

# BV-10D

## Manual

Regulated DC power supply





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## 1 Box contents

Quantity	Description
1	Battery power supply BV-10D
2	Chargers CH1-5m
1	Manual (english)

The shipment includes charged batteries. However, due to the self-discharging of NiMH-batteries they should be recharged again before use.

Read chap. 5 (Maintenance) before charging the devices!

## 2 Characteristics

The **BV-10D** can be used as mobile power supply for antennas and impedance converters, such as the R&S EZ12.

Two internal NiMH-battery packs make the system mobile and easy to use.

Read chap. 5 before charging!

### 3 Housing and connectors / switches

Fig. 3.1 Shows the front side of the **BV-10D**. All connectors switches and LEDs are located here:

- power switch (*On / Off/Charge*)
- charge plugs *Charge Bat. 1* und *Charge Bat. 2*
- range indicator -LEDs (*10dB ... 80dB,  $\mu\text{V}/\text{m}$ ,  $\mu\text{A}/\text{m}$ , VZ*)
- output plug (Pinning see Fig. 3.2)
- control LEDs (*-10V .. +10V*) to check output voltage level

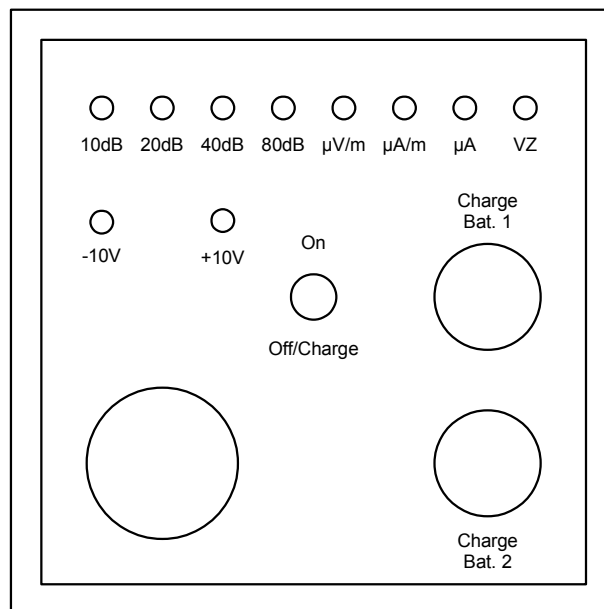


Fig. 3.1: front side of BV-10D

Front side of the BV-10D with connectors, switches and control-LEDs

Steckerbelegung der  
Ausgangsbuchsepinn-  
ing of the output  
plug (plan view)

Fig. 3.2 shows the plan view from the front of the 12 pole output plug.

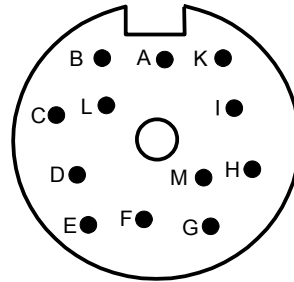


Fig. 3.2: pinning of output plug

- A: GND
- B: +10V (positive output voltage, regulated +10V)
- C:  $\mu\text{V}/\text{m}$  (measuring range  $\mu\text{V}/\text{m}$ )
- D:  $\mu\text{A}$  (measuring range  $\mu\text{A}$ )
- E: 10dB (measuring range 10dB)
- F: 20dB (measuring range 20dB)
- G: 40dB (measuring range 40dB)
- H: 80dB (measuring range 80dB)
- I:  $\mu\text{A}/\text{m}$  (measuring range  $\mu\text{A}/\text{m}$ )
- K: -10V (negative output voltage, regulated -10V)
- L: nc (not connected)
- M: signed negative

#### **4 Use of BV-10D**

- Connect supply cable of the dedicated equipment to the **BV-10D**
- switch on the BV-10D with the power switch (*On / Off/Charge*)
- If a system with a coded plug is connected, the applicable measuring range LED will be switched on.
- The system is ready for use now.

The output voltage of +/-10V can be checked with the integrated control LEDs (-10V .. +10V). As soon as the output voltage deviates more than 100mV from the nominal value, the LEDs are switched off. The **BV-10D** has to be charged with the delivered chargers then.

Charge the system as described in chap. 5 : Maintenance).

Control LEDs give information on output voltage

## 5 Maintenance

Maximum charging current is 1 A

**Devices must be turned off before connecting to charger, or else the system might get damaged!**

Pinning of charge- / buffer connector

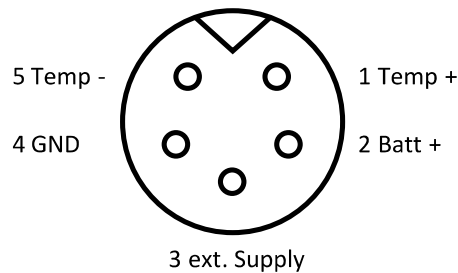
**Do not use charger or power supply during EMI-test!**

**Do not open the devices!  
Short cut / fire hazard!**

Recharge batteries after use with the enclosed charger. To prevent a lazy battery effect, discharge the devices every 5 times completely by using the automatic switch off (Leave the system on, until it turns off automatically). Afterwards, charge the devices as usual.

The devices have to be turned off before connecting to the charger. If this is disregarded, the system might get damaged!

Fig. 5.1 shows the pinning of the charge connector. Chargers have to be connected to pin 2 (+) and pin 4 (GND). An external supply (6...8V, 0.5A) can be connected to pin 3 (+) and pin 4 (GND). **Use only power supplies which are certified by mk-messtechnik.**



*Fig. 5.1: Pinning of charge- / buffer connector*

The included chargers are not meant to power the transceivers during operation. The transceiver outside the shielded room can be run with an external power supply (optional). The internal transceiver can be run with an external battery, if needed (optional). Do not use the external power supply or charger to power the transceiver inside the shielded room while EMI-tests are running. This might damage it!

Due to self-discharge issues with NiMH batteries, recharge batteries before use, if the system has not been used for a longer time.

Do not use cleaning agents or solvents to clean the devices, only use a slightly moistened, soft cloth.

Do not open the devices, as there are no parts inside which have to be maintained. The opened housing can pose a fire hazard through short-circuit currents! Please contact your distributor or the manufacturer if you have any problems. Send in the complete system (both transceivers), if a problem cannot be solved by turning the devices off and on again or by checking the positions of the switches. Please contact us in any case before sending in the devices.



## 6 Trouble shooting

The following trouble shooting list is provided to assist you while having problems. It might let you use the system again without a long down time:

<b>Error:</b>	<b>Possible reasons:</b>	<b>Solution:</b>
No DC voltage at output	Batteries empty	Charge batteries
	Device powered off	Turn on device
Control LEDs for output voltage do not light up	Batteries empty	Charge batteries
	Device powered off	Turn on device
Coding LED for connected device does not light up	Cabling defective display defective BV-10D defective	Check cabling and replace if needed check coding (bridged to GND => LED must light up => take plug pinning into account!!!)

## 7 Accessories / Options

Part	Order number	Comment
Charger with connector plugs	CH1-5m	Standard charger 1 channel, 5poled
Manual	MA-BV-10D	German or english

## 8 Contact

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WEEE-Reg.-Nr. DE 21806070

## Datasheet

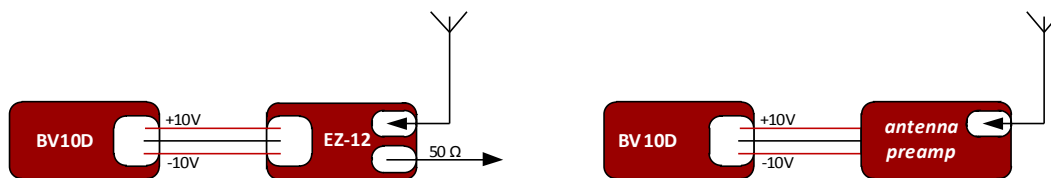
### Field of application and characteristics

The **BV-10D** can be used as mobile power supply for antennas and impedance converters, such as the R&S EZ12.

Two internal NiMH-battery packs make the system mobile and easy to use.



### Application



### Technical data

Output voltage:	+ 10 V DC ( $\pm 0,1$ V, regulated, optical error display via LED) - 10 V DC ( $\pm 0,1$ V, regulated, optical error display via LED)
Output current:	max. 200mA (internal fuse)
Output connector:	12-poled, Binder series 680
Power supply:	2 x 10 NiMH cells with 2,5 Ah (12V)
Case dimensions:	85mm x 85mm x 105mm aluminum case with rubber protectors
Weight:	approx. 1500g
Misc.:	coding display for Rohde & Schwarz equipment up to 4 positive and 2 negative output voltages possible