# BYD Battery-Box LV Service Guideline
## Version 1.1

**Important: The installation and all other kinds of works or measurements in combination with the Battery-Box LV are only allowed by professional and qualified electricians.**

## General steps
*Please always follow these steps first*

| # | ✓ | Name | Description |
|---|---|------|-------------|
| 0 | | External connections and inverter setup | Please make sure that the connection between Battery-Box and inverter is correct and that the inverter software setup was successful. When in doubt, please follow instructions of inverter manufacturer. |
| 1 | | configuration | Maximum 4 modules per battery tower. |
| 2 | | DC cables | Make sure **+** and **-** are connected correctly. |
| 3 | | Communication cable | Check cable and exchange it if necessary |
| 4 | | Jumpers | If 3 Battery-Box LV are connected in parallel, the jumper must only be removed from the middle BCU. Otherwise, leave jumpers on the BCU. See installation manual for details. |
| 5 | | Earth Cable | Connected from BYD Battery-Box directly to the ground of the house. The Battery must not be grounded via the inverter! |
| 6 | | Software | Please check the software for the Battery is V1.2, the latest firmware can be download at www.alpspower.com.au/download<br><br>Please check the software for the inverter and update if necessary. |
| 7 | | master BCU set? | For the communication to work properly, the BCU must be defined as master. If several Battery-Box LV are connected in parallel, only one BCU can be defined as the master (the one connected to the inverter).<br><br>It is sufficient if you log in briefly to the web interface of the master BCU. For parallel connection, only the master BCU may be connected to a Wifi module. For the slave BCUs, the Wifi modules must be removed before commissioning.<br><br>Alternatively, you can also set the master completely without Wifi. For this, however, you must first disconnect the Wifi modules from all BCUs. The master is then activated by a key combination on the power button:<br>1) press 3x> wait for beeping> press 5x (reset Wifi setting)<br>2) press 3x> wait for beeping> press 4x (set master) |
| 8 | | check system report on web interface | Please check the systems report by entering the following address in the browser: 10.10.100.254/dev_set.htm<br>- If the status is OK everywhere, then the battery itself is fine. Please check communication and wiring (see steps 0-7)<br>- if "ComFail" is displayed, then one of the modules does not seem to be recognized correctly. (refer to step 9) |

This manual is a shortened help and does not replace the original Battery Box manual, available at www.alpspower.com.au or www.byd.com. Installation may only be carried out by specialists. Improper handling can cause danger to life and limb. For further information or contact:
www.alpspower.com.au

## Troubleshooting

| # | ✓ | Name | Description |
|---|---|------|-------------|
| 9 | | Power LED is constantly red | The following steps are used to identify a possibly faulty module:<br>1. Assemble the Battery-Box with exactly 1 module (+ base and BCU).<br><br>2. Check the system state from the the power light (white = OK, red = NOT OK)<br>  -   OK: go to step 3<br>  -   NOT OK: replace the module with another one. Then go to step 3<br><br>3. Add one module at a time and check the power light each time. (white = OK, red = NOT OK)<br><br>4. If the faulty module is found, i needs to be replaced by a new one.<br><br>NOTE: In the meantime, you can use the battery system with the remaining amount of module. Adding the new module later is easily possible.<br><br>NOTE: If no faulty module could be found, please contact ALPS Power. |
| 10 | | BCU can not be turned on (no LEDs) | Remove top module from system (only possible if system consists of at least 2 modules). If battert then turns on, the module is probably faulty. Otherwise, probably the BCU is faulty.<br>Please also, measure the voltage of the modules:<br><br> |
| 11 | | BCU can not be turned off (although power button is pressed for 5 seconds) | Lift the BCU completely off from the modules, so that the BCU and the modules are no longer connected. Wait at least 30 seconds before adding the BCU again. |
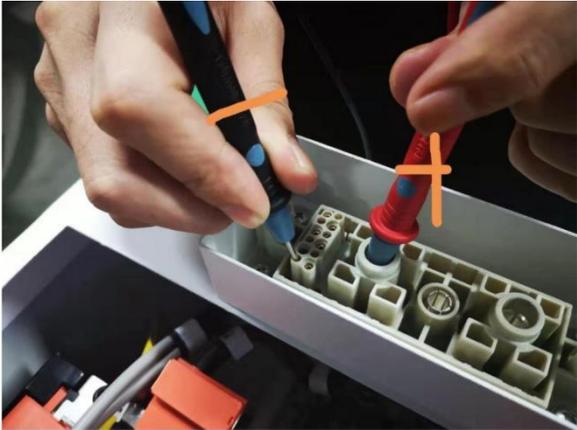
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www.alpspower.com.au quick reference guide to

# Overview of error codes

| | Diagram | Status | Meaning |
|---|---|---|---|
| 1 | | White blink slow | Charging |
| 2 | | White blink fast | Discharging |
| 3 | | White always ON | Idle |
| 4 | | White blink very slow | Idle |
| 5 | | Orange blink 2 times | System WIFI is lost |
| 6 | | Orange blink 3 times | Loss of inverter communication |
| 7 | | Orange blink 4 times | Lost slave CAN communication |
| 8 | | White blink 5 times | Uncalibrated |

# Service Contact

Please note, that this document is intended to provide a quick help for common issues only. Installation may only be carried out by specialists. Documents with detailed installation instructions can be downloaded at www.alpspower.com.au.
ALPS Power
Mail: service@alpspower.com.au
Phone: +61 2 8005 6688
IMPORTANT: Please have the following information ready:

| # | ✔ | Name | Description |
|---|---|---|---|
| A1 | | Serial number BCU | On the BCU or on the web interface<br>(IMPORTANT: Without the serial number of the BCU, ALPS Power can not process any service!) |
| A2 | | Serial Number of WIFI Dongle | On the Wifi Dongle<br>(IMPORTANT: BYD use WIFI Dongle SN to remote monitoring) |
| B | | Picture of the BCU | Complete BCU (inside) |
| C | | Picture of the communication wiring between battery and inverter | In the BCU (detail picture) and from the inverter |
| D | | Screenshots of the web interfac: | Enter the following address into the web browser and take screenshots: 10.10.100.254/dev_set.html |
| E | | Serial number of the faulty module<br>(Note: only necessary if a faulty module is known!) | On the top of the module |
| F | | Inverter serial number and model | Important for ALPS Power to analyze and resolve the problem on system level with inverter partner |
| G | | If necessary, delivery address | If spare parts are required we need:<br>- Complete delivery address (including country)<br>- Contact person<br>- Phone number |
| H | | Additional information | If available, please support us with additional information (eg comments / information displayed on the inverter / Additional pictures of the system / ...) |