

BlueLite v2
User Manual



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REVISION HISTORY

Version	Data	Change description
1.0.0	05.01.2018	First Release
1.1.0	22.01.2019	Updated specification and added section "Scan to Pairing"
1.2.0	13.11.2019	Added section "REGULATORY"

REGULATORY

FCC ID: YRW-BLUELITEV2

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

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TECHNICAL SPECIFICATIONS

Processor	ARM Cortex® M3 Security Microcontroller	
Memory	64KB Internal ROM 256KB Internal RAM 1MB Internal Flash	
Application Memory	4MB Serial Flash	
Keypad	<ul style="list-style-type: none"> • ON / OFF key • Bluetooth pairing button 	
Magnetic Card Reader	<ul style="list-style-type: none"> • 3-track bi-directional reading • ISO 7810, 7811 and 7813 	
Smart Card Reader	ISO7816, EMV L1 certified	
Contactless Card Reader for payment applications (option)	<ul style="list-style-type: none"> • AMEX ExpressPay • Discover D-PAS • MasterCard Contactless • VISA PayWave 	
Contactless Card Reader (option)	ISO/IEC 14443 Type-A/MIFARE: <ul style="list-style-type: none"> - MIFARE MINI - MIFARE CLASSIC-1K, MIFARE CLASSIC-4K - MIFARE ULTRALIGHT, ULTRALIGHT-C - MIFARE PLUS 2K/4K - MIFARE DESFire - and others 	ISO/IEC 14443 Type-B <ul style="list-style-type: none"> - supports most of the cards ISO/IEC 15693 <ul style="list-style-type: none"> - supports most of the cards JIS X 6319-4 <ul style="list-style-type: none"> - compatible with FeliCa
Battery	Rechargeable lithium-Polymer battery 3.7V, 500 mAh	
Connectivity	<ul style="list-style-type: none"> • USB - Device • Bluetooth Low Energy 4.2 	
Audio indication	Electro-Magnetic Buzzer	
OS compatibility	iOS, Android, Windows	
Reliability	<ul style="list-style-type: none"> • 500 000 chip card cycles • 1 000 000 magnetic card swipes 	
Certifications*	PCI 5.x, EMV Level 1, CE	
Dimensions (W x D x H), mm	69 x 74.9 x 14	
Weight, g	75	
Environmental	Operating: -10°C to +40°C / 5 to 90% RH Storage: -15°C to +50°C / 5 to 90% RH	
Drop Test		
Power Supply	DC 5 V, 1 A through micro USB connector	

*** Specification can be change without any notice.**

*** For actual certifications please contact to your local distributor.**



Use only original equipped DATECS cable USB-A to USB-B micro

Use only UL approved USB adapters. The minimum requirements of USB adapter is 5V/1A.



Waste Electrical & Electronic Equipment

The symbol means that according to local laws and regulations your product shall be disposed of separately from household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

GENERAL VIEW

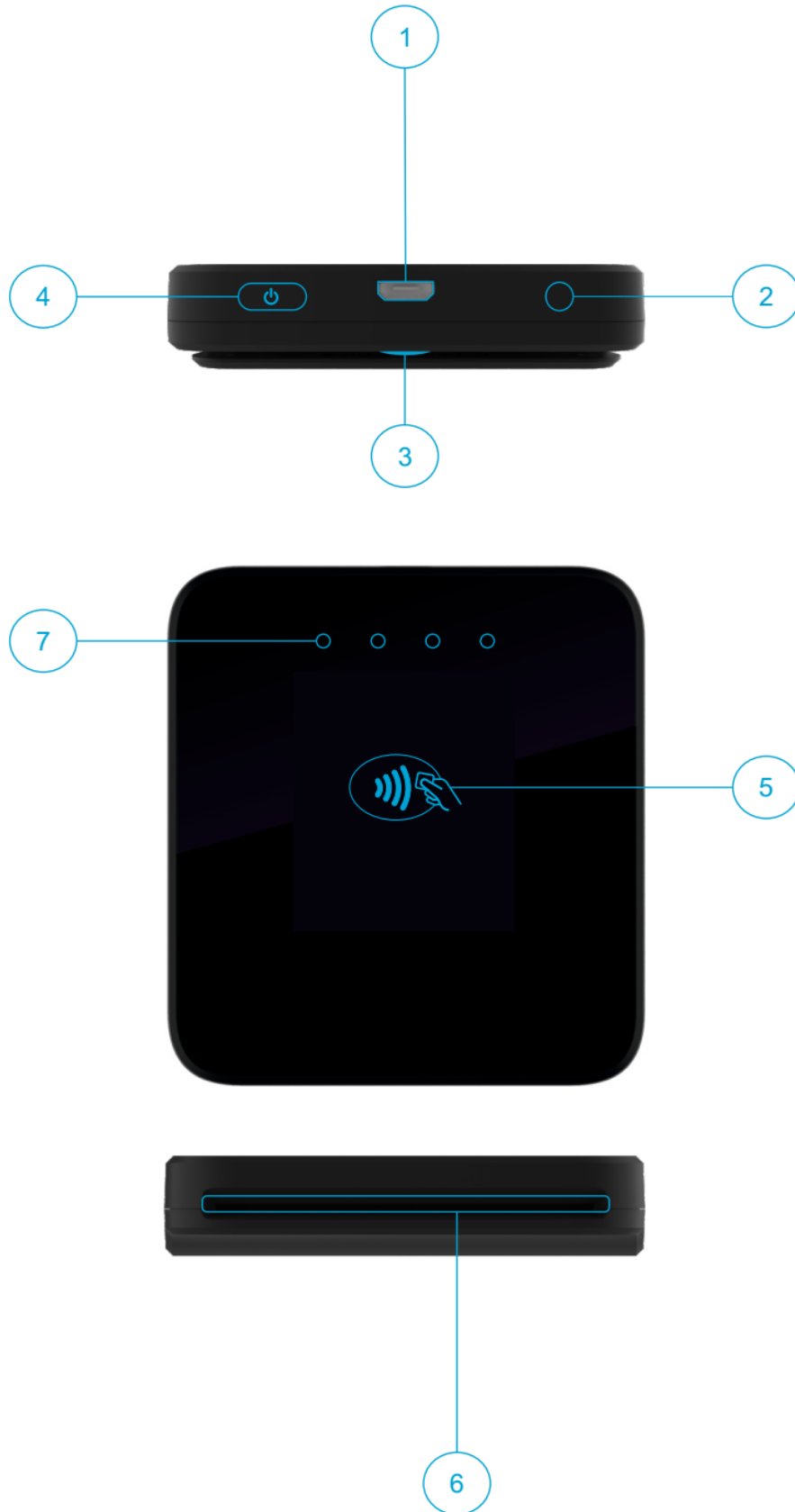


Figure 1

- 1. Micro USB port**
- 2. Button for Bluetooth pairing**
- 3. Magnetic Card Reader**
- 4. On/Off Button**
- 5. Contactless reader**
- 6. Opening for inserting smart card**
- 7. LEDs indication for Contactless transaction / LEDs indication for device status**

GETTING STARTED

BlueLite v2 has rechargeable Li-Po battery. Can be charge from micro USB port.



Before first use, battery must be fully charged.
 If the device is fully discharged, charging time to fully charged would be approx. 1 hour and 30min.

Charging form USB adapter:

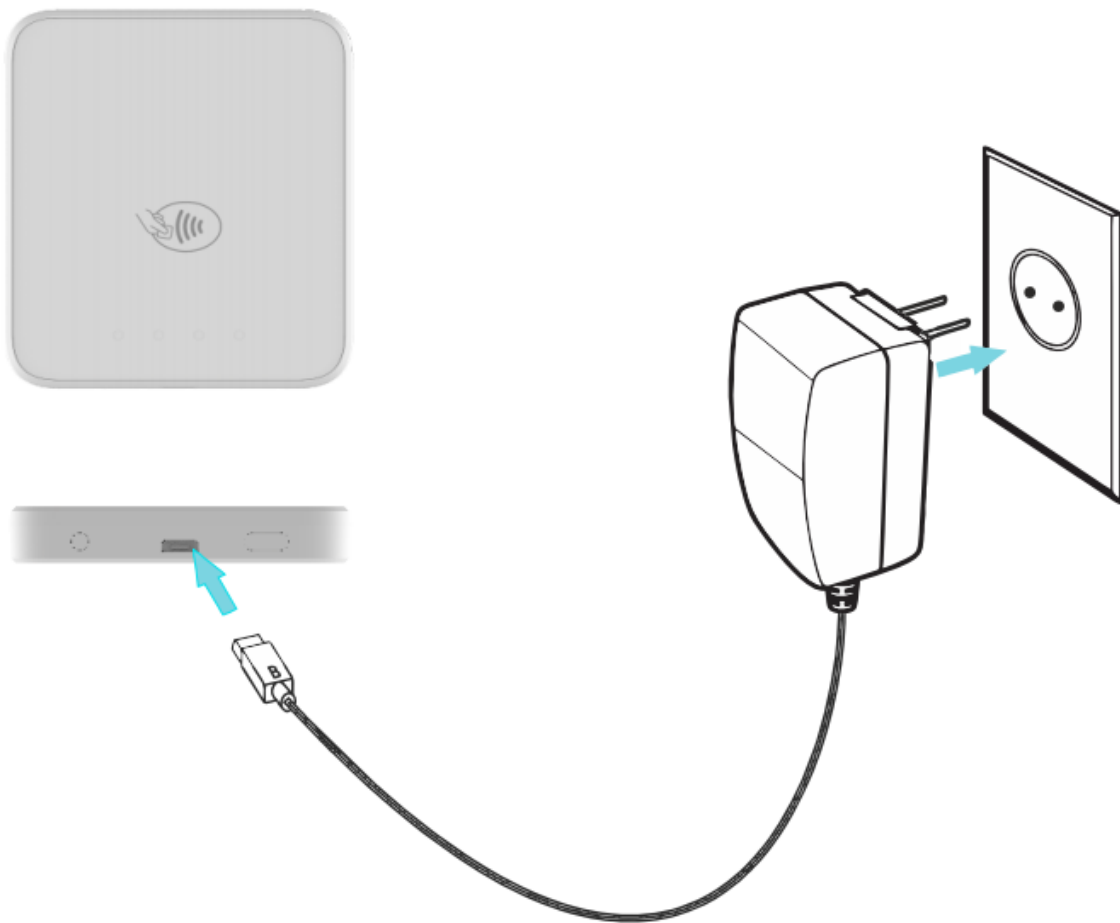


Figure 2



Main battery replacement:
 To replace the main battery of BlueLite v2 please contact with your local Datecs representative or service provider.

PERIODIC INSPECTION AND MAINTENANCE

The following inspections must be performed on a regular basis after initial receipt and installation of BlueLite v2:

- There are no visual indications for trying unauthorized opening of the device
- There are no unusual wires connected to the ICC acceptor or any of the ports on the terminal.
- There is no shim device in the ICC acceptor slot.
- The terminal serial number (on the label) corresponds to the one in the inventory paperwork.

OPERATION MODES

For start operating with BlueLite v2 is need to be paired to another Bluetooth BLE device with installed application. For downloading the latest SDKs for iOS, Android and Windows please contact with your distributor.






Application download mode, System mode and Clearing Bluetooth paring info

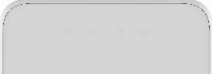
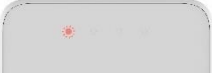
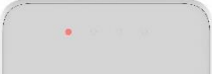








Application download mode - to enter application download mode on the BlueLite v2, the power button has to be maintained pressed. A characteristic sound is played and first white LED will start to light. Power button must be hold until second white LED is light on, then is releasing the power button. When device is in Boot Loader/Application download mode will be played characteristic sound.

System mode - to enter in "SYSTEM MODE" on the BlueLite v2, the power button has to be maintained pressed. A characteristic sound is played and first white LED will start to light. Power button must be hold until third white LED is light on, then is releasing the power button.

Clear Bluetooth paring information - to enter in "Clear Bluetooth Pairing Info" on the BlueLite v2, the power button has to be maintained pressed. A characteristic sound is played and first white LED will start to light. Power button must be hold until fourth white LED is light on, then is releasing the power button. When paring info will be played characteristic sound.

Status LEDs

LED indication	
	White LED continuously light on and Red LED flashing
	Red LED flashing
	Red LED continuously light on
	White LED continuously light on
	White LED flashing

LED indication		Description
Device operating		
	No indication	Device is turned off
	First red LED is flashing	Device is turned on
	Second red LED is continuously light on	Device battery is charging
Operating modes when is press power button		
	First white LED is continuously light on	Device will go to normal operating mode
	Second white LED is continuously light on	Device will enter in Boot loader
	Third white LED is continuously light on	Device will enter in System mode
	Fourth white LED is continuously light on	Device will clear Bluetooth pairing info
Bluetooth status		
	All four white LEDs are flashing one after another	Waiting for confirm Bluetooth pairing.
	Fourth red LED is flashing	Bluetooth is connected
System errors		
	First and second red LEDs flashing continuously	Device is TAMPERED
	All four red LEDs is continuously light on	Device error (General Exception)

Bluetooth Pairing

Turn on BlueLite v2, connect it to PC via USB cable. When device is connected to PC, will create virtual COM port. Check on device manager on which port is connected. After that run the special application for PC (Fig. 3). Press "Search" button on the app, and in right side will be show all available COM ports. Select on which is connected device, then press "Connect to device". From Bluetooth management on mobile device (equipped with BLE 4.2) select connect to BlueLite v2, then on mobile device screen will be show PASSKEY (Fig. 6). White LEDs will start to light one by one continually, on special app will be show Passkey (Fig. 4), if they are same press "Paring button" on BlueLite v2 to confirm (Fig. 5), then special app return message "THE DEVICES ARE CONNECTED" (Fig.7 when on both device is confirming pairing). If Passkey is being different press "On/Off" button on BlueLite v2 to cancel pairing.

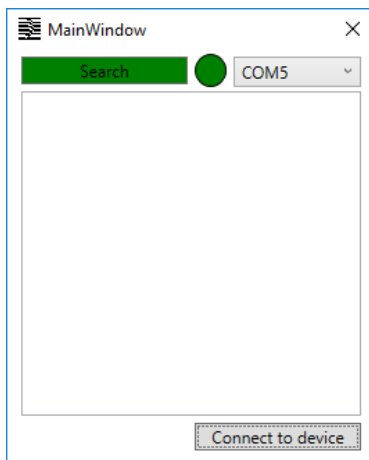


Figure 3

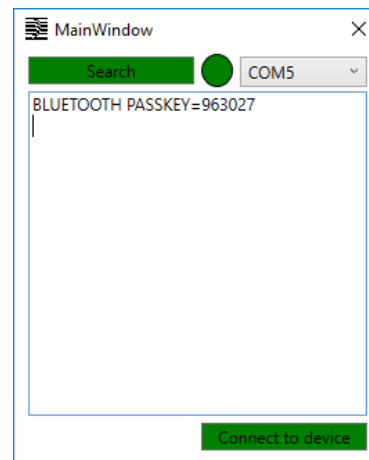


Figure 4

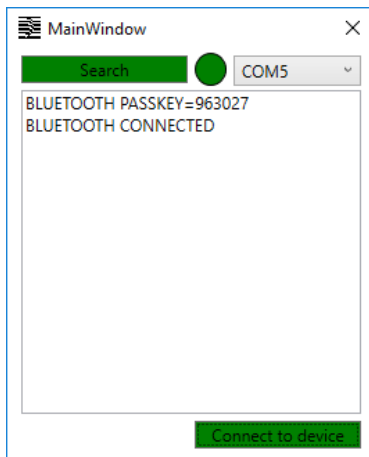


Figure 5

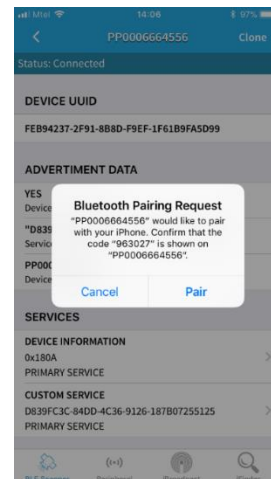


Figure 6

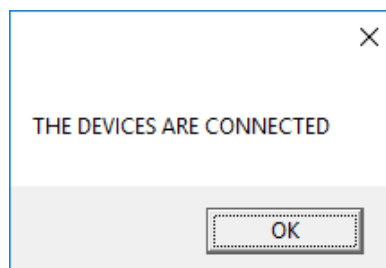


Figure 7

Bluetooth Pairing to Apple device (iOS) with BLE (Scan to Pairing)

1. Turn on BlueLite v2 (hold On/Off button, around ~2sec).
2. Run the iOS application, go to the settings "Scan barcode":

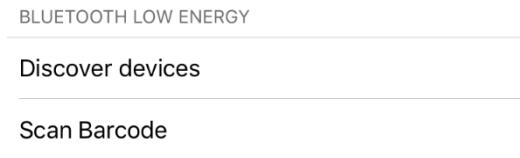


Figure 8

Then the camera of the phone will be activate

3. Scan the serial number on the label of BlueLite v2 with back camera.
4. Then of the screens on both devices will be showed the "Pairing Request".

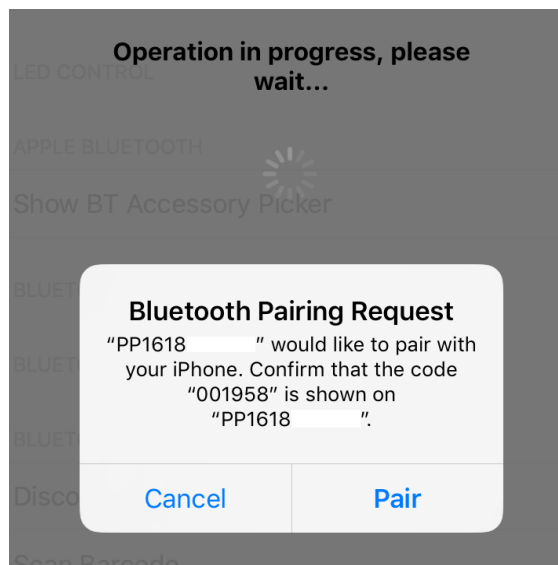


Figure 9

5. Please confirm if the passkey is same on both devices

**** This function is depends of the BlueLite v2 Application.***

Magnetic cards reading

The BlueLite v2 has a built-in magnetic card reader. The card reader incorporates a (3) track magnetic read head, requiring a single swipe to read field data from all three tracks.

The magnetic reading head faces down, towards the top of the bottom cover of the cradle. When swiping the card into the reader, the magnetic stripe must be facing as shown in the figure below. Keep the edge of the card flat on the inner base of the reader to ensure that the magnetic stripe passes over the reading head evenly.



Figure 10

Contactless cards reading

The contactless card transaction procedure can vary depending on the application loaded on the BlueLite v2. Verify the proper procedure with your application provider before performing a contactless card transaction.

In order to use the Contactless card reading function, special software must be used. Please contact your distributor in order to get the latest demo application and SDK.

To Conduct a Contactless Credit/Debit Card Transaction

1. Place a contactless card to shown on the BlueLite v2 contactless logo.
2. Remove the card when the display indicates the transaction is completed.



Figure 11

Smart cards reading

The smart card transaction procedure can vary depending on the application loaded on the BlueLite v2. Verify the proper procedure with your application provider before performing a smart card transaction.

To Conduct a Smart Card Transaction

- 1 Position a smart card with the gold contacts facing upward.
- 2 Insert it into the ICC card reader slot in a smooth, continuous motion until it seats firmly.
- 3 Remove the card when indicates the transaction is completed.

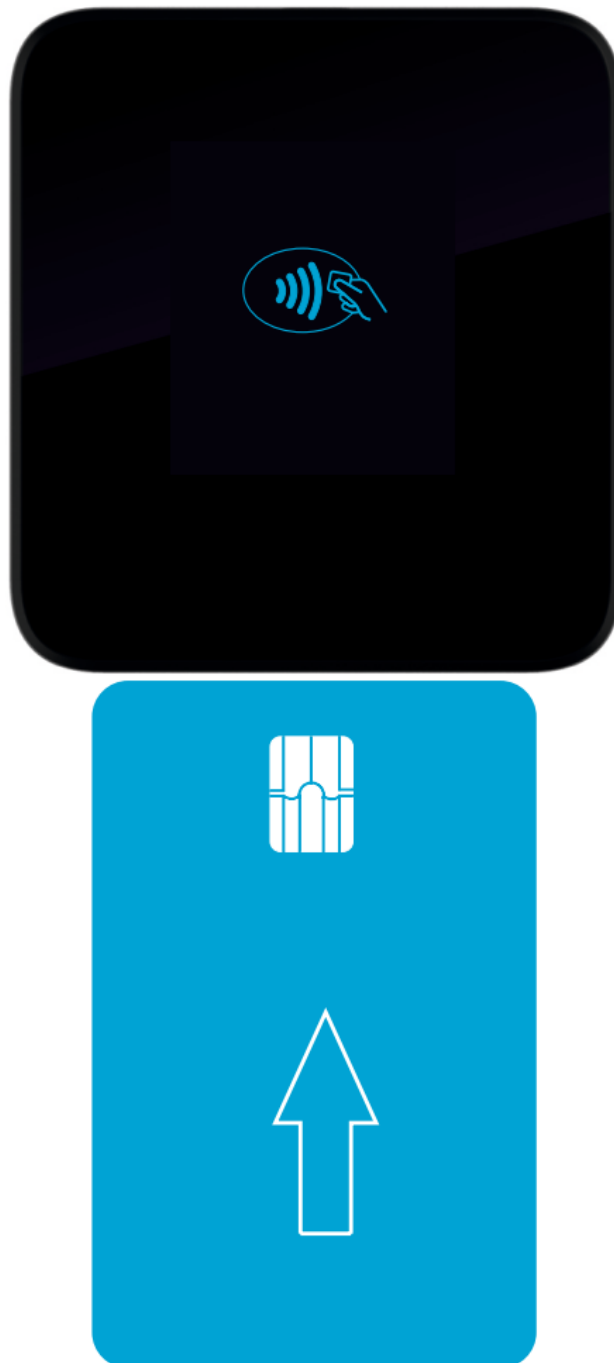


Figure 12

CARE, MAINTENANCE AND WARRANTY



- Keep the BlueLite v2 side of the reach of small children.
- Keep the BlueLite v2 dry. Precipitation, humidity and liquid contain minerals that will corrode electronic circuits.
- Do not use or store in dusty or dirty areas.
- Do not drop or knock BlueLite v2



- Do not open the BlueLite v2. Only qualified personnel can open the device and make repair. If the BlueLite v2 is not working, please contact with your dealer.
- Forbidden is allowing unqualified personnel to service your BlueLite v2!

SERVICE AND SUPPORT

Service and Support:

For BlueLite v2 problems, product service, and repair information, contact your local Datecs representative or service provider.

- International – Contact your local Datecs distributor

Service Returns:

All customers, please contact your local Datecs Ltd representative or distributor for assistance with your service, return, or replacement.