

USER MANUAL

DEMİR iZ®



MANUEL BATTERY CHARGERS

BC 2425

BC 2440

BC 2460

BC 24100

1. PRECAUTIONS TO BE CONSIDERED BEFORE USING THE BATTERY CHARGER AND SAFETY PRECAUTIONS

- Supply your protective equipment.
- Use work shoes.
- A good ventilation is required for battery charging. The battery and charger can become hot.
- Fire extinguishers and materials must always be present in the work environment to ensure safety against fire. Combustible materials, gasoline, oil, thinner etc. materials should be kept away from the welding place.
- Do not operate the rectifier during rainy weather (open air). Disconnect the power supply. Failure to do so may result in electric shocks.

2. PREPARATION AND INSTALLATION OF THE BATTERY CHARGER

Mains Connection

Charger is operated with 220 V single-phase mains voltage.

Your machine has a power input cable that is located at the back panel.

- **Always connect the input cable of the machine to a grounded outlet.**
- Use proper fuse or circuit breakers for the charger.
For models of BC 2425, BC 2440, BC 2460 and BC 24100, a 16 A rated C type circuit breaker must be used at input.

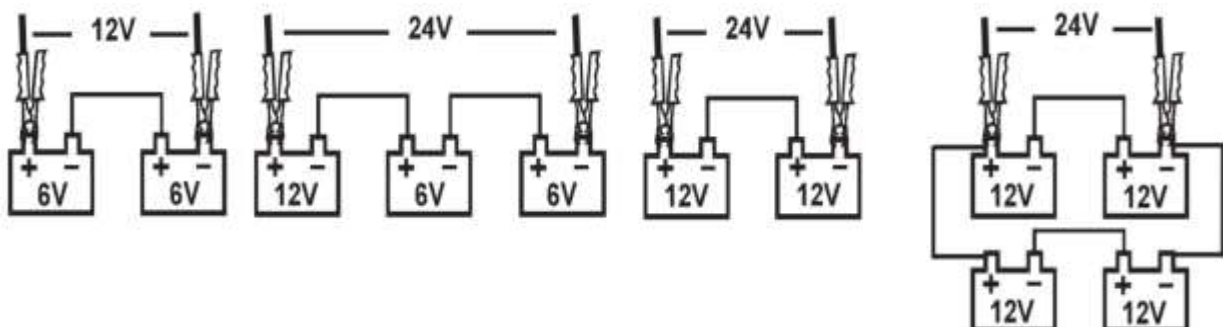
3. TECHNICAL SPECIFICATIONS

- Suitable for charging lead acid batteries: WET serviceable and maintenance free.
- Short circuits protection
- Inversions of polarity protection
- Short circuits on the clamps protection

	BC 2425	BC 2440	BC 2460	BC 24100
Input Voltage	1 Phase, 220 V 50 Hz.	1 Phase, 220 V 50 Hz.	1 Phase, 220 V 50 Hz.	1 Phase, 220 V 50 Hz.
Required Input Fuse	C Type 16 A	C Type 16 A	C Type 16 A	C Type 16 A
Charge Voltage Steps	6 V - 12 V - 24 V	6 V - 12 V - 24 V	6 V - 12 V - 24 V	6 V - 12 V - 24 V
Maximum Charge Current	25 A	40 A	60 A	100 A
Current Steps	3 Steps	3 Steps	3 Steps	3 Steps
Battery Type	Lead Acid	Lead Acid	Lead Acid	Lead Acid
Battery Capacity	up to 180 Ah	up to 250 Ah	up to 350 Ah	up to 600 Ah
Diemensions (w/d/h) (cm)	39 x 40 x 40	39 x 40 x 40	40 x 45 x 40	45 x 65 x 45
Weight	17.6 kgs	24 kgs	34 kg	55 kgs

4. USE OF THE CHARGER

- The combinations of series/parallel connections are shown below.



- You can charge your batteries in various groups by turning the rectifier's fine and coarse adjustment switches to the positions indicated in the table below.

Position of Fine Adjustment Switch	Position of Coarse Adjustment Switch	Battery Capacity	Target Voltage
1	6 V	6 V battery	7.2 V
1	12 V	2 pcs of 6 V battery in series or 12 V battery	15.5 V
1	24 V	2 pcs of 12 V battery in series or 24 V battery	31.0 V

- Connect positive (+) pole of the battery to the positive output of the charger and connect the negative (-) pole accordingly.
- Lift the input and output fuses on the front panel and turn on the charger. After that, you can observe that the signal bulb on the front panel of the rectifier is lit.
- **For BC 2425,**
- You will see values on the digital voltage and current display on the front panel of the rectifier. The recommended maximum charging current for this rectifier is between 17 A and 22 A. This value is important for the life of your battery and the charger.
- Maximum battery size to charge is 180 Ah.
- If you cannot observe a value between 17 A and 22 A when you set the fine-tuning switch to first position, you can increase the charging current by turning the fine-tuning switch.
- **For BC 2440,**
- You will see values on the digital voltage and current display on the front panel of the rectifier. The recommended maximum charging current for this rectifier is between 30 A and 35 A. This value is important for the life of your battery and the charger.
- Maximum battery size to charge is 250 Ah.
- If you cannot observe a value between 30 A and 35 A when you set the fine-tuning switch to first position, you can increase the charging current by turning the fine-tuning switch.
- **For BC 2460,**
- You will see values on the digital voltage and current display on the front panel of the rectifier. The recommended maximum charging current for this rectifier is between 50 A and 55 A. This value is important for the life of your battery and the charger.
- Maximum battery size to charge is 350 Ah.
- If you cannot observe a value between 50 A and 55 A when you set the fine-tuning switch to first position, you can increase the charging current by turning the fine-tuning switch.
- **For BC 24100,**
- You will see values on the digital voltage and current display on the front panel of the rectifier. The recommended maximum charging current for this rectifier is between 85 A and 95 A. This value is important for the life of your battery and the charger.
- Maximum battery size to charge is 600 Ah.
- If you cannot observe a value between 85 A and 95 A when you set the fine-tuning switch to first position, you can increase the charging current by turning the fine-tuning switch.
- To switch off the charger, lower the output fuse and remove the mains power connection.
- Observe charging every one hour. When the value in the digital voltmeter reaches your target value, the batteries are charged. During this time, the charging current will be reduced to 2 to 4 A.

5. MAINTENANCE

- The electrical connection must be disconnected before starting the machine maintenance.
- Periodic inspection and preventive maintenance guarantees the safe, proper operation and long service life of the device.
- A complete inspection is carried out in our factory immediately after production before the first run.
- The first service maintenance must be carried out 6 months after the start of use. Then, according to the power and operating environment of the device, 6 or 12 month maintenance period should be done.
- If the operating conditions of the device are difficult, maintenance should be done in shorter periods.

6. GENERAL MAINTENANCE WORK

- All ports and cables are reviewed. Protective parts and connections are carefully controlled. (Tightening of screws, cracks, poles)
- All moving and working mechanical components are checked to see if they are fulfilling their functions.
- If necessary, clean the windings with a soft cloth or compressor air.
- Never use abrasives to clean the windings, which may cause arc or permanent damage.

7. BASIC FAULTS AND FIXES

Problem	Possible Cause	Action
Voltage or current do not change when the tap switches are turned.	Coarse or fine adjustment breaker switch fault	Disconnect power from the machine and call for service
The rectifier shows the charging current but the batteries do not charge.	Batteries are defective	Have the battery checked
	Output connections are broken	Clean the pole heads. Clean the tongs or replace them with a new one.
	Display shows incorrect values	Disconnect power from the machine and call for service