



TP-BCxx-120

Battery Charger User Guide

- For use with **TP-BC12-120, TP-BC24-120 and TP-BC48-120** Battery Chargers.

Congratulations! on your purchase of the TP-BCxx-120 battery charger. Please take a moment to review this guide before installation.

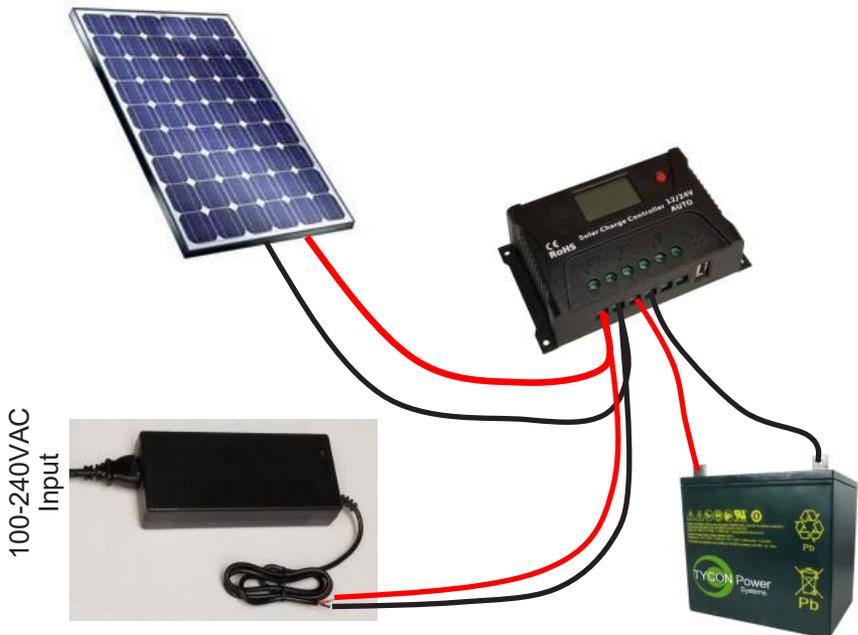


Safety: For your own protection, follow these safety rules.

- **Perform as many functions as possible on the ground**
- **Do not attempt to install on a rainy, windy or snowy day or if there is ice or snow accumulation at the install site or if the site is wet.**
- **Make sure there are no people, pets, etc. below when you are working on a roof or ladder.**

1. The TP-BCxx-120 battery chargers are available in 12V, 24V and 48V models.
2. The battery chargers can be connected directly to the battery but we recommend using a solar controller between the battery charger and the solar panel to more closely manage the battery charging.
3. The battery charger can be connected to the solar input of the solar charge controller in parallel with a solar panel to provide a dual power solution.
4. The battery chargers can be connected to the solar input of a Tycon PWM or MPPT solar charge controller.
5. The battery chargers have a 2 wire output for ease of connection

Typical Application with Dual charging:



Specifications:

	TP-BC12 -120	TP-BC24 -120	TP-BC48 -120
Total Power Available (for Load and Battery charging)	120W	120W	120W
Nominal Battery Voltage	12VDC	24VDC	48VDC
Battery Charge Max Current	8.3A	4.35A	2.15A
Battery Charger Voltage	14.4V	28.8V	57.6V
Load Regulation	5%		
Line Regulation	3%		
Efficiency	85% Minimum		
Output Connector	2 Wire ; 914mm (36") long cable		
EMC Standards	FCC Class B , NE55022 Class B		
Safety Standards	UL60950-1, CSA 22.2, TUV EN60950		
AC Power Input (+-10%)	120VAC / 240VAC , 50/60Hz		
AC Input Current	2.5A Max		
HiPot Test	3000VAC		
Insulation Resistance	50 MOhm, 500VDC		
Operating Temperature	-30 to +55C (22 to +131°F)		
Operating Humidity (RH)	Up to 90% (non condensing)		
Storage Temperature	-40 to +85°C (-40 to +185°F)		
Storage Humidity	Up to 90% (non-condensing)		
MTBF (Mean Time Between Failure)	>50,000 hrs		
Dimensions (LxWxH)	172 x 72.5 x 34.5mm (6.8 x 2.9 x 1.4")		
Weight	439g (15.5oz)		
Warranty	3 Years		

6. When using outdoors, the battery chargers must be inside a weatherproof enclosure.
7. The battery charger LED will be red when charging and will turn green when battery is fully charged.
8. Battery chargers can be used to charge any sealed lead acid battery.

Limited Warranty

The TyconSolar® products are supplied with a limited 36 month warranty which covers material and workmanship defects. This warranty does not cover the following:

- Parts requiring replacement due to improper installation, misuse, poor site conditions, faulty power, etc.
- Lightning or weather damage.
- Physical damage to the external & internal parts.
- Products that have been opened, altered, or defaced.
- Water damage for units that were not mounted according to user manual.
- Usage other than in accordance with instructions and the normal intended use.

NOTES