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# Upgrading BOS firmware Manual



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#### Manual Overview

This manual will cover the steps for upgrading your BOS (Battery Operated Sensors) firmware so they will work and successfully synchronize with your existing L-DCIM that is running the latest software version.

We normally always try to ship the systems (both the L-DCIM and the BOS) already synched and configured. However, there may be times when your BOS (sensors) are not running the correct firmware that is compatible with the L-DCIM's software version, which can cause communication problems between the L-DCIM unit and the BOS.

These issues can arise when you order new BOS, or receive replacement sensors, which may be using a different firmware version that again as mentioned above, are not compatible with your gateway/L-DCIM unit. In these cases, you will need to upgrade your new sensors firmware.

#### **Problematic Symptoms & Analysis**

You have received new BOS or replacement BOS and have attempted to add the sensor, or sensors via the L-DCIM monitoring page as follows, however the BOS will not synchronize:

1. You first selected the "AKCP Wireless Device" with the new or replacement senor(s) connected to the L-DCIM to the USB port via the USB cable.

2. After you pressed the "Scan from USB" button, this completed the proper addition of the new BOS with all correct data (this option is available only on image #210 and newer).

*Note:* on older L-DCIM image versions, you could only add a BOS by manually entering the required sensor access key details from the sticker on the sensor.

Device Type	
AKCP Sensor	Ŧ
System Name	
Device Network Address (Hex)	
Network Session Key (Hex)	
Application Session Key (Hex)	



3. The AKCPro Server (L-DCIM) then prompted you to sync with the new device, however when you attempted to do so by completing the prompts on the screen stating "press the 'mode' button on the BOS until it blinked", which it did, however, the sync wizard does not proceed from step 2 and doesn't finish the sync:



Attempting the Maintenance option of resetting the LDCIM from the software does not resolve the BOS synchronization issue.

Attempting to resolve the issue by powering down the L-DCIM and restarting it, does not resolve the BOS synchronization issue.

Attempting to delete the BOS device and re-add it again, does not resolve the BOS synchronization issue.

Attempting to sync the BOS device while it was powered by USB cable (in case of a low battery), does not resolve the BOS synchronization issue.

See below for the steps required to reflash your BOS and resolve the issue.



### Proper Steps for BOS Upgrade & Solution

The first step would be to directly contact our AKCP support team via email (<u>support@akcp.com</u>) sending us the following screen shots from your L-DCIM unit:

A. The first screen shot to send us is the version of the software running on your L-DCIM:

AKCP AKCPro	Server
DEVICES WORKSPACE MAPS	Workspace > Oemo Data Cer
Q Search	Host Status (Host 19510590)
+ Add Device Q Scan Network	Live
← → C ③ Not secure   10.1.1.96/app.html#/	🖈 🕥 📼 🔳 🛛 😌 🗄
Hosts Pro Server	
🖻 Events 🖌 🖌 Wo	rkspace > 🔵 tst 👻 🛨 🔰 💈 🐇 🔝 🗶
Access Control V	ero [Bad USB] (1 9510075) 13 X
Time Attendance V	st Status :
A Notifications V Bat	tery : mal 3.29 V :
₩ Video Recording V Hu	midity Port 2
Reports RS:	SI mai 45 ripm
Documents SN	R I
C Backup / Restore   Ter	nnai o nperature Port 1 :
🚔 Probe Manager 🗸	mal 24.4 °C
Settings V	From: 22/11/2019 08:13:05
Help & Support      25.15	To. 22/11/2019 09:13:05
← License     24.35-     23.9-	08'25 08'37 08'49 09'01 09'13
About     Admin     Eull Screen	
ㅋ LonOut	





Please keep in mind the screen shots in this manual are <u>only examples</u> and do not represent the most current updated versions of the software or BOS firmware.

B. The second screen shot to send is the current version of the BOS that you received. To check the BOS firmware version, first click on the 3 dots next to the wireless sensor(s) as shown in the screen shot below that are not synchronizing.









Then click on the Settings link as shown in the screen shot above.



Then see the **System Description** for the BOS firmware version and send this information to AKCP support as shown in the screen shot below.

=		Pro Server		
Wirel	ess Device Setting		Host	LBTD289 (1
<b>G</b>	Overview	<b>LBTD289</b> (19510289)		
ŵ	Device			
Ŷ	Sensors	Device Type AKCP Sensor		
(;	Network	System Description LBTD v1.28 (BAT)		
0	Synchronization	Signal to Noise Ratio (SNR) 10 Received Signal Strength Indicator (RSSI) -54 dBm		
		Last Received 23/01/2020 17:40:33 +08:00		
		Received Packets Count 1731		
		Device Network Address (Hex) 19510289		
		Application Session Key (Hex) 022017102007082109031300002000		
		Battery     Dry Contact Sensor Port 3.1     Edge Counter Port 3.2       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1     Image: Contact Sensor Port 3.1       Image:		

- C. After receiving the compressed BOS firmware update file from our support team (.zip), please follow the instructions below for upgrading your BOS firmware with the correct file. This will be a **.bin** file.
  - 1. Download the BOS firmware .ZIP file using the link that our support team sent you to a separate directory on your computer that is on the same network as your L-DCIM.
  - 2. Decompress (extract) the BOS firmware .ZIP (compressed file) in the directory that you downloaded the file to.
  - 3. In the compressed .ZIP file there will be many .bin files. So, you will need to choose the correct file for your BOS sensor and also your correct region or your customers location. If in any doubt please contact AKCP support and we can confirm the correct file to use, but please include your sensor type by the product code and your location.

*Example:* to upgrade an LBTH BOS with EU868 region, you will need the BOS.LBTH.EU868.nnn.bin file (the last 3 digits nnn will be the firmware version).



- 4. Connect your BOS to L-DCIM's USB port. Either use port #1 or port #2. Do not disconnect the USB drive in the 3<sup>rd</sup> USB port or the L-DCIM will not function correctly.
- Log into your L-DCIM as the Admin user then go to Add Device > AKCP Wireless Device > Enter the System Name, Device Network Address, Network Session Key and Application Session Key that is located on the label of the BOS. <u>Do not Sync!</u>
- 6. Go to Menu > Probe Manager > Firmware
- 7. Browse to and select the correct .bin firmware file that our support team sent you and which you extracted in step #3 above.
- 8. Click the "Add Hosts" button then select the new BOS sensor(s) you have connected. Click the OK button.
- 9. Click the "Update Now" button. Wait for the update to finish.
- 10. Now you can sync the new BOS with the L-DCIM.

Additional Important Notes: Although we have the firmware update over the air feature, this will not work if the new sensor(s) has a mismatch with the software running on the L-DCIM.

If you have a BOS that is not responding to pressing the initialization button, you will need to make sure that the rubber is not pushed in and has been trapped on the plastic case, this could cause the button to be permanently pressed. Please see the L-DCIM manual for the specific details regarding the initialization button on the BOS.

Check to see how close together your BOS sensors and the L-DCIM are. We have found that if they are too close this may cause communication issues, so there should be at least a 5-foot distance between the BOS and L-DCIM antennas.

If you have other additional BOS, then ensure these devices are syncing with the L-DCIM and include this with your reply to our support team.

Please contact <u>support@akcp.com</u> if you have any further technical questions or problems.

## **Thanks for Choosing AKCP!**