
Operation Manual

Kino Flo/BlockBattery



Battery Single Kit



**Block/KF21 Single Battery Kit
(2 x Battery)**

KIT-BK12

Block/KF21 Single Battery Kit (2 x Battery)

Kit Contents:

- 1 Block/KF21 Single Fast Charger
w/ Univ Power Supply
- 2 Block/KF21 Battery, 140Whr, 28.8V NiMH
- 1 Block/KF21 Mafer Mount 28.8V, 3-Pin xlr, 3ft
- 1 Travel Case

Dimensions:

18.5 x 7.5 x 14"
(47 x 19 x 36cm)

Weight:

19 lbs
(9 kg)

Battery Single Systems



SYS-BK11

Block/KF21 Single Battery System
140Whr, 28.8V



SYS-BK12

Block/KF21 Single Battery System,
140Whr, 28.8V (2 x Battery)

Battery Single System Components



BAT-KF21 Block/KF21 Battery 140Whr
28.8V NiMH



BAT-BC1U Single Fast Charger w/
Universal Power Supply,
120W/48V, 3-Pin xlr



BAT-MM1 Mafer Mount w/ 3-Pin xlr, 3ft

Battery Dual Systems



SYS-BK22 Block/KF21 Dual Battery System
140Whr, 28.8V (2 x Battery)

Battery Dual System Components



BAT-KF21 Block/KF21 Battery 140Whr
28.8V NiMH



BAT-BC2U Dual Fast Charger w/
Universal Power Supply,
280W, 48V, 3-Pin xlr



BAT-MM1 Mafer Mount w/ 3-Pin xlr, 3ft

Kino Flo/BlockBattery



BAT-KF21 Block/KF21 Battery 140Whr
28.8V NiMH

The Kino Flo/BlockBattery systems are designed to work with the following Kino Flo LED products with 28VDC capability:

- Celeb 250 LED
- Diva-Lite 20 & 30 LED
- Diva-Lite 21, 31 & 41 LED
- FreeStyle 21, 31 & 41 LED
- FreeStyle T41/T21
- FreeStyle T42/T22
- FreeStyle T44/T24
- FreeStyle Mini
- Select 20 & 30 LED

The Kino Flo/BlockBattery system can power 28.8V (20-34VDC) applications. When fully charged, power output is 140 watt hours or 5.0 amp hours at 28.8VDC.

The battery utilizes high rate discharge cells and can handle continuous power draws up to 200 watts. Regular use at these levels will reduce overall life expectancy. Use at 125 watts or less will improve overall life expectancy.

Caution: Use Kino Flo/Block Battery chargers only.

Battery Storage

Short Term Storage (Up to 1 week):

41° to 77° (5° to 25°C)

Not mounted on fixture. Ok to leave on charger.

Long Term Storage (More than 1 week):

41° to 77° (5° to 25°C)

Fully charged battery. Not mounted on fixture. Do not leave on charger.

Recharge every two months.

Single Fast Charger



BAT-BC1U

Block/KF21 Single Fast Charger w/ Power Supply
120W, 48V DC/DC, 3-Pin xlr

The Charger System, **BAT-BC1U**, includes a Single Fast Charger and universal power supply, 120W/48V with 3-Pin xlr. The Single Fast Charger is designed to charge one **BAT-KF21** battery. Charge time is 1.5 hours. Charge cycle is complete when all 3 LED's are on steady.



Operation

Connect Power Supply to charger. Charger conducts a self-diagnostic check. **STAGE 1 LED** remains BLINKING indicating the charger is functioning ok and awaiting a battery to be connected. Slide battery onto charger.

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 140° F (60°C), 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 LED's 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 1.5 hours for a **BAT-KF21**, but can be less if battery partially discharged.

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

ALL 3 LED's 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.

Dual Fast Charger



BAT-BC2U

Block/KF21 Dual Fast Charger w/ Power Supply
280W, 48V DC/DC, 3-Pin xlr

The Charger System, **BAT-BC2U**, includes a Dual Fast Charger and universal power supply, 280W/48V with 3-Pin xlr. The Dual Fast Charger is designed to charge 2 x **BAT-KF21** battery. Charge time is 1.5 hours. Charge cycle is complete when all 3 LED's are on steady.



Operation

Connect Power Supply to charger. Charger conducts a self-diagnostic check. **STAGE 1 LED** remains **BLINKING** indicating the charger is functioning ok and awaiting a battery to be connected. Slide battery onto charger.

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 140° F (60°C), 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 LED's 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 1.5 hours for 2 x **BAT-KF21**, but can be less if battery partially discharged.

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

ALL 3 LED's 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.

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 140°F (60°C). Normal charging temperature is 50°-100°F (10°-38°C).

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 (LED's will BLINK)

Charger will automatically STOP charging if:

STAGE 2 LED BLINKING: Charger error. Please contact technical support.

STAGE 1 & 3 LED's BLINKING: Battery lost charge current during fast charge.

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

STAGE 2 & 3 LED's BLINKING: Over voltage error.

Battery Mounts



The Kino Flo/BlockBattery system includes a Mafer Mount, **BAT-MM1**, with 28.8V output with 3-Pin xlr, 3ft. The battery slides onto the mount and mounts onto a Mafer clamp. The on/off switch can be used to disconnect power to reduce battery drain when 3-Pin xlr is plugged into fixture.



Slide Battery onto Mafer Mount. Mafer mount can be attached to Mafer clamp and then clamped onto stand.



Plug 3-Pin xlr to DC input on fixture.



The **BAT-MB1** is an optional Battery Mount. It consists of a 5/8" Baby Pin & Receiver and 28.8V output with 3-Pin xlr, 3ft.

Battery Adapters w/ 14.4V Output

The KF21 Battery can also be used as a 14.4V source. By using the adapters listed below, the KF21 Battery can be adapted for use with AB/Gold mount or V-Mount applications. So it is like having 2 batteries in one – a 28.8V source or a 14.4V source with no danger of using the incorrect voltage.



BAT-BA



BAT-BA
Block/AB Gold
Mount Adapter
(14.4V Output)



BAT-BV



BAT-BV
Block/V-Mount Adapter
(14.4V Output)

Specifications



BAT-KF21

BAT-KF21 Kino Flo/BlockBattery

Voltage: 28.8V
Watt Hour: 140Whr or 5.0 amp hours @ 28VDC
Type: NiMH
Weight: 4.5 lb (2.0kg)
Dimensions: 6 x 4.5 x 3"
(15 x 11 x 8cm)

Note: Unrestricted for air & ground transport.



BAT-BC1

BAT-BC1 Kino Flo/BlockBattery Single
Fast Charger

Input: 48VDC, 3A
Weight: 1.5 lb (1kg)
Dimensions: 5.5 x 5.5 x 3.5"
(14 x 14 x 9cm)



BAT-BC2

BAT-BC2 Kino Flo/BlockBattery Dual Fast Charger

Input: 48VDC, 5.8A
Weight: 2 lb (1kg)
Dimensions: 9.5 x 5.5 x 3"
(24 x 14 x 8cm)



PWS-120W-48X

PWS-120W-48X Power Supply 120W, 48V,
DC/DC, 3-Pin xlr

Input: 100-240VAC, 50/60Hz, 1.4A
Output: 48V, 2.5A, 120W Max
Weight: 2 lb (1kg)
Dimensions: 6.5 x 2.5 x 1.5"
(16.5 x 6.5 x 4cm)



PWS-280W-48X

PWS-280W-48X Power Supply 280W, 48V,
DC/DC, 3-Pin xlr

Input: 100-240VAC, 50/60Hz, 4.5A
Output: 48V, 5.84A, 280W Max
Weight: 4 lb (2kg)
Dimensions: 9 x 4 x 2"
(23 x 10 x 5cm)

For latest Warranty information and Certifications,
see Kino Flo website at www.kinoflo.com.

Environmental: Disposal of Old Electrical & Electronic Equipment.



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. This product is made of recyclable materials and should be disposed of in accordance with governmental regulations.

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