

## GRAPHICS GENERATOR SYSTEM

# D-8800



### GENERAL DESCRIPTION

The 3M Model D-8800 Graphics System is a modern television titling and graphics production system designed around microprocessor technology. The Model D-8800 is a true GRAPHICS PRODUCTION tool designed specifically for television use. It utilizes the latest available microprocessor technology and powerful operating programs to allow broad creative freedom and system control.

The Model D-8800 Graphics System design is based on the concept of maximizing software control to produce a SIMPLE TO OPERATE yet flexible and complete television graphics system. Software control provides the inherent capability to

update the Model D-8800 over the years without incurring extensive hardware modification, and special application or customer requirements can be more easily accommodated by software changes to the internal operating program.

The Model D-8800 Graphics System features a carefully designed and human-engineered INTER-ACTIVE control console which helps to make the system easy to operate. An alpha-numeric panel display is part of the control console and, in conjunction with the operating program, will "walk" a new operator through operation while an experienced operator can ignore or override the cueing instructions.

The Model D-8800 Graphics System provides the basic features expected in modern television-graphics devices:

- Multi-font library
- Proportional character spacing
- Full editing capability
- High resolution character definition
- Multi-speed roll and crawl
- Floppy disc support memory
- Auto centering, line & page
- Character-by-character color control (eight)
- Character edging (7 positions)
- Vertical roll *up* and *down*
- Horizontal crawl *left* and *right*
- Programmable roll-crawl masking
- Built-in logo & character compose
- Built-in italics, all fonts
- Mirror-image effect

In addition, the Model D-8800 incorporates the following options:

- Dual channel output with mix capability
- Additional font memories for simultaneous multi-font displays
- Colorizer/keyer
- Custom fonts & logos
- Additional keyboards
- Additional disc storage
- Remote address keyboards

Another standard Model D-8800 feature is a powerful Animation Mode which allows creation of unusual and special graphic effects not otherwise obtainable. The Animation Mode may be used with any standard available font or graphics composed from our exclusive keyboard logo compose. And speaking of fonts, the Model D-8800 is supported by an immediate library of fonts available in various sizes. An ongoing program continually adds to the library, and custom font design for customers will be accommodated.

## Standard Features

**Font Storage**—Up to four complete fonts (1 standard, 3 optional) may be stored within the D-8800 for intermixed display. Additional fonts are stored on floppy discs; each diskette will hold up to thirty (30) or more full fonts.

**Font Resolution**—Character resolution is defined in 35 nanosecond increments to produce characters of excellent smoothness.

**Font Characteristics**—All fonts are carefully designed to provide the best possible "video look". Each character is of a variable width (proportionally spaced). Maximum character width is 8.94 microseconds, and the minimum width is 210 nanoseconds. Inter-character spacing is 105 nanoseconds minimum, except where contiguous characters are desired. Maximum font height is



256 TV scan lines. Minimum practical height is 16 scan lines, although smaller characters may be defined within the limitations of the system and, of course, readability.

**Message Creation**—All graphics are composed at the Model D-8800 Control Console. The console features an INTER-ACTIVE panel display, a standard typewriter keyset and auxiliary keys for editing, message storage and retrieval, and system control purposes. The Model D-8800 features a *designed-in* Safe Title Area.

**Characters Per Row**—A variable number of characters may be entered on any given row. The maximum possible number is 98, depending upon character design (width). For normal display creation, the number of characters used per row would average about 24-32.

**Rows Per Page**—The number of rows utilized per display is also variable up to a maximum of 25 rows. Again, character design (height) and variety per display will determine this limit.

**Message Capacity and Storage**—Both message and font information is stored on removable "floppy" diskettes. While the basic D-8800 is equipped with one disc drive, up to four (4) may be easily accommodated. Thirty (30) or more full



fonts (2820 characters) may be stored on one diskette. The transfer of a new font from disc to the D-8800 occurs in approximately 5 seconds.

For message storage, each diskette will handle up to 254,000 characters, or the equivalent of 12,000 25-character rows of title information. Messages may be selected on a random basis via the numeric key pad on the Control Console. Read back time is 0.4 seconds or less.

**Record Instructions**—A powerful “Record Instruction” mode (preamble data defining font loads, operational modes and programmed timing between operations,) permits the storing of 4095 instructions per page for automatic setup and playback of pre-programmed displays.

**Inter-Active Console**—One of the most outstanding features of the Model D-8800 is the INTER-ACTIVE display panel mounted above the Control Console. In conjunction with the Operating Program, the INTER-ACTIVE display provides operator support through a carefully designed “operator system” hand-shaking program. Experienced operators need not follow the program, or may override the cueing at any time. The INTER-ACTIVE nature of the D-8800 Titling System lets anyone become a qualified operator.

**Animation Mode**—Another creative feature, the Animation Mode allows preparation of unusual animated graphic effects through use of the high-speed playback capabilities of the Model D-8800 disc system. Ten animation rates (3 to 20 pages/second), and a specially designed animation “line segment font”, put animation at your fingertips.

**Video Outliner**—to provide either full edging, see through characters and five drop shadow effects. (One included in basic system.)

## DYNAMIC DISPLAY FEATURES

**Display Motion**—The Model D-8800 provides the usual dynamic features you would expect to find in a superior graphics/titling system:

- Vertical roll, 10 rates plus pause (blanking to blanking)
- Horizontal crawl, 10 rates plus pause (blanking to blanking)
- Character or word flash
- Character-by-character color encoding
- Accurate centering (horizontal and vertical)
- Auto lower third positioning
- Vertical roll *up and down*
- Horizontal crawl *right and left*
- Programmable roll/crawl masking (8 positions each)
- Normal roll and crawl from blanking to blanking defeatable with safe title masking
- 10 tab positions

Additional features of the Model D-8800, all standard, include:

**Editing Controls**—To aid in the creation of outstanding dynamic displays, the Model D-8800 is equipped with a full array of composition-editing features including: delete character, insert character, delete row, insert row, center row, center page, character flash, word flash, right justify, left justify, page justify, character-by-character color, end of message, record mark control, tab controls, character underline, line exchange.

**Logo Compose** is a standard feature which allows composition of logos via keyboard entry. A special software program is loaded into the D-8800 from diskette which allows not only composition of logos from artwork but also composition of special font styles or modification of the users font library. Additionally, any font style may be ITALICIZED on a character by character basis or the entire font may be italicized in 12½° increments either forward or reverse. The Logo Compose software also allows the ability to do MIRROR IMAGES of characters, words or logos. Logos and fonts may be recorded on diskette for later use. Composition of fonts or logos is simplified in that partially completed work may be stored at any time during its composition and recalled for completion at a later time.

# Actual Photographs from a Television Monitor



The above are typical displays utilizing D-8800 features; such as, dual channel mix, mirror image, character invert, character reverse, logos, left and right italicize and line segment font. All displays are created directly from the D-8800 keyboard.

**(800) 328-1656**

Call this toll-free number for immediate answers to your questions about the 3M D-8800 and available options.

Or contact your 3M representative:

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