

# SFC Charger - Single Channel Fast Charger

The **SFC** Single Channel Fast Charger BlockBattery's advanced microprocessor system and multi-level charge routines to quickly & safely, qualify, initiate and terminate charging of a nickel metal-hydride (NiMH) battery. It is designed to charge one 400 WH block.

## Charging Operation

Turn power **ON**. Charger conducts a self-diagnostic check. **STAGE 1 LED remains BLINKING** indicating the charger is functioning OK and awaiting a battery to be connected.

### STAGE 1 LED ON STEADY:

The charger has recognized the battery. Charger qualifies battery by checking battery's temperature, voltage, remaining power, and functional status.

If battery temperature is higher than 60°C (140° F), the charger will monitor cooling and then automatically go to fast charge when within range.

If the voltage and remaining power indicate a deep discharge or long-term storage, the charger will go into a prep-charge mode and then automatically go to fast charge when within range.

If the charger detects any battery functional errors, it will not charge, see ERROR codes listed below.

### STAGE 1 & 2 LEDs ON STEADY (FAST CHARGE):

During the fast charge stage, the charger monitors multiple charge termination indicators (See "Fast charge termination reasons" listed below) and continues operational diagnostics.

Charge time is approximately 5.5 hours for an 400 WH block, but can be less for partially discharged block.

**Recommendation:** For best long-term performance, avoid interrupting charge cycle during fast charge.

#### Fast charge termination reasons:

1. Delta Temp/Delta Time ( $\Delta T/\Delta t$ )
2. Negative Delta Voltage ( $-\Delta V$ )
3. 16 hours of charging time has been completed but battery is **NOT** fully charged. Battery life cycle may have been reached (Please contact technical support).
4. Battery temperature rises above 60°C (140°F). Normal charging temp is 10°-38°C (50°-100°F).

### ALL 3 LEDs ON STEADY:

Charge cycle is complete. Disconnect battery for use. Or leave battery connected to charger for up to a week. The charger will continue in a maintenance mode.

**Caution:** Avoid "top-off" charging a full battery just before use. This is **UNNECESSARY** and could elevate the voltage above equipment operating ranges and/or damage equipment being powered.

### ERROR codes (LEDs will BLINK)

Charger will automatically **STOP** charging if:

**STAGE 2 LED BLINKING** - charger error. Please contact technical support.

**STAGE 1 & 3 LEDs BLINKING** - battery lost charge current during fast charge.

**STAGE 3 LED BLINKING** - Temperature exceeded safe charging temperature during fast charge.

**STAGE 2 & 3 LEDs BLINKING** - Over voltage error.

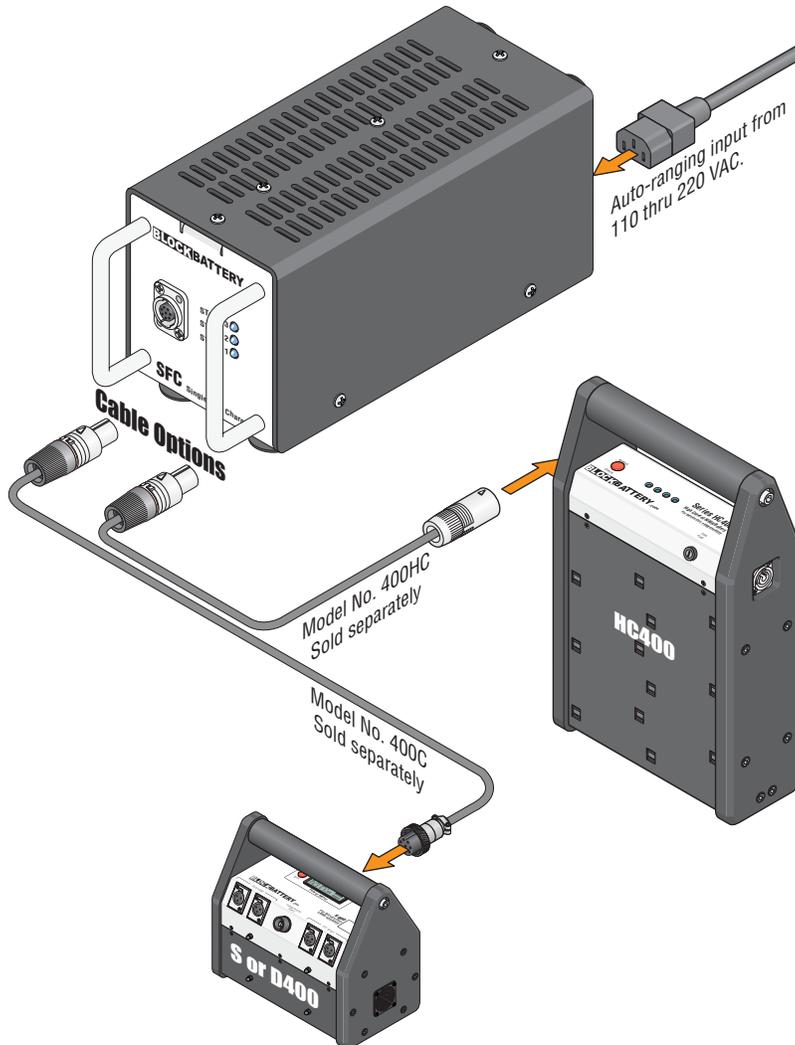
## SFC Specifications

### SFC Dimensions:

4" (10.1 cm) Height x 4.6" (11.7 cm) Width x 10" (25.4 cm) Depth

### SFC Weight:

8 lbs (3.6 Kg)



For technical support call:

**1-888-424-6322**