A-Vmicro2PD
Micro 2ch Hot swap Adaptor

I·D·X

Instruction Manual

PD

Thank you for purchasing the A-Vmicro2PD. The A-Vmicro2PD is a hot swap adaptor that can accommodate two IDX Imicro batteries(Imicro/Imicro-P). Prior to using the adaptor, IDX recommends reading this instruction manual and keeping it for future reference.

⚠WARNING
May cause sudden serious injury and death
- Do not connect to a power source that exceeds the voltage specification stated on the unit.
- Use only with the compatible batteries listed in this manual.
- Do not carry or store with metal equipment.
- Do not immerse in water.
- Do not attempt to open the outer casing or break apart.
- Do not subject the unit to extreme physical impact or pressure.
- Do not short the contact pins with any metal object.
- Do not attempt to use if damaged.

⚠CAUTION
May cause sudden serious injury and death
- The unit should be used under the conditions listed in this manual.
- Do not expose the unit to extremely high temperatures.
- Keep the unit away from fluid or high humidity environment.
- Stop charging immediately if the charging does not complete within the designated time.
- Remove it from the device and stop using it immediately If an odour, leakage, discoloration or deformation is noticed.
- Do not carry the adaptor while the battery is attached.
- This is a class A product in a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Features
- The A-Vmicro2PD is a hot swap adaptor that can accommodate two IDX Imicro batteries.
- When two batteries are attached, it discharges in sequence and automatically switches before the first battery is empty.
- Fitted with 2 D-Taps and a USB-C output. USB supports PD (Power Delivery), which is capable of maximum 45W power supply.
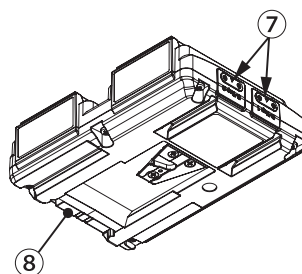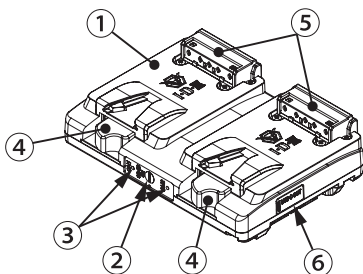- Capable of fitting to IDX chargers.

Specifications
- Recommended batteries : IDX Imicro batteries(Imicro-98/150, Imicro-50P/98P/150P)
- Battery connection terminal rating : MAX 154W（16.8V/9.1A〜11V/14A）
- Main connector rating : MAX 154W（16.8V/9.1A〜11V/14A）
- Charging temperature : 0〜40℃/32〜104˚F(recommended 10〜30℃/50〜86˚F)
- Discharging temperature : -20℃〜45℃/-4〜113˚F(recommended 10〜40℃/50〜104˚F)
- D-Tap output : DC Unregulated MAX 80W
- USB-C output : USB PD MAX 45W(5V/3A,9V/3A,12V/3A,15V/3A,20V/2.25A)
  ＊Do not exceed the maximum discharge power of the battery in use when using the main connector, D-Tap or USB-C together.
- Dimensions : approx. 98(W) × 141 (H) × 30 (D)mm
  approx. 3.85 (W) × 5.55 (H) × 1.18 (D) inches
  ＊Warning. Do not use these dimensions for reference.
- Weight : body approx. 300g / 0.66 lbs

⚠CAUTION
- Do not use the A-Vmicro2PD in series or in parallel. It may cause battery failure and significant system damage.
- Do not use with the following equipment: It may cause battery failure and significant system damage.
  Power Base Station: EB-2/ EB-4 / EB-424L
- Do not Powerlink the adaptor to the back of the IPL-98 or IPL-150. It may cause battery failure and significant system damage.
- Do not use the adaptor for over discharged batteries. These should be mounted directly to the charger.
- Removing the discharging battery could result in system shutdown.
- Depending on the setting of the equipment used, there is a possibility that the power supply will fail at the time of automatic switching. Check the shutdown voltage of the equipment before use, and lower the set voltage if required.
- Do not use D-Tap or USB-C while charging with the connector. Do not charge with the D-Tap2 of the Imicro battery or USB-C of the Imicro-P battery while attached to the adaptor. Do not connect the USB-C on the adaptor to the USB-C on the Imicro-P battery attached to the adaptor. This may cause stoppages, malfunctions and significant degradation of the connected equipment.
- Please use the Type-C cable that supports PD(Power Delivery) with 3A.
- When charging is completed, remove the battery from the adaptor immediately to avoid discharge.
- Some devices may not be charged, depending on the specifications and performance of the device.
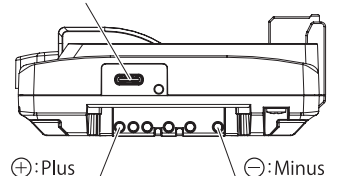
Location and Function of Parts

① Adaptor body
② Switching button
③ Status LED
④ Battery release lever
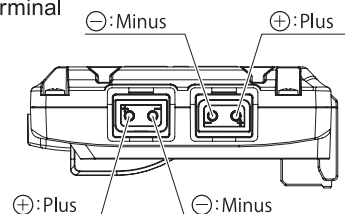⑤ Battery connector
⑥ USB-C
⑦ D-Tap ×2
⑧ Main connector terminal

Output terminal

●USB-C terminal

⊕:Plus   ⊖:Minus
●Main connecter terminal

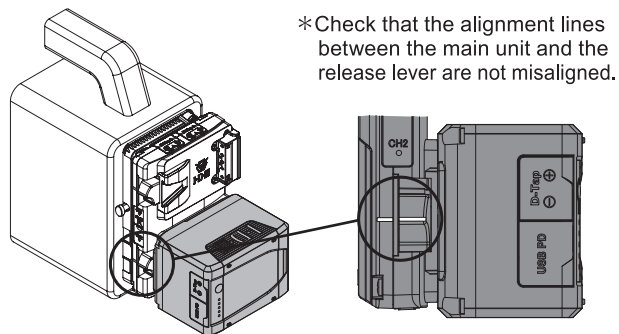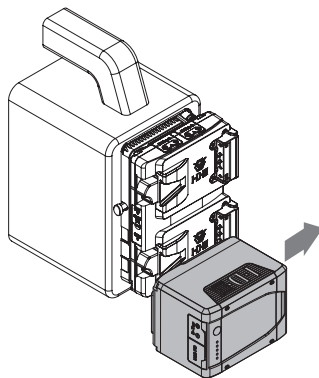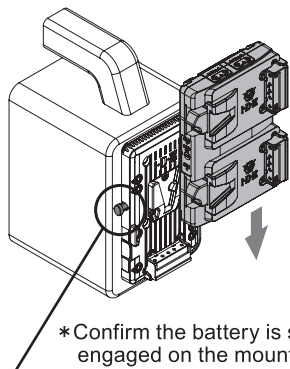●D-Tap terminal

⊖:Minus   ⊕:Plus

⊕:Plus   ⊖:Minus

＊When connecting devices that use D-Tap, be sure to check the D-Tap terminal and connect the positives and minuses of the equipment correctly.

Operating Instructions

① Connecting method / Disconnecting method

1 : Place the adaptor as shown.   **2 : Place the Imicro battery as shown.**

＊Check that the alignment lines between the main unit and the release lever are not misaligned.

＊Confirm the battery is securely engaged on the mount.

⚠ Remove the batteries after use to stop discharge and the risk of over discharge protection being activated.
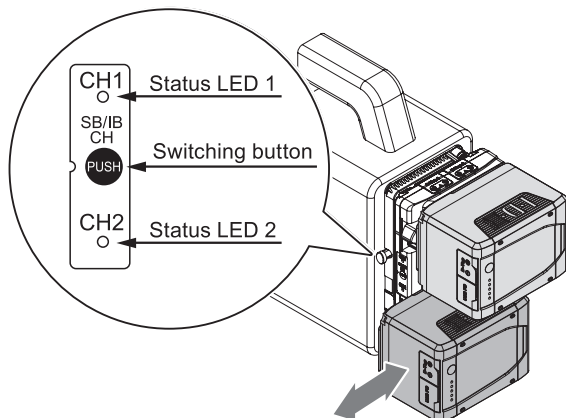
3 : To remove the battery, slide the release lever up and pull the Imicro battery sideways.

4 : Prior to removing the adaptor and transporting, dismount the batteries. Push the release lever and move the adaptor vertically upwards.

② Hot swap instruction

CH1 — Status LED 1
SB/IB CH — **PUSH** — Switching button
CH2 — Status LED 2

- A function to replace the battery while keeping the device in operation.
- Capable of continuous power supply by the hot swap function.
- Automatically switches to the other battery when it detects low capacity.
- Able to switch battery manually with the switching button.
  ＊Do not remove the battery while power is being supplied. The power supply to the device may stop. Press the switching button and confirm the LED indicator of the battery when changing the battery.
- The LED indicator [Amber (SB mode)/Green (IB mode)] of the battery that is supplying power lights up.
  ＊When connecting for the first time, power supply starts from the first connected battery.

⚠ When replacing the battery, be sure to use a fully charged battery.
⚠ The LED indicator [Amber (SB mode)/Green (IB mode)] flashes twice when the second battery is connected. If it doesn't flash, the adapter doesn't recognise the battery connection and the hot swap function doesn't work.

● LED Indicator

The LED indicates the battery status during power supply.
Able to switch the battery by pressing the switching button.

LED Indication

Indication		Status
Solid Amber / Green	⬤ / ◯	Over14V or Over 30%
Solid Red	⬤	Below14V or Below 30%
Flashing Red	☀	Below 13V or Below 20%
Flashing Amber / Green	☀/☀	Flashes twice when the second battery unit is recognised
Light Off	◯	Below 12V or Below 5% or standby

③ LED Display during charging

LEDs turn red when the batteries start charging.
When charging is complete, status LED will turn solid green.

LED Display during charging

Indication		Status
Solid Red	⬤	Charging
Solid Green	◯	Fully charged

＊Only charge with IDX charger.
＊Unable to switch between batteries while charging, remove the battery and select the battery needs charging.

④ Communication setting

- The SB/IB communication function can be selected by pressing and holding the switching button. Battery information such as remaining capacity can be read by selecting the SB/IB modes.
  Avoid using SB mode with equipment not compatible with SMBus protocol. Sudden power failure may occur due to communication failure.
  The adaptor default setting is the SB mode.
- Two configurable modes
  ・IB mode: the adaptor communicates with equipment using IDX's BMS compliant protocol.
  ・SB mode: The adaptor can communicate with SMBus compliant equipment.

- Switching from IB mode to SB mode
① Press and hold the switching button for more than 4 seconds.
② The two LEDs on CH1 and CH2 light up for 2 seconds.
③ While the CH1 and CH2 LED are lit, release and press the switching button again.
  ＊Able to switch modes while the two LEDs, CH1 and CH2 are lit.

LED indication colour	SB mode : Amber ◯	IB mode : Green ⬤

- Mode switching is only possible with charged batteries attached to the adaptor.

Online Manual