BACnet / IP Gateway Setup Manual

M9-EBOX





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Hardware Overview

The product package should contain the following items:

- EBOX Device
- Backplate
- 24V Power supply (optional upon request)

1.11



EBOX Device

Device Backplate

Device Overview

• LED Overview & Dimensions



• Port Overview (back of device)



What you need before you begin

- PoE Cable
- 4 screws
- Screwdriver
- airConfig Software (email support@magnumfirst.com for download instructions)

Mounting Instructions

• Screw backplate to wall or ceiling

NOTE: Optimal mounting is at or below ceiling height and in conditioned environment. NOTE: Range can vary greatly based on building materials, device positioning, interferance, etc. Reference the <u>EnOcean Range Planning Guide</u> prior to installation.



• Attach device to backplate by aligning tabs and twisting / locking into place (see below)







• Download and install airConfig (email support@magnumfirst.com for download instructions))

- Select USB port with USB-transceiver or network card.
- The eBox may be configured without the USB-Tranceiver when it can be reached on the network.
- The eBox factory default is DHCP, so it will receive and IP Address if a DHCP server is available.
- If your computer running airConfig is on the network, you will be able to configure the device without the USB-transceiver.

• Please find the airConfig panel overview below.





• If airConfig is started without the USB-Transceiver, it will identify EBOXES on the same network automatically. The EBOXES will not need to be queried.

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Configuration Process





6	N	Aagnum airConfig 5.05.06 (advanced)	- 🗆 ×	
File Settings				
Driver Devi	ces (4)	Device configuration	Sensors (425)	
🔁 TS1 👚 🤦	26240820 -eriks ebox	Network Configuration FDR Inputs Outputs Backup/Restore	26868762	
	RSSI: -42 dB	TCM Info	RSSI: -67 dB	
	0x01A15572 27350386	тсм	0x89A4AB 9020587	
	RSSI: n/a	BaselD	(485) RSSI: -69 dB	
	0x050634ED 84292845 MM eBox	dec 4289378560 hex FFAAB900	0x01A0196D 27269485bathhall2	Information on the radio ship of
0-10V, PWM		hex	RSSI: 90.0B	Information on the radio chip of
	0x01A61112 eBox 2 0 test wm	Core 2.11.1.0 API 2.6.3.0	0x018F4611 Abishaks MI 2	the EBOX
Dali Node			R\$SI: -64 dB	
Outdoor Node		Туре	0x019CE97B 27060603batbball1	
		TCM320 - 902MHz	RSSI: -BB-(IR	
PS2			0x019A785C 26900572	
		Firmware / XML version	RSSI: -72 dB	
MCB14.4		XML Firmware	0x0506F5BD Mebrdad	
AP2		0.03.8 201.19	RSSI: 01 (B)	
		Location	0x0180C5BE	
AP3		unknown	RSSI: Blidts	
			0x019A5020	
XLR		BACnet	RSSI: -70 dB	
- AROX		noq ui	0x018B8707	
EDOX		123 🗘 47,808 🗘	RSSI: 41 (IB	• VML and Eirmware Version (1)
		XMI File selection	0x018F4617	• AML and Firmware Version (1)
		Celsius	Cocupancy Sensor R\$SI: -69 dB	 BACnet Location
СВох				- DACust ID and next
Collector		Firmware update	27268728mg2	•BAChet ID and port
		disabled Update XML file		• XML Type (2)
Oairconfig	on 🛇 Och		on S Oci	
EnOcean-ID:				• Firmware Update
27350386 Type:				The EBOX can automatically check for
BACnet/IP gateway				new firmware. You can specify the
Magnum Energy Solutions		>>>> configuration complete <<<<		frequency of how often the EPOV
	SEND >>	55000704075702320029FFFA00019FA09AF3 >>		hequency of now often the EBOA
RSSI: -43 db				cneck for new firmware. This feature
				requires internet access for the EBOX.

(1) Actual firmware version of the EBOX and XML file. airConfig will prompt if there is a new firmware version available. In a case where the EBOX has direct internet access, it will also have a BACnet point that indicates a new firmware's availability.

The XML file contains all EnOcean profiles and is updated regularly.

(2) EBOX points are created based on the XML file. The standard XML file shows temperature values in °C. This can be changed to °F. Since all sensors send in °C, this is the recommended unit.



FDR Settings - In a case where a BBMD server is present on the network, the EBOX can be configured as a foreign device.

The EBOX is NOT a BBMD server!



Sensors can be added to the EBOX by simply dragging and dropping sensors from the Sensor panel to the Inputs panel.

You can rename, delete and change the BACnet ID of the sensors. You will need to send the configuration to the EBOX first and read it again.



To add outputs to the EBOX, select profile and manufacturer and click on the "+".

Options:

- Rename:	Renames the output. Renaming allows you to add additional information to each BACnet point that a device creates. You are able to add text to the beginning / end of the Name or Description to provide additional identifiers (Room numbers, Office names, etc.).
- Delete:	Deletes the output.
- Add to sensor list:	Adds output to the sensor list so it can be used as an input for the device it is supposed to control
- Destination / MsgServer:	Some devices need to be addressed (instead of using broadcast messages). Others may only be able to receive commands in a very short window, after they have sent a message themselves. Both can be configured here. Please refer to the device manual.
- Send LRN:	Sends a learn telegram to the sensor. LRN sends 1 4BS learn telegram
- LRN(3x):	Sends 3 consecutive learn telegrams.
- LRN(UTE):	Sends 1 UTE telegram (please refer to device manual)
- Change BACnet ID:	Take from input

	Magnum airConfig 5.05.06 (advanced)	- 🗆 ×	
File Settings			
Driver Devices (4)	Device configuration	Sensors (462)	
7S1 0x01906734 26240820 -eriks ebox RSSI: 42 dB	Network Configuration FDR Inputs Outputs Backup/Restore	0x0199FC1A 26868762 RSSI: -67 dB	
MTB 0x01A15572 27350386	Туре	0x89A4AB 9020587	
URD1	Local Cloud	RSSI: -67 dB	
0-10V, PWM	Backup	RSSI: -90 dB	Backup Type
Dali Node EBox 2.0 test wm RSSt: #t titl	Васкир	Abishaks ML2 RSSI: -61 dB	
Outdoor Node	Restore	27060603bathhall1 RSSI: -R4 dB	
PS2	change base ID Restore	0x019A785C 26900572	
MCB14.4		0x0506F5BD Mehrdad	
AP2		RSSI: -69 dB	
AP3		25216446 RSSI:	
XLR		26890272 RSSI: -67 dB	
eBox		0x018B8707 25921287 RSSI: 01 dB	
eBox 2.0		0x018F4617 Occupancy Sensor	
cBox		0x01A01678 27268728mg2	
Collector		¢ IIII >	
OairConfig 💦 💿 🔿 dr		on 🛇 dr	
EnOcean-ID: SEND : 27350386 SEND :	>> 55000704075702320029FFFA00019FA09AF3 >> >> 55000704075702320029FFFA00019FA09AF3 >>	EnOcean ID: 26900572 (0x019A785C) Profile:	
BACnet/IP gateway SEND	>> 55000704075702320029FFFA0001A0166FA1 >> >> 55000704075702320029FFFA0001A0166FA1 >>	A5-07-03 Deceptancy will Supply voltage monitor and 10 to.	
Manufacturer: SEND : Magnum Energy Solutions	>> 55000704075702320029FFFA0001A0166FA1 >>		
SEND	>> 55000704075702320029FFFA0001A16AE040 >> 55000704075702320029FFFA0001A16AE040 >> 1	Data and the second	
RSSI: -43 db		RSSI: -78 db	

airConfig can backup and restore all of its configuration, including inputs and outputs either to your local HDD or to the Cloud.

Change base ID will also change the Base ID of the new EBOX if the destination device is different from the source. This will allow the new EBOX to control all the devices that the old one did.

A Base ID can only be changed 10 times.



Auto Learn

Magnum Auto Learn compatible devices enable the EBOXs to learn in devices based on signal strength. In installations where the devices fall into multiple EBOXs range, Auto Learn will allow the EBOXs to study the signal strength for the devices. After a 5-6 hour period, the EBOXs will use that information to assign the devices to the ideal EBOX.

You are able to Save / Load these Auto Learn lists and apply them to multiple EBOXs.

roject na	ame:	1		▲ ▲	ASH	AE save	<	Save EDE
ersion: wthor:			0	×	X	export -		Save XLS
INPUT] 1	29000 - 0x0	19A785C (A5-07-03)		Engineering Data Exchange	E	close		
active	ID 129000	Type Analog input	Name 0x019A785C [0] (3) Supply voltage / super cal. (line	Keyname ear); 0x019A785C [0] (3) Supply voltage / super cal. (linear);	Location	Value 0.0		Activate / Deactivate &
~	129001	Binary Input	0x019A785C [0] (2) infimitation (intear)	0x019A785C [0] (2) muthination (intear)		0		Reliance Data Points
-	129995	Analog Output	0x019A785C {HeartBeat}	0x019A785C {HeartBeat}		255		 Renamed points are shared
~	129997	Binary Input	0x019A785C {Signal}	0x019A785C (Signal)		0		in the FBOX and will visible i
1	129998	Multi-state Input	0x019A785C {Manufacturer}	0x019A785C {Manufacturer}		255		
1	129999	Analog Input	0x019A785C {R\$SI}	0x019A785C {RSSI}		0		the BAChet system.

Select inputs / outputs and EBOX points.

Since data points are created in the EBOX, you will need to send / receive the configuration before you can edit the EDE file.

		Magnum airConfig 5.05.06 (adva	nced)	- 🗆 X
File Settings				
Driver	Devices (4)	Device configuration		Sensors (566)
TS1	26240820 -eriks ebox RSSI: 42 dB	Network Configuration FDR	Inputs Outputs Backup/Restore	26868762 RSSI: -58 dB
мтв	0x01A15572 27350386	Network	WLAN Security: disabled 🗸	0x89A4AB 9020587
URD1	RSSI: n/a	Sort >		RSSI: -81 dB
0-10V, PWM	84292845 MM eBo RSSI: -64 (Rename <f2> Delete </f2>	192 🗘 168 🗘 1 🗘 18 🗘	27269485bathhall2 RSSI: -88 dB
	0x01A61112 eBox 2.0 test wm	Request configuration <f5></f5>		0x018F4611 Abishaks ML2
Dali Node	RSSI: -01	Send configuration <f6> End LEARN mode</f6>	255 255 255 0	RSSI: -61 dB
Outdoor Node		Load device	192 168 1 1 1	27060603bathhall1 RSSI: -07 (6
PS2		Save device		0x019A785C
		Save device list	van mee	* X RSSI: -82 dB
MCB14.4		Copy <f3></f3>	тарлисэ	Mehrdad
AP2		Paste <f4></f4>		RSSI: -73 dB
AP3	Config	Read error log	Password:	25216446 RSSI: 44 0B
	nair	Delete error log		0x019A5020
XLR		Radio Pass-Through	2-24-00-04-00	26890272 RSSI: -69 dB
eBox	W	Select all	2 21 03 01 40	0x01888707 25921287
eBox 2.0		Control / Security		0x018F4617
cBox		Paboot	Key 1: •••	RSSI: -63 dB
		Tabloot IC	Key 2: •••	27268728mg2 →
		😰 enargen 🤹 Rese	EDE Key 3: •••	
(Jan Coning				
EnOcean-ID: 27350386	SEND 2	> 55000704075702320029FFFA0 > 55000704075702320029FFFA0 > 55000704075702320029FFFA0	001A170D94A >>	EnOcean ID: 26900572 (0x019A785C)
Туре:				Profile: A5.07.03
Manufacturer:	SEND 3			
	SEND 2			
RSSI: -43 db				RSSI: -78 db

- Sort:
- Rename:
- Delete:
- Requestion Configuration:
- Send Configuration:
- Start / End Learn Mode:
- Load Device:
- Save Device:
- Load Device List:
- Save Device List:
- Copy:
- Paste:
- Paste All:
- Read Error Log:
- Delete Error Log:
- Radio Pass-Through:
- Select All:

Rename the EBOX Delete the EBOX Request configuration from the EBOX Send configuration to the EBOX Start / end learn mode toggle Load a single EBOX from disc Save a device

Sort EBOXES by RSSI, name, location and EnOcean ID

- Save a device
- Load an EBOX list from a disc
- Save selected EBOXES as a list to a disc
- Copy the configuration
 - Paste without inputs and outputs
 - Paste with all inputs and outputs
- rror Log: Request error log from EBOX
 - Delete error log from EBOX

Activating radio pass-through causes the EBOX becomes the radio of airConfig. All radio messages will be forwarded from the EBOX to airConfig. All commands are being sent through the EBOX

Select all EBOXES