
Operation Manual

4Bank DMX



KINO FLO®
Lighting Systems

Systems



CFX-484 4ft 4Bank Fixture w/ Louver/HP, 90°

CFX-244 2ft 4Bank Fixture w/ Louver/HP, 90°



MTP-KW41 Kino 41K Mount Wing w/
3/8" Pin (10mm)



X16-25 4Bank Extension, 25ft



BAL-457-120U 4Bank DMX Ballast, Univ 120U

BAL-457-230U 4Bank DMX Ballast, Univ 230U

Each 4Bank DMX System consists of:

- 1 Fixture
- 1 Mounting Plate
- 1 Extension Cable
- 1 4Bank DMX Ballast

True Match® Lamps



488-K32-S/6P 4ft Kino KF32 (1 x 6pk)

488-K55-S/6P 4ft Kino KF55 (1 x 6pk)

242-K32-S/6P 2ft Kino KF32 (1 x 6pk)

242-K55-S/6P 2ft Kino KF55 (1 x 6pk)

Lighting Kits



Gaffer DMX Kit

KIT-2GF-X120U

Gaffer DMX Kit, Univ 120U

KIT-2GF-X230U

Gaffer DMX Kit, Univ 230U

Kit Contents:

- 2 4ft 4Bank Fixture
- 2 4Bank DMX Ballast
- 2 MTP-BW41 Mount
w/ Baby Receiver (16mm)
- 2 Extension, 25ft
- 2 Lamp Case
- 1 Gaffer Ship Case

Dimensions:

56.5 x 13 x 21.5"
(143.5 x 33 x 55cm)

Weight:

73.5 lb
(33.5kg)



Interview DMX Kit

KIT-2NT-X120U

Interview DMX Kit, Univ 120U

KIT-2NT-X230U

Interview DMX Kit, Univ 230U

Kit Contents:

- 2 2ft 4Bank Fixture
- 2 4Bank DMX Ballast
- 2 MTP-BW41 Mount
w/ Baby Receiver (16mm)
- 2 Extension, 25ft
- 2 Lamp Case
- 1 Interview Ship Case

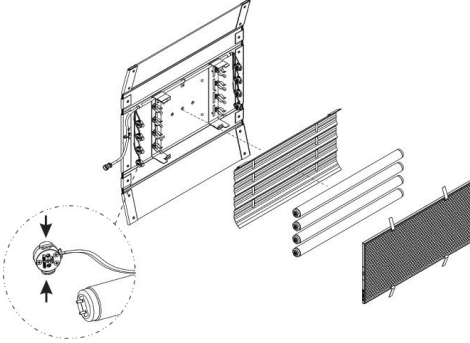
Dimensions:

35.5 x 13 x 22"
(90 x 33 x 56cm)

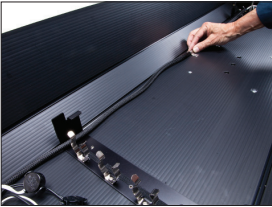
Weight:

57.5 lb
(26kg)

Fixture Assembly



The 4Bank fixture is comprised of a removable Louver, Reflector and Lamp Harness. The Louver and Reflector are held in place with Velcro fasteners. The Lamp Harness is secured by means of a 1/4 turn fastener and two clips.



To Release the Lamp Harness

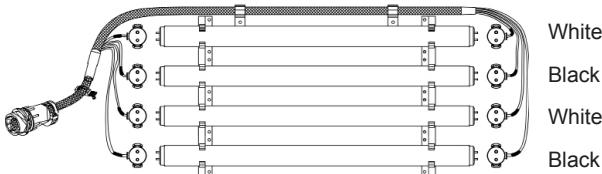
Remove the harness from 2 clips located under the reflector. Rotate the 1/4 turn fastener clockwise to release harness.



The lamps can operate independent of the fixture allowing them to be built into sets or custom soft boxes or hand-held as a single tube for an eye-light.

WARNING: Always use safety-coated lamps to avoid injury if lamp breaks.

Lamp Harness Color Codes



4Bank Harness

The Harness wiring is color-coded. The same color-code must match at each end of the lamp for proper operation.

Inserting Lamps



Locking Lamp Connector:

Depress both tabs on lamp connector and apply to lamp pins.
Match the Harness color-codes at each end of the lamp.
Push lamps into the fixture's Lamp Holder Clips.

Gelling the Fixture



Restricting the airflow around the lamps can cause the lamp to operate hotter. This increased heat will raise the lamp's color temperature and green spike. Therefore, it is recommended to clip gels to the doors of the fixture.

Remove Louver. Do Not clip gels to louver.

Do Not block the fixture ends in a manner that restricts airflow.

Mounting the Fixture



The standard mount (**MTP-KW41**) comes with a 3/8" Lollipop that clamps into a grip head. The ball and socket mount allows the fixture to be oriented in a broad range of angles.



Align the center pin of the mounting plate to the center hole on the mating plate.

Rotate plate clockwise until the four shoulder rivets drop into the receptacle. A locking pin will snap into place when the plate is properly seated.

The **yellow wire loops** provide attachment points for a safety chain.



To remove the plate, pull up on the locking pin and reverse the mounting procedure.



Turn the knob to loosen or tighten the mount.



Lollipops are interchangeable.

- MTP-L** Kino 41 Lollipop w/ 3/8" Pin (10mm)
- MTP-LBC** Kino 41 Lollipop w/ Baby Rcvr Curve (16mm)
- MTP-LBS** Kino 41 Lollipop w/ Baby Rcvr Short (16mm)

Other Fixture Mounting Options



The grommet holes along the edge of the fixture are designed to allow the fixture to be screwed onto set walls.

Extension Cable



To insert the cable, position the logo up to align the key ways on the extension cable with the circular receptacle on the ballast. Rotate the locking ring until it clicks into the lock position.

Lamps can operate as far as 75 feet from the ballast (3 x 25ft extensions).



A **Splitter** can be used at the Ballast or on the end of an Extension Cable to split a 4Bank run into either four Singles or two Doubles. This allows for greater rigging flexibility.

Ballast Operation

WARNING!

- 1) ALWAYS TURN OFF THE BALLAST BEFORE connecting or disconnecting Lamps, Harnesses or Extension Cables.
- 2) Use only with Sine wave inverters. Do not operate on SCR dimmers.
- 3) If powering the ballasts through a Dimmer Pack, set the Dimmer to Non-Dim mode.

The BAL-457 Ballast requires 100-240VAC 50/60 Hertz on an earth grounded circuit. The electronic Ballast operates at a high frequency of 25kHz. It is dead-quiet, instant-on and flicker-free.

Cold Temperature Operation

The DMX Ballast series is designed to operate at temperatures from 14°F to 122°F (-10°C to +50°C). In cold temperatures, the Ballast may not strike the lamp(s) instantly. Switch the Ballast to OFF, wait seven seconds and try again. If the Ballast does not strike after two or three attempts, turn off the Ballast, check that the Extension and Harness connections are secure and re-strike. Once operating for a few minutes, the lamps should re-strike instantly.

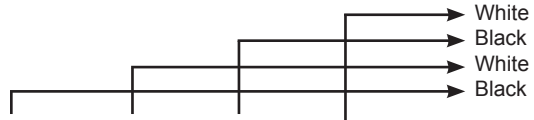
4Bank DMX Control Panel



- A) **Circular Output Connector:** Provides electrical power to the lamp head with the use of a 4Bank extension cable.
- B) **DMX-In & DMX-Out:** DMX-In receives DMX signals from Dimmer Board. DMX-Out relays DMX signals through other Fixtures or Instruments.
Note: Each BAL-457 ballast has an “**AUTO TERMINATE**” feature. The last ballast that does not have an XLR cable attached to the DMX “Out” port will automatically terminate.
- C) **DMX Address:** Sets DMX Address of Fixture.
(Channels 1~4 = Lamps; Channel 5 = 4ft/2ft)
- D) **DMX OK:** Lights if valid DMX signal is present and conforms to DMX512/1990 protocol.
- E) **Manual Switches:** Turns lamps on and off manually.
- F) **Lamp Select Switch:** Set to **4ft** for 4ft lamps and **2ft** for 2ft lamps.
- G) **Fuse:** Provides circuit protection. Note: If Fuse is “blown” or “open”, replace with same type of fuse rating as marked.

Manual Operation

The Ballast operates remote from the fixture. Connect the Extension cable to the Ballast and the Lamp Harness. After the lamps are properly installed, the Ballast can be turned on. Each switch controls one lamp. The color bands on the lamp harness correspond to the switches as illustrated.



Lamp Select Feature

The DMX Ballasts have a **4ft/2ft** switch. Set the selector switch to **4ft** for 4ft lamps and **2ft** for 2ft lamps.

When operating **4ft** lamps in high ambient temperature or where the units are rigged into place with restricted airflow, the **2ft** setting can be used to lower the color temperature and remove any green spike. The light drops about a 1/2 f-stop in exposure when dropping from **4ft** to **2ft**.

It is not recommended to operate 2ft lamps in the **4ft** setting. At the **4ft** setting, the color temperature of the 2ft lamps will rise dramatically and experience a high green spike.

Note: The manual **4ft/2ft** switch is disabled as soon as the DMX cable is applied.

To manually control the **4ft/2ft** switch with DMX cables plugged in:

- 1) Unplug the DMX cable or
- 2) Leave cables plugged in and set DMX address to "000". There is a 5 second delay when switching between DMX and Manual control.

DMX Operation



DMX Addressing

Push the tabs above or below the number window to set the address. (Valid addresses range from 001 to 512.) The yellow light above the address block will illuminate if a DMX signal is present.

Each 4Bank DMX ballast operates on 5 addresses.

This is useful in achieving light effects like flickering, chasing or creating light patterns. Individual lamps or fixtures can be rigged into a set by using a 4Bank to Single or Double splitter. A splitter can provide 4 individual cable feeds to lamps or fixtures in a set. (See p.13 for parts.)

BAL-457 operates on 5 addresses:

Lamps = 1-4

4ft/2ft = 5

The 5th address controls the **4ft/2ft** setting. Dimmer level from 0%~50% operates all the lamps at the 4ft setting. Dimmer level from 50%~100% operates the lamps in the 2ft setting and the overall light output drops by ½ f-stop.

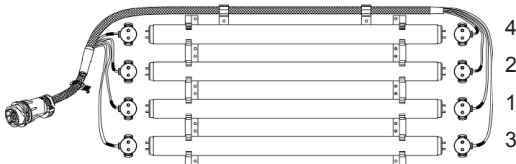
Note: If the 5th address is not addressed, the ballast will default in the 4ft setting. The **4ft/2ft** select setting controls all 4 lamps equally. Individual settings per lamp are not possible.

IMPORTANT!

The dimmer board/light console should have its channel set to LINEAR light output response. (LINEAR response is the default setting on most dimmer boards.)

For example: If the 4Bank DMX base address is set at 001, the configuration below will provide 4 lamps individually addressable through DMX 512.

4Bank Lamp Sequence



DMX Address Sequence

Lamp #	DMX Address
Lamp 1	1
Lamp 2	2
Lamp 3	3
Lamp 4	4
4ft/2ft	5

To chase one lamp through multiple fixtures:

- 1) Set each ballast with its own address: 001, 006, 011, 016 and so on.
- 2) Program address 005, 010, 015, etc. for 2ft operation.
- 3) Program lamp sequence to chase from 001 through 004, 006-009, 011-014 and so on.

To chase same lamp position simultaneously through multiple fixtures:

- 1) Set each ballast address to 001 (or a common address).
- 2) Program address 005, 010, 015, etc. for 2ft operation.
- 3) Program lamps to chase from address 001-004.



4Bank DMX ballasts (**BAL-457** series) have an **"AUTO TERMINATE"** feature. The last ballast that does not have an XLR cable attached to the DMX "Out" port will automatically terminate.

Any theatrical lighting board with DMX512/1990 protocol can be used to individually turn **on/off** lamps in a fixture.

4Bank DMX ballasts can be jumpered using the IN and OUT ports. As many as 100 ballasts can be jumpered on one chain as long as the DMX cable run remains under 1000 feet or 40 x 25ft DMX cables.

Note: When operating ballasts at great distances from the dimmer board, it is recommended to use Opto-Isolators to provide DMX signal amplification.

Note: If a Fixture or Ballast loses its DMX signal, it will hold its last DMX command. For this reason, it is important to turn a Fixture or Ballast off using the DMX commands. For example, if you try to turn off the lights by turning off the dimmer board, the lights will remember their last DMX command and stay on. The Fixtures or Ballasts require a DMX "Off" or "Black-out" command in order to turn off.

Accessories and Parts



DFS-4804 4ft 4Bank Flozier, Full
DFS-4804-H 4ft 4Bank Flozier, Half

DFS-D4 2ft 4Bank Flozier, Full
DFS-SL20-H 2ft 4Bank Flozier, Half



FIX-484 4ft 4Bank Fixture Shell

FIX-244 2ft 4Bank Fixture Shell



HAR-4804 4ft 4Bank Harness

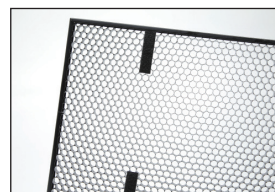
HAR-2404 2ft 4Bank Harness

HAR-4802 4ft Double Harness

HAR-2402 2ft Double Harness

HAR-4801 4ft Single Harness

HAR-2401 2ft Single Harness



LVR-K490-P 4ft 4Bank Louver/HP, 90°

LVR-K460-P 2ft 4Bank Louver/HP, 60°

LVR-K290-P 2ft 4Bank Louver/HP, 90°



MTP-BAL Kino Ballast Baby Mount (16mm)



MTP-BW41 Kino 41K Mount Wing w/
Baby Rcvr (16mm)

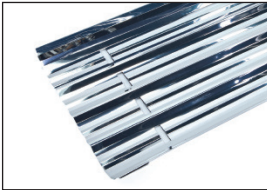
MTP-BW41S Kino 41K Mount Wing w/
Baby Rcvr Short (16mm)



MTP-L Kino 41 Lollipop w/ 3/8" Pin (10mm)

MTP-LBC Kino 41 Lollipop w/ Baby Rcvr Curve
(16mm)

MTP-LBS Kino 41 Lollipop w/ Baby Rcvr Short
(16mm)



REF-4804 4ft 4Bank Reflector

REF-2404 2ft 4Bank Reflector



X16-A4 4Bank to Single Splitter

X16-A9 4Bank to Double Splitter



X16-12 4Bank Extension Cable, 12ft

X09-25 Double Extension Cable, 25ft

X04-25 Single Extension Cable, 25ft



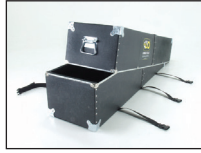
XLR-525 DMX Cable 5-Pin, 25ft

XLR-515 DMX Cable 5-Pin, 15ft

Cases



KAS-C46



KAS-54L



KAS-KFC



BAG-201

Part Number	Description	Dimensions	Weight (Empty)	Holds
BAG-201	2ft 4Bank Soft Case	28.5 x 7.5 x 20" (72.5 x 19 x 51cm)	3.5 lb (2kg)	2ft 4Bank System (1), Lamp Case
BAG-401	4ft 4Bank Soft Case	55 x 8 x 19.5" (140 x 20.5 x 49.5cm)	6 lb (3kg)	4ft 4Bank System (1), Lamp Case
INS-L6	6-Lamp Foam Pad	24 x 13 x 1" (61 x 33 x 2.5cm)	N/A	Fits KAS-54S, 54L, 96L
KAS-54L	4ft Fixture Ship Case, Large	57.5 x 15 x 17" (146 x 38 x 43cm)	25.5 lb (12kg)	4ft 4Bank Fixtures (5)
KAS-54S	4ft Fixture Ship Case, Small	57.5 x 15 x 12" (146 x 38 x 30.5cm)	21 lb (9.5kg)	4ft 4Bank Fixtures (3)
KAS-C26	6-Lamp Carry Case (2ft)	26.5 x 6 x 4" (67.5 x 15 x 10cm)	1 lb (.5kg)	2ft Lamps (6)
KAS-C46	6-Lamp Carry Case (4ft)	50.5 x 6 x 4" (128.5 x 15 x 10cm)	1.5 lb (.7kg)	4ft Lamps (6)
KAS-GAF2	Gaffer Kit Ship Case	56.5 x 13 x 21.5" (143.5 x 33 x 55cm)	32 lb (14.5kg)	4ft 4Bank System (2), Lamp Case (2)
KAS-INT2	Interview Kit Ship Case (2)	35.5 x 13 x 22" (90 x 33 x 56cm)	25 lb (11.5kg)	2ft 4Bank System (2), Lamp Case (2)
KAS-INT3	Interview Kit Ship Case (3)	35.5 x 13 x 23" (90 x 33 x 58.5cm)	26 lb (12kg)	2ft 4Bank System, 2ft Double System (2), Lamp Case (2)
KAS-KFC	Ballast & Cable Crate w/ Lid	21.5 x 15 x 12" (54.5 x 38 x 30.5cm)	6 lb (2.7kg)	Ballasts, Cables, Mounting Plates

Ballast Specifications



4Bank DMX

BAL-457-120U 4Bank DMX Ballast, Univ 120U

Input Voltage: 100~240VAC 50/60Hz
Output Frequency: 25kHz
Amperage: F75/2.6A, F40/2.5A,
F30/1.6A, F20/0.9A
Lamp Switching: 1~4
Output Switching: 4ft / 2ft
Ballast Size: 12 x 11 x 3"
(30.5 x 28 x 7.6cm)
Weight: 5.3 lb (2.4kg)

BAL-457-230U 4Bank DMX Ballast, Univ 230U

Input Voltage: 240~100VAC 50/60Hz
Output Frequency: 25kHz
Amperage: F75/1.4A, F40/1.3A,
F30/0.8A, F20/0.7A
Lamp Switching: 1~4
Output Switching: 4ft / 2ft
Ballast Size: 12 x 11 x 3"
(30.5 x 28 x 7.6cm)
Weight: 5.3 lb (2.4kg)

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 local and state regulations.

Kino Flo, Inc. 2840 N. Hollywood Way, Burbank, CA 91505, USA
Tel: 818 767-6528 website: www.kinoflo.com