

FAQ VIVARES FLEX CONTROL UNIT IOT DALI-2 HCL TW

EAN [4058075841888](#) – also called FLEX CU IoT in this document

<https://www.ledvance.com/dali-control-units>

Status 03/2025

Is FLEX CU IoT compatible with DALI 1 components?

Yes, however, it must be sure that DALI 1 components really fulfill the IEC Standard 62386. Support can be given for OSRAM/LEDVANCE branded DALI 1 systems by using LEDVANCE internal diagnostic software.

This combination, however, excludes most additional features of DALI-2.

Is Push-DIM also available in DALI-2 drivers?

LEDVANCE DALI-2 drivers often also have this function included. Please check the datasheet. However, this is in addition to the IEC-Standard, it is manufacturer specific and will not work in combination with a DALI controller or a DALI Gateway. It is a pure DALI driver feature for simple and small applications without controller.

What to check first if my DALI-system shows an error or behaves strangely?

You can try restarting (Power on and off) first.

If this does not help, check that latest Firmware and Configuration software is being used!

Info: <https://www.ledvance.com/flex-control-unit-iot-dali-2-hcl-tw>

Select the controller and go to software and firmware.

In case of not latest versions, update these, Windows-Software and Controller-Firmware.

Always recommended to use latest versions!

They are free of charge.

If this does not solve the issue, get in touch with KSC (info@ledvance.de).

The colleagues will handle or forward the request to the adequate contacts.

Is there any limitation on using (3rd party) DALI (1) luminaire with the new FLEX CU IoT?

It needs to be ensured that these luminaires or components completely fulfill the DALI1 IEC-standard.

In case problems occur, the driver's manufacturer needs to clarify as our internal diagnostic software cannot support this case. In general, we recommend using DALI-2 certified products in this application to avoid interoperability issues.

Please also note that DALI(1) luminaires will not be able to transmit data regarding energy and diagnostic monitoring (acc. to DALI-2 parts 251, 252, 253).

Can VIVARES FLEX CU IoT be integrated into KNX?

Yes, in combination with the DALI/KNX interface KNX IF 250 the integration in KNX is possible. This needs to be programmed as well in the DALI IoT CONFIG Software as also in the KNX ETS Software. The IF250 will be phased out on our side. In case there is a need for support, this must be requested via a separate support channel.

Is an interconnect between several FLEX CU IoT possible?

Yes, this is possible, called LAN Interconnect and can be realized using the DALI IoT CONFIG Software.

For FLEX CU IoT interconnection of 8 units is possible (1024 LP)

Info can be found: <https://www.ledvance.com/flex-control-unit-iot-dali-2-hcl-tw>

Select the controller, go to documents and certificates and open the extended installation guide

Can VIVARES FLEX CU IoT be integrated into Building Management Systems, like e.g. BACnet?

There is not an integration opportunity in for especially BACnet systems.

But it can be done e.g. via KNX IF 250 or by using the MQTT / REST / API functionality.

With this API integration in various systems is possible.

Can EM/MA also run on customer`s own CLOUD services?

Yes, there is a possibility this can be realized via an API and REST/MQTT commands. More detailed documentation is available on request. Nevertheless, this will create some effort regarding programming the cloud and software environment on the customer side.

How can I check if my currently used drivers are compatible with EM/MA?

The drivers need to be DALI-2 certified and also need to be able to send the data needed.

Means the driver needs to send data acc. to part 251, 252, 253.

Luminaire data (part 251), Energy data (part 252), Diagnostics data (part 253)

This can be checked in the DALI IoT CONFIG Software. Just directly select that Driver / ECG and see its property sheet:



Property	
Gear	
Device: D4_1_2_1-L01-TT-R	
1. Data	
Title	D4_1_2_1-L01-TT-R
Activated	Yes
Comment	
System failure behaviour	Default
Power on behaviour	Default
Level min	1 %
Level max	100 %
Operation Mode	0
2. Device	
GTIN	4062172123525
Product name	
Serial number	3619896442856604209-0
Firmware version	2.01
DALI version	2.0
Device type	207, 209, 252, 253
Physical min level	1 %
Random address	229-220-97
Port	A
Short address	7
Device count	1
Device index	0
3. Color-Device	
Color mode	Tunable White
Physical max color temperature	6540 K
Physical min color temperature	2700 K
Max color temperature	6540 K
Min color temperature	2700 K
4. Usage	
Use in group	Group 2

or via <https://www.dali-alliance.org/products>

DALI IoT CONFIG Software version shall be > version 3.1.18
Firmware controller shall be > version 1.18

Property	
Project	
1. Data	
Comment	
Filename	C:\Users\... - LEDVANCE Gr
Changed	No
Last used version	PC-Tool 3.1.18 (Build 23405)
Web configuration usable	No
2. History	
Create	17.08.2023 17:08:58
Last change	11.02.2025 12:06:32
Upload	11.02.2025 12:06:36

Property	
1. Data	
Title	1600057B
Product Name	
GTIN	4052899627079
Serial number	8600057B
DALI Serial Number	841826008600057B
Firmware Version	1.18.10
µC Firmware Version	1.06.27
2. State	
Connection	Virtual
Online	No

Is it necessary to design a new luminaire around an existing DALI-2 driver?

The procedure for a luminaire design does not need to be changed for the new DALI-2 standardized products.

What is the QR-code on the controller and user instruction for?

After enabling the WIFI (by pressing the corresponding button on the controller physically – green WIFI-LED will light up (will turn off in between and then constantly on)), you can scan the QR-code on the controller with your smartphone or tablet and connect your smartphone WLAN to the controller directly.

This method can also be used in case the Serial-number or Password is not fully readable anymore.

To access the controller, connect your laptop to the controllers Wifi network, then use your browser and IP 192.168.8.1.



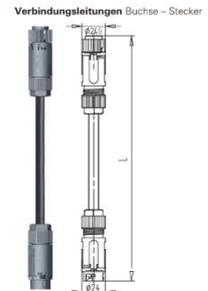
Demobox and Wieland connector – How to use?

Connector: Wieland RST 16
 Qualified electrician only!!!



Leitung	Länge m	Bestell-Nummer	Bestell-Nummer
PVC-Leitung H05VV-F	0,5	46.452.0500.1	46.452.0500.6
	1	46.452.1000.1	46.452.1000.6
	2	46.452.2000.1	46.452.2000.6
halogenhaltig	3	46.452.3000.1	46.452.3000.6
	4	46.452.4000.1	46.452.4000.6
	5	46.452.5000.1	46.452.5000.6

⊕ = GN/YE
 N = BU
 L = BN
 2 = BK
 1 = GY



It is not guaranteed that the colors in your Demobox are same as in this example!
 Needs to be rechecked and realized by a qualified electrician.

	Colours	Colours	Function
PE	GN/YE	Green/Yellow	PE
N	BU	Blue	N
L	BN	Brown	L
2	BK	Black	DALI
1	GY	Grey	DALI

What is the USB slot on the controller for?

FLEX CU IoT:

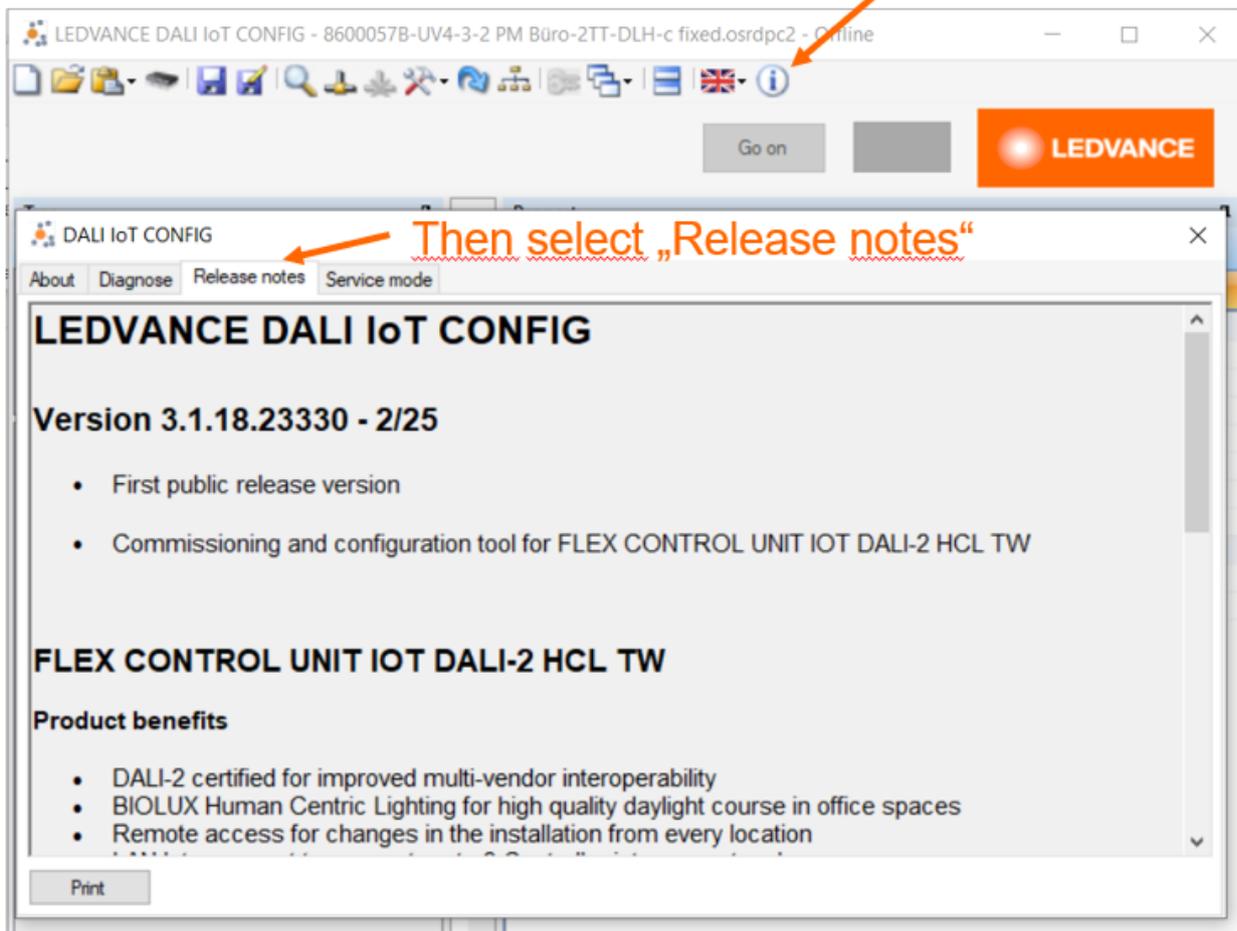
The “USB WIFI” shall relate to the WIFI-dongle to establish the WIFI-connection. The WIFI-Dongle is for commissioning and short-/mid-term use. It is not meant to be continuously powered on, e.g. in an electrical cabinet. This might cause overheating of the device. This internal WIFI is just used for commissioning, but not for the interconnect of multiple controllers. The “SERVICE” is not to be used unless requested by technical support to solve potential issues.

Where can I find the history / change logs of Firmware updates

Release Notes:

Here you can find the latest release notes on DALI IoT CONFIG Software and controller Firmware.

Click on the „i“-icon in the menu bar

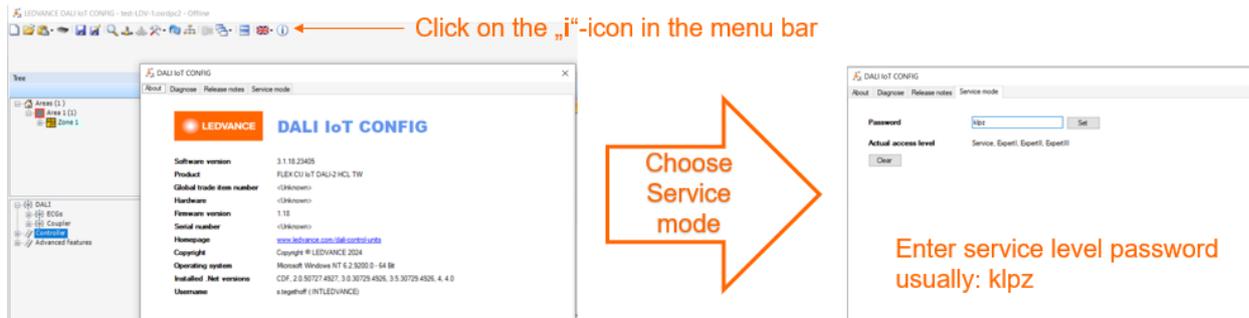


Info: <https://www.ledvance.com/flex-control-unit-iot-dali-2-hcl-tw>

How can I set a higher service level in the DALI IoT CONFIG Software?

E.g. for sensor calibration or other higher-level adjustments.

Enabling Service modes



Click on the „i“-icon in the menu bar

Choose Service mode

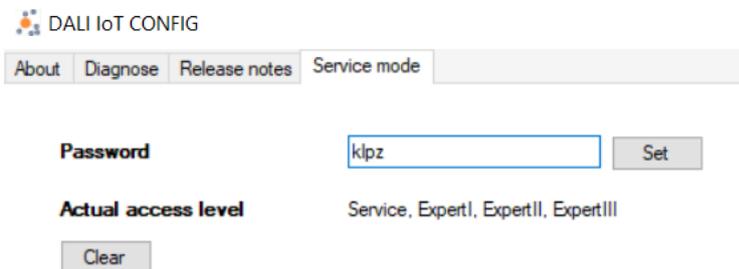
Enter service level password usually: klpz

In the latest DALI IoT CONFIG Software, press the Button “I” (Info/About).

Select sheet “Service mode”.

Then enter “klpz” and press “SET”.

Your current access level will be shown.



DALI IoT CONFIG

About Diagnose Release notes **Service mode**

Password

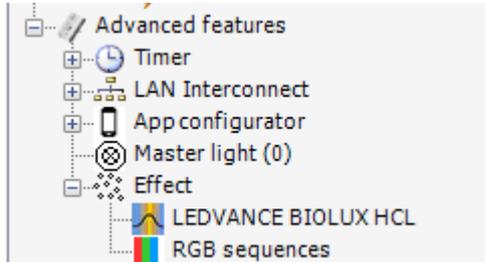
Actual access level Service, ExpertI, ExpertII, ExpertIII

Overview Service levels

Service mode	Password	Functions
Service	mhhk	<ul style="list-style-type: none"> - Spy panel visible - Menu function: Disable RTC battery - Menu function: Re-uplad controller configuration - ECG terminal visible
Expert I	oesp	<ul style="list-style-type: none"> - All functions of service mode: "Service" - Open exiting projects as template for new projects - Real gear and coupler can be deleted in the tree. - Time switch in only minute interval - Motion detection can change light level - Additional start effect with App-Button-RGB - Effects for different moods - Button action lowering or scale down - Change regulation value by button - Change regulation value by switch - Additional parameter for regulation visible - Additional parameter twilight visible - Geometry factor for regulation visible (and changeable). - Sequencer functions
Expert II	hmpk	<ul style="list-style-type: none"> - All functions of service mode: "Service", "Expert I" - Extended functions in App-Button-RGB and App-Button-TW action - Additional parameter for regulation visible - Simple app controls for demo app - Sunlight follow
Expert III	klpz	<ul style="list-style-type: none"> - All functions of service mode: "Service", "Expert I", "Expert II" - zone separator

How can I use the LEDVANCE BIOLUX HCL?

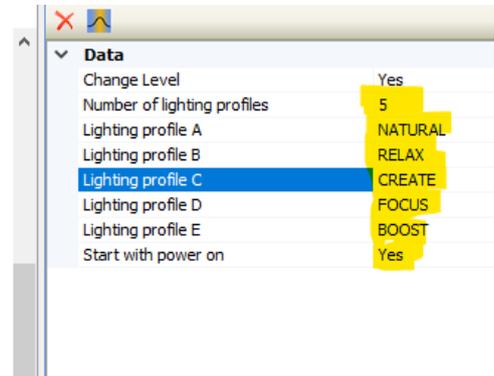
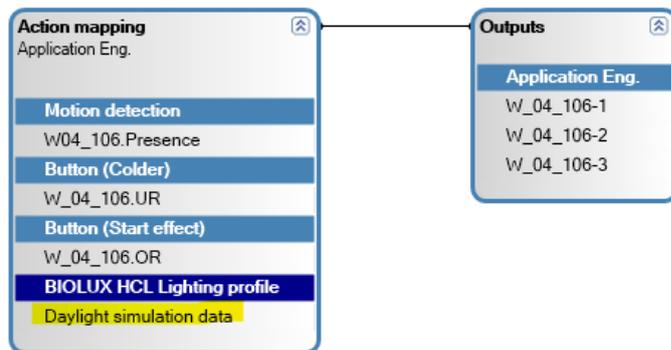
Always use the latest DALI IoT CONFIG Software and controller Firmware!
 Program as usual, but with following “extension”:



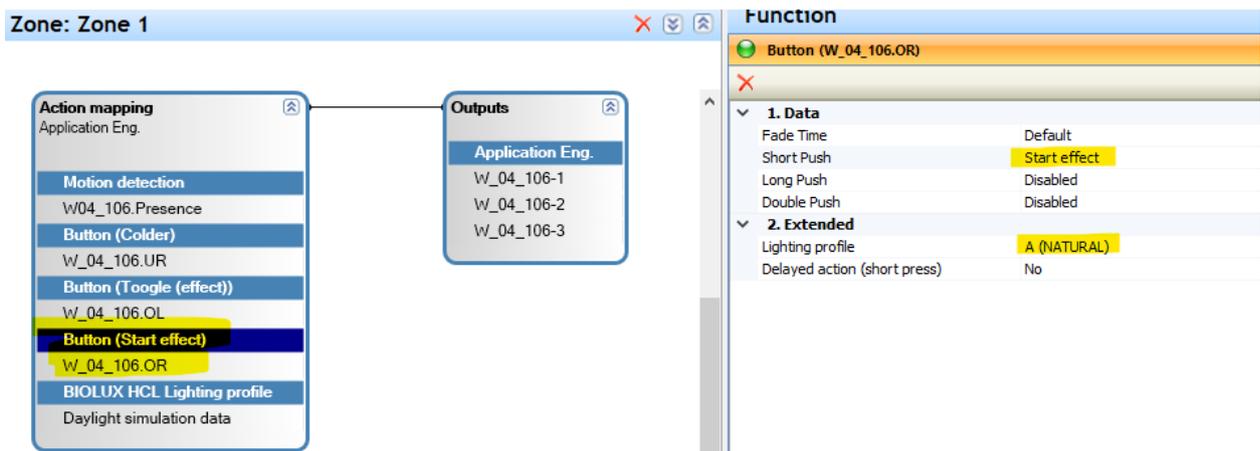
→ LEDVANCE BIOLUX HCL must be shown in the DALI IoT CONFIG Software, otherwise call support.

Connect your TW-Luminaires with a PBC.

Add the BIOLUX HCL to the “action mapping”:



Setup as above



In this case, the effect “Natural” will be started with a press of the button “W_04.106.OR”

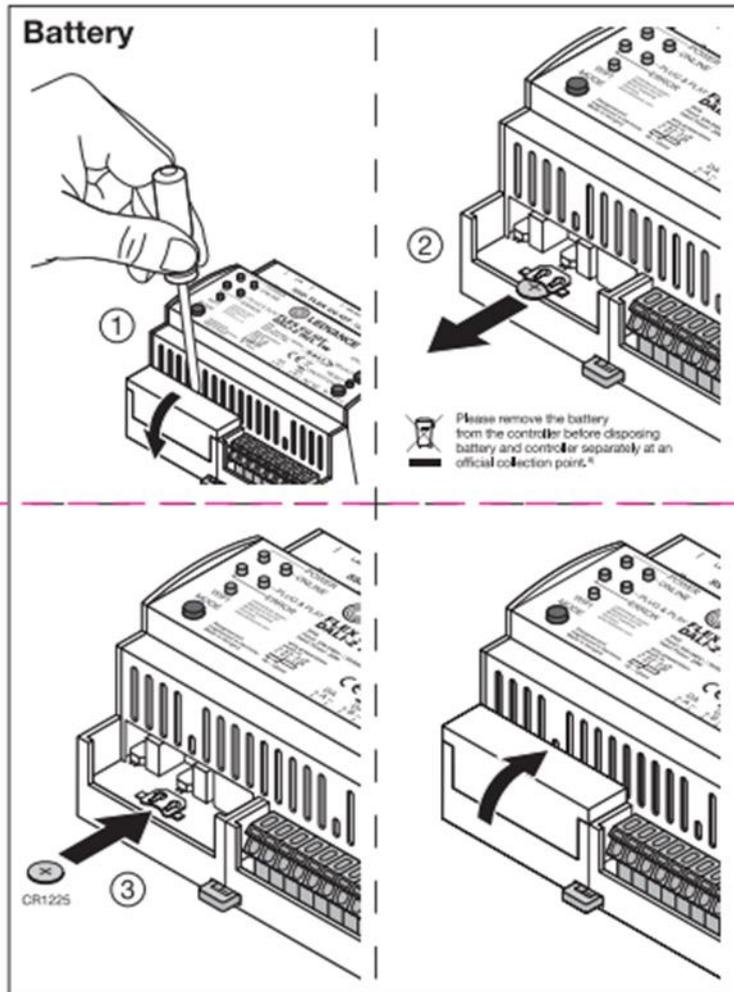
What is the meaning and status of different LED?

Different examples:

	<p>After factory reset; no program uploaded yet. Plug&play LED is constant on</p>
	<p>During reset (press reset button for >15s); Error LED fast flashing</p>
	<p>Standard view with system running (program / commissioning already uploaded) Controller is in working state, Wifi ON (to switch Wifi Off, press Wifi button for 1s and vice versa)</p> <p>Plug&Play + Error : LED Off</p>
	<p>If one DALI LED is off / blinking, there is an issue with this DALI line. E.g. a short circuit of line B here.</p> <p>DALI A / DALI B ✓ ⚠ = 0V ⚠ > 20V</p>

How can I replace the battery, in case the RTC is not buffered anymore?

The battery is a common CR1225 and can be exchanged according to below instruction. Necessary in case the RTC loses its data / time setting after a power interruption.

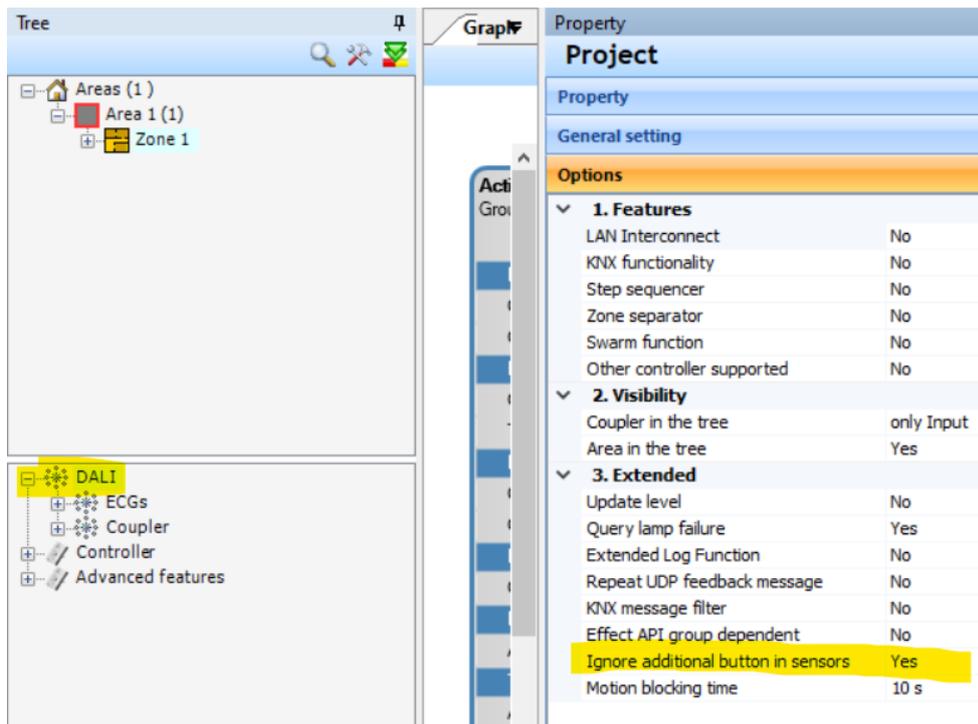


This should in general not be necessary. But it might happen if the controller is not powered up for a very long period after initial installation.

Coming from the warehouse, the battery is protected by a plastic sheet that needs to get removed during first / initial setup.

I am using one or more Tridonic MSensor G3 (e.g. in Trusys Flex Sensor track), but encounter issues uploading. (May apply as well for sensors with additional instances)

This sensor has a lot of different instances for remote control use which caused issues. Therefore, please set under options (as in image below) “Ignore additional button in sensors” to “YES”



Note: Please use the latest Firmware and Software.