

Series 80

6800



just imagine . . .

BACKGROUND

HUE SAT LUM

RGB CHR KEY ON

HUE SEP SO

RGB CHR KEY

HUE SEP

ENC CHR KEY

HUE GAIN

UTIL SFX QUAD

UTILITY KEY

BLACK 1 2 3 4 5 6 7

8 9 10 11 12 13 14 15

16 17 18 19 20

F

BLACK 1 2 3 4 5 6 7

8 9 10 11 12 13 14 15

16 17 18 19 20

PGM

BLACK 1 2 3 4 5 6 7

8 9 10 11 12 13 14 15

16 17 18 19 20

PST

BLACK 1 2 3 4 5 6 7

8 9 10 11 12 13 14 15

16 17 18 19 20

MIX A

BLACK 1 2 3 4 5 6 7

8 9 10 11 12 13 14 15

16 17 18 19 20

MIX B

BLACK 1 2 3 4 5 6 7

8 9 10 11 12 13 14 15

16 17 18 19 20



... Exceptional performance.

ONE BUS QUAD

ON AIR

CENT

A B C D MASTER

TAKE

SOFT WIDTH HUE SAT LUM

VERT HOR TOP

BORD

SFX MOD POS

NON EXCLUSIVE PATTERNS (WH)

EXCLUSIVE PATTERNS (BLK)

EXTENDED EFFECTS GEN

WIPER

DIR EDGE PATTERN RANGE

WIDE NORM OFF

SOFTNESS BORDER SYM

OFF ON

KEY 1 MODE

KEY MATT S/SCN SPOT NA

TRANS MODE

BGND KEY1 KEY2

MATT

HUE SAT LUM BOR

SIZE

TR/PV CUT

N/S

MIX WIPE

SFX MODE

KEY 1 SOURCE

KEY BORDER

KEY 2 SOURCE

F UTIL EXT ENC RGB INV

OFF BLACK WHITE COLOR OUTLN OFFST

F UTIL EXT C/GEN RGB INV

LEVEL SOFT LEVEL SOFT

K1 K2

TITLE SOURCE

UTIL 1 2 3

BORD ON OUTLN OFFST 2 LINES

MATT

HUE SAT LUM

BORD

SAT LUM

RATE

TITLE

LEVEL SOFT

TRANS MODE

BGND TITLE

TR/PV CUT

PGM

MIX

REV W/CE

BLK

PGM MODE

SFX

1 0 0

FRAMES

HOLD

START



The smart got smarter

The 680 is a powerful smart switcher that gives you the creative freedom you want at a price you can afford. If you need a quality production switcher with unparalleled sequential effects capability, then the 680 was designed for you.

The popular 680 has all the features you would expect in a switcher from Central Dynamics, including the revolutionary SFX amplifier, *A touch of genius*, standard Key and Wipe modules, and the versatile Program Processor.

At your fingertips

The SFX module provides all the power you need to control background and foreground transitions, plus controls for selection of keys, split screens, spotlights and non-additive inserts. With the Key module, all source selection, masking, level and softness controls are at your fingertips. The Key module gives you creative control over a variety of Key sources including: encoded or RGB chroma keys, adjustable mask keys, character generator and matte keys. Add the optional RGB chroma keyer with shadow key, and you can realistically key shadows into any scene.

Bored with borders?

Variable width Key borders in white, black or color; offset (drop shadow) or outline, are yours in one or two line width by adding the optional Key border generators.

The soft touch

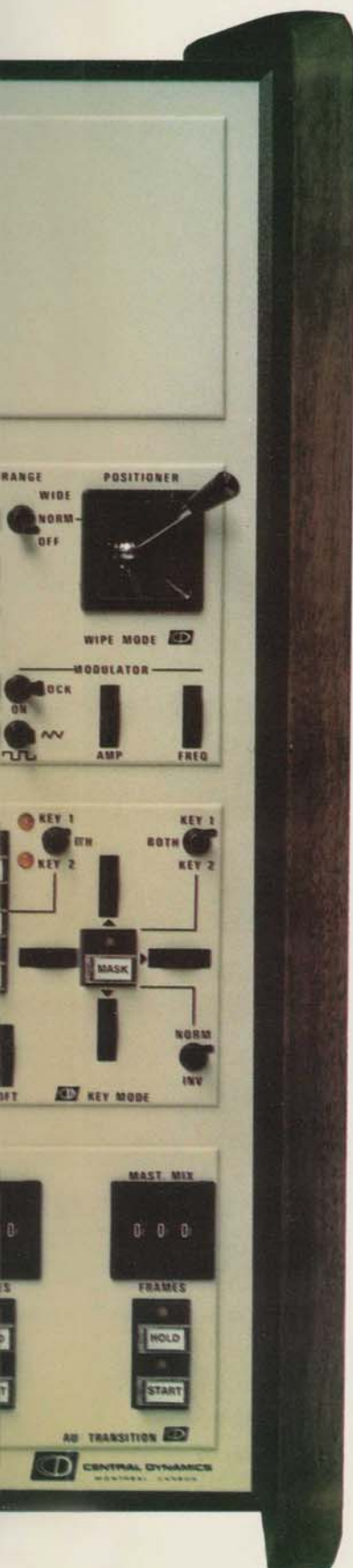
The Wipe mode module provides for even more creativity in wipe borders which can be adjusted for width, softness and color. From hard to dynamic super soft full screen bordered wipes, the freedom is yours. The Wipe module is also the source for position, wipe direction and pattern selection. Variable multiplication and modulation of basic patterns lets you create your own wipe patterns, from a simple horizontal wipe to the unique bubble wipe. Add an optional extended effects generator and the possibilities become truly limitless.

Giving you a free hand

The Program Processor designed for the 680 allows the SFX amplifier to accommodate an extended range of effects and sequences. Six buses feed the SFX and the Program Processor, giving you a free hand in creative control of your production. Downstream keying, mix, wipe, cut, and fade-to-black, the Program processor lets you do it all.

Don't just switch . . . Create

Like all Series 80 switchers, the 680's design lets you tailor a system for today and add to it as you grow tomorrow. Take the 680 as your foundation, and with the powerful range of options, build a system to suit your requirements.



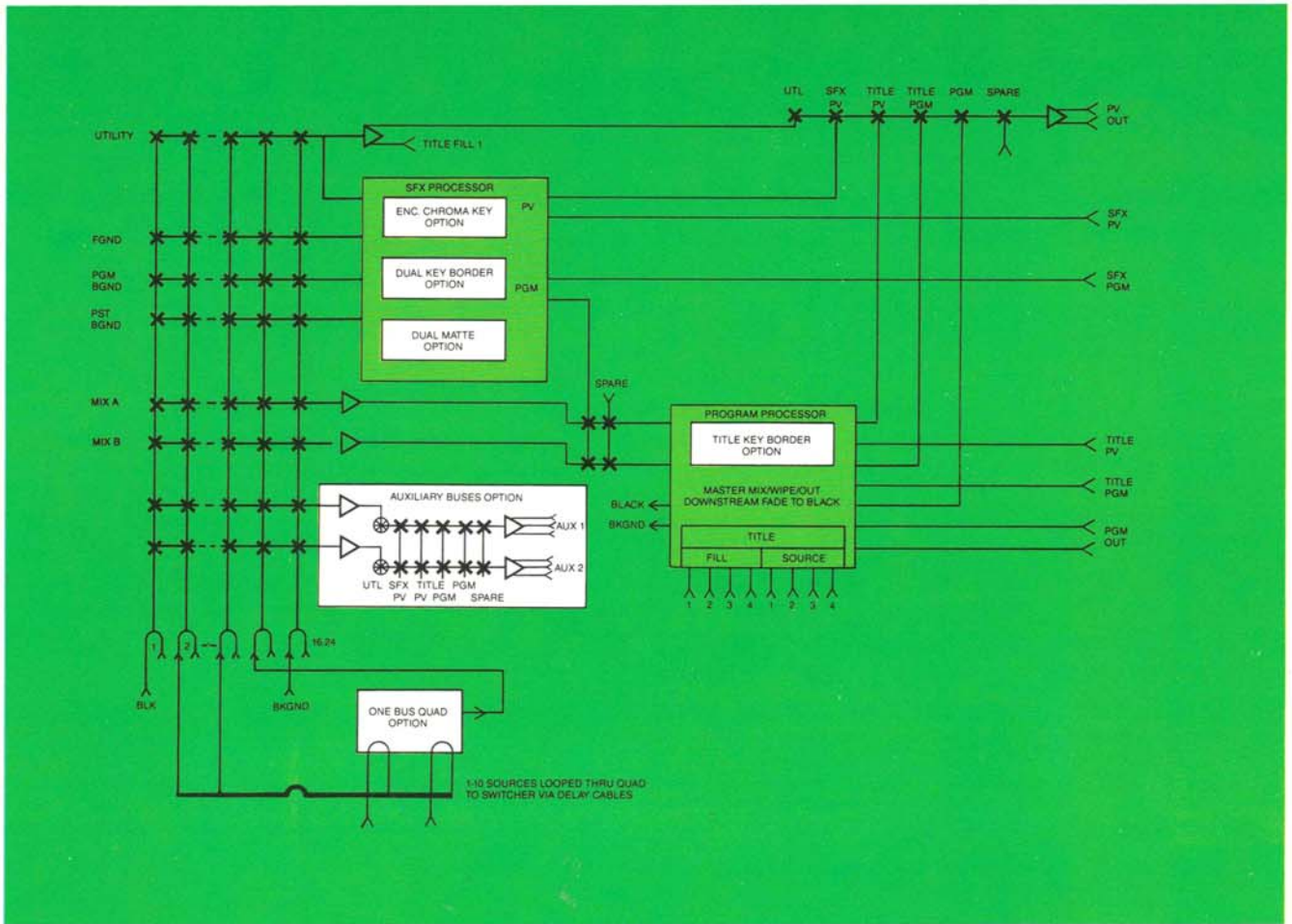


Figure 1
Wipe to a new Background behind the Chroma Key and Title.



Figure 2
Wipe from a Title keyed over a Chroma Key over a 3rd source to a 4th Source.



Figure 3
Wipe from a Chroma Key over one Background to another Chroma Key over another Background.

A touch of Genius . . . SFX

At the heart of every Series 80 switcher lies the reason producers around the world demand Central Dynamics equipment. Introduced in 1976, the SFX sequential effects amplifier still has the competition wondering how to catchup. Quite simply the SFX is still more powerful than any mix-effects amplifier available today.

The secret of the SFX is in its unique design which eliminates the limitations of traditional cascaded mix-effects groups. With a single fader handle you control four video signals and three transition levels in any combination, more power than three conventional fader

handles. An SFX is impossible to lock-up, so it is always ready for your next move. Transition preview is available at the touch of a button so you maintain creative control.

How you use the power of an SFX group depends only on your imagination. Preplanning of sequences is not necessary because the automatic preview keeps you one step ahead. The basic versatility of the SFX system is illustrated by the simple example above. But to really understand the genius of an SFX you have to experience a Series 80 switcher from Central Dynamics.

Information for optional modules and systems

CD 680 Standard Equipment

- 16 video input switcher panel and rack electronics
- 6 bus matrix consisting of:
 - Utility
 - Foreground
 - PGM Background
 - PST Background
 - Mix A
 - Mix B
- 1 SFX Amplifier system with:
 - SFX Mode Module with Color Matte Generator
 - Key Mode Module with Mask Generator
 - Wipe Mode Module with Pattern Generator
- 1 Program Processor system with:
 - Background and/or Title transitions
 - 4 x 1 Title selector of Title source and fill
 - Color matte generator
 - Mix, Wipe, Cut transitions
 - Downstream Synchronous or Non-synchronous Fade to Black
- One Color Black and one Background Generator
- Control Cables, extender cards, one set of manuals.

Specifications

- Video inputs:
 - 16, 24, 1Vp-p, synchronous or non-synchronous.
 - 75 ohm loop thru.
 - Return loss better than 40 dB to 5 MHz.
- Video outputs:
 - 1V p-p
 - 2 Program
 - 2 Preview
 - Return loss better than 34 dB to 5 MHz.
- Frequency Response:
 - 1-5 MHz \pm .1 dB
 - 5-7 MHz + .2 dB, - .5 dB
 - Steady roll off above 7 MHz.
- K Rating: Kp Kp - b, 1/4% K; Kb, 1/2% K.
- Linearity: Better than 1%, 10-90% APL
- Diff. Gain, Phase: Less than 1%, 1°=10-90% APL
- Crosstalk:
 - Better than -56 dB at subcarrier frequency.
 - One adjacent input hostile, all paths energized except path under test.
- S/N ratio: Better than 60 dB to 5 MHz.
- Tilt, Line Field: Less than 1% with standard window.
- Tally outputs: 2 independent tally circuits rated 2A @ 30 VDC.
- Path length: 350 nS typical
- Input power: 117V or 234V 10%, 50/60 Hz, 550 VA typical
- Mechanical dimensions:
 - Rack electronics, 18RU, (31.5"/800 mm)
 - Control Panel: 16 input, 34 5/8" W x 19 1/4" H (879 x 489 mm)
 - 24 input, 39 1/8" W x 19 1/4" H (994 x 489 mm)

CD680 Optional Modules and Systems	Model Number	Add'l Rack Space	
16 Input Switcher	680-16	STD	
24 Input Switcher	680-24	0	
Single Key Border (SFX)	SKB	0	
Dual Key Border (SFX)	DKB	0	
2nd Background Generator	BG-2	0	
Dual Matte Generator	DMG	0	
Extended Effects (Spin, Matrix, Rotary, Star . . .)	EE	0	
Digital Video Effects Interface	DI	0	
One Bus Quad	OBQ	2	
Auto Transitions	AT-2	0	
Title Key Border (Program Processor)	TKB	0	
Audio Follow Switcher (8x2 Mono)	AFM	6	
Audio Follow Switcher (8x2 Stereo)	AFS	6	
Encoded Chroma Keyer	EK-0	2	
Encoded Chroma Keyer	EK-1	0	
1 RGB with 4xRGB Input Switcher	SRK	0	
2 RGB with Dual 4xRGB Input Switcher	DRK	0	
1 RGB with 6xRGB Follow/Manual Input Switcher	RKS-1	3	
2 RGB with Dual 6xRGB Follow/Manual Input Switcher	RKS-2	3	
6xRGB with 6x3 Follow/Manual Output Selector	RKS-3	3	
6xRGB with 6x4 Follow/Manual Output Selector	RKS-6S	3	
Cap Basic	CAP1	13	
Cap Master + Fader Learn	CAP1XL	13	
Edit Controller Interface	EIF	3	



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