Manual - VE.Direct to Bluetooth Low Energy dongle

https://www.victronenergy.com/accessories/ve-direct-bluetooth-le-dongle
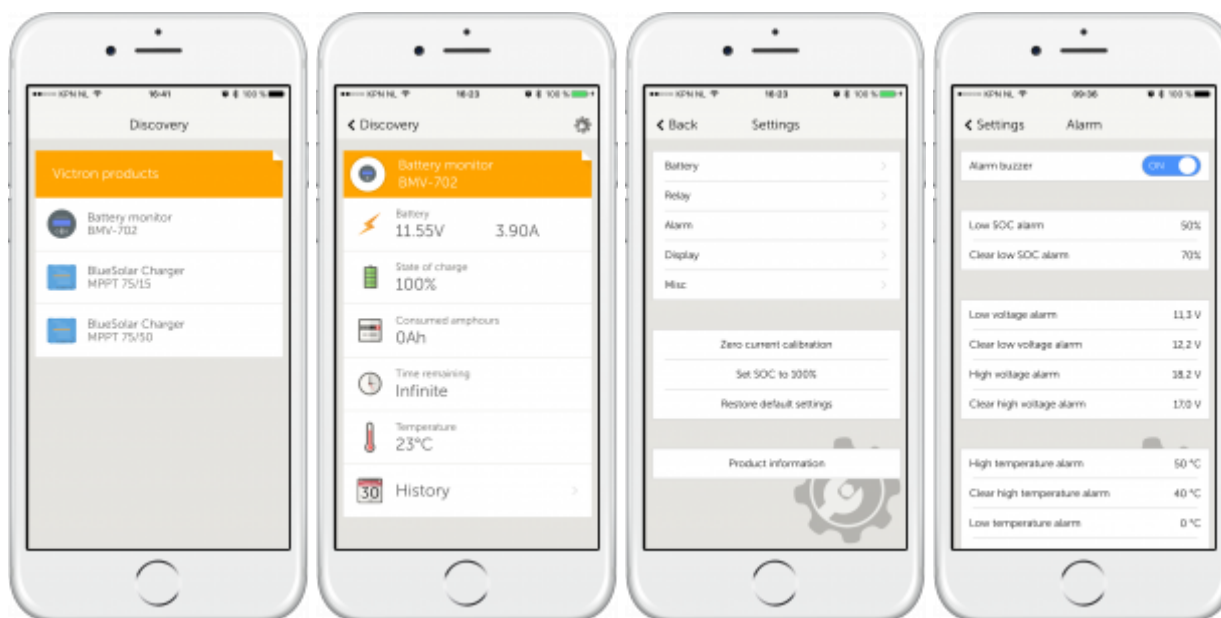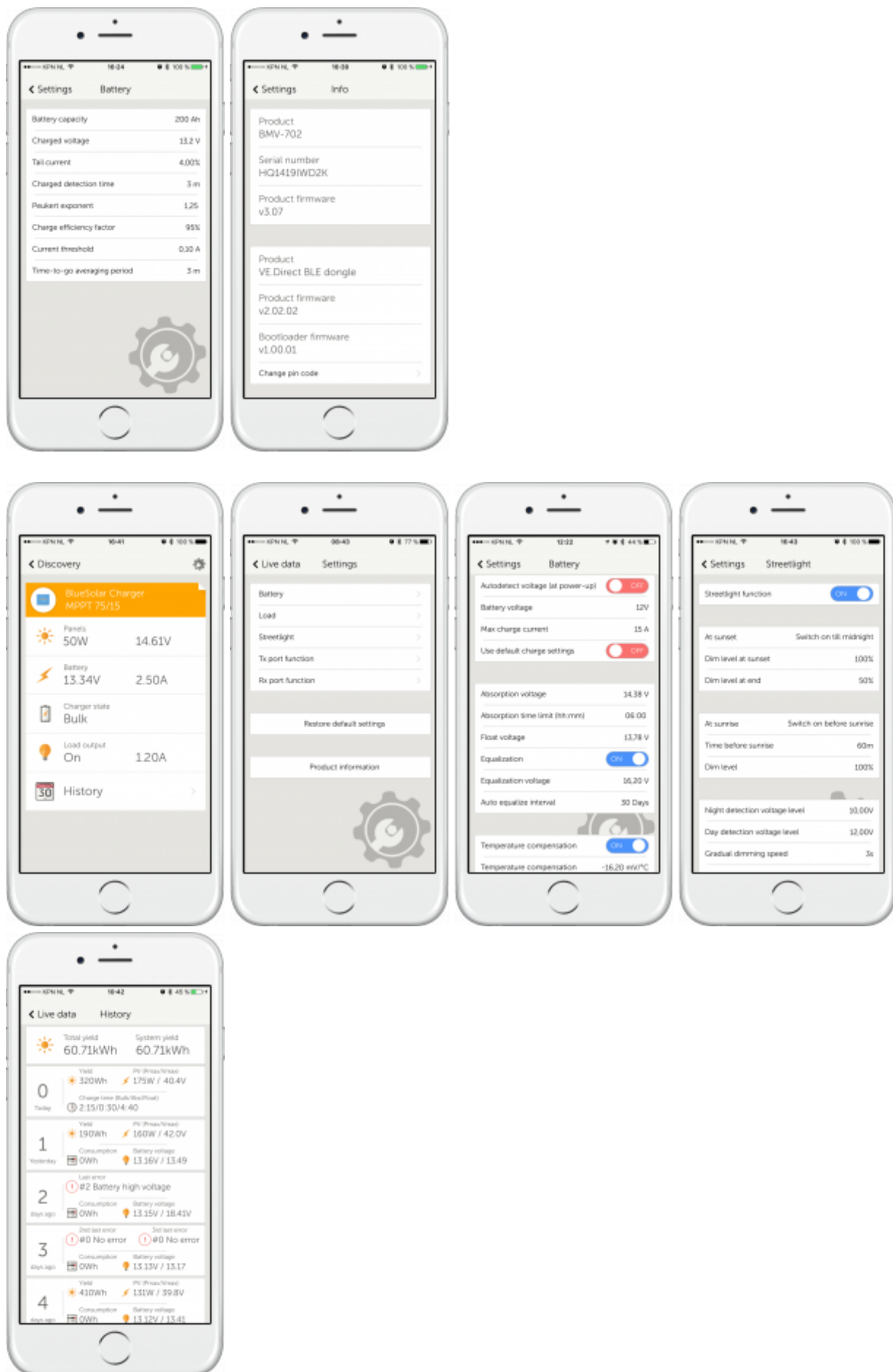

With the VE.Direct to Bluetooth LE dongle you can get live status info, see historical values as well as configure Victron products. The dongle works together with the VictronConnect App, available for both Android and iOS devices.

Example screenshots, click to enlarge:

Settings — Battery

Battery capacity	200 Ah
Charged voltage	13.2 V
Tail current	4.00%
Charged detection time	3 m
Peukert exponent	1.25
Charge efficiency factor	95%
Current threshold	0.10 A
Time-to-go averaging period	3 m

Settings — Info

Product
BMV-702

Serial number
HQ1419IWD2K

Product firmware
v3.07

Product
VE.Direct BLE dongle

Product firmware
v2.02.02

Bootloader firmware
v1.00.01

Change pin code

Discovery

BlueSolar Charger
MPPT 75/15

Panels	50W	14.61V
Battery	13.34V	2.50A
Charger state	Bulk	
Load output	On	1.20A
History		

Live data — Settings

Battery
Load
Streetlight
Tx port function
Rx port function

Restore default settings

Product information

Settings — Battery

Autodetect voltage (at power-up)	OFF
Battery voltage	12V
Max charge current	15 A
Use default charge settings	OFF
Absorption voltage	14.38 V
Absorption time limit (hh:mm)	06:00
Float voltage	13.78 V
Equalization	ON
Equalization voltage	16.20 V
Auto equalize interval	30 Days
Temperature compensation	ON
Temperature compensation	-16.20 mV/°C

Settings — Streetlight

Streetlight function	ON
At sunset	Switch on till midnight
Dim level at sunset	100%
Dim level at end	50%
At sunrise	Switch on before sunrise
Time before sunrise	60m
Dim level	100%
Night detection voltage level	10.00V
Day detection voltage level	12.00V
Gradual dimming speed	3s

Live data — History

Total yield	System yield	
60.71kWh	60.71kWh	

0 Today	Yield ☀ 320Wh	PV (Pmax/Vmax) ⚡ 175W / 40.4V
	Charge time (Bulk/Abs/Float) ⏱ 2:15/0:30/4:40	

1 Yesterday	Yield ☀ 190Wh	PV (Pmax/Vmax) ⚡ 160W / 42.0V
	Consumption 🔲 0Wh	Battery voltage 💡 13.16V / 13.49

2 days ago	Last error ⚠ #2 Battery high voltage	
	Consumption 🔲 0Wh	Battery voltage 💡 13.15V / 18.41V

3 days ago	2nd last error ⚠ #0 No error	3rd last error ⚠ #0 No error
	Consumption 🔲 0Wh	Battery voltage 💡 13.13V / 13.17

4 days ago	Yield ☀ 410Wh	PV (Pmax/Vmax) ⚡ 131W / 39.8V
	Consumption 🔲 0Wh	Battery voltage 💡 13.12V / 13.41

Supported Victron products

The dongle can be connected to all Victron products that have a built-in VE.Direct port. For a full list see the VictronConnect manual.

Installation Notes

- Connect the dongle directly to these products. The dongle cannot be connected to a Color Control GX.
- It is not possible to monitor a product using both a Color Control *and* a Bluetooth dongle at the same time.
- It is not possible to extend the VE.Direct cable.

Supported phones and tables

The used device needs to have Bluetooth 4.0 (BT LE) in order to work with the dongle. For a full list of devices see the VictronConnect manual.

VictronConnect App

The dongle works together with the VictronConnect App. Download links for iPhone, iPad as well as Android devices are available on our software page

Pairing procedure

Default pin code is 000000

After connecting, you can change the pin code by pressing the (i) button in the top right of the app.

If the dongle pin code is lost, reset it to 000000 by pressing and holding the clear PIN button until the solid blue colored Bluetooth light flashes off and on momentarily.

LED Status codes

The dongle has two LEDs, a Bluetooth status LED (blue), and an error LED (red). On power-up, both LEDs will blink one time. When both LEDs are off after this initial blinking something is wrong with the communication on VE.Direct.

BLUE LED	Status	Remark
Slow Blinking	Not connected	Advertising
Short blink on twice	PIN clear confirmation	When disconnected
Short blink off once	PIN clear confirmation	When in connection
On	Connected	There is an active connection between a phone/tablet and the dongle

Error LED	Status	Remark
Blinking	Receiving frames on VE.Direct	This should only blink once or twice on power-up
On	Error	

An error can occur when:

- non-volatile memory errors are detected

Troubleshooting

I don't see my product in the discovery screen

- Only one phone or tablet can be connected to a dongle at the same time. Make sure no other devices are connected to the dongle, and try again.
- The dongle does not support all Victron products. Check if your Victron product is listed in the section above.
- The dongle is powered via the VE.Direct cable connection. Make sure the dongle is connected to a supported device and the LEDs blink when connecting the cable or power is turned on.

I cannot connect to the dongle

- Make sure you are close enough to the dongle. In open space, a distance of up to approximately 20 meters should work.
- Connection issues might be caused by an incorrect Bluetooth pairing. Try re-pairing by first removing the pairing from the phone: go to your phone's Settings, then click Bluetooth. Click the (i)-icon next to any "VE.Direct LE" device and click "Forget This Device". Then, open the VictronConnect app again and pull down the Discovery screen to rediscover products. Set the dongle in pairing mode by clicking the button on the dongle, then click the Victron product in the app's Discovery screen. Confirm the pairing and you should now be connected to the dongle.

Update dongle firmware

After connecting with a new VictronConnect version for the first time, it might be that the firmware of the dongle needs to be updated. Be warned that this dongle firmware update can be a bit of a hassle: all steps need to be patiently and accurately followed.

Connect your dongle to any Victron product VE.Direct port, open the VictronConnect app and click on the listed dongle and follow the steps shown on the screen.

The update might need multiple steps: repeat the process untill the dongle entry disappears from the list and the product connected to the dongle is listed instead.

There are small differences between the Android and iOS update process.

If you get stuck in any point of the update process just close and open the app again. That should reset the update process to the last completed step.

Android

1. The dongle has to be unpaired so check your phone/tablet bluetooth settings and remove it from the paired devices list if is on it. Don't pair the dongle during the update process even if you're asked for the PIN code just close the dialog.
2. The dongle has to be started in boot mode by disconnecting the dongle and connecting again while pressing the "Clear PIN" button.
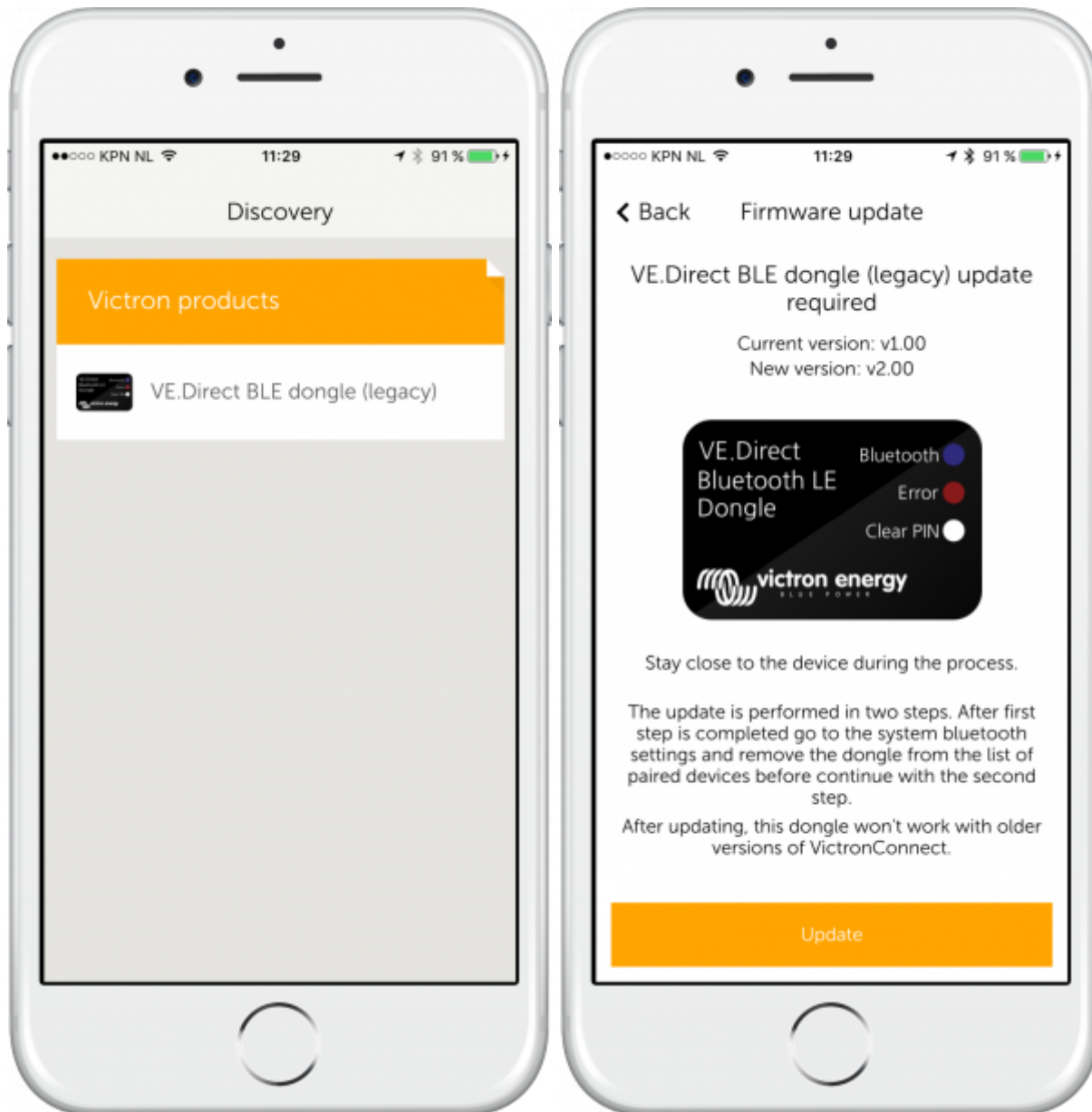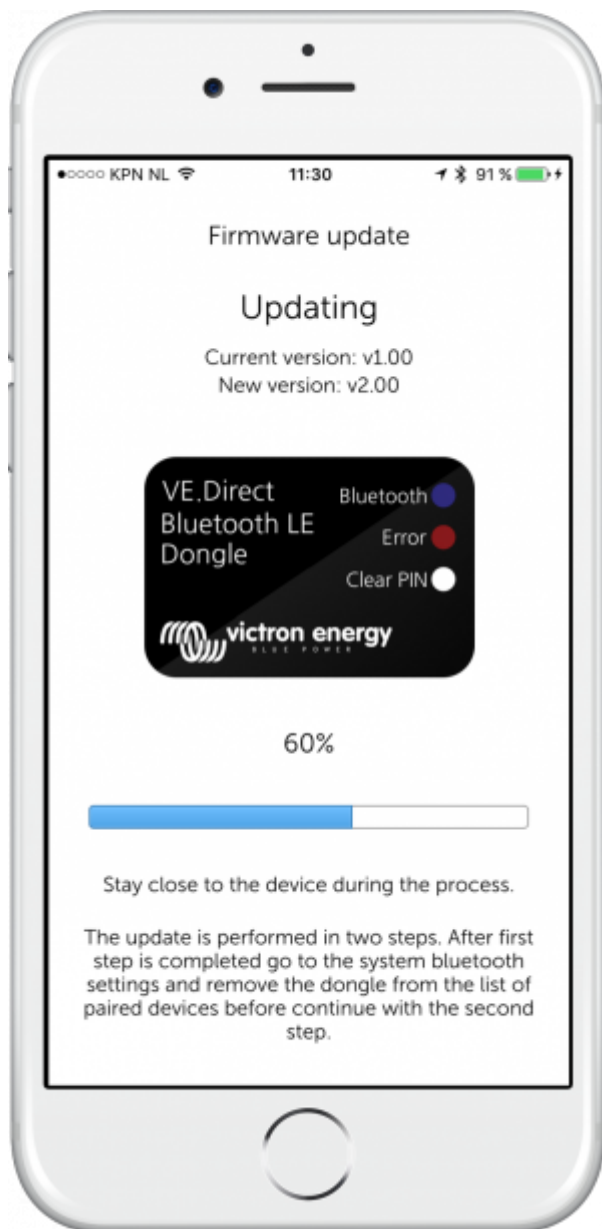
Update sequence:
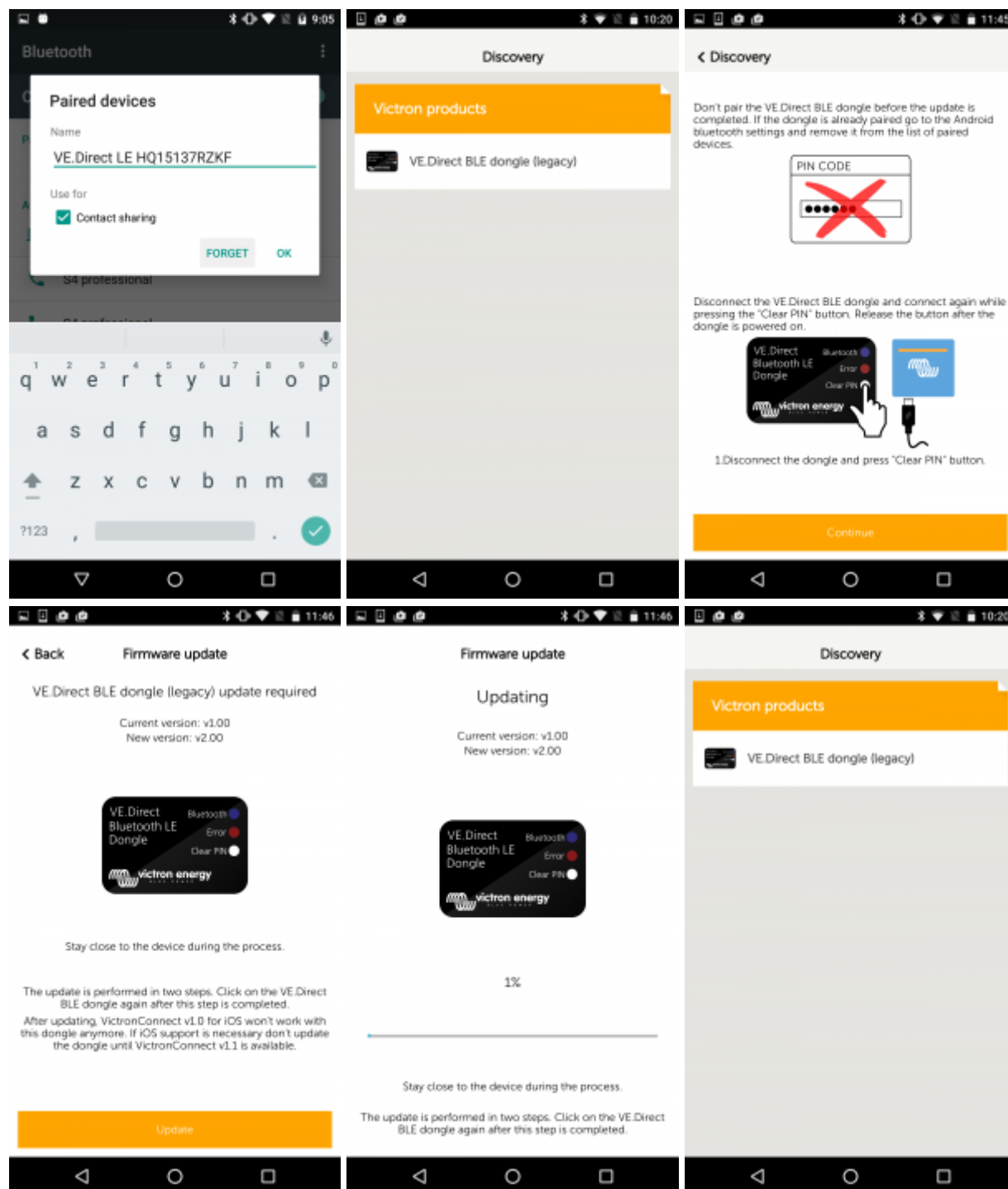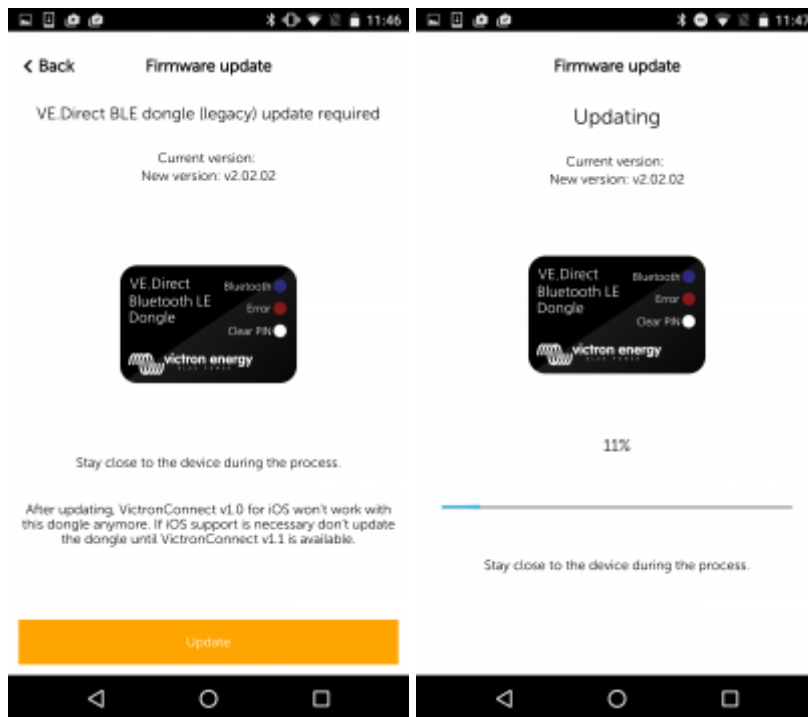
iOS

1. The dongle has to be paired before starting the update.
2. After the first update step is completed go to the iPhone/iPad bluetooth settings and remove the dongle from the paired devices list. Then go back to the VictronConnect app and continue with the second step.
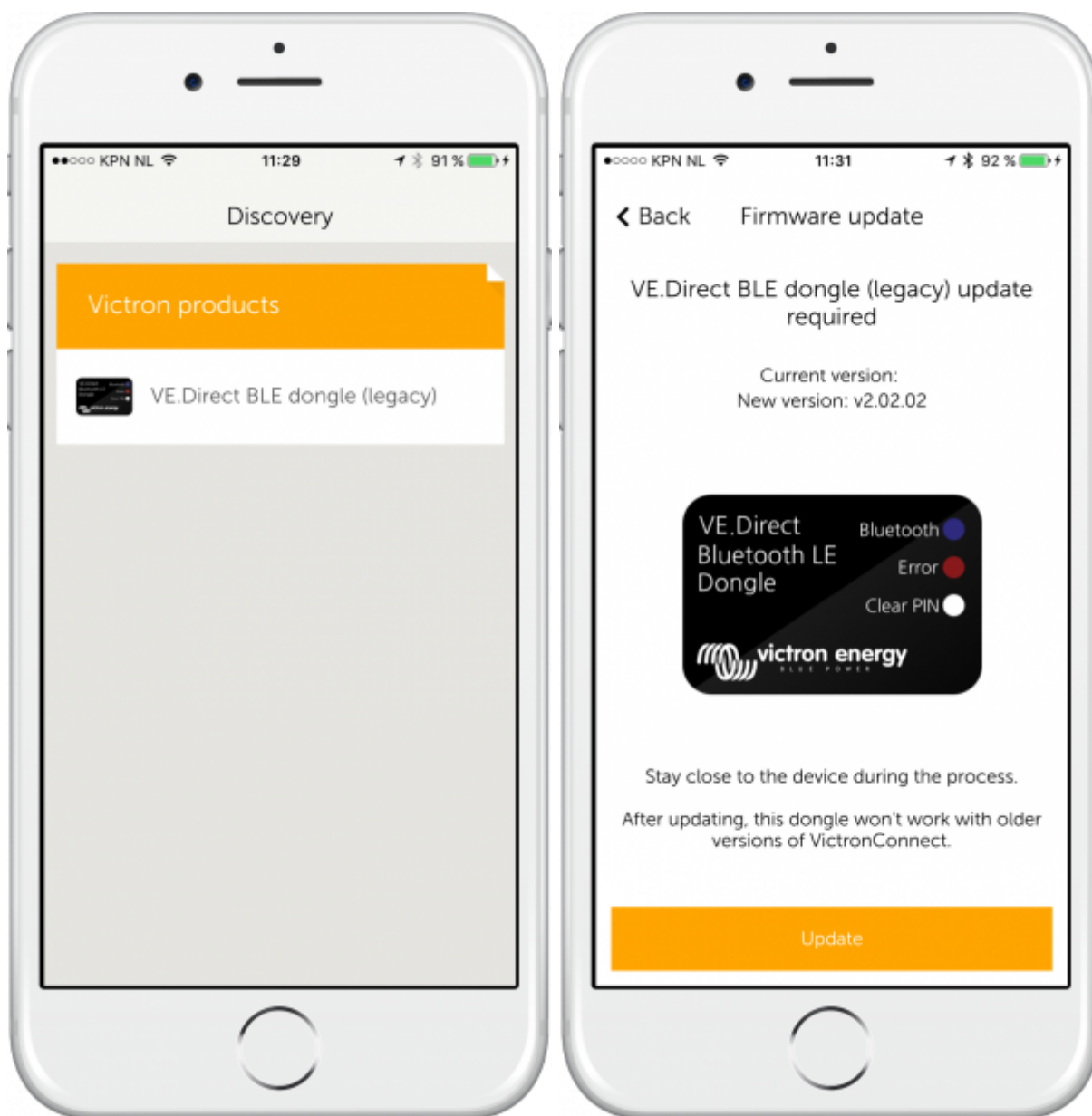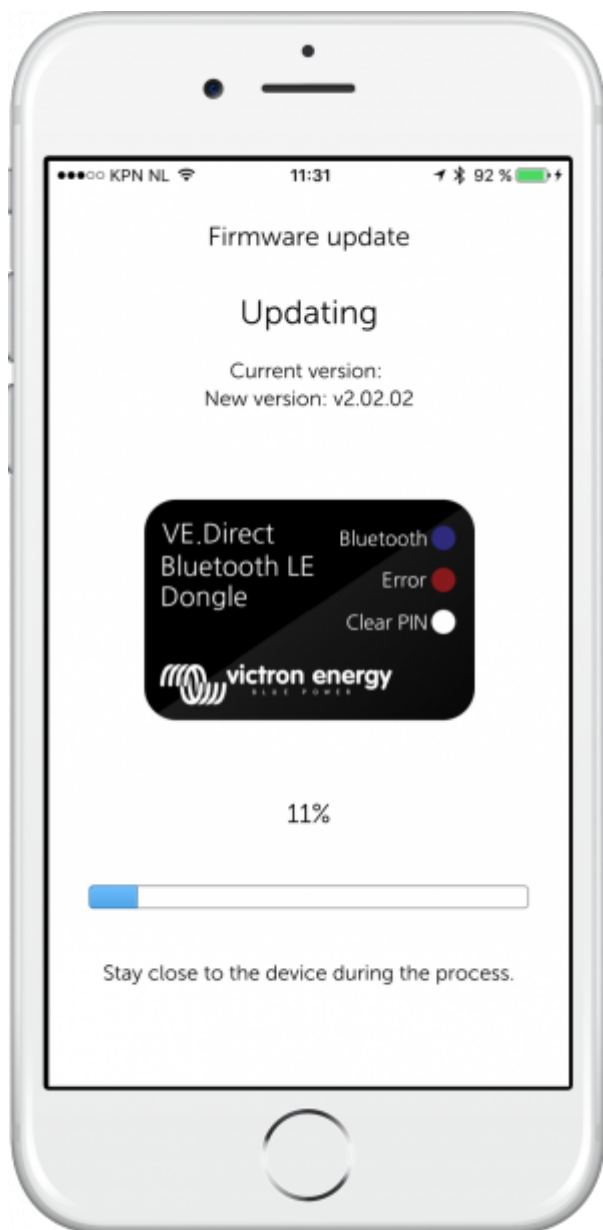
Update sequence:

At this stage go to the iPhone/iPad bluetooth settings and remove the dongle from the paired devices list:
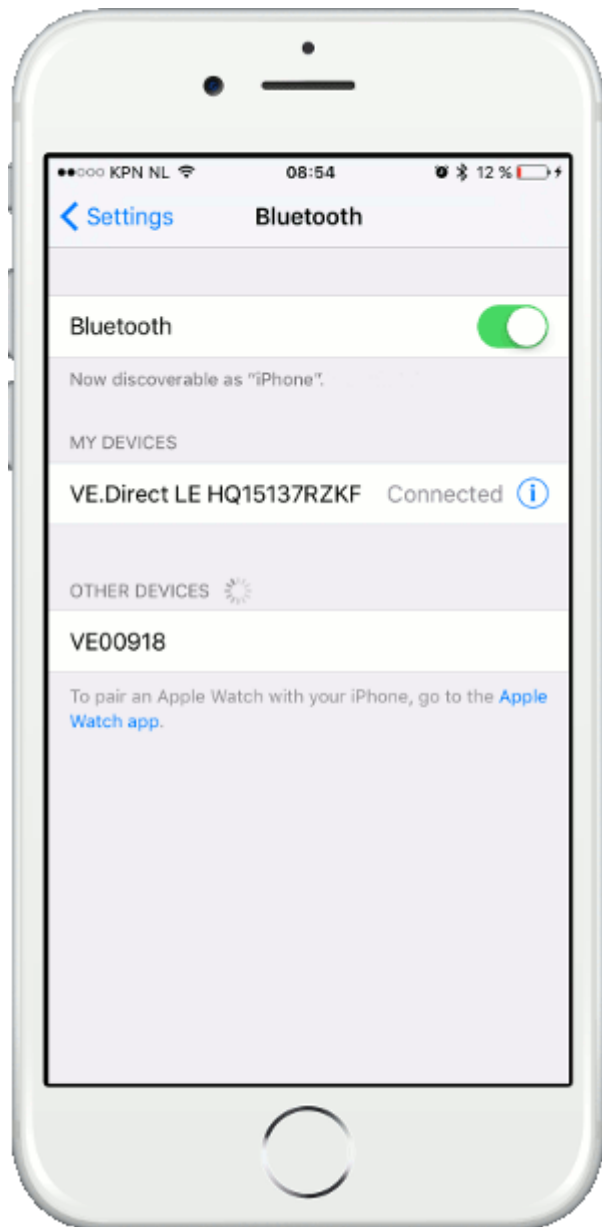
Now open VictronConnect again, and continue the update:

DISQUS Comments

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<https://www.victronenergy.com/live/> - **Victron Energy**

Permanent link:
https://www.victronenergy.com/live/ve.direct:ve.direct_to_bluetooth_smart_dongle?rev=1453940976

Last update: **2016-01-28 01:29**