

GETTING STARTED

IMPORTANT - CONNECTING POWER

Your FX Lighting Control System has been supplied with a power cable, used to connect to mains AC supply, at 220/240 volts. First, connect a suitable mains plug, as follows:

BROWN = LIVE BLUE = NEUTRAL GREEN/YELLOW = EARTH

If you are in any doubt, consult a qualified electrician. Connect the female IEC connector on the power lead into the fused receptacle on the rear panel, and switch on your power circuit. The red 'manual' led indicator in the auto faders section on the face panel indicates that the system is on.

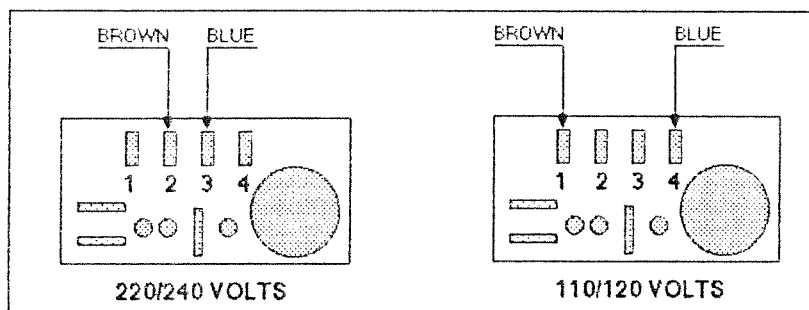
FUSING

Use a 20mm 250mA anti-surge fuse. To replace the power fuse, prise open the fuseholder section of the IEC mains inlet on the rear panel.

OPERATION AT 120 VOLTS

Your FX Lighting Control may be adapted to operate at 120 volts ac. To do this it is necessary to remove the operator panel, by releasing the black countersunk screws along the top and bottom edges of the panel. **IMPORTANT:** Use only the correct screwdriver (No 2 POSIDRIV), or damage may be caused to the screwheads.

Now look at the small power supply printed circuit board, mounted on the transformer in the base. The brown and blue power cables are normally connected to blades 2 and 3 respectively. Change them over so that the brown wire is connected to terminal 1, and the blue wire to terminal 4.



Finally, change the power fuse to 500mA, anti-surge. The FX Lighting Control may now be used with a 110/120 Vac supply, at 50 or 60Hz.

CONNECTING TO DIMMERS

The output connectors on the rear panel supply an analogue signal of 0 to +10 volts dc for each dimmer output, in blocks of six.

Use an ARRI control cable to link to ARRI dimmers, or make up your own cables, using suitable BLEECON 8 pin plugs, available from your ARRI dealer. The pinout is as follows:

PINS 1-6 = DIMMER CONTROL 1-6 PIN 7 = NOT USED PIN 8 = COMMON

AUDIO INPUT

The 3 pin XLR plug on the rear panel is used to connect the audio signal to drive the FX chaser, in AUDIO STEP mode. Input Impedance is 10 k Ω at line level.

PIN 1 = SCREEN PIN 2 = SIGNAL PIN 3 = RETURN

SLAVING TWO OR MORE FX LIGHTING CONTROLS TOGETHER

Up to twenty FX systems may be slaved together, to be controlled by the master section of one unit, using the SLAVING CABLE available from your ARRI dealer. Connect the slaving cable to the socket marked 'slave out' of the unit designated as the master, and to the socket marked 'master in' on the first slave console. When you need to control more than one slave system, simply 'daisy chain' FX boards together, using one additional slaving cable for each additional FX system.

FX Lighting Control System

SYSTEM OPERATION

1. PRESETS AND MASTERS

The ARRI FX is a two preset lighting control system. This means that the contents of one preset may be live (sent to the dimmers), while the other is being prepared for the next cue. Thus, each channel has two associated faders, one on preset A, one on preset B. The output of presets A and B are controlled via the A and B faders in the auto fader section.

To see how this works in practise, set all the faders to 0, except the Grand Master, which must be set to 10. Note that the 0 position for the B fader is at the top of the fader's travel.

Now set some of the A preset faders to levels between 1 and 10. Note that nothing actually happens, because the A fader, which controls the output of the A preset, is still at 0.

Check that the red "manual" led indicator is on, above the A and B faders. If the "auto" led is lit instead, press the yellow "auto/manual" mode select switch once, and the auto faders will be set to manual mode. If neither led is lit, the FX console is not receiving power.

Now run the A fader up from 0 to 10. If you have dimmers and lights connected, you will see the result of the state you have set in the A preset being proportionately raised into output.

Note also that the green "channel output" led, situated below the number of each channel, fades up and down with the output of each channel. You always have a complete indication of the total output of the FX system displayed on these leds. Note also that the led bargraph to the left of the A fader gives an indication of the level of the proportional output of the A preset.

With the A fader at 10 and the B fader at 0, both faders are physically at the top of their travel, but the B fader is off. This means that you can start to prepare the next lighting state on the B preset, without the changes yet being seen in output. Try setting up a different lighting state on the B preset. Now pull the two master faders, A and B, to the bottom of their travel. The contents of the A fader are progressively replaced in output by the contents of the B preset. This is a true "dipless" crossfade, which means that channels which are at the same level in both presets will not change in intensity during the crossfade. Channels which change intensity will do so in a "straight line" from the old to the new level.

RUNNING AUTOMATIC TIMED FADES

It may be useful, particularly with longer fade times, to run crossfades automatically, assuring a completely smooth transition, and keeping the hands free for effects cues. The FX system has a powerful auto-fade facility, which allows you to run split timed crossfades of up to five minutes, with differing UP and DOWN fade rates. This is particularly useful in television, where the Lighting Director may prefer to have the incoming state well established before the old cue has faded below a certain level.

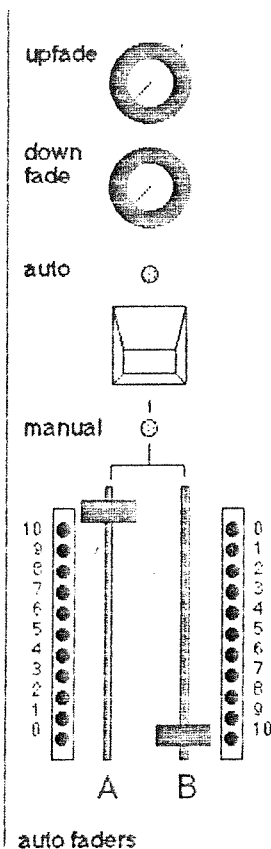
The ARRI FX system is unique among manual lighting control systems in that it allows separate UP and DOWN fade times to be set up, which are not dependent upon the direction of the fade, ie from A to B or from B to A.

Using the top rotary potentiometer, marked "upfade", select the desired upfade rate - the rate at which the incoming preset will fade from 0 to 10 - which may be any time between 3 seconds and 5 minutes. Using the "downfade" pot, set the time to be taken by the outgoing preset to fade from 10 to 0. It is quite usual to set a slower downfade than upfade rate, to allow the incoming preset to become established before the levels of the outgoing channels are much reduced.

Now press the yellow "auto/manual" switch once, so that the led next to the word "auto" is lit. Move both faders together to the other end of their travel to initiate a timed fade. Note that the led bargraph displays indicate in real time the passage of the split time crossfade.

If, during the progress of a fade, you decide to go back to the previous preset, just move the faders back to the other end of their travel and the cue will reverse.

You can of course switch back to manual mode at any time. Just remember that, when you do so, the level of the preset masters will jump immediately to the position of the preset master faders. This can be an effective way of forcing a slow fade to complete, but it could be embarrassing, so be careful!








FX Lighting Control System

SYSTEM OPERATION

2. FLASH KEYS

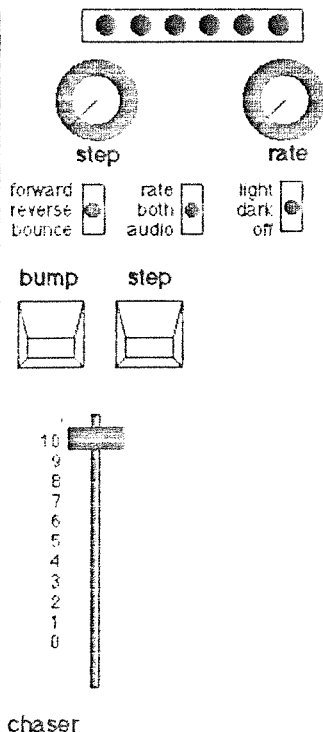
The FX flash keys may be set up to provide several different types of flash effects, using the "flash" controls, next to the auto faders.

 rate	<p>When you switch on your FX system, none of the Indicator leds above the flash control keys are lit. This means that the flashkeys are inoperative, and may be safely leaned on!</p>
 ripple	<p>In order to use the flashkeys, you must press the "on" switch first, which enables the whole flashkey section, and displays a red led above the switch. Pressing "on" a second time will switch the flash section off, and so on.</p>
 down	<p>Having switched on the flash section, pressing any channel flashkey will instantly raise the level of that channel to full brightness. Releasing the flashkey returns the circuit to its previous level. This is referred to as flashing UP.</p>
 on	<p>You may wish to flash DOWN rather than UP - To do this, both the "on" and the "down" leds must be lit. When flashing channels in "down" mode, channels will flash OFF, from their present output level. Remember therefore that nothing will happen if you attempt to flash a channel which is not already on, in "down" mode.</p>
 flash	<p>The FX "ripple" function allows you to create a "strobe" effect on the flashkeys. It may be used in either "up" or "down" flash mode. Select ripple by pressing the "ripple" switch. Note that the ripple led indicator is blinking, at a rate set on the rotary potentiometer above it. Adjust the pot until the ripple rate is the way you like it, then press any flashkey. The channel will flash up or down at the rate set on the ripple pot.</p>

SOLO - an easy way to create a "solo" effect is to hit a flashkey, and at the same time pull down the grand master fader, or press the blackout switch.

THE GRAND MASTER/BLACKOUT DOES NOT OVERRIDE THE FLASHKEYS.

Bear in mind also that this effect will not work in "down" flash mode, since the blackout function effectively removed the levels from which the "down" flash operates.



The diagram shows the chaser control panel. At the top is a preview window with six indicator lights. Below it are two rotary knobs labeled 'step' and 'rate'. To the left of the 'step' knob is a three-position switch labeled 'forward', 'reverse', and 'bounce'. To the right of the 'step' knob is a three-position switch labeled 'rate', 'both', and 'audio'. To the right of the 'rate' knob is a three-position switch labeled 'light', 'dark', and 'off'. Below these are two more switches labeled 'bump' and 'step'. At the bottom is a vertical chaser display with a horizontal bar at the top and a vertical bar below it, with numbers 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0 listed on the left side.

3. THE CHASE SECTION - PREVIEWING DIFFERENT PATTERNS

The FX System's chaser gives you a powerful and flexible tool for all kinds of "pop" shows and disco effects, as well as a simple method of creating more subtle lighting effects, such as fire flicker or water ripple.

Note that the chaser is switched off by the right hand three-position mode switch "light/dark/off". The "light" and "dark" positions denote the type of chase to be used: "light" switches ON for each step, "dark" switches OFF.

Try setting the selector to "light". You will see a chase pattern being displayed in the preview window, above the "step" and "rate" knobs.

The centre switch dictates the method of control of the chase rate. It should normally be in the up position (rate), which means that the speed of the chase is governed by the rotary "rate" potentiometer. Switching this switch to the "audio" position will cause the chase to stop, unless a suitable audio signal is connected to the FX audio input. When a sound signal is present, the bass frequencies (around 200Hz) are used to generate pulses, which "step" the chase.

The centre position (both) superimposes the result of the audio input onto the chase as controlled by the rate pot. This gives you a "busier" effect, and also means that the chase continues when the music stops.

The "forward/reverse/bounce" switch changes the direction of the chase. The rotary "step" switch sets the length of the chase, from 2 to 6 steps. Play with different combinations, to create different styles of chase, until you are comfortable with the controls.

Note that the "step" switch is used to advance the chase one step at a time, either to "flash along" with the music or to view the contents of each step. It's normally best to switch to "audio", with no sound input, before stepping, to avoid confusion with the normal function of the chaser.

FX Lighting Control System

SYSTEM OPERATION

4. CHASES - SELECTING CHANNEL GROUPS AND LIVE OUTPUT

The previous section described the function of the various controls used to define a chase style and pattern. Now you need to know how to output the chase to the dimmers.

Note that the FX chase is set up as a block of up to six channels. This block may be assigned to any of the channel blocks 1 - 6, 7 - 12, 13 - 18 etc (depending on the number of channels you have), using the "chaser" switch located above the first channel in each group.

When the red indicator for the group (above the switch) is on, that group of six channels is assigned to the chaser. All, any or no groups may be assigned at one time.

Thus, if you plan your rig so that the various groups of lights which may have to chase are plugged into groups of dimmers starting with 1, 7, 13 etc, you will find it extremely easy to switch from one group to another, without the need for much resetting of the chase controls.

Raising the chase master fader will now proportionally raise the chase pattern running in the chase preview display in the group or groups of channels assigned to chase.

Similarly, using the chase "bump" switch will instantly apply the chase to the selected channel group(s) at full intensity.

Note that the actual output of the chase is dynamically displayed in the green channel output leds.

IMPORTANT - The chase "piles on" to the outputs of the presets, on a "highest takes precedence" basis. Therefore, if channels are already being output at levels via the presets, they will chase between those levels and the top level set on the chase master.

Note that the chase section is controlled by the grand master fader and the associated blackout switch.

5. GRAND MASTER AND BLACKOUT FUNCTION

Normally, the grand master fader should always be set to 10 - the top of its travel. Fading the grand master down will proportionately reduce the output from the preset masters and chase section, until a blackout is reached, at level 0.

The Blackout switch has the same function, without the fade! When the output from the FX system is blacked out by the blackout switch, the red led below the switch is lit, warning you that the blackout is in operation. Pressing the blackout switch a second time will restore the live output to dimmers.

Remember that flashkeys are not controlled by the grand master or the blackout switch.

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