 33 0F 09 02 00 00 00 00 00 00
00 00 00 00 00 00 00 F6
Acknowledge:      11 22 33 AA BB CC 2F 09 02
Linking Mode Broadcast:    AA BB CC 07 11 0E 8F 01 00
Assign to Group:     AA BB CC 11 22 33 0F 02 02
Acknowledge:      11 22 33 AA BB CC 2F 02 01
```

Appendix

Device Properties Table

Engine Level	i2CS
Type / Family	Plug-in
Device Groups	6
RF	True
Powerline	True
Battery	False
Responder	True
Controller	True

Dimmable	False
Relay	False
Security Device	True
Heartbeat	False

Message Flags

Bit position	Description	Flag	Meaning
Bit 7 (MSB)	Broadcast / NAK	Message Type	100 = Broadcast Message
Bit 6	Group		
Bit 5	Acknowledge		000 = Direct MEssage 001 = Ack of Direct Message 101 = NAK of Direct Message 110 = Group Broadcast Message 010 = Group Cleanup Direct Message 011 = ACK of Group Cleanup Direct Message 111 = NAK of Group Cleanup Direct Message
Bit 4	Standard / Extended	Extended	1 = Extended Message 0 = Standard Message
Bit 3	Number of hops left in transmission	Hops Left	00 = 0 message retransmissions remaining 01 = 1 message retransmissions remaining 10 = 2 message retransmissions remaining 11 = 3 message retransmissions remaining
Bit 2			
Bit 1	Total number of hops allowed	Max Hops	00 = Do not retransmit this message 01 = Retransmit this message 1 time maximum 10 = Retransmit this message 2 times maximum 11 = Retransmit this message 3 times maximum
Bit 0 (LSB)			

Arming Countdown

Property				
Name	Armed / Disarmed / countdown state			
Description	Breakdown of the Armed / Disarmed / Countdown byte.			
Size	1 byte			
	Description	**Position**	**Length**	**Example**
Mode Option	Away armed / will be armed	bit 7	1 bit	0
Mode Option	Home armed / will be armed	bit 6	1 bit	1

Remaining Duration	Remaining number of seconds in a countdown The value can be any number from 0-45 This value loosely corresponds to the number of seconds of remaining countdown time.	bit 0 - bit 6	6 bits	0b101101
Notes				

Properties

Siren Alert Type

Property		
Name	Siren Alert Type	
Description	The siren has two Alert types, Chime and Loud Siren	
Size	1 byte	
	Description	**Value**
Chime	The siren will emit a ding-dong chime	00
Loud Siren	The siren will emit a 120db Siren	01
Notes		

Siren Duration and Delay Value

Property				
Name	Siren Duration and Delay			
Description	This property describes the Siren Module Behavior during the Delay / Countdown and the Duration of a Alert event			
Size	1 byte			
	Description	**Position**	**Length**	**Example**
Delay Options	Setting this option has two functions. If linking to an Alerting Group. If this bit is set, this option specifies if the Siren module will trigger after a 30 second delay. If not set, this option specifies that the Siren Module will trigger immediately If the Siren Module is linking to an Arming Group, setting this bit indicates if the Siren will be silent during the 45 second countdown. If not set, the Siren will beep during the 45 second countdown. 0 - Siren Module will immediately trigger if activated / Beeping while arming 1 - Siren Module will trigger after 30 seconds if activated / Silent while arming	bit 7	1 bit	0

Duration	Duration of the triggered alert. The value can be any number from 0-127 This value loosely corresponds to the number of seconds of sounding time. ex: 0b01011010 ~ 90 seconds of alarm	bit 0 - bit 6	7 bits	0b01011010
Notes				

Operating Flags

Property				
Name	Operating Flags			
Description	These are various properties that relate to the Siren Module's global operating properties.			
	Description	**Bit Position**	**Length**	**Default**
RF will only hop powerline Original messages	If this bit is set, All Insteon messages are hopped on RF regardless of the current hop count. Enabling of this option may cause signal degradation or collisions 0 - RF will only hop powerline original messages 1 - RF will hop any powerline message	bit 7	1 bit	0
Cleanup Report	This flag describes the behavior of a group activation from the Siren module. If set, it will send a Cleanup Report Broadcast at the end of any group activation 0 - No cleanup report 1 - cleanup report	bit 6	1 bit	1
	Ignored	bit 5	1 bit	1
LED Off	Setting this bit will turn off the Siren Module's front facing LED 0 - LED On 1 - LED Off	bit 4	1 bit	0
Memory Full	If this bit was set, the last modify command was unsuccessful due to memory full. Note: this flag resets after a power cycle	bit 3	1 bit	0
Disarmed	If this bit is set, it indicates that the Siren Module is Disarmed 0 - Armed 1 - Disarmed	bit 2	1 bit	0
Blink on Insteon Traffic	If this bit is set, the Siren Module's front facing LED will blink when any Insteon traffic is detected. The Insteon traffic detected may be a hopped message. 0 - Blink on Insteon Traffic Off 1 - Blink on Insteon Traffic On	bit 1	1 bit	0
Programming lock	If this bit is set, the Siren Module's set button is disabled and cannot be used for tap tap linking 0 - Programming lock off 1- Programming lock on	bit 0	1 bit	0

Notes				

Group Information

Group	Description
0x01	Trigger when Away
0x02	Arm Away Mode
0x03	Trigger when Home
0x04	Arm Home Mode
0x05	Trigger when either Home or Away
0x06	Arm Both Modes

Checksum Information

For Set Database, Set Properties and 0x20, Data14 will contain a 2s compliment of cmd1 through 2nd to last data record in the last data record.

Example of Checksum:

Message for Checksum Example	AA BB CC 11 22 33 1F 2E 00 01 05 FF 00 00 00 00 00 00 00 00 00 00 DD

The above example, device 11 22 33 is sent a command that requires a checksum in Data 14. The checksum is calculated by summing all the values from Command 1 to Data 13(0x2E + 0x01 + 0x05 + 0xFF = 0x133). We then calculate the compliment of the last byte(0x33 compliment = 0xCC). Then we add 1(0x01) to find the checksum for Data 14(0xCC + 0x01 = checksum = 0xCD).

Revision Log

Version	Date	Comment
Current Version (v. 37)	**Oct 18, 2016 17:49**	**Christopher Perez**: Corrected typos and adjusted Add / Modify database command
v. 36	Oct 18, 2016 15:05	**Brandt Daniels**
v. 35	Oct 18, 2016 15:05	**Brandt Daniels**
v. 34	Oct 18, 2016 15:03	**Brandt Daniels**
v. 33	Oct 17, 2016 14:07	**Christopher Perez**: Adjusted information for the Add/Modify Database command
v. 32	Oct 12, 2016 14:48	**Stephen Mkandawire**
v. 31	Oct 12, 2016 10:58	**Brandt Daniels**
v. 30	Sep 28, 2016 15:03	**Christopher Perez**: Firmware version is incremented to E1, modified command 1903 to include remaining

		countdown information, added command description for add/modify database command, fixed documentation for group commands (no functional change), Fixed Message Direction descriptions
v. 29	Sep 23, 2016 12:38	**Christopher Perez**
v. 28	Sep 22, 2016 14:12	**Brandt Daniels**
v. 27	Sep 22, 2016 14:08	**Brandt Daniels**
v. 26	Sep 21, 2016 17:38	**Christopher Perez**
v. 25	Sep 21, 2016 16:28	**Stephen Mkandawire**
v. 24	Sep 21, 2016 15:47	**Brandt Daniels**
v. 23	Sep 21, 2016 15:11	**Stephen Mkandawire**
v. 22	Sep 21, 2016 15:02	**Stephen Mkandawire**
v. 21	Sep 21, 2016 10:18	**Christopher Perez**: Adjusted note for location of Default Values
v. 20	Sep 21, 2016 10:15	**Christopher Perez**: Updated the Read Operating Flags command to show correct Armed / Disarmed Flag meaning
v. 19	Sep 20, 2016 16:57	**Christopher Perez**
v. 18	Sep 19, 2016 11:18	**Stephen Mkandawire**
v. 17	Sep 16, 2016 13:59	**Christopher Perez**
v. 16	Sep 16, 2016 13:59	**Christopher Perez**: Reorganized TOC and Page properties, added Device Properties Table in Appendix
v. 15	Sep 15, 2016 17:03	**Christopher Perez**
v. 14	Sep 14, 2016 17:44	**Christopher Perez**: added notes to match set type and duration to on level and ramp rate
v. 13	Sep 14, 2016 16:02	**Christopher Perez**: Updated Anchor Links
v. 12	Sep 14, 2016 15:50	**Christopher Perez**: Added anchor link to operating properties, adjusted group description to show controller group number
v. 11	Sep 14, 2016 15:30	**Brandt Daniels**
v. 10	Sep 14, 2016 15:01	**Brandt Daniels**
v. 9	Sep 14, 2016 14:58	**Brandt Daniels**
v. 8	Aug 30, 2016 15:14	**Christopher Perez**
v. 7	Aug 30, 2016 15:14	**Christopher Perez**
v. 6	Aug 30, 2016 14:33	**Christopher Perez**
v. 5	Aug 30, 2016 14:27	**Christopher Perez**
v. 4	Aug 30, 2016 14:21	**Christopher Perez**: Updated Message Flag Links
v. 3	Aug 30, 2016 13:50	**Christopher Perez**
v. 2	Aug 30, 2016 13:38	**Christopher Perez**